

Table 8.38 ICT Performance by types of benefit received

	All	Receive working age benefits	Receive non working age benefits only	Does not receive any benefits
WORD PROCESSING	%	%	%	%
Entry Level 2 or below	43	69	49	36
Entry Level 3 or above	57	31	51	64
Unweighted	2253	261	791	1201
EMAIL				
Entry Level 2 or below	31	52	37	25
Entry Level 3 or above	69	49	63	75
Unweighted	2247	260	789	1198
SPREADSHEET				
Entry Level 2 or below	39	61	44	32
Entry Level 3 or above	61	39	56	68
Unweighted	2228	259	786	1183
MULTIPLE CHOICE				
Entry Level 2 or below	9	23	11	6
Entry Level 3 or above	91	77	89	94
Unweighted	2274	262	800	1212
Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score				

9 Computer use

9.1 Key Findings

This chapter explores ICT skills and levels of computer and internet usage.

- Computer access has risen dramatically since 2003, with over nine in ten respondents (93 per cent) having access to a computer either at home or at work in 2011, compared with seven in ten (71 per cent) in 2003. In 2011, eight per cent of respondents lacked access to a computer in both their home and their workplace, but proportions were much higher amongst people who had a limiting disability, 55-65 year-olds and people who were out of work.
- Those who lacked computer access performed considerably less well in the ICT assessment than respondents who had ready access to a computer at home or their workplace. Scores in the literacy and numeracy assessments were also lower for respondents who lacked computer access.
- Almost three quarters (73 per cent) used a computer daily, while six per cent had never used a computer. The past eight years have seen a striking increase in the frequency of computer usage, with weekly and daily users rising from 51 per cent to 82 per cent amongst 16-65 year-olds.
- Frequency of computer use was an effective predictor of ICT performance. Respondents who used a computer at least once a week were at least five times more likely than those who used a computer less often to achieve Level 2 or above in the three practical components of the ICT assessment.
- The most common activities carried out (at home and in the workplace) were searching the internet and emailing. The frequency of both activities has risen since 2003, as has the use of computers for education, while the incidence of professional and special-interest pursuits has declined.
- Respondents who carried out a greater number of computer tasks had a tendency to perform better in the four components of the ICT assessment; moreover, users of email, word processing and spreadsheet applications were more likely than non-users to achieve high scores across all four components.
- Nine out of ten respondents (90 per cent) had internet access in their home. The absence of a home internet connection was associated with older respondents.
- Internet access was linked to performance in the ICT, literacy and numeracy assessments. People who did not have internet in their homes but had access to a computer (either at home or in their workplace) were outperformed in all three assessments by respondents who had a home internet connection.
- Daily internet use was associated with strong performance in the ICT assessment, while people who carried out a wider range of online activities tended to score higher than those who carried out fewer activities.

- Self confidence in ICT skills has grown since 2003 amongst people who have used a computer at some point in their lives, with more computer users now willing to describe their skills as 'very good'. For the most part, these high levels of self-assurance were justified by high performance across the four components of the ICT assessment.

9.2 Introduction

Over the past few years the use of computer and internet technology has grown substantially, as is clearly attested from the data collected in the Skills for Life 2003 and 2011 Surveys. This chapter charts the dramatic changes that have taken place since 2003 in levels of computer and internet access, and documents the expanding frequency and scope of their usage. Data from Sfl2011 on the population's abilities in ICT is presented and used to assess how ICT skills relate to different levels of usage and confidence.

The data presented in this chapter is derived from questions cqown through to cbbenoo in the Background Questionnaire, which can be found in Annex 3.

9.3 Computer access

Over nine in ten 16-65 year-olds (93 per cent) had access to a computer²¹⁸ in their home or workplace. While half (49 per cent) had access at both locations, two fifths (43 per cent) had just a home computer and one per cent could only access a computer at work.

The proportions of the population who were able to access a computer in 2003 and 2011 are shown in Table 9.1.

Table 9.1 Proportions with access to a computer in 2003 and 2011

	2003	2011
	%	%
Home	63	91
Work	46	50
Home or work	71	93
Home and work	38	49
No access	29	8
Unweighted	4656	7230

Base: Sfl2003 All aged 16-65 who took part in the ICT skills interview / Sfl2011 All aged 16-65

²¹⁸ For the purposes of the survey, a computer was defined as 'a mainframe, desktop or laptop computer or any other device that you use to do such things as sending or receiving email messages, processing data or text or finding things on the internet'.

Home access grew dramatically between 2003 and 2011, while work access has shown a slight increase during the same period. In 2011, two thirds (68 per cent) of 16-65 year-olds who were in employment used a work computer, up from 58 per cent in 2003.

Computers at work were principally used by full-time workers (74 per cent) rather than part-time workers (53 per cent). Amongst employed respondents, those who worked in Higher managerial and professional occupations were the most likely to have both a home and work computer (94 per cent, compared with an average of 67 per cent), while those in Routine occupations were the most likely to have neither (10 per cent, compared with an average of four per cent).²¹⁹

Overall, eight per cent of respondents lacked access to a computer in both their home and their workplace. People who had a limiting disability were the most likely to be in this position (20 per cent), while one in seven 55-65 year-olds (14 per cent), and a similar proportion of people who left education aged 16 or below (16 per cent) or who were out of work (16 per cent) also lacked ready access to a computer.²²⁰ Respondents in the North East lagged behind other regions in their levels of access, with only 85 per cent having a computer in the home or workplace (compared with 93 per cent across all respondents).²²¹

People who did not have access to a computer performed considerably less well in the ICT assessment than those who were able to use a computer at home or work (Table 9.2). This is hardly surprising, as half (50 per cent) of the respondents who lacked computer access had never used a computer at all and were automatically assigned a low score.²²² Computer access made a substantial difference to respondents' performance in all components of the ICT assessment.

Table 9.2 ICT Levels by whether has access to a computer at home or work

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Has access	Does not have access	All	Has access	Does not have access	All	Has access	Does not have access	All	Has access	Does not have access
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	39	95	31	27	91	39	35	93	9	5	63
Entry Level 3	16	17	4	9	9	3	27	29	6	12	12	16
Level 1	15	16	2	8	8	2	17	18	1	26	27	14
Level 2 or above	25	27	0	52	56	4	17	18	0	53	56	6
Unweighted	2253	2027	226	2247	2021	226	2228	2003	225	2274	2048	226

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

²¹⁹ See Appendix Table 9.A1.

²²⁰ See Appendix Table 9.A2.

²²¹ See Appendix Table 9.A3.

²²² Respondents who reported having no experience of using a computer were not eligible to take part in the ICT assessment, but were automatically assigned Below Entry Level 1 for Multiple Choice and Word Processing, Below Entry Level 2 for Email, and Below Entry Level 3 for Spreadsheets.

There were differences in performance even amongst those who had access to a computer, depending on whether or not a computer was available for use in the workplace. Around half (46 per cent) of the respondents who could access a computer could only do so at home, and they were less likely than people who had access at work to achieve Level 2 or above in any of the components of the ICT assessment (Table 9.3).

Table 9.3 ICT Levels by whether has access to a computer at work

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Home only	Work	All	Home only	Work	All	Home only	Work	All	Home only	Work
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	39	56	25	27	40	15	35	48	23	5	9	2
Entry Level 3	17	15	19	9	12	7	29	28	30	12	19	6
Level 1	16	11	21	8	7	9	18	15	21	27	32	22
Level 2 or above	27	17	35	56	41	69	18	8	27	56	40	70
Unweighted	2027	918	1109	2021	915	1106	2003	912	1091	2048	925	1123

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who have access to a computer at home or at work

9.3.1 Computer access and Literacy and Numeracy Levels

There was a relationship between performance in the literacy and numeracy assessments and access to a computer at home or at work (Table 9.4). Those who did not have a computer in their home or workplace were much more likely to fall short of Literacy Level 1 (43 per cent, compared to 13 per cent of those who had access) and to fall short of Numeracy Entry Level 3 (56 per cent, compared with 21 per cent of those who had access).

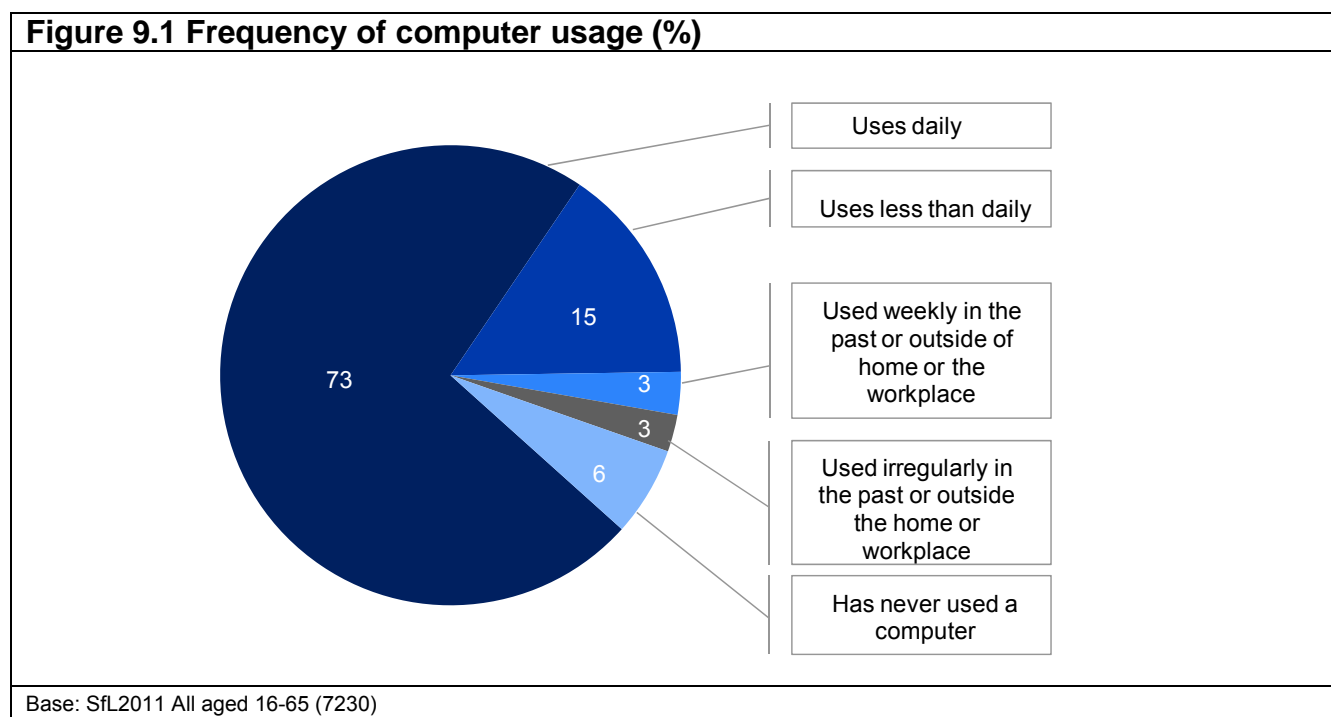
Table 9.4 Literacy and Numeracy Levels by computer access

	LITERACY			NUMERACY		
	All	Has access	Does not have access	All	Has access	Does not have access
	%	%	%	%	%	%
Entry Level 1 or below	5	4	18	7	6	22
Entry Level 2	2	2	7	17	16	34
Entry Level 3	8	7	18	25	26	25
Level 1	29	28	33	29	30	14
Level 2 or above	57	59	24	22	23	5
Unweighted	5824	5218	606	5823	5232	591

Base: Sfl2011 All aged 16-65 with literacy score / numeracy score

9.4 Frequency of computer use

The frequency of computer usage in 2011 is shown in Figure 9.1.



Almost three quarters of 16-65 year-olds made daily use of a computer (73 per cent). This equates to four fifths (79 per cent) of those who had access to a computer in their home or workplace. Daily usage of a home computer was reported by three fifths of all SfL2011 respondents (61 per cent), while daily usage of a work computer was reported by only two fifths (43 per cent). This reverses the pattern seen in 2003, when daily usage was more common amongst people who had access at work (37 per cent of SfL2003 respondents used a work computer daily, but only 25 per cent used a home computer daily).

One out of every eight people (12 per cent) did not use a home or work computer at all. Included amongst them was a minority (five per cent) who avoided using a computer despite having access to one in their home. Six per cent of respondents had never used a computer, while a further six per cent only used a computer outside the home or workplace, or had only ever used one in the past. The latter group was evenly split between weekly users (three per cent) and those who used a computer on a less frequent basis (three per cent).

Over the past eight years there has been a striking increase in the frequency of computer usage, and in the proportion of 16-65 year-olds who use computers (Table 9.5). Frequent users increased markedly, while those who used a computer just once or less than once a week decreased. During the same period, the proportions who have never used a computer, and those who used computers exclusively outside the home or workplace or had only ever used a computer in the past, more than halved.

Table 9.5 Frequency of computer usage in 2003 and 2011

	2003	2011
	%	%
Frequent users (use between once a week and daily)	51	82
Less frequent users (use less than once a week)	20	6
Non-current users (use outside the home or workplace, or only in the past)	14	6
No experience (never used)	14	6
Unweighted	4656	7230

Base: Sfl2003 All aged 16-65 who took part in the ICT skills interview / SFL2011 All aged 16-65

In 2011, four fifths of respondents were frequent users. People who fell into this category were more likely to be male (83 per cent, compared with 81 per cent female) and in work (88 per cent, compared with 69 per cent of those not in work).²²³ Amongst working people, frequent users were more prevalent amongst full-time workers (89 per cent) and those working in Higher managerial (98 per cent), Lower managerial (96 per cent) and Intermediate occupations (96 per cent).²²⁴ Daily usage fell with age, and the group least likely to use a home or work computer daily consisted of people between the ages of 55 and 65 (57 per cent, compared with 73 per cent across all respondents) – although this group's low level of daily usage also reflects their lower level of access to computers. Respondents aged 45 or above were twice as likely as anyone else to have never used a computer at all (13 per cent, compared with six per cent overall).

Frequency of usage was found to be a very effective predictor of how well people performed in the ICT assessment (Table 9.6). Frequent users were at least five times more likely than less frequent users to achieve Level 2 or above in the three practical components. Less frequent users, in turn, had better practical skills than non current users and were less likely than them to be classified as Entry level 2 or below, though the performance of less frequent users and non current users in the multiple choice component was equivalent.

²²³ See Appendix Table 9.A4.

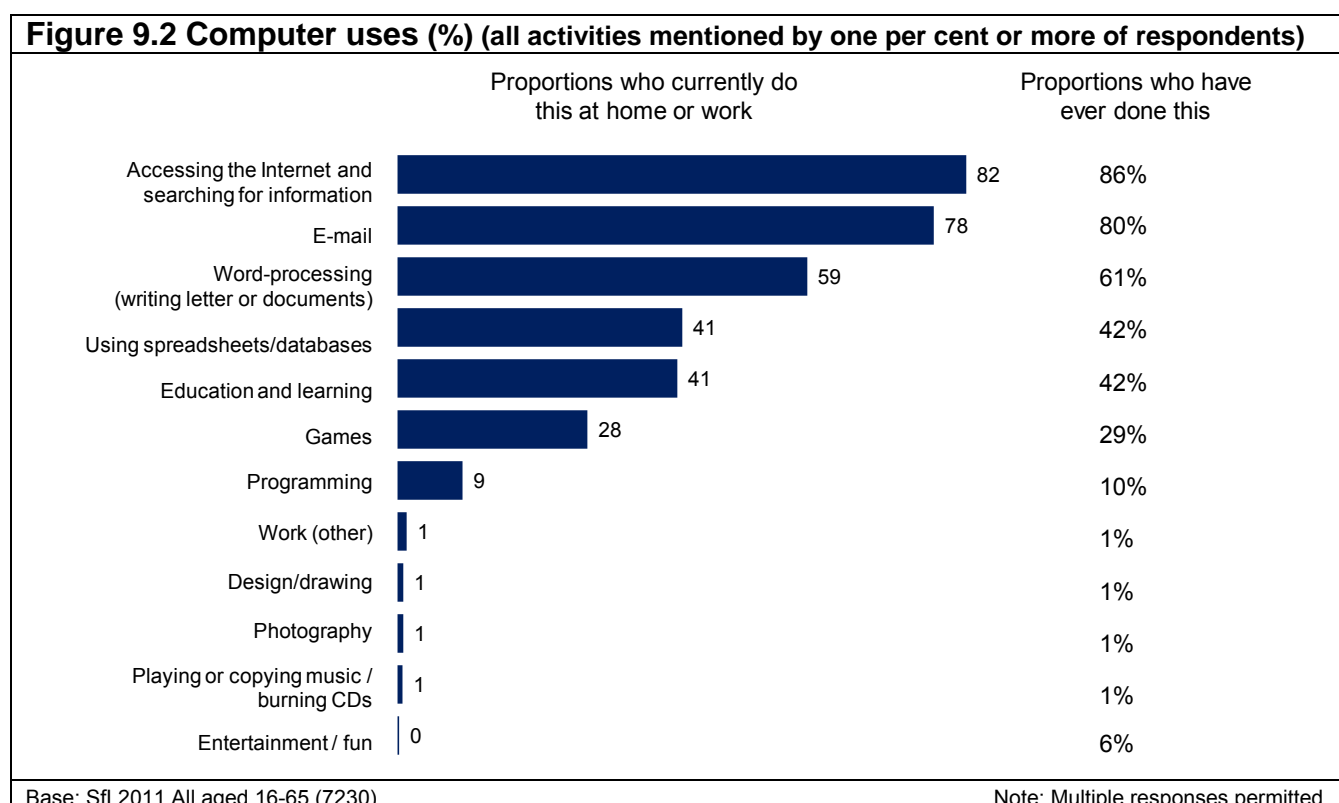
²²⁴ See Appendix Table 9.A5.

Table 9.6 ICT Levels by frequency of computer usage

	All	Frequent user	Less frequent users	Non current users
	%	%	%	%
WORD PROCESSING				
Entry Level 2 or below	39	34	77	92
Entry Level 3	18	19	11	6
Level 1	17	18	7	3
Level 2 or above	27	30	6	0
Unweighted	2053	1817	115	121
EMAIL				
Entry Level 2 or below	26	20	65	84
Entry Level 3	9	9	15	6
Level 1	8	9	8	4
Level 2 or above	56	62	12	7
Unweighted	2047	1815	111	121
SPREADSHEET				
Entry Level 2 or below	34	29	66	88
Entry Level 3	30	31	26	11
Level 1	18	20	6	1
Level 2 or above	18	20	2	0
Unweighted	2028	1796	111	121
MULTIPLE CHOICE				
Entry Level 2 or below	3	2	9	7
Entry Level 3	13	11	30	35
Level 1	28	26	44	45
Level 2 or above	57	61	18	13
Unweighted	2074	1837	115	122
Base: SfL2011 All aged 16-65 with a word processing / email / spreadsheet / multiple choice score who have ever used a computer				

9.5 How computers are used

All respondents who had ever used a computer were asked to describe the various tasks or activities they performed on their machines. Figure 9.2 shows the types of uses computers are put to, along with the proportion of people who have ever performed them.



The most common activity carried out on a home or work computer was searching the internet, followed by emailing (82 per cent and 78 per cent, respectively, of all respondents). These were also the two most prevalent uses across everyone who had ever used a computer, with at least four fifths of the total population having undertaken these activities at some point in their lives at home, the workplace, or elsewhere (86 per cent and 80 per cent, respectively).²²⁵

Three fifths (59 per cent) of all 16-65 year-olds used their machine for word processing, and two fifths (41 per cent) reported using spreadsheets or databases. Other uses included education or learning activities (41 per cent), gaming (28 per cent) and programming (nine per cent). Only small minorities used their computers for anything other than these seven activities.

Table 9.7 focuses only on the respondents who had access to a computer at home or work, and shows the proportions who performed each of the top seven activities in 2003 and 2011.

²²⁵ For the first quarter of 2011, the ONS quarterly internet access update reported that approximately 90 per cent of 16-64 year-olds had used the internet. Williams, M. (2011) *Internet Access Quarterly Update 2011 Q1*. Office for National Statistics, available online at: http://www.ons.gov.uk/ons/dcp171766_241030.pdf, accessed on 28/03/12.

Table 9.7 Top seven computer uses amongst those with access to a computer in 2003 and 2011

	2003	2011
	%	%
Internet	77	93
E-mail	76	88
Word processing	78	67
Spreadsheets/databases	55	47
Education or learning	39	46
Gaming	37	31
Programming	12	11
Unweighted	3179	6191

Base: Sfl2011 All aged 16-65 who have access to a computer at home or at work

Internet and email use has risen since 2003, as has the use of computers for education. The last eight years have seen a decline in the incidence of professional and special-interest pursuits (word processing, spreadsheets, gaming and programming). This is probably a reflection of the wider distribution of computers: as computer access has increased, computers are no longer restricted to office-based and special-interest users but have spread to consumers who use them for more generalised pursuits.

The uses that home and work computers were put to in 2011 varied according to the users' demographic characteristics. Among people with access to a home or work computer, more men than women made use of spreadsheets (51 per cent versus 42 per cent), performed programming tasks (16 per cent versus six per cent), or played games (35 per cent versus 28 per cent). Those who were White were more likely than those from Black and Minority Ethnic (BME) backgrounds to access the internet (94 per cent versus 90 per cent) or play games (32 per cent versus 26 per cent); conversely, those from BME backgrounds were more likely to use their computers for learning or educational activities (55 per cent versus 45 per cent).²²⁶

Significant differences were also apparent between age groups. Whereas the use of word processing, email, and the internet was even across all ages, the incidence of gaming and education dropped with age. Spreadsheets were mostly employed by people in the 25-54 age range, whilst programming was most frequently undertaken by 20-24 year-olds.

The likelihood of performing the seven most common activities was lower than average for people with access to a computer who had finished their education before they were 17. In addition, using a computer for learning purposes was less common amongst those who had computer access and finished their education aged 18 or below (33 per cent, compared with 46 per cent overall).

The occupation that respondents practised made a difference to whether or not they were likely to use a computer for email, word processing, or working spreadsheets (Table 9.8). People with computer access who worked in Higher managerial and professional positions were the most

²²⁶ See Appendix Tables 9.A6 and 9.A7.

likely to carry out these three activities, whereas respondents in Routine occupations were the least likely.

Table 9.8 Email, word processing and spreadsheet use amongst people in work who had access to a computer, by occupation

	All	Higher managerial and professional	Lower managerial and professional	Intermediate	Small employers and own account workers	Lower supervisory and technical	Semi routine	Routine
	%	%	%	%	%	%	%	%
Email	90	97	97	92	84	84	82	74
Word processing	72	90	83	76	62	59	54	45
Spreadsheets/databases	55	81	69	56	46	43	28	22
Unweighted	4480	644	1485	520	413	479	591	348

Base: Sfl2011 All aged 16-65 who work and have access to a computer at home or at work

It was rare for computers to be used for just one activity: only eight per cent of people with access to a computer did this. On average, computers were used for four of the listed tasks, though frequent users tended to perform more activities (4.1 tasks on average) than less frequent users (1.8 tasks on average). As in Sfl2003, four per cent of respondents with computer access performed every one of the top seven activities, and 16 per cent performed six or more.

People who normally carried out a greater number of tasks on their computers had a tendency to perform better in the ICT assessment (Table 9.9). Unsurprisingly, users of email, word processing and spreadsheet applications were more likely than non-users to achieve high scores in the four components of the assessment (Level 1 or above in the word processing, multiple choice, and spreadsheet components, and Level 2 or above in the email component). These respondents performed at the same standard as those who reported carrying out a very broad range of tasks (six or seven of the most common activities).

Table 9.9 ICT Levels amongst people who performed at least one task on a home or work computer, by number and types of tasks performed

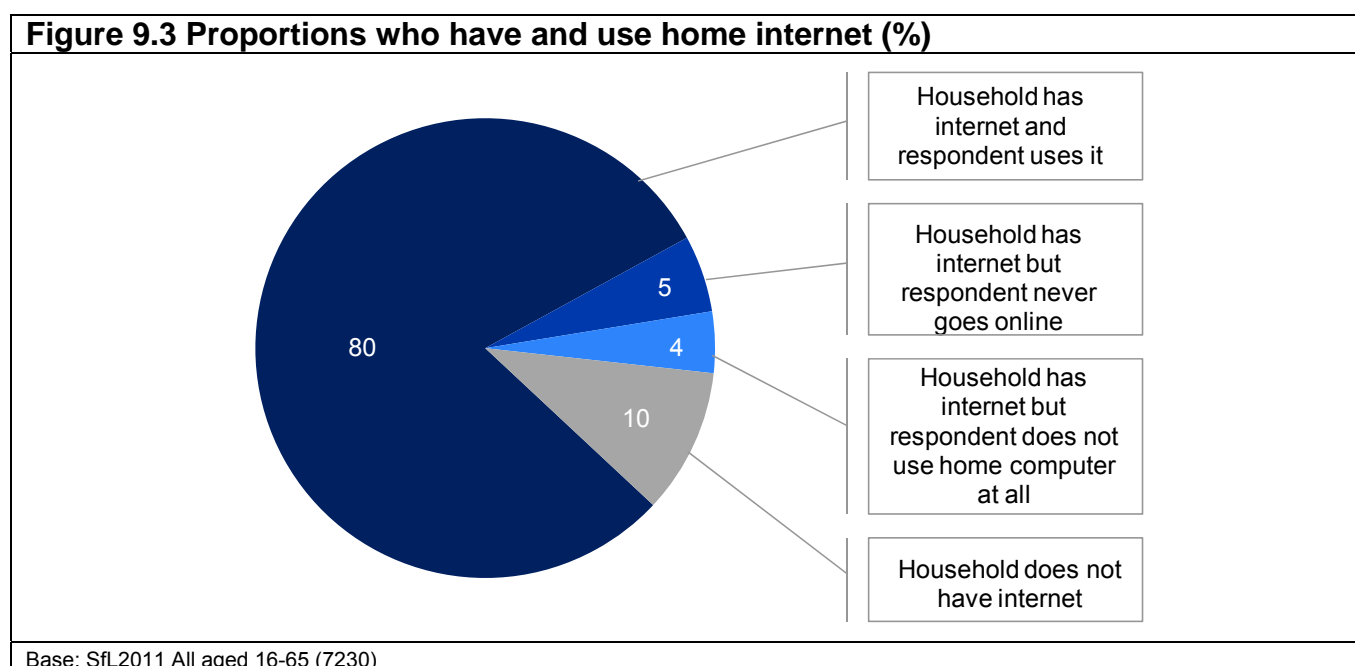
	All	NUMBER OF TASKS		Perform emailing, word processing and spreadsheet activities		All who perform six or seven of the most comment activities
		1-4	5 or more	Yes	No	
WORD PROCESSING	%	%	%	%	%	%
Entry Level 2 or below	36	50	14	15	52	13
Entry Level 3	18	19	17	17	19	16
Level 1	17	13	24	25	11	23
Level 2 or above	29	19	45	43	18	48
Unweighted	1930	1208	722	833	1097	296
EMAIL						
Entry Level 2 or below	23	32	8	8	34	6
Entry Level 3	10	12	6	5	13	5
Level 1	9	10	6	7	10	8
Level 2 or above	59	46	80	80	43	81
Unweighted	1925	1201	724	834	1091	294
SPREADSHEET						
Entry Level 2 or below	31	41	15	14	44	13
Entry Level 3	31	33	26	27	33	24
Level 1	19	16	25	25	15	23
Level 2 or above	19	10	35	35	8	41
Unweighted	1906	1195	711	821	1085	290
MULTIPLE CHOICE						
Entry Level 2 or below	2	3	1	2	3	1
Entry Level 3	12	16	5	4	18	4
Level 1	27	33	17	17	34	16
Level 2 or above	59	48	77	77	45	79
Unweighted	1950	1218	732	842	1108	297

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who perform at least one task on a computer at home or at work

9.6 Internet access

Nine in ten people (90 per cent) had an internet connection in their home. The absence of a home internet connection was more frequent than average amongst people aged between 55 and 65 (18 per cent, compared with 10 per cent overall), those who had left education aged 16 or below (19 per cent), those not in employment (18 per cent), and people with a limiting disability (23 per cent).²²⁷ Respondents who lived in the North East were more likely than those who lived elsewhere to lack internet access (19 per cent).²²⁸

Internet usage levels were not as high as internet access levels, indicating the existence of a minority who chose not to use the internet despite having access to it in their home (Figure 9.3).



People who did not continue their education past the age of 18 or who had BME backgrounds had a higher than average likelihood of having, but not using, an internet connection at home, even though they used their home computer for other purposes (seven per cent and nine per cent, respectively, compared with five per cent of respondents overall).

There was a link between internet access and performance in the ICT assessment (Table 9.10). Scores in all three skills as well as the multiple choice component were higher amongst respondents who had the internet at home, than amongst respondents who could access a computer but did not have an internet connection in their home.

²²⁷ See Appendix Table 9.A8.

²²⁸ See Appendix Table 9.A9.

Table 9.10 ICT Levels amongst those with access to a computer, by whether has internet access

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Has internet access	No internet access	All	Has internet access	No internet access	All	Has internet access	No internet access	All	Has internet access	No internet access
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	39	38	63	27	25	54	35	33	61	5	5	11
Entry Level 3	17	17	13	9	9	11	29	29	21	12	12	26
Level 1	16	17	10	8	8	10	18	19	7	27	27	30
Level 2 or above	27	28	13	56	58	26	18	19	11	56	57	32
Unweighted	2027	1932	95	2021	1926	95	2003	1907	96	2048	1952	96

Base: SfL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who have access to a computer at home or at work

Internet access was also linked to better literacy and numeracy scores (Table 9.11). People who did not have home internet but had a computer in their home or workplace were outperformed in both assessments by respondents who had an internet connection in their home.

Table 9.11 Literacy and Numeracy Levels amongst those with access to a computer, by whether has internet access

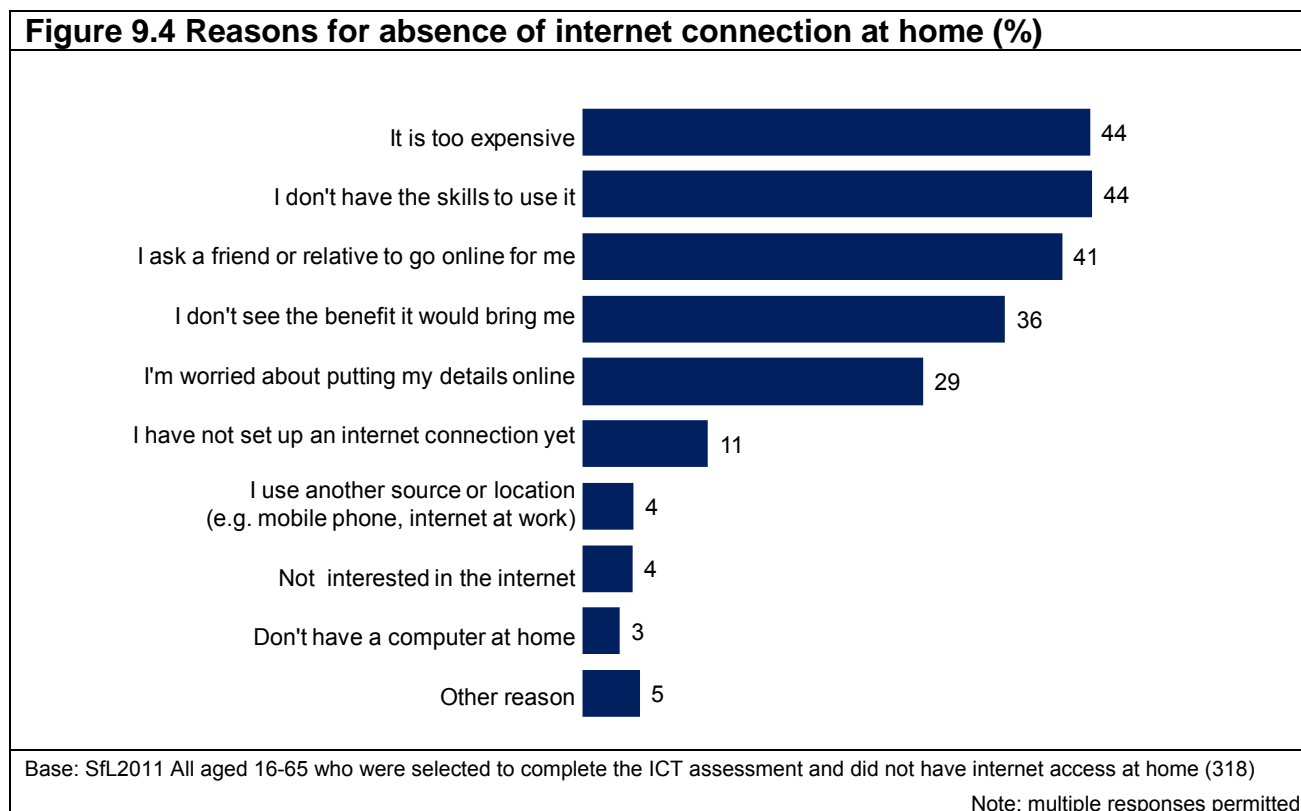
	LITERACY			NUMERACY		
	All	Has internet access	Does not have internet access	All	Has internet access	Does not have internet access
	%	%	%	%	%	%
Entry Level 1 or below	4	4	11	6	6	10
Entry Level 2	2	2	4	16	15	24
Entry Level 3	7	7	15	26	25	34
Level 1	28	28	28	30	31	16
Level 2 or above	59	60	43	23	23	17
Unweighted	5218	4973	244	5232	4982	249

Base: SfL2011 All aged 16-65 with literacy score / numeracy score who have access to a computer at home or at work

SfL2011 collected further information about access to the internet using a series of questions that were addressed only to respondents who were selected to complete the ICT assessment (intertask and cqbb through to cbbenoo in the Background Questionnaire, shown in Annex 3).

9.6.1 Reasons for not having the internet at home

Respondents who did not have an internet connection in their home gave their reasons for its absence (Figure 9.4).



One of the most common reasons cited (44 per cent) was a lack of skills needed to use the internet. People aged 45 or above were more likely than younger people to say this (59 per cent versus 26 per cent). Over two fifths (44 per cent) felt that a connection cost too much, 41 per cent said that they could ask a friend or relative to go online on their behalf and 36 per cent said that they could see no personal benefit to setting up a connection. Less than a third (29 per cent) cited concerns about the safety of their personal data.

9.6.2 Broadband access

Respondents who were selected to complete the ICT assessment and who had the internet in their home were asked if they had broadband. A broadband connection was almost universal amongst those respondents (96 per cent).

The absence of broadband was more common amongst certain subgroups than the rest of the population. People who had the internet at home but were aged between 20 and 34 (five per cent), had left education aged 16 or below (five per cent), or were unemployed and not actively seeking work (five per cent) had a greater than average tendency of lacking a broadband connection.

As mentioned above, performance in the ICT assessment was better amongst respondents who had an internet connection at home than those who did not. However differences in performance were also apparent *within* the group who had internet access (Table 9.12). Those who had a dial-up connection achieved lower scores in the four components of the assessment than those who had access to broadband.

Table 9.12 ICT Levels by types of internet access (dial-up or broadband)

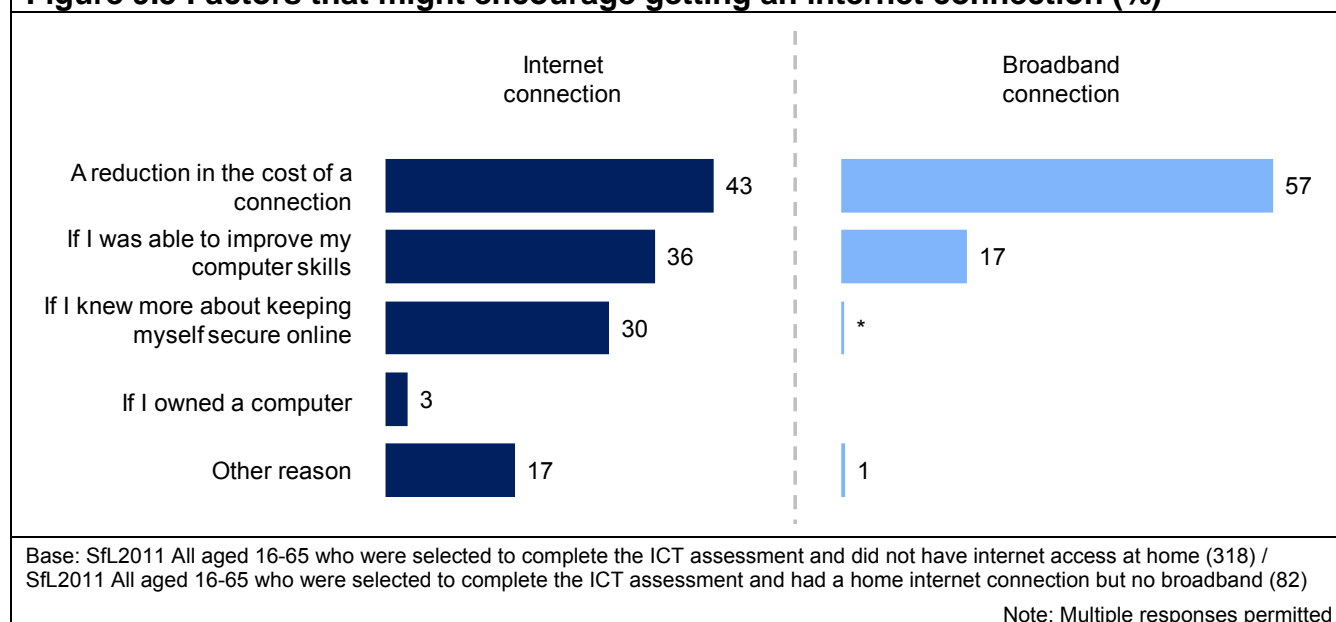
	WORD PROCESSING		EMAIL		SPREADSHEET		MULTIPLE CHOICE	
	Broadband	Dial-up	Broadband	Dial-up	Broadband	Dial-up	Broadband	Dial-up
	%	%	%	%	%	%	%	%
Entry Level 2 or below	38	56	25	41	33	46	5	8
Entry Level 3	17	25	9	12	29	33	11	17
Level 1	17	7	8	7	19	10	26	45
Level 2 or above	28	12	58	41	19	12	58	29
Unweighted	1854	78	1850	77	1831	77	1875	78

Base: SfL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who had access to the internet at home

The subset of respondents who did not have access to broadband was asked to explain why this was. Almost half (47 per cent) gave expense as a reason for not opting for broadband, making the cost of broadband the top reason why people chose not to have it installed in their homes. By contrast, unavailability of broadband in the local area was given as a reason by less than one in seven (13 per cent). Two fifths (43 per cent) were happy with their existing dial-up connection, while a quarter could see no added benefit to having broadband (26 per cent) or did not use the internet sufficiently to warrant it (26 per cent). These findings should be treated with caution, however, due to the small number of respondents in this category.

9.6.3 Encouraging access

Respondents who did not have an internet connection at all in their homes were presented with a list of conditions and asked to select which factor might encourage them to get a connection. A similar question was addressed to those who had an internet connection but lacked broadband, regarding the factors that might encourage them to get broadband. The results (Figure 9.5) show that reduced cost was the factor most likely to encourage people to get an internet connection (43 per cent) or a broadband connection (57 per cent).

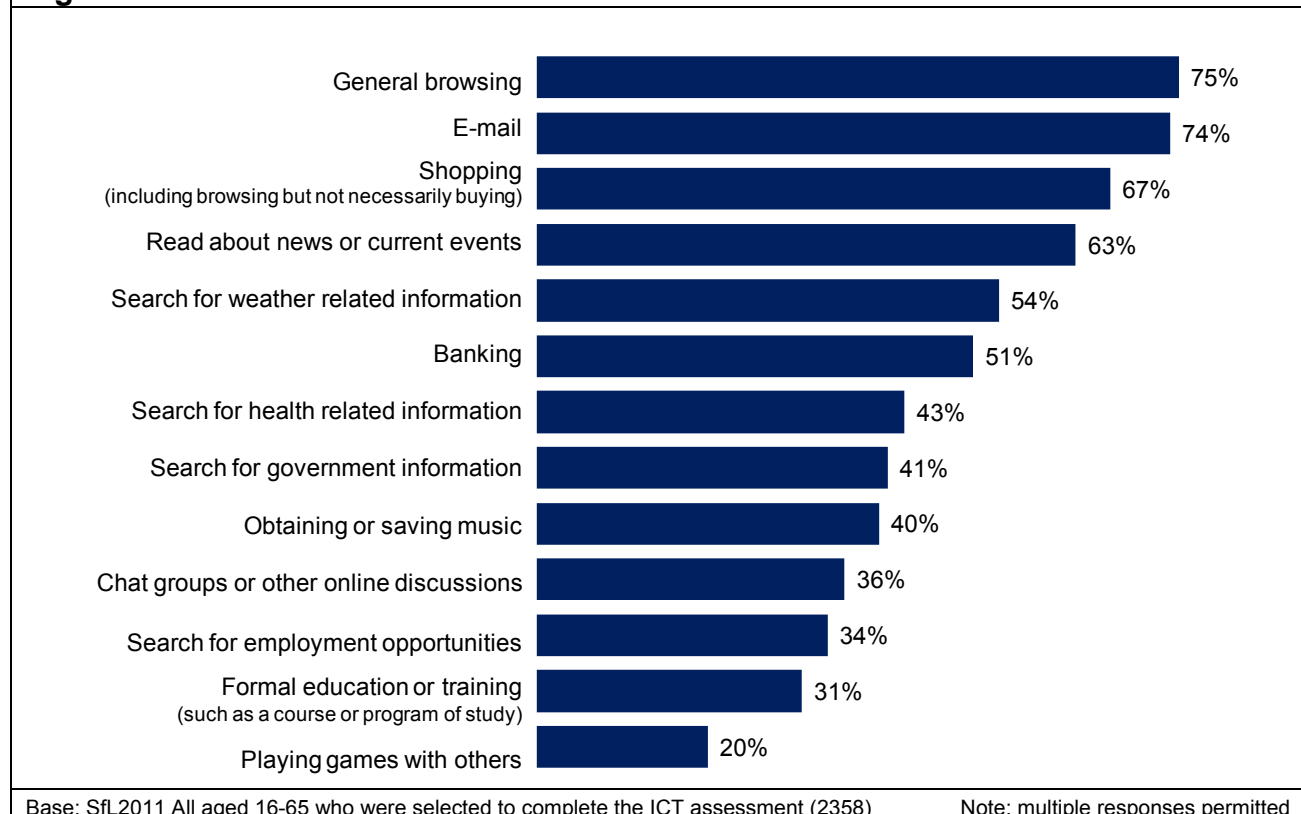
Figure 9.5 Factors that might encourage getting an internet connection (%)

9.7 How the internet is used

Respondents who made use of the internet on a home or work computer and who were also selected for the ICT assessment reported how frequently they used the internet for various purposes in a typical month. Figure 9.6 shows the proportions who undertook any of the listed activities in the overall population of 16-65 year-olds.²²⁹

The two most common activities performed on the internet were browsing and emailing, each of which was undertaken by nine in ten internet users (the equivalent of 75 per cent of all 16-65 year-olds). Over four fifths of internet users (83 per cent) used the internet to shop or browse for products, and almost as many (79 per cent) used it to read about news or current events. Gaming with others on the internet was the activity internet users were least likely to perform (25 per cent), although the proportions who did this were higher amongst men (31 per cent, compared with 19 per cent of women) and those under the age of 20 (49 per cent, compared with 23 per cent of people aged 20 or above).

Figure 9.6 Internet uses



Almost all internet users (95 per cent) used some form of online communication with other people (i.e. email, chat groups or gaming with others). One in six (16 per cent) engaged in all three types of online communication, but those still in education were twice as likely as the

²²⁹ The figures in Figure 9.6 are based on the respondents selected to complete the ICT assessment. Since this forms a random subsample of SfL2011 respondents, the weighted figures are representative of the entire population of 16-65 year-olds in England.

average to do this (38 per cent). In addition, more men than women engaged in all three forms of online communication (20 per cent versus 13 per cent).

The likelihood of carrying out any individual activity varied according to the socio-demographic characteristics of internet users. Several activities (obtaining music, participating in chat groups or games, searching for employment opportunities and undertaking education or training) were correlated with age: the incidence of each of these activities declined as age increased. Internet users who were not in work were disproportionately more likely than others to participate in chat groups, play games and search for employment opportunities, whereas those with a limiting disability had a lower than average likelihood of undertaking the majority of the activities on the list. Reading the news, chatting, or searching for information on health, the government, or jobs online was more common amongst internet users from BME backgrounds than amongst the rest of the population. There were also differences by gender, with women more likely to search for health-related information and men more likely to use the internet to obtain music or read the news.²³⁰

Respondents carried out an average of eight types of activity in a typical month (out of the 13 online activities listed in Figure 9.6). People who carried out a wider variety of activities online tended to perform better in the ICT assessment (Table 9.13). When compared with those who undertook fewer than eight tasks, people who performed a broader range of activities were more likely to achieve Level 1 or above in the word processing and spreadsheet components, and Level 2 or above in the other two components of the assessment.

Table 9.13 ICT Levels amongst internet users who carried out at least one of the listed activities, by number of internet activities carried out in a typical month

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	1-7	8 or more	All	1-7	8 or more	All	1-7	8 or more	All	1-7	8 or more
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	34	51	21	21	34	12	29	42	20	2	2	1
Entry Level 3	18	19	18	9	13	6	31	33	29	11	17	7
Level 1	18	11	23	8	9	7	20	15	23	26	32	22
Level 2 or above	30	20	38	62	43	75	21	10	28	61	49	70
Unweighted	1774	741	1028	1771	741	1025	1751	734	1012	1794	753	1037

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who used the internet to carry out at least one of the listed activities in a typical month

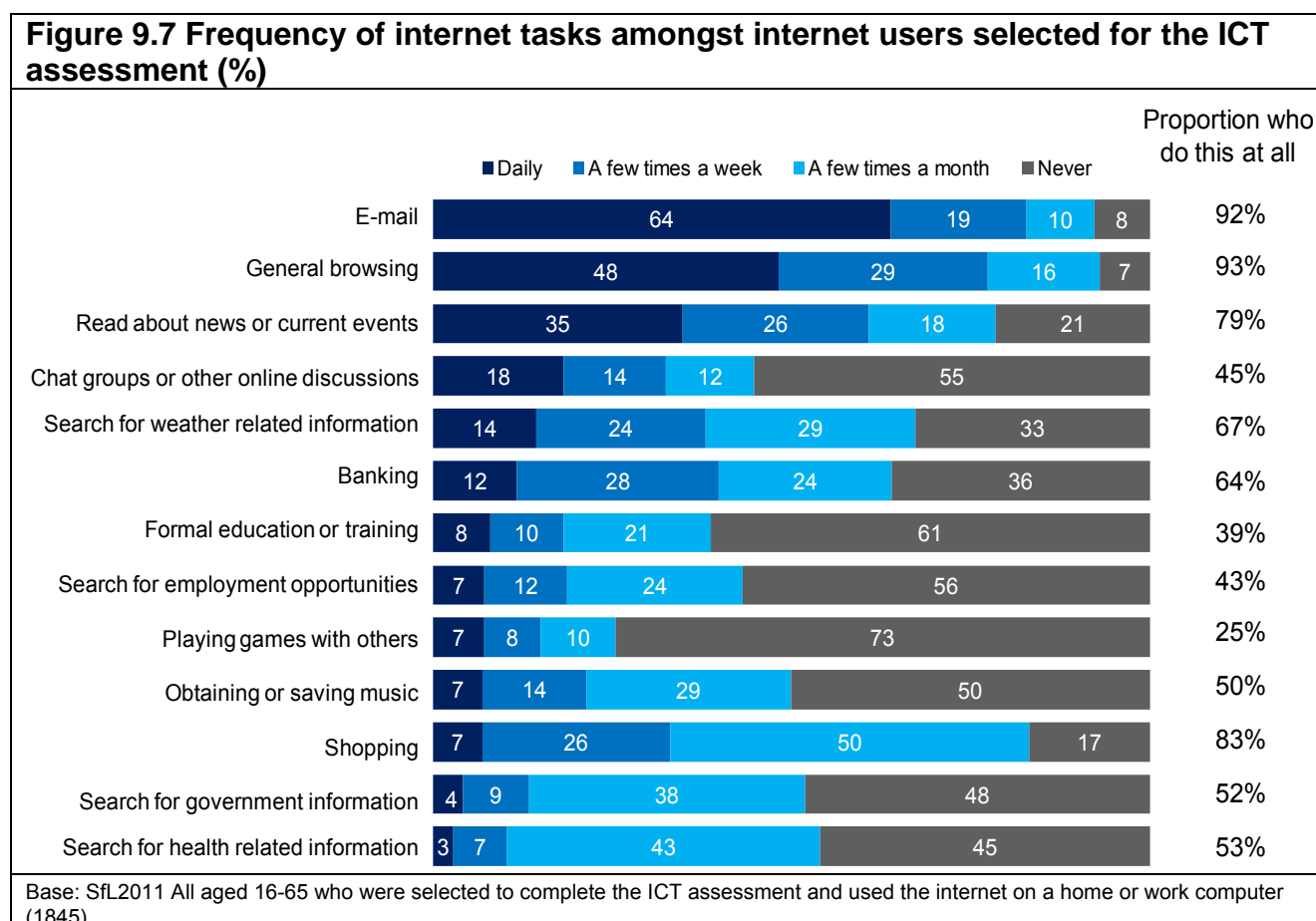
9.8 Frequency of internet use

Four fifths of internet users (81 per cent) used the internet daily for one or more purposes. On average, people who used the internet on a daily basis performed three online activities per day. Internet users who were male (85 per cent), still in education (97 per cent) or who had left education aged 19 or above (86 per cent) were more likely than other internet users to go online

²³⁰ See Appendix Table 9.A10.

daily. Older internet users were less inclined than younger ones to use the internet on a daily basis, with proportions of daily users falling from 93 per cent among 16-19 year-olds, to 73 per cent among 55-65 year-olds.²³¹

The frequency with which each activity was performed is illustrated in Figure 9.7.



Emailing was the most frequently performed activity, undertaken daily by over three fifths of internet users (64 per cent). Daily email users were more common than average amongst men (66 per cent), respondents from BME backgrounds (69 per cent) and those in the 25-34 age bracket (72 per cent). Less than half of internet users (48 per cent) browsed the internet on a daily basis. Again, it was men who were most likely to do this (54 per cent, compared with 42 per cent of women), and the likelihood of doing so fell as age increased (66 per cent amongst 16-19 year-olds falling to 31 per cent amongst the over-55s).²³²

Other activities that were practised daily by large numbers of people included reading the news (35 per cent) and searching for weather related information (14 per cent). In both cases, levels of daily use were driven partly by the frequent online activity of people from BME backgrounds (49 per cent of whom read news online daily, and 20 per cent of whom searched daily for weather news). All other types of internet activity were more likely to be done on a non-daily basis. For

²³¹ See Appendix Table 9.A11.

²³² See Appendix Table 9.A12.

example, searching for information online about health or the government were more than three times as likely to be undertaken a few times a month, as they were to be done on a daily or weekly basis.

People who used the internet daily demonstrated higher skills in the ICT assessment than respondents who used the internet less often (Table 9.14). The discrepancy between the two groups was particularly evident in their performance in the email and multiple choice components of the assessment, where most daily users achieved Level 2 or above but less than a third of non-daily users did the same. The majority of non-daily users were in fact unable to reach beyond Entry Level 3 in the three practical components, and only a third achieved Level 2 or above in the multiple choice assessment (34 per cent, compared with 68 per cent of daily users).

Table 9.14 ICT Levels amongst internet users who carried out at least one of the listed activities, by daily internet usage

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Daily user	Non-daily user	All	Daily user	Non-daily user	All	Daily user	Non-daily user	All	Daily user	Non-daily user
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	34	25	68	21	15	48	29	22	58	2	1	3
Entry Level 3	18	19	15	9	8	15	31	31	28	11	9	20
Level 1	18	20	8	8	8	10	20	22	9	26	22	44
Level 2 or above	30	35	9	62	70	28	21	24	5	61	68	34
Unweighted	1774	1406	368	1771	1408	363	1751	1390	361	1794	1421	373

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who used the internet to carry out at least one of the listed activities in a typical month

As one might expect, daily email users outperformed non-daily email users in the email assessment; the latter, in turn, were more likely to achieve high scores compared to internet users who never made use of email (Table 9.15). The same pattern of performance was repeated in the three remaining components of the assessment, suggesting that email usage is an effective predictor of performance in the ICT assessment.

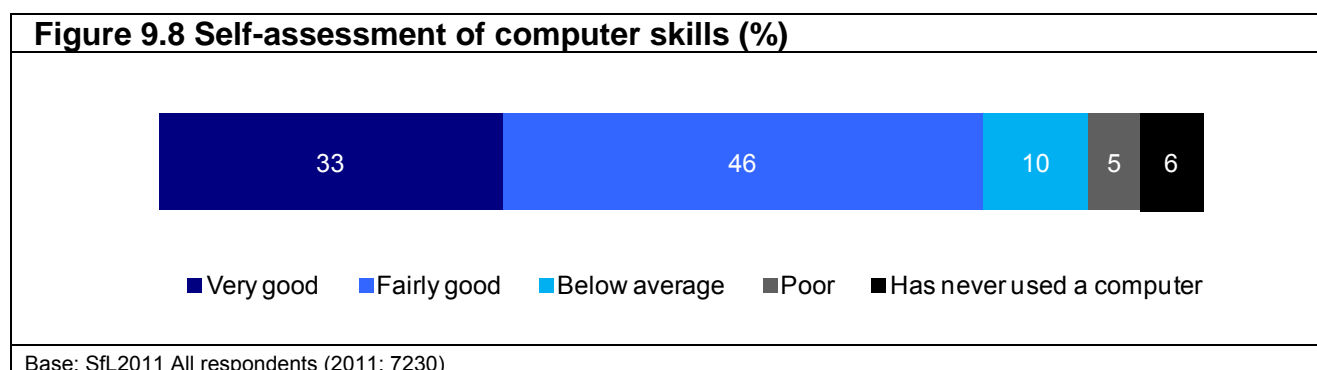
Table 9.15 ICT Levels amongst internet users who carried out at least one of the listed activities, by frequency of email usage

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	Daily user	Non-daily user	Non user	Daily user	Non-daily user	Non user	Daily user	Non-daily user	Non user	Daily user	Non-daily user	Non user
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	20	50	85	11	28	81	19	40	76	1	2	6
Entry Level 3	19	20	8	5	18	8	30	34	19	6	18	27
Level 1	22	11	3	8	10	2	23	17	4	20	35	48
Level 2 or above	39	18	4	76	43	10	28	9	1	73	45	19
Unweighted	1118	541	115	1121	539	111	1106	533	112	1134	543	117

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who used the internet to carry out at least one of the listed activities in a typical month

9.9 Self-assessment of computer skills

All respondents who had ever used a computer were asked to rate their computer skills. The results for the overall population are shown in Figure 9.8.



Over three quarters of 16-65 year-olds (78 per cent) rated their skills positively, with 33 per cent giving themselves the highest positive rating. The proportion describing their skills as 'very good' was lower amongst the older age groups (falling from 42 per cent amongst 16-19 year-olds, to 18 per cent amongst 55-65 year-olds), and higher amongst people from BME backgrounds (37 per cent, compared to 32 per cent of White respondents). Women were less likely than men to rate their computer skills as 'very good' (30 per cent, compared with 36 per cent of men), and more likely to describe their skills as 'fairly good' (48 per cent, compared with 43 per cent of men).²³³

Almost everyone who was still in education rated their skills positively (98 per cent). A positive rating was also very common amongst people who used a home or work computer daily (92 per cent).

Despite a large proportion of the population feeling self-assured about their ICT skills, 15 per cent gave their computer skills a 'below average' or 'poor' rating. A negative rating was more common amongst those who did not have access either to a home or a work computer (27 per cent), people in the 45 to 65 age range (22 per cent) and those who left education when they were 16 or under (26 per cent). Within the group of respondents who had access to a computer in their home or workplace, people aged 55 or above were the most likely to describe their abilities in a negative way (24 per cent, compared with an average of 14 per cent).

Self-confidence in ICT abilities has grown in the past eight years amongst people who have used a computer at some point in their lives (Table 9.16). Compared with 2003, more computer users are now willing to describe their skills as 'very good', while the proportion rating their skills negatively had dropped from 27 per cent to 16 per cent.

²³³ See Appendix Table 9.A13.

Table 9.16 Self-assessment of computer skills in 2003 and 2011

	2003	2011
	%	%
Very good	24	35
Fairly good	48	49
Below average	17	11
Poor	10	5
Unweighted	7253	6687

Base: SfL2003 All aged 16-65 who have ever used a computer / SfL2011 All aged 16-65 who have ever used a computer

For the most part, these high levels of self-assurance were justified (Table 9.17).

Table 9.17 ICT Levels amongst those who have ever used a computer, by self-assessment of computer skills

	All	Very good	Fairly good	Below average	Poor
	%	%	%	%	%
WORD PROCESSING					
Entry Level 2 or below	39	15	39	85	97
Entry Level 3	18	15	23	11	1
Level 1	17	22	17	4	3
Level 2 or above	27	48	21	1	-
Unweighted	2053	679	998	242	123
EMAIL					
Entry Level 2 or below	26	10	22	64	88
Entry Level 3	9	5	12	17	3
Level 1	8	6	11	8	2
Level 2 or above	56	80	55	12	7
Unweighted	2047	680	995	240	121
SPREADSHEET					
Entry Level 2 or below	34	17	31	73	88
Entry Level 3	30	23	38	26	11
Level 1	18	25	19	1	1
Level 2 or above	18	35	12	-	-
Unweighted	2028	669	988	239	121
MULTIPLE CHOICE					
Entry Level 2 or below	3	1	2	6	9
Entry Level 3	13	7	12	27	35
Level 1	28	17	31	40	37
Level 2 or above	57	74	55	27	18
Unweighted	2074	688	1007	243	125

Base: SfL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who have ever used a computer

Most of the respondents who described their skills as 'very good' achieved Level 2 or above in the email and multiple choice components, and Level 1 or above in the word processing and spreadsheet components of the assessment. Respondents who gave their skills lower ratings did not perform as well, with those describing their skills as 'poor' achieving the lowest scores, indicating that the majority of respondents have a reasonably good understanding of their ability to work with computers.

Nevertheless, over one in ten of those who claimed to be 'very good' at using computers over-estimated their skills, achieving no more than Entry Level 2 in the three practical components of the ICT assessment. The under-estimation of abilities was less common, especially with regards to word processing and spreadsheet skills: almost none of the people who described their skills negatively managed to exceed Level 1 in these two components of the assessment.

10 Training in basic skills

10.1 Key findings

This chapter describes the characteristics of 16-65 year-olds who accessed training in literacy, maths or ICT, and compares their performance in the assessments to that of the entire adult population.

Literacy training

- Eleven per cent of respondents had ever received literacy training, with most tackling two or three skills as part of a single course. Respondents whose first language was not English were more likely to attend training than native English speakers.
- Over four fifths (83 per cent) of those who scored below Level 1 in the literacy assessment – and could therefore be described as having a training need – did not attend any training in literacy. This group had higher levels of confidence in their reading and writing skills than other people with a training need. Native English speakers and people from White backgrounds were over-represented amongst this group.
- One per cent of respondents were receiving literacy training at the time of the survey. People currently in training were the most likely to give a negative assessment of their reading and writing, and have lower skills than those no longer in literacy training.
- People who completed their training three years ago or more performed as well as those who had completed their training more recently, but felt more confident about reading abilities. As time elapsed, learners whose first language was not English also felt more confidence in their writing.

Numeracy training

- Eight per cent had received training in basic maths. This is unchanged since 2003, though the demographic characteristics of learners have changed, with people in search of employment and under-25s now the most likely groups to seek out training.
- Nine in ten (91 per cent) of those who were categorised as Entry Level 2 or below in the numeracy assessment, and therefore could be described as having a training need, did not seek out any maths training. Those who scored Entry Level 2 or below in Numeracy and had not attended training did not rate their maths abilities differently to anyone else with a training need. People in the 20-24 age range were the most likely out of everyone with a training need to have accessed a maths course.
- Over a third (34 per cent) of people in work who had not been on a maths course despite their need for training had no intention of undertaking job-related learning in the next two to three years.
- Skills were weakest amongst current learners, but broadly similar between learners who had trained in the last three years or further in the past. Respondents who trained more than three years ago were the most self-assured about their skills.

ICT training

- More than half of respondents (54 per cent) received training in computer skills outside of school, mostly in an academic setting, work, or an adult education centre. The incidence of training was higher than average amongst women and under-25s, and low amongst those who finished their education before they were 17.
- On average, three quarters (74 per cent) of the respondents who scored or were assigned Entry Level 2 or below in all the practical components of the ICT assessment – and could therefore be described as having a training need – did not access any ICT courses. This group had lower confidence than other people with a training need.
- Compared with the overall population, people with ICT training had a higher likelihood of reaching or surpassing Level 2 in all four components of the assessment. Respondents who attended a computer course were more confident in their skills than people who had never undertaken an ICT course. Current learners were just as likely as past learners to score highly in the various components of the test, suggesting that ICT skills tend to be picked up quite rapidly. There was no evidence of a loss of confidence in ICT skills after learners completed their course.

10.2 Introduction

This chapter defines the population who reported receiving training in basic literacy, numeracy or ICT, and examines their confidence and basic skills at the time of the Skills for Life 2011 Survey (SfL2011). It describes the characteristics of people who are currently receiving or have previously undertaken training, and identifies whether training courses are being accessed by those who need them the most.

The data presented in this chapter is derived from questions teng through to tminc, and titcour through to titwhe in the Background Questionnaire, which can be found in Annex 3.

It should be noted that the data collected in 2011 does not permit any inferences to be drawn with regards to the impact of training. SfL2011 does not measure the skills of individuals immediately before and after they attended a course: hence, it is not possible to track the progress that learners may have made as a result of their training. Moreover, little is known about the nature of the training received: no record was made of the number of courses attended, their level, whether they were government-funded, attended on a mandatory or voluntary basis, or whether the training took place in the UK. It is also not possible to tell whether respondents completed the training they reported receiving.

An important point to bear in mind throughout this chapter is that the receipt of basic skills training was, in itself, not significant in predicting skills standards once other more general factors – such as first language, educational achievement, or economic activity – were accounted for (see Chapter 6). That is not to say that attending a course made no difference to learners' skills: indeed, the fact that learners performed no worse than anyone else in the same

demographic subgroup may mean that the receipt of training helped learners reach the standards of others who shared their characteristics.

10.3 Literacy training

Eleven per cent of 16-65 year-olds had accessed training in one or more aspects of English literacy (reading, writing or speaking). This is similar to the figure from 2003, when 12 per cent of adults reported having trained in Literacy. The types of training received and the identity of those most likely to attend training have barely changed since 2003. The performance in the literacy assessment of those who received training has also remained broadly stable, with a similar distribution of literacy scores evident in both the Skills for Life 2003 Survey (SfL2003) and the Skills for Life 2011 Survey (SfL2011) amongst those who attended a literacy course at some point in their lives, barring the slight (but statistically significant) increase in the proportion of learners achieving Entry Level 1 or below (Table 10.1). While this may indicate that more lower-skilled people are accessing literacy training now compared to 2003, this increase should be understood within the context of the rising number of low-skilled people within the wider population (five per cent overall achieved Entry Level 1 or below in 2011, up from three per cent eight years earlier).

Table 10.1 Literacy Levels in 2003 and 2011 by whether received literacy training

	2003			2011		
	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training
	%	%	%	%	%	%
Entry Level 1 or below	3	7	3	5	10	4
Entry Level 2	2	3	2	2	4	2
Entry Level 3	11	10	11	8	11	8
Level 1	40	32	41	29	31	28
Level 2 or above	44	48	44	57	45	58
Entry Level 3 or below	16	20	16	15	25	14
Level 1 or above	84	80	84	85	76	86
Unweighted	7874	866	7008	5824	589	5235

Base: SfL2003 All aged 16-65 with literacy score / SfL2011 All aged 16-65 with literacy score

The sections below give details of the types of literacy training that SfL2011 respondents received, the timing when courses were undertaken, and the parts of the population that were more likely to attend. The final sections look at the self-assessed abilities of those who received training and those who did not, and explore whether the lapse of time since the completion of training might have impacted on people's confidence in their reading and writing abilities.

10.3.1 Types of literacy training received

In 2011, around one in ten respondents reported that they had received instruction in reading or writing, and slightly fewer received training in speaking English (Table 10.2).²³⁴ The proportion of the population who had received training in each aspect of literacy has not changed since 2003.

Table 10.2 Proportion who received literacy training in 2003 and 2011

	2003	2011
	%	%
Any literacy training	12	11
Reading	7	8
Writing	9	9
Speaking	7	6
All three aspects	4	5
Unweighted	8730	7230

Base: Sfl2003 All aged 16-65 / Sfl2011 All aged 16-65

Training in more than one aspect of literacy was commonplace. In 2011, over two fifths (45 per cent) of those who had ever received training tackled all three elements of literacy, while a further one in four (23 per cent) received training in both reading and writing. One in six (16 per cent) trained in writing alone, but this was the only skill that a substantial proportion of respondents studied on its own.

Since 2003 there has been a small but significant rise in the proportion training in a combination of reading, writing and speaking (five per cent of all respondents, up from four per cent in 2003).

People who had undertaken training in literacy generally performed less well in the literacy assessment than the overall population (Table 10.3). This held true regardless of whether the training received was in reading, writing, speaking, or all three aspects of literacy, and probably reflects the fact that those who choose to attend training tend to start off with considerably lower literacy than the general population.

²³⁴ The Statistical First Release for June 2012 provides actual participation rates in Skills for Life training between 2006/07 and 2010/11. This can be found at: http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/sfr_current/, Tables 2 and 9, accessed on 25/09/12. Note: Figures from 2008/09 onwards are not comparable with those from previous years.

Table 10.3 Literacy Levels by types of literacy training received

	All %	TYPE OF LITERACY TRAINING RECEIVED				ANY LITERACY TRAINING %	NO LITERACY TRAINING %
		All aspects %	Reading %	Writing %	Speaking %		
Entry Level 1 or below	5	16	12	11	14	10	4
Entry Level 2	2	4	5	4	4	4	2
Entry Level 3	8	14	13	11	12	11	8
Level 1	29	27	30	30	27	31	28
Level 2 or above	57	40	40	45	43	45	58
Entry Level 3 or below	15	34	30	26	30	25	14
Level 1 or above	85	67	70	75	71	76	86
Unweighted	5824	250	420	512	315	589	5235

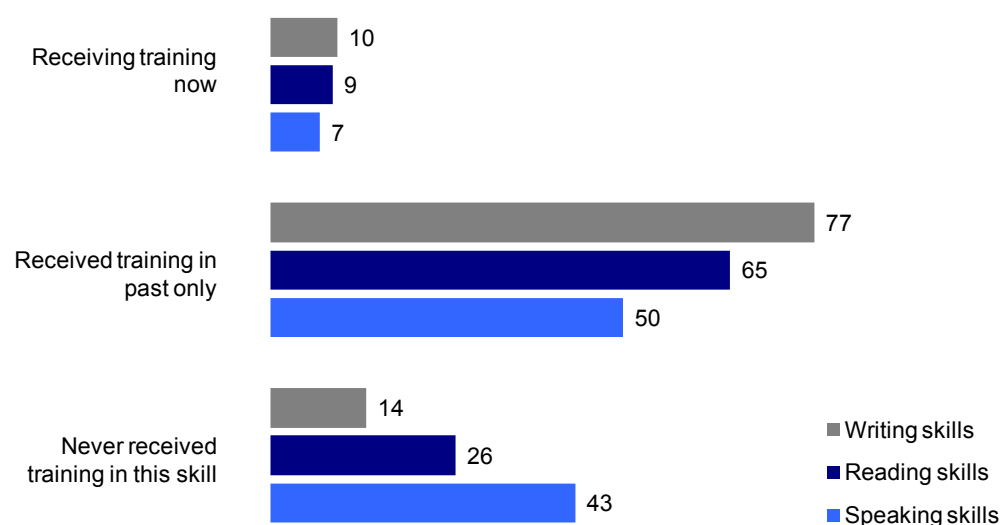
Base: Sfl2011 All aged 16-65 with literacy score

10.3.2 Timing of literacy training

One per cent of those interviewed were receiving training in English literacy around the time of the interview. Three per cent were recent learners who had received training within the last three years but were no longer doing so, while seven per cent had started their course(s) more than three years ago.

Current learners tended not to train in one skill alone: the majority (59 per cent) were receiving training in all three aspects of literacy (reading, writing and speaking). Amongst current learners, training in multiple literacy skills was frequently undertaken as part of a single course: this was the case for three quarters (73 per cent) of those training to improve more than one aspect of their literacy. Combination courses were similarly the most common choice amongst past learners who were trying to improve more than one literacy skill (82 per cent)

Despite the tendency to address multiple skills, there was a greater focus on the improvement of writing skills amongst both current and past learners (Figure 10.1).

Figure 10.1 Proportions who trained in each literacy skill (%)

Base: Sfl2011 All aged 16-65 who have ever received literacy training (752)

People who were currently in training – and may not yet have felt the full benefit of the instruction they were receiving – had the lowest Literacy Levels (as measured by the assessment) out of all those who had ever attended courses in literacy (Table 10.4). This was also true in 2003, though it should be noted that people who were receiving training at the time of Sfl2003 were almost twice as likely to score Literacy Level 2 or above (37%) as those who were receiving training at the time of Sfl2011 (19%).²³⁵ However, it must be again borne in mind that details about the Level of training received at the time of both surveys are not known.

Table 10.4 Literacy Levels amongst those who received literacy training, by timing of literacy training

	All	TIMING OF LITERACY TRAINING		
		Training currently	Trained within last 3 years but not currently	Trained more than three years ago
	%	%	%	%
Entry Level 1 or below	10	24	9	8
Entry Level 2	4	2	2	5
Entry Level 3	11	26	9	9
Level 1	31	30	35	30
Level 2 or above	45	19	45	49
Unweighted	589	60	141	385

Base: Sfl2011 All aged 16-65 with literacy score who ever received literacy training

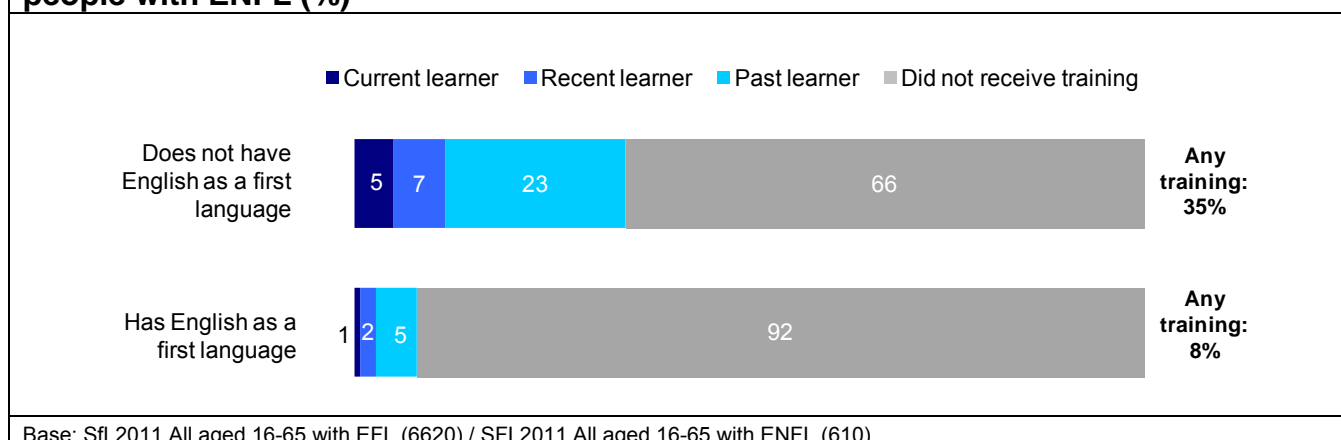
²³⁵ See Appendix Table 10.A1.

The performance in the literacy assessment of respondents who undertook training within the last three years was equivalent to those whose training was completed further in the past. This could be an indication of a tendency to retain the literacy skills gained during training, despite the passage of time. However inferences regarding the passage of time should be drawn with caution, as nothing is known about the literacy skills of individuals before, during, and immediately after the completion of their course.

10.3.3 Who received literacy training

In both 2003 and 2011, literacy training was more common amongst people whose first language was not English (ENFL) than people with English as a first language (EFL) (Figure 10.2).

Figure 10.2 Proportions who received literacy training amongst people with EFL and people with ENFL (%)



Since there is an overlap between people with ENFL and people from BME backgrounds, and since these two groups tend to live in London, it is not surprising to find that the BME population and London residents had a higher than average probability of having trained in literacy (20 per cent amongst respondents from BME backgrounds and 17 per cent amongst Londoners). Respondents with a limiting disability (13 per cent) were the only other group whose likelihood of receiving literacy training was higher than the average.²³⁶

Having weak literacy – as evidenced by a score of Entry Level 3 or below in the literacy assessment – did not necessarily prompt people to seek out training.²³⁷ In fact, over four fifths (83 per cent) of those who arguably had a training need because they scored below Level 1 did not attend any training in literacy. People with a training need were less likely to attend training if they were aged between 55 and 65 (93 per cent did not attend), if they lived in the North West (91 per cent did not attend), and if they terminated their education before the age of 17 (88 per cent did not attend literacy training). Native English speakers and White respondents who had a training need were also less likely to take up a literacy course than others with a training need (10 per cent and 12 per cent respectively, compared with 17 per cent overall). Amongst people with a training need, those from a White British background were less likely to attend a literacy

²³⁶ See Appendix Tables 10.A2 and 10.A3. A 'limiting' disability is defined as an illness or disability that limits activities in any way (recorded in the Background Questionnaire at Hqlim).

²³⁷ See Appendix Tables 10.A4 and 10.A5.

course (10 per cent) than people from other White backgrounds (29 per cent), people from BME backgrounds (28 per cent) and people with ENFL (34 per cent).

Amongst people with a training need, those who had not attended any training had above average levels of confidence in their reading and writing abilities. Hence, 46 per cent of those with a training need who had not attended a course said their reading skills were 'very good', while 37 per cent of this group said this about their writing skills (compared with 41 per cent and 32 per cent, for reading and writing respectively, across everyone with a training need). People with a training need who had already been on a literacy course felt more disposed towards future learning: they were more likely to say they would 'possibly' or 'definitely' take up job-related learning (76 per cent, compared with 60 per cent of all those with a training need) and more likely to say the same about non job-related learning (52 per cent, compared with 43 per cent of all those with a training need).

In view of the fact that levels of attendance differed depending on whether or not the learner's first language was English, the analysis below separates out the performance in the literacy assessment of native English speakers and those with ENFL.

Amongst people who reported English as their first language, those who had received training tended to perform slightly less well than the overall population (Table 10.5). This reverses the pattern noted in 2003, when it was more common for native English speakers who had attended a literacy course to reach Level 2 or above (55 per cent, compared with 46 per cent of the overall population with EFL).²³⁸ One possible explanation for this reversal is the increased uptake of literacy courses by people who start off with very low literacy skills.

Table 10.5 Literacy Levels by first language and whether received literacy training

	All	EFL			ENFL		
		All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training
	%	%	%	%	%	%	%
Entry Level 1 or below	5	3	6	3	21	20	21
Entry Level 2	2	2	2	2	5	7	3
Entry Level 3	8	7	7	7	17	19	16
Level 1	29	29	32	28	27	29	26
Level 2 or above	57	60	54	60	31	25	33
Unweighted	5824	5345	425	4920	479	164	315

Base: Sfl2011 All aged 16-65 with literacy score

The performance of respondents with ENFL who tried to improve their literacy through training was broadly similar to that of the overall population with ENFL, though learners were less likely to achieve or surpass Literacy Level 2 (Table 10.5). Equivalent standards of literacy between those who trained and the overall population with ENFL were also evidenced in 2003.²³⁹

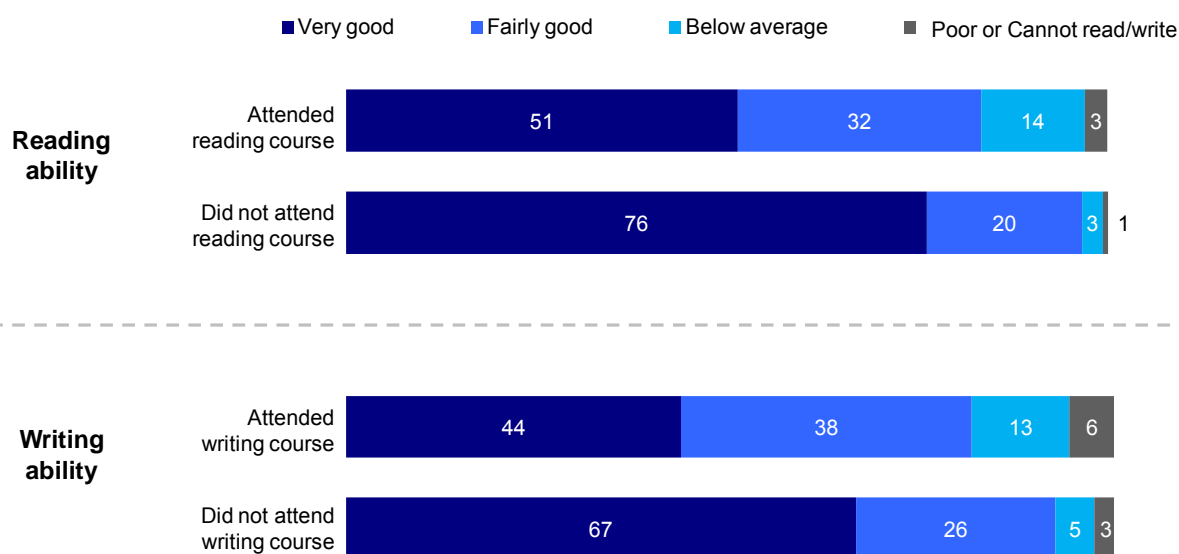
²³⁸ See Appendix Table 10.A6.

²³⁹ See Appendix Table 10.A6.

10.3.4 Self-assessed abilities and the need for literacy training

Respondents who had never undertaken literacy training were more likely than those who had taken a course to rate their reading and writing skills as 'very good' (Figure 10.3). This was equally true amongst people with English as a first language and those whose first language was not English, and reflects the findings from 2003.²⁴⁰

Figure 10.3 Self-assessed reading and writing skills by whether received literacy training (%)



Base: Sfl2011 All aged 16-65 who received training in reading (537) / who did not receive training in reading (6693) / who received training in writing (645) / who did not receive training in writing (6585)

A mere three per cent of respondents with EFL rated their reading and writing skills negatively, saying they were 'below average', 'poor' or that they could not read or write.²⁴¹ Respondents with EFL who had attended a course at some point in their lives had a higher than average likelihood of giving their skills a negative rating.²⁴² Moreover, the likelihood of a negative rating differed amongst EFL who had experienced training depending on when their most recent course was completed, with current learners having the lowest opinion of their skills.²⁴³

The fact that current learners with EFL were more likely than those who had never attended training to give a negative assessment of their skills (20 per cent versus three per cent for reading; 22 per cent versus six per cent for writing) indicates that people with EFL only seek out literacy training if they feel their skills need improvement. The self-confidence of those who did not feel the need for improvement was partly justified, as they generally performed better in the

²⁴⁰ See Appendix Tables 10.A7 and 10.A8 for a comparison between 2003 and 2011. Appendix Tables 10.A9 and 10.A10 break this data down further by first language.

²⁴¹ See Appendix Table 8.A3.

²⁴² See Appendix Tables 10.A9 and 10.A10.

²⁴³ See Appendix Tables 10.A11 and 10.A12.

literacy test than those who attended a course (see Table 10.5 above). However, some cases of self-confidence were clearly misconceived: ten per cent of people with EFL who gave themselves a positive rating for both reading and writing arguably had a training need (evidenced by a score of Entry Level 3 or below). As pointed out in Section 10.3.3, nine in ten respondents with EFL who had a training need failed to seek out training.

A negative self-assessment was more than four times as common amongst people with ENFL (14 per cent) as amongst native English speakers (three per cent).²⁴⁴ Respondents who had never attended any literacy training were the most likely out of all those with ENFL to describe their skills as 'very good' (53 per cent for reading; 45 per cent for writing);²⁴⁵ they also had the most confidence in their spoken English (42 per cent rated their speaking as 'very good', compared with 37 per cent of all respondents with ENFL).²⁴⁶ It is therefore likely that the majority of those with ENFL who chose not to undertake training based their decision on the belief that they had no need to improve their literacy.

Amongst respondents with ENFL who did not attend training, three per cent said they could not read English at all.²⁴⁷ While this indicates the existence in 2011 of a minority who do not engage in basic learning despite the severity of their need, the proportion is substantially lower than in 2003 (eight per cent). This may be due to a higher take-up of literacy courses in recent years by those who need them.²⁴⁸

Over the last eight years, the confidence levels of learners with ENFL have remained stable, whilst those of learners with EFL have fallen.²⁴⁹ In 2011, three fifths (59 per cent) of the population with EFL who received training in reading judged their reading abilities to be 'very good', down from 69 per cent in 2003. Similarly, the proportion of people with EFL who had trained in writing and gave themselves a 'very good' rating for their writing ability decreased (from 60 per cent in 2003 to 51 per cent in 2011).

During the period that saw the self-assurance of learners with EFL fall, the self-assurance of people with EFL who did not have any experience of training rose. This rise was in line with the rise in confidence evidenced in the broader population (see Section 8.3).

²⁴⁴ See Appendix Table 8.A3.

²⁴⁵ See Appendix Tables 10.A9 and 10.A10.

²⁴⁶ See Appendix Table 10.A13.

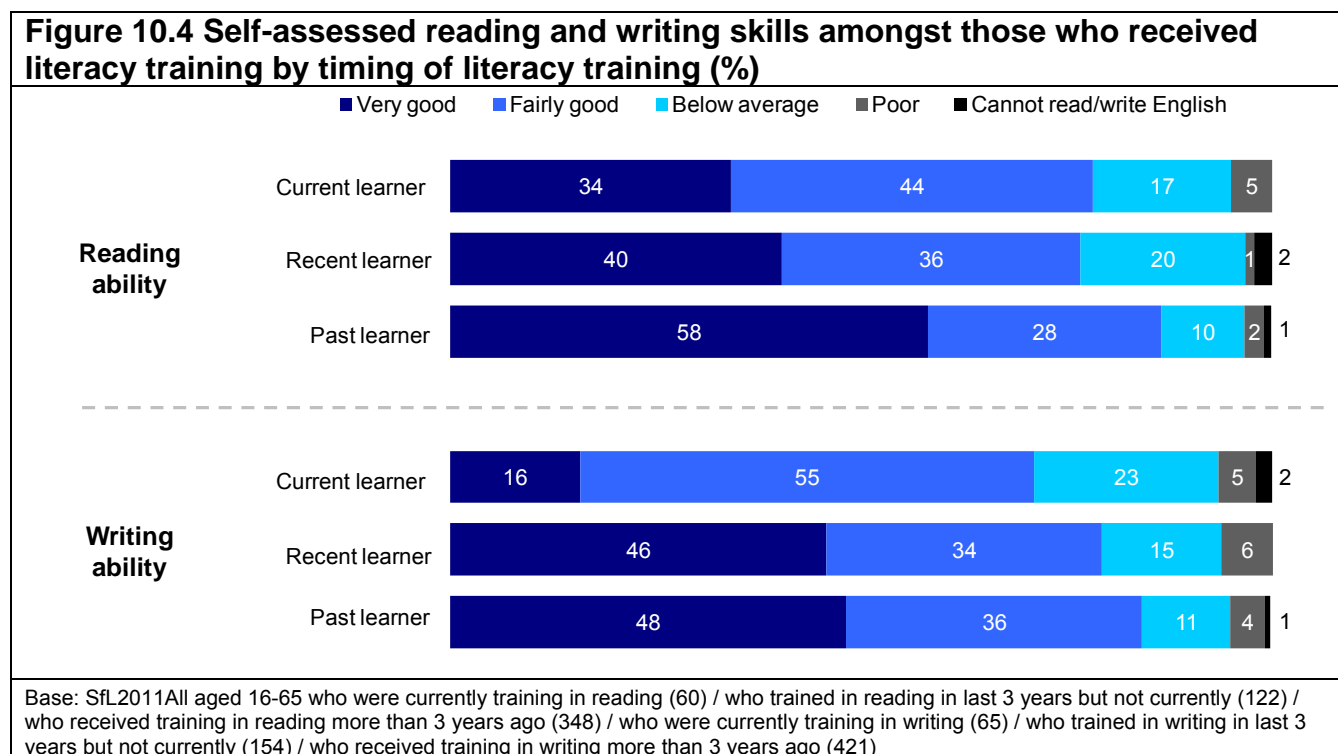
²⁴⁷ Respondents who could not read English were able to participate in SfL2011. Interviewers read out questions from the background questionnaire to respondents who declared that they were unable to read in English, and this group was not routed to the literacy assessment but was automatically assigned Literacy Entry Level 1.

²⁴⁸ According to the FE and Skills Statistical First Release (June 2012), participating in Skills for Life training by people with very low skills (Entry Level Literacy) appeared to decline between 2006/07 and 2009/10, but rose in 2010/11 (though it should be noted that the trend is indicative only, as figures before and after 2008/09 are not directly comparable). See Table 9, on, http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/sfr_current/, accessed on 25/09/12.

²⁴⁹ See Appendix Tables 10.A9 and 10.A10.

10.3.5 Confidence in literacy skills following attendance of literacy training

As Table 10.4 (above) illustrates, SfL2011 respondents who trained within the last three years (recent learners) performed to a similar standard in the literacy assessment as those who trained further in the past (past learners). Nevertheless, Figure 10.4 demonstrates a tendency for confidence in literacy skills to increase as time elapses following the completion of training. Respondents who received training more than three years ago were more likely to rate their literacy positively than those who completed their training within the last three years.



Amongst respondents whose first language was English, more past learners (66 per cent) than recent learners (50 per cent) rated their reading ability highly. A similar pattern was not, however, apparent for writing: 55 per cent of both past and recent learners rated their writing skills highly, an indication perhaps that confidence in writing does not increase with time in the same way as confidence in reading. Amongst respondents with ENFL, on the other hand, those who had attended training more than three years ago for either reading or writing were almost twice as likely as current or recent learners to describe their literacy skills as 'very good'.²⁵⁰

²⁵⁰ See Appendix Tables 10.A11 and 10.A12.

10.3.6 The relationship between literacy training and Numeracy and ICT Levels

Those who undertook literacy training performed no differently in the numeracy assessment than the overall population (Table 10.6). This was true amongst native English speakers and people with ENFL.

Table 10.6 Numeracy Levels by first language and whether received literacy training

	All	EFL			ENFL		
		All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training
	%	%	%	%	%	%	%
Entry Level 1 or below	7	6	8	5	18	19	17
Entry Level 2	17	17	16	17	20	25	18
Entry Level 3	25	26	26	26	23	15	27
Level 1	29	30	29	30	25	25	25
Level 2 or above	22	23	21	23	14	15	13
Unweighted	5823	5328	432	4896	495	179	316

Base: SFL2011 All aged 16-65 with numeracy score

Undertaking literacy training also made no difference to the performance in the three practical components of the ICT assessment of respondents with ENFL (Table 10.7).

Table 10.7 ICT Levels by first language and whether received literacy training

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	42	38	43	30	32	30	37	39	37	9	10	9
Entry Level 3	17	20	16	9	9	9	28	28	28	11	12	11
Level 1	15	19	15	8	7	8	17	17	17	25	28	25
Level 2 or above	26	23	26	53	53	53	18	16	18	55	51	55
Unweighted	2081	157	1924	2075	156	1919	2057	154	1903	2099	158	1941
ENFL	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training	All	Ever received literacy training	Never received literacy training
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	53	61	47	40	41	40	51	51	51	16	9	21
Entry Level 3	13	9	15	7	5	9	21	21	21	23	31	18
Level 1	17	15	19	6	9	4	17	20	15	30	39	23
Level 2 or above	17	15	19	47	46	47	12	9	14	32	21	39
Unweighted	172	65	107	172	64	108	171	65	106	175	66	109

Base: SFL2011 All aged 16-65 with EFL / with ENFL and word processing / email / spreadsheet / multiple choice score

No significant differences were apparent in the distribution of scores for people with ENFL who trained in literacy and the overall population with ENFL (though it should be noted that base sizes are small). In the multiple choice component of the assessment, however, there was a notable difference between those who had attended a literacy course and the overall population: people who had received training were more likely to exceed Entry Level 2, perhaps because the training helped respondents understand the multiple-choice questions, which were written in English.

10.4 Numeracy training

Numeracy training was slightly less common than literacy training in 2011. Overall, eight per cent of 16-65 year-olds received training in basic maths or number skills at some point in their lives outside of school (compared with 11 per cent who received literacy training). The proportion is unchanged since 2003. One notable change that has taken place in the intervening period is the decline in numeracy skills amongst those who received training, with the proportion achieving Entry Level 3 or above falling from 81 per cent in 2003 to 72 per cent in 2011 (Table 10.8). Such comparisons should be treated with caution, however, as there are significant differences in the demographic profile of SfL2003 and SfL2011 learners.

Table 10.8 Numeracy Levels in 2003 and 2011 by whether received numeracy training

	2003			2011		
	All	Ever received numeracy training	Never received numeracy training	All	Ever received numeracy training	Never received numeracy training
	%	%	%	%	%	%
Entry Level 1 or below	6	5	6	7	6	7
Entry Level 2	16	15	16	17	22	17
Entry Level 3	26	24	26	25	30	25
Level 1	28	30	28	29	24	29
Level 2 or above	26	27	25	22	18	22
Entry Level 2 or below	21	20	22	24	28	23
Entry Level 3 or above	79	81	79	76	72	77
Unweighted	8040	666	7355	5823	486	5337

Base: SfL2003 All aged 16-65 with numeracy score / SfL2011 All aged 16-65 with numeracy score

In order to explore this decline, the analysis below begins by discussing when training was undertaken and outlining the performance in the numeracy assessment of current and past learners. It then identifies which groups had a greater than average tendency of attending a numeracy course in 2011 (compared to 2003) and the performance of various groups, and discusses the self-assessed abilities of people who chose to take a course.

10.4.1 Timing of numeracy training

Less than one per cent of 16-65 year-olds were currently receiving training in basic maths or number skills. Two per cent had trained within the last three years but were no longer in training, and a further five per cent had received training more than three years ago.

The number of people who reported that they were currently in training was very small in both 2003 and 2011, but a cautious comparison of the performance of current learners reveals that those who took part in the previous survey were more likely to be at Level 1 or above (37 per cent, compared with just 12 per cent in 2011). This may indicate that it has become more common now for people with very low numeracy skills to enrol on numeracy courses.²⁵¹

Table 10.9 Numeracy Levels of people currently training in maths in 2003 and 2011

	2003	2011
	%	%
Entry Level 1 or below	14	20
Entry Level 2	23	42
Entry Level 3	27	26
Level 1	22	7
Level 2 or above	15	5
Unweighted	59	38

Base: Sfl2003 All aged 16-65 with numeracy score who were currently training in maths / Sfl2011 All aged 16-65 with numeracy score who were currently training in maths

Note: small base sizes

Out of everyone who reported receiving maths training, current learners achieved the lowest scores in the numeracy assessment (Table 10.10). This is to be expected as this group may not yet have felt the full benefit of the training on their skills, and it was also the case in 2003.²⁵²

Table 10.10 Numeracy Levels by timing of maths training

		TIMING OF NUMERACY TRAINING			ANY NUMERACY TRAINING	NO NUMERACY TRAINING
		Training currently	Trained within last 3 years but not currently	Trained more than three years ago		
	%	%	%	%	%	%
Entry Level 1 or below	7	20	4	4	6	7
Entry Level 2	17	42	30	16	22	17
Entry Level 3	25	26	27	32	30	25
Level 1	29	7	21	28	24	29
Level 2 or above	22	5	17	19	18	22
Unweighted	5823	38	128	317	486	5337

Base: Sfl2011 All aged 16-65 with numeracy score

Note: small base size

There was almost no difference in performance in the numeracy assessment between people who had never trained in maths at all and people who had received training in the past: the

²⁵¹ The June 2012 FE and Skills Statistical First Release indicates that the volume of people with very low skills (Entry Level Numeracy) participating in Skills for Life training was substantially higher in 2010/11 compared to the three preceding years. See Table 9, available online at:

http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/sfr_current/, accessed on 25/09/12

²⁵² See Appendix Table 10.A14.

likelihood of achieving Entry Level 1 or below, or of reaching Level 2, was similar for both groups. Thus, the completion of a training course seems to have raised the maths abilities of learners to the same standard as those who did not feel the need to undertake training (though the rise in skill standards may be attributable to additional or alternative factors, such as the use of maths skills at work).

There were no indications in SfL2011 that numeracy skills become lost over time after a training course has been undertaken. As shown in Table 10.10 above, the performance of respondents who trained more than three years ago was no different to that of respondents who attended a course within the past three years.

Nevertheless, as has already been noted, the last eight years have seen a fall in numeracy standards amongst people who have undertaken training. This change is not solely down to differences in the numeracy standards of current learners: this becomes apparent when comparing the performance in the numeracy assessment of SfL2003 respondents who said they started their training 'longer than three years ago', against those who said the same in SfL2011 (Table 10.11). The comparison shows a decrease in the proportion of past learners achieving Level 1 or above (down from 64 per cent in SfL2003 to 48 per cent in SfL2011). The most likely explanation for this is that the makeup of the population who said they had undertaken training in 2003 was different from its equivalent in SfL2011.

Table 10.11 Numeracy Levels of people who received maths training more than three years ago in 2003 and 2011

	2003	2011
	%	%
Entry Level 1 or below	2	4
Entry Level 2	13	16
Entry Level 3	21	32
Level 1	33	28
Level 2 or above	31	19
Unweighted	460	317

Base: SfL2003 All aged 16-65 with numeracy score who started a maths course 'longer than three years ago' / SfL2011 All aged 16-65 with numeracy score who started a maths course 'longer than three years ago'

10.4.2 Who received numeracy training

There has been a transformation since 2003 in the sections of the population who undertook training in basic maths and numbers skills. In 2003, the subgroups most likely to have attended a course in this subject were men and 35-44 year-olds (ten per cent each, compared with eight per cent across all respondents). In 2011, there were no differences between men's and women's tendency to undertake training; instead, the groups most likely to have received any training in basic maths consisted of people who were actively looking for work and 20-24 year-olds (13 per cent and 12 per cent, respectively, compared with eight per cent overall).²⁵³

²⁵³ See Appendix Tables 10.A15 and 10.A16. According to the June 2012 FE and Skills Statistical First Release, between 22 per cent and 24 per cent of learners taking part in a Skills for Life Numeracy course are in the 19-24 year-old age group. This is a higher proportion than any other age group and is true for every year between 2005/6 and 2010/11. Tables on the June 2012 FE and Skills Statistical First Release are available online at:

As discussed in Section 5.5.1, people aged between 20 and 24 had weaker numeracy than the rest of the population. Relatively low numeracy standards were also apparent more specifically amongst the 20-24 year-olds who had undertaken maths training. Together with 16-19 year-old maths trainees, this group had an above average likelihood of scoring Entry Level 1 or below in the Sfl2011 numeracy assessment (Table 10.12).

Table 10.12 Numeracy Levels of people who received maths training, by age

	All %	AGE					
		16-19 %	20-24 %	25-34 %	35-44 %	45-54 %	55-65 %
Entry Level 1 or below	6	12	16	5	3	4	1
Entry Level 2	22	36	35	24	22	17	3
Entry Level 3	30	26	19	32	26	38	36
Level 1	24	6	17	27	27	22	39
Level 2 or above	18	21	14	11	23	19	21
Unweighted	486	28	57	121	101	92	87

Base: Sfl2011 All aged 16-65 with numeracy score who received maths training

Note: small base size

It is worth pointing out that only the very eldest in the 2011 cohort of 20-24s were represented in the Sfl2003 sample, as most would have been too young to be eligible for inclusion at that time. Hence, the group of people who reported receiving maths training in 2011 included 'fresh stock' whose numeracy had not been measured in the previous survey. The Sfl2011 data has shown that the 'fresh stock' of 20-24 year-old maths trainees (along with the small number of 16-19 year-olds who were also newly introduced to the overall pool of maths trainees during Sfl2011) had relatively weak numeracy. The absence from Sfl2003 of this 'fresh stock' of weak performers may therefore partly account for the higher numeracy standards achieved in 2003.

In 2011, nine in ten (91 per cent) of those who scored Entry Level 2 or below in the numeracy assessment, and therefore could be described as having a training need, did not seek out any maths training. Out of everyone with a training need, people in the 20-24 age range were the most likely to have attended a course in maths (20 per cent, compared with nine per cent overall).²⁵⁴

People with a training need who lived in the South West, who were aged 45 or above, or who terminated their education before the age of 17 had a higher than average likelihood of *not* attending a maths course (97 per cent, 95 per cent, and 96 per cent, respectively). The reasons for not enrolling on a maths course are not known, but it is notable that people who did not attend a course despite their need for it (as suggested by their performance in the numeracy assessment) were no more or less confident about their maths abilities as those with a training need who attended training. Over a third of the working population who had not been on a maths course despite their need for training had no intention of undertaking job-related learning in the

http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/sfr_supplementary_tables/further_education_skills/, accessed 25/09/12.

²⁵⁴ See Appendix Tables 10.A17 and 10.A18.

next two to three years (34 per cent, compared to 31 per cent of all those in work with a training need).

People with EFL were more likely than people with ENFL to have received training in maths (eight per cent versus six per cent).²⁵⁵ While this was also true in 2003, Table 10.13 shows there was an apparent deterioration between the two surveys in the numeracy scores of native English speakers who had received training: in 2011, only 18 per cent of people with EFL who had trained in maths managed to reach Level 2 or above (down from 28 per cent in 2003).

Table 10.13 Numeracy Levels in 2003 and 2011 amongst people with EFL who received maths training

	2003	2011
	%	%
Entry Level 1 or below	5	6
Entry Level 2	14	21
Entry Level 3	24	31
Level 1	30	25
Level 2 or above	28	18
Unweighted	637	449

Base: Sfl2003 All aged 16-65 with EFL and numeracy score / Sfl2011 All aged 16-65 with EFL and numeracy score

Amongst people who reported English as their first language, those who had received training were slightly less likely than the average to reach Level 2 in the numeracy test (Table 10.14). This difference was not evident in 2003, when people who attended a course had a similar distribution of scores as the overall population with EFL.²⁵⁶

Table 10.14 Numeracy Levels by first language and whether received maths training

		EFL			ENFL		
		All	Ever received numeracy training	Never received numeracy training	All	Ever received numeracy training	Never received numeracy training
	%	%	%	%	%	%	%
Entry Level 1 or below	7	6	6	6	18	12	18
Entry Level 2	17	17	21	16	20	38	19
Entry Level 3	25	26	31	25	23	24	23
Level 1	29	30	25	30	25	17	25
Level 2 or above	22	23	18	23	14	10	14
Unweighted	5823	5328	449	4879	495	37	458

Base: Sfl2011 All aged 16-65 with numeracy score

Note: small base size

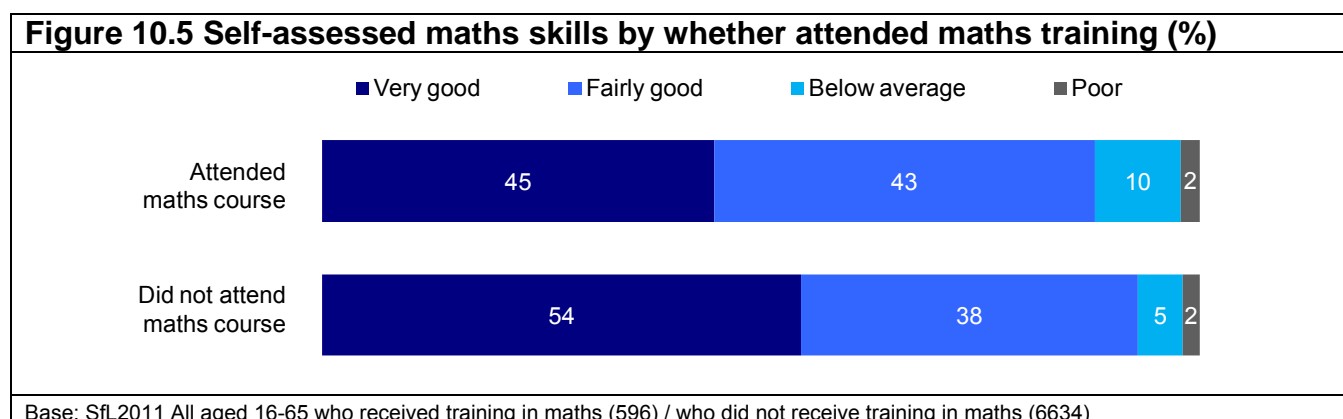
²⁵⁵ See Appendix Table 10.A16.

²⁵⁶ See Appendix Table 10.A19.

People with ENFL who received maths training had a similar standard of numeracy as the average population with ENFL (Table 10.14)²⁵⁷. This was also the case in 2003.²⁵⁸ There has been no noticeable decline between 2003 and 2011 in the numeracy standards of people with ENFL or their experience of maths training.

10.4.3 Self-assessed abilities and the need for numeracy training

Respondents' perception of their maths abilities varied depending on whether or not they had attended a course in basic maths or number skills (Figure 10.5).



Respondents who had never done a maths course were more likely to give their numeracy a 'very good' rating (54 per cent, compared with just 45 per cent of those who had received some training). Only one in twenty people who had not been on a course rated their skills as 'below average' (five per cent), while twice as many of those who had received training did so (10 per cent), suggesting that it is people who perceive themselves to be lacking in skills who seek out this type of training.

A discrepancy in self-assessed ability was not apparent in 2003, when there was almost no difference between those who had, and those who had not, received training.²⁵⁹

In both years, people's perception of their skills was borne out by their actual performance in the numeracy test. Table 10.8 (above) shows that in 2011 those who had not received training performed slightly better than those who had, justifying the higher skill ratings they gave themselves; in 2003, those who received training rated their skills equally to those who had not, and in fact achieved broadly similar scores in the assessment.

10.4.4 Confidence in numeracy following attendance of maths training

People who completed their maths training more than three years ago were more likely than those who completed it within the last three years to describe their abilities in maths as 'very good' (Figure 10.6).²⁶⁰ This was despite the fact that the actual performance of these two groups

²⁵⁷ Note the small base size ENFL respondents who had ever received numeracy training (n = 37).

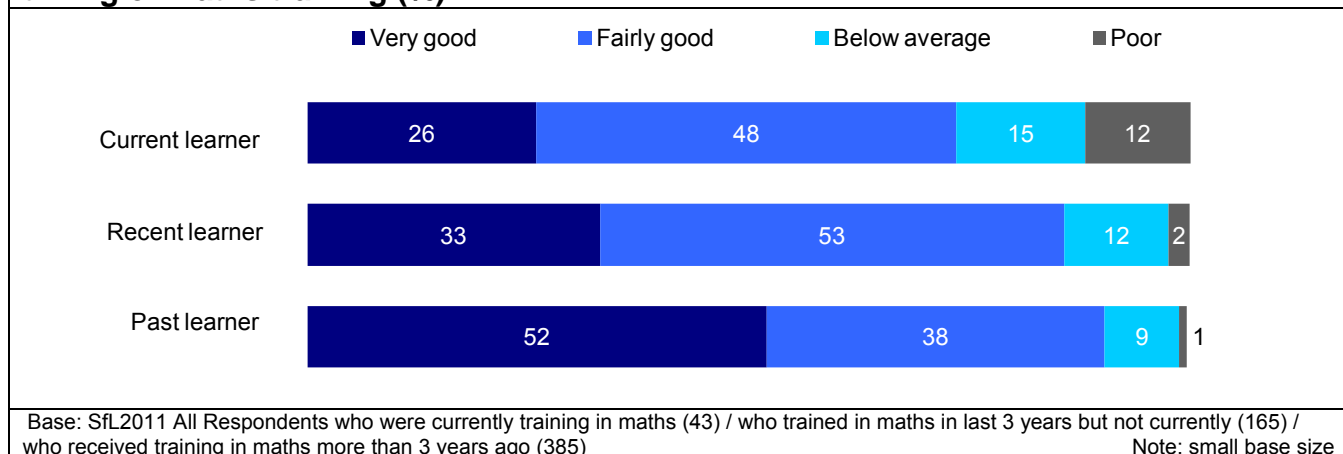
²⁵⁸ See Appendix Table 10.A19.

²⁵⁹ See Appendix Table 10.A20 for a comparison between 2003 and 2011. Appendix Table 10.A21 breaks this data down further by first language.

²⁶⁰ This pattern was not evident amongst respondents with ENFL who received maths training, but this may be due to very small base sizes. See Appendix Table 10.A22.

in the numeracy assessment did not differ, and suggests that people continue to grow in confidence after completing their course even if their skills cease to improve. It should be noted that while the training may be a factor contributing to the rise in confidence, it is not known whether there is a causal link between course attendance and confidence.

Figure 10.6 Self-assessed maths skills amongst those who received maths training by timing of maths training (%)



10.4.5 The relationship between maths training and Literacy and ICT Levels

Two fifths (42 per cent) of respondents who had received training in basic maths or numbers skills combined this training with a course in literacy. Combination courses exist because it is not uncommon for people with weak numeracy skills to also suffer from weak literacy skills. Since people with weak numeracy are more likely than the rest of the population to seek out a maths course, and people with weak numeracy often also have weak literacy, it is possible that an association may exist between numeracy course attendance and performance in the literacy test.

In fact, the proportion of respondents who reached Level 2 or above in the literacy assessment was lower amongst those who had undertaken numeracy training than in the overall population (Table 10.15).

Table 10.15 Literacy Levels by whether received maths training

	All	Ever received numeracy training	Never received numeracy training
	%	%	%
Entry Level 1 or below	5	4	5
Entry Level 2	2	2	2
Entry Level 3	8	9	8
Level 1	29	34	28
Level 2 or above	57	52	57
Unweighted	5824	480	5344

Base: SfL2011 All aged 16-65 with literacy score

There is no obvious reason why performance in the ICT assessment should be linked with numeracy course attendance. Nevertheless, those who received numeracy training had an above average likelihood of achieving Entry Level 2 or below in the four components of the ICT assessment (Table 10.16).

Table 10.16 ICT Levels by whether received maths training

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Ever received numeracy training	Never received numeracy training	All	Ever received numeracy training	Never received numeracy training	All	Ever received numeracy training	Never received numeracy training	All	Ever received numeracy training	Never received numeracy training
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	36	44	31	25	32	39	29	40	9	3	10
Entry Level 3	16	18	16	9	8	9	27	32	27	12	14	12
Level 1	15	19	15	8	10	8	17	19	17	26	30	25
Level 2 or above	25	28	25	52	57	52	17	21	17	53	53	53
Unweighted	2253	174	2079	2247	173	2074	2228	172	2056	2274	175	2099

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

10.5 ICT training

Training in basic computer skills was much more widespread amongst 16-65 year-olds than either literacy or numeracy training, with 54 per cent of respondents having undergone formal training outside of school. The proportion is identical to that from 2003.

Unlike training in literacy or numeracy, training in ICT was associated with higher than average skills (Table 10.17). Compared with the overall population, people who attended a course had a higher likelihood of reaching or surpassing Level 2 in all four components of the assessment. This mirrors the situation in 2003, when a relationship between course attendance and high performance in ICT was also reported (though it should be noted that the assessments used in Sfl2003 were very different to those employed in Sfl2011).

Due to changes in the method of assessment, it is not possible to provide direct comparisons between the performance of Sfl2003 and Sfl2011 respondents, nor report on any changes that may have taken place in the intervening period. Instead, the discussion below provides details on when the respondents from Sfl2011 undertook their training, where the training took place, and who was more inclined to attend a course. The effects of the passage of time since completion of a course on levels of confidence and actual abilities (as measured by the ICT assessment) are also explored.

Table 10.17 ICT Levels by whether received ICT training

	All	Ever received ICT training	Never received ICT training
	%	%	%
WORD PROCESSING			
Entry Level 2 or below	43	28	63
Entry Level 3	16	19	12
Level 1	15	19	11
Level 2 or above	25	34	14
Unweighted	2253	1229	1020
EMAIL			
Entry Level 2 or below	31	17	49
Entry Level 3	9	9	9
Level 1	8	8	7
Level 2 or above	52	66	35
Unweighted	2247	1226	1017
SPREADSHEET			
Entry Level 2 or below	39	24	58
Entry Level 3	27	31	23
Level 1	17	22	10
Level 2 or above	17	23	9
Unweighted	2228	1214	1010
MULTIPLE CHOICE			
Entry Level 2 or below	9	2	19
Entry Level 3	12	9	17
Level 1	26	25	27
Level 2 or above	53	64	38
Unweighted	2274	1237	1033
Base: SfL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score			

10.5.1 Timing of ICT training

Three per cent of the 16-65 year-olds were currently receiving ICT training outside of school. This is less than half the proportion of current learners recorded in 2003 (seven per cent). One in eight people (12 per cent) had completed a course within the last three years and another two fifths (39 per cent) had attended some training more than three years ago.

Current learners had an equivalent standard of skills in ICT as the overall population (Table 10.18). This may be an indication that people who choose to undertake training tend to possess some skills before they enrol on a course. Since current learners performed better in the assessment than computer users who had never taken a course outside of school, an alternative explanation may be that learners tend to pick up skills fairly quickly once they enrol, so that they soon surpass the skills level of people who have not had any training. The fact that current learners performed as well as past learners in the various components of the ICT assessment backs this up, demonstrating that whilst they are on a course, learners are able to reach the

same standard as people who have already completed their training. A large number of people receive ICT training at work so they are already more highly skilled.

People who trained more than three years ago did no better or worse in the assessment than those who received their training within the last three years, demonstrating little or no loss of ICT awareness or skills with the passage of time since the completion of a course.

Table 10.18 ICT Levels amongst those who received ICT training by timing of ICT training

	All	TIMING OF ICT TRAINING			ANY ICT TRAINING	NO ICT TRAINING (but has used computer)
		Training currently	Trained within last 3 years but not currently	Trained more than three years ago		
WORD PROCESSING	%	%	%	%	%	%
Entry Level 2 or below	43	36	30	27	28	56
Entry Level 3	16	12	19	20	19	14
Level 1	15	25	18	19	19	13
Level 2 or above	25	27	33	34	34	17
Unweighted	2253	73	257	894	1229	820
EMAIL						
Entry Level 2 or below	31	24	18	16	17	40
Entry Level 3	9	8	10	8	9	10
Level 1	8	15	9	7	8	9
Level 2 or above	52	54	63	68	66	42
Unweighted	2247	74	257	890	1226	817
SPREADSHEET						
Entry Level 2 or below	39	31	26	22	24	50
Entry Level 3	27	20	27	33	31	28
Level 1	17	26	23	22	22	12
Level 2 or above	17	24	24	23	23	11
Unweighted	2228	73	254	882	1214	810
MULTIPLE CHOICE						
Entry Level 2 or below	9	6	3	1	2	4
Entry Level 3	12	13	12	8	9	20
Level 1	26	23	24	25	25	32
Level 2 or above	53	58	61	66	64	45
Unweighted	2274	74	259	899	1237	833

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

10.5.2 Who received ICT training

To get a better idea of the sections of the population who were more likely to attend ICT training, the calculations below exclude people who had never used a computer. This latter group was heavily composed of over-45s and people who were not in work: 83 per cent of people with no computer experience were in this age range, and 52 per cent were unemployed.

Among people who had used a computer at some point in their lives, women and those still in education had an above average tendency to undertake ICT training (63 per cent and 73 per cent, respectively, compared to 58 per cent overall). In addition, training was common among 20-24 year-olds (64 per cent), and even more so among 16-19 year-olds (76 per cent). These were precisely the same groups which had a higher than average tendency to report undertaking training in 2003. The group which was least likely to attend a course in ICT despite having used a computer at some point consisted of people who had terminated their education before the age of 17 (54 per cent of this group has never undertaken ICT training, compared with 42 per cent overall).²⁶¹

The incidence of ICT training was also linked to computer access. Training was relatively uncommon amongst people who did not have a computer at home, or who did not have a computer at work (only 46 per cent in each group had taken a course in basic computer skills, compared to 58 per cent across all computer users).

As well as considering the subgroups who were most likely to seek out training, it is worthwhile identifying any subgroups who had a training need and yet chose not to attend an ICT course. Over a quarter of the entire population of 16-65 year-olds (27 per cent) achieved or were assigned Entry Level 2 or below in all three practical components of the ICT assessment and could therefore be described as having a training need. On average, three quarters (74 per cent) of those with a training need did not attend a course on ICT, but a lack of training was particularly common amongst people with a training need who lived in the East Midlands, those who were not in work, who left education before the age of 17 or who had a limiting disability (87 per cent, 79 per cent, 80 per cent, and 80 per cent, respectively).²⁶²

Lower-than-average confidence was a characteristic of people with a training need who chose not to train: only five per cent described their ICT skills as 'very good', compared with eight per cent of everyone who had a training need. Moreover, this group was most inclined to say that they had no intention to undertake future learning (51 per cent had no intentions regarding job-related learning and 59 per cent had no intentions regarding non job-related learning, compared to 46 per cent and 54 per cent, respectively, across all those with a training need).

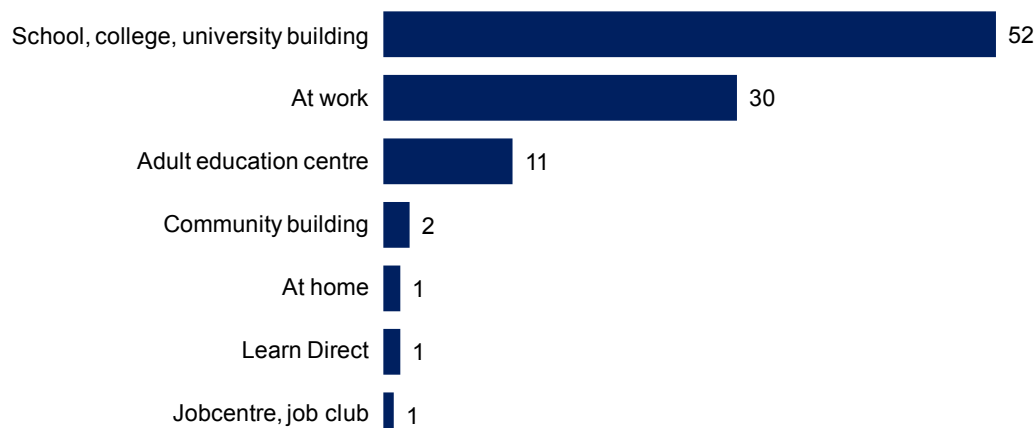
²⁶¹ See Appendix Tables 10.A23 and 10.A24.

²⁶² See Appendix Tables 10.A25 and 10.A26.

10.5.3 The location of ICT training

Half (52 per cent) of those who had been on an ICT course in the past reported that this was held in a school, college or university building. Work and adult education centres were also common locations for training (30 per cent and 11 per cent, respectively), but a range of other venues offered additional training opportunities (Figure 10.7).

Figure 10.7 Location where ICT training was undertaken in the past (all locations mentioned by one per cent or more of respondents) (%)



Base: SFL2011 All aged 16-65 who received training in ICT in the past but are no longer in training (3694)

Performance in the ICT assessment varied depending on where recent and past learners undertook their training (Table 10.19). The skills of respondents who trained in adult education centres tended to be weaker than those of respondents who took a course in an academic setting or at work. People who received their training in a school, college or education building had a higher likelihood than those who trained elsewhere of achieving Level 2 or above in the word processing and email components.

Table 10.19 ICT Levels by location where ICT training was undertaken in the past

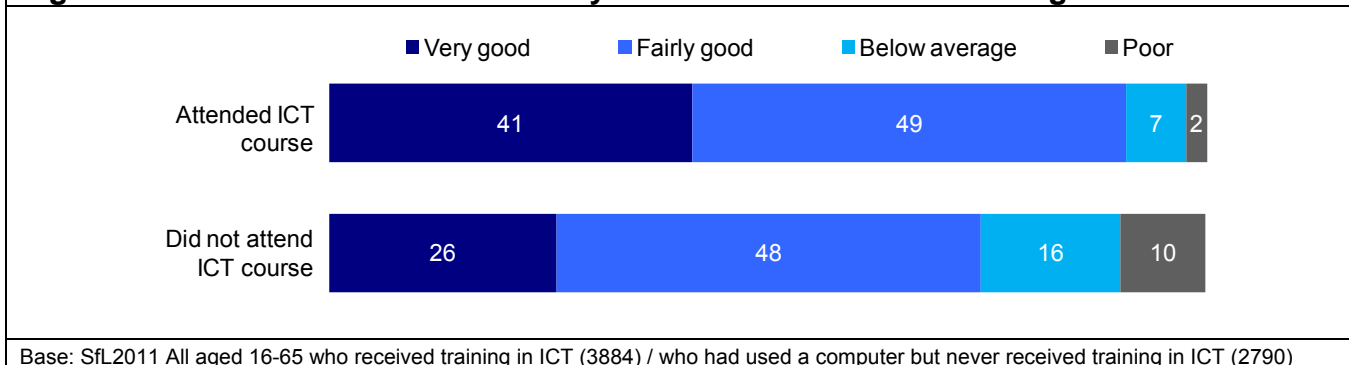
	All	LOCATION OF TRAINING		
		School, college or university building	Work	Adult education centre
WORD PROCESSING	%	%	%	%
Entry Level 2 or below	27	20	29	47
Entry Level 3	20	18	21	23
Level 1	19	21	19	14
Level 2 or above	34	42	31	16
Unweighted	1156	525	392	140
EMAIL				
Entry Level 2 or below	17	12	17	28
Entry Level 3	9	8	9	9
Level 1	8	5	9	12
Level 2 or above	67	74	65	51
Unweighted	1152	523	392	139
SPREADSHEET				
Entry Level 2 or below	23	16	24	36
Entry Level 3	31	31	32	43
Level 1	22	26	19	11
Level 2 or above	23	27	25	9
Unweighted	1141	516	392	138
MULTIPLE CHOICE				
Entry Level 2 or below	2	1	2	3
Entry Level 3	9	7	8	13
Level 1	25	26	23	25
Level 2 or above	65	66	68	59
Unweighted	1163	527	397	142

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score who received training in ICT in the past but are no longer in training

10.5.4 Self-assessed abilities and the need for ICT training

Respondents who undertook ICT training were inclined to describe their ICT skills positively (Figure 10.8). Two fifths (41 per cent) rated their computer skills as 'very good', compared with just one quarter (26 per cent) of those who had used a computer but never attended a course. The latter were three times as likely to rate their abilities as 'below average' or 'poor' as those who been on some training (26 per cent versus nine per cent).

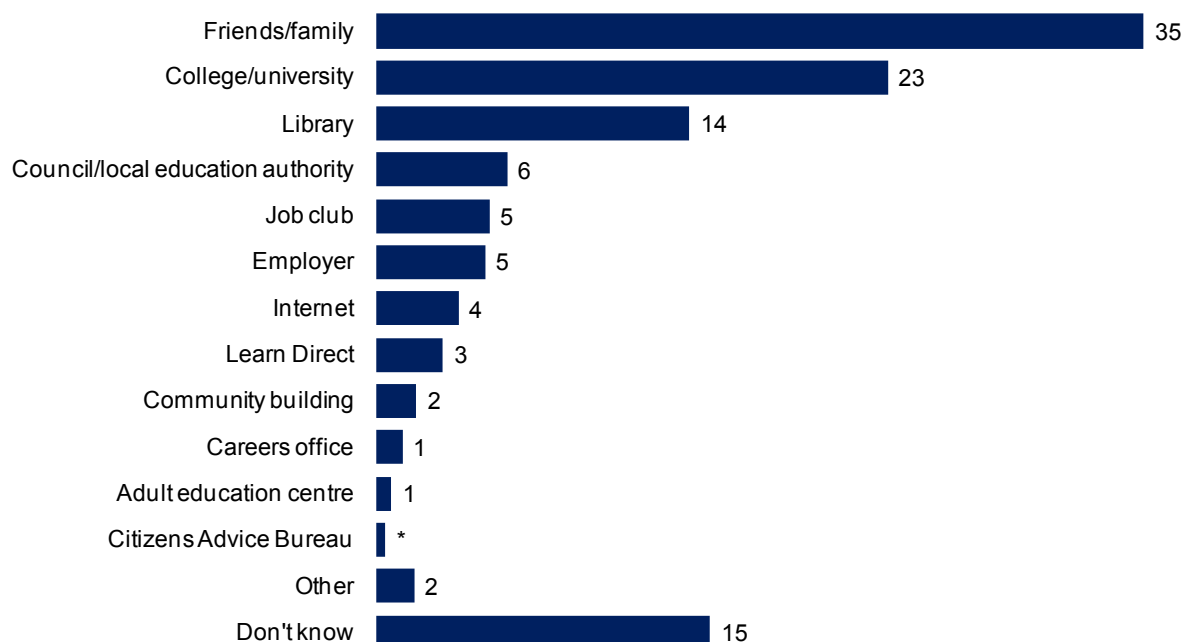
Figure 10.8 Self-assessed ICT skills by whether attended ICT training



Respondents who had attended a course in ICT stood out from those who received literacy or numeracy training in their propensity to give a positive rating of their skills. Whereas people who trained in literacy and numeracy were more likely to give a negative assessment of their abilities in reading, writing and working with numbers (compared to those who had not attended a course), people who trained in ICT were inclined to rate their computer skills positively. It is not clear whether the positive perception of their skills is a consequence of the training they received, or whether those who seek out training in ICT start off with higher abilities (and confidence) than the rest of the population, and use the training as a way of furthering their skills.

Two thirds (67 per cent) of 16-65 year-olds who rated their skills negatively had never undertaken any training in ICT. These respondents, along with respondents who had never used a computer, were asked where they would go for advice if they wanted to improve their computer skills. The results, illustrated in Figure 10.9, show that many would prefer an informal source of advice, though colleges, universities and libraries were also mentioned by substantial minorities of respondents as potential sources.

Figure 10.9 Sources of advice for improving computer skills that people who never received ICT training and had weak skills, or who never used a computer might seek (%)

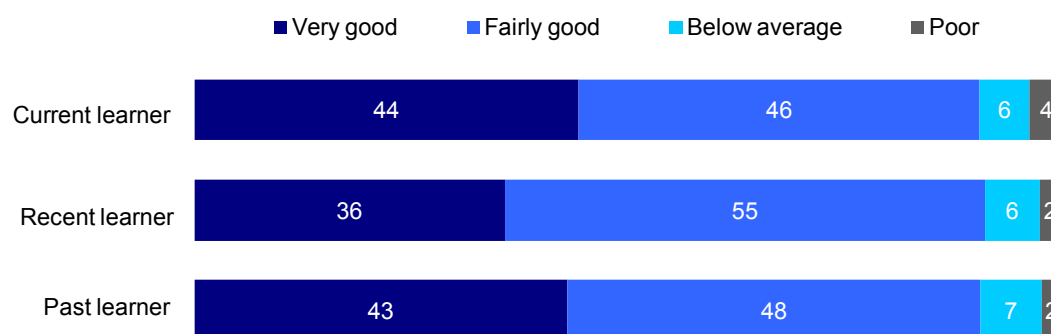


Base: Sfl2011 All aged 16-65 who have never received training in ICT and rated their ICT skills negatively, or who have never used a computer (1309)
Note: Multiple responses permitted

10.5.5 Confidence in computer skills following attendance of ICT training

There appears to be no loss or gain in confidence in ICT abilities with the passage of time (Figure 10.10). The proportion who described their skills as 'very good' was equivalent amongst current learners and those who trained more than three years ago (44 per cent and 43 per cent, respectively), though it was a little lower amongst those who received their training within the last three years (36 per cent). A negative rating was no more common amongst those who attended a course within the last three years than amongst respondents who undertook training further in the past (nine per cent each).

Figure 10.10 Self-assessed ICT skills amongst those who received ICT training, by timing of ICT training (%)



Base: Sfl2011 All aged 16-65 who were currently training in ICT (190) / who training in ICT in last 3 years but not currently (790) / who received training in ICT more than 3 years ago (2894)

10.5.6 The relationship between ICT training and Literacy and Numeracy Levels

ICT course attendance was associated with high literacy scores (Table 10.20) and high numeracy scores (Table 10.21).

Table 10.20 Literacy Levels by whether received ICT training

	All	Ever received ICT training	Never received ICT training
	%	%	%
Entry Level 1 or below	5	2	6
Entry Level 2	2	1	3
Entry Level 3	8	6	9
Level 1	29	26	32
Level 2 or above	57	66	50
Unweighted	5824	3135	2256

Base: Sfl2011 All aged 16-65 with literacy score

Table 10.21 Numeracy Levels by whether received ICT training

	All	Ever received ICT training	Never received ICT training
	%	%	%
Entry Level 1 or below	7	4	7
Entry Level 2	17	14	18
Entry Level 3	25	24	28
Level 1	29	31	29
Level 2 or above	22	26	18
Unweighted	5823	3122	2262

Base: Sfl2011 All aged 16-65 with numeracy score

11 Attitudes towards learning

11.1 Key Findings

This chapter describes the relationship between respondents' basic skills and their attitudes towards learning and education, as well as their intentions regarding learning.

Personal enjoyment and confidence in learning

- More than four fifths of 16-65 year-olds had a positive outlook towards learning. People who were out of work or who had a limiting disability were more likely than average to have a negative outlook.
- Respondents with a negative outlook tended to have weaker literacy, numeracy and ICT skills.

Views on education received thus far

- Three quarters of respondents felt that their school years were useful. A positive perception of the usefulness of school was linked to higher basic skills.
- Respondents who felt strongly that their school years had not been useful were the most likely to feel they should have continued their education to a higher level.
- People who wished they had continued with their education were more likely than those who did not to fall short of Level 1 in the literacy assessment and Entry Level 3 in the numeracy assessment.

The practical value of education and qualifications

- The majority of respondents placed practical (and financial) value on qualifications, learning and education, with respondents from BME backgrounds disproportionately more likely to agree with all three of the statements used to measure these attitudes. However, performance in the skills assessments correlated with only one of the three statements: 'I see paying for my education as an investment'. Respondents who agreed with this tended to perform better than those who did not.

Learning as a continuous process

- There was almost universal agreement that learning should be an ongoing process of personal and professional development.
- Respondents who agreed that 'learning is something you should do throughout your life' tended to score higher on the skills assessments than those who did not agree. However, there was little difference in the basic skill standards of those who believed that improvement was necessary to succeed at work compared with those who disagreed with this notion.

Future Intentions towards learning

- Seventeen per cent of respondents were not considering undertaking any learning in the next two to three years. Those who were least inclined to do so had the greatest room for improvement as they tended to achieve lower scores on the assessments.

- The most common explanation for wanting to undertake future learning was for personal development. A range of barriers to future learning were cited including time constraints, the cost of training and a lack of opportunities in the local area.

11.2 Introduction

Respondents' scores in the literacy, numeracy and ICT assessments can be attributed to a host of factors, including their level of education, any additional training they may have received, and the extent to which their skills were maintained and extended through regular practice. Alongside these experiences, however, lie a variety of attitudes which can predispose respondents to either continue building on their skills through their adult lives, or to cease developing them past a certain stage.

The Skills for Life 2011 Survey collected attitudinal data on a range of topics which could potentially have impacted on people's performance in the assessments. This includes information on people's outlook towards learning, their views regarding their personal educational experiences, and the importance they attach to learning and qualifications. Chapter 11 presents the population's views on these topics and their intentions regarding learning in the coming two to three years, and matches these against the Levels they achieved in the assessments. The data is derived from questions att through to fbarrin the Background Questionnaire, which can be found in Annex 3.

It should be noted that an individual's attitudes, beliefs, viewpoints and opinions do not necessarily contribute to their abilities in a direct way. There may be instances where a set of beliefs has constrained a person's abilities, and others where a belief or opinion was adopted as a way of rationalising or justifying weak skills. In both cases, we would expect attitudes and skills to reinforce one another, obscuring the direction of causality. A further possibility may be that neither acted as a trigger for the other, but that a person's circumstances or experiences may have shaped both their attitudes on the subjects mentioned above *and* the strength of their basic skills. All possibilities should be borne in mind when interpreting the correlations in this chapter.

11.3 Attitudes towards learning

In order to explore the population's attitudes towards the acquisition of skills, respondents were asked to what extent they agreed with ten statements. The statements were borrowed from a number of existing surveys and added to the Sfl2011 questionnaire during the development stage of the survey.^{263,264, 265,266,267,268} Their purpose was to probe into respondents' personal

²⁶³ Snape, E., E. Tanner, R. Sinclair, J. Michaelson and S. Finsch (2006) *National Adult Learning Survey (NALS) 2005*, Department for Education and Skills: Research Report 815, available online at: <https://www.education.gov.uk/publications/eOrderingDownload/RR815.pdf>, accessed on 28/03/12.

²⁶⁴ Levesley T, J. Regan, and J. Hillage (2009) *Train to Gain Learner Evaluation Report from Wave 4 Research*. Learning and Skills Council report, available online at: http://readingroom.lsc.gov.uk/lsc/National/nat-ttg_learner_eval_report_from_wave4_research-re-june2009-v1-1.pdf, accessed on 28/03/12.

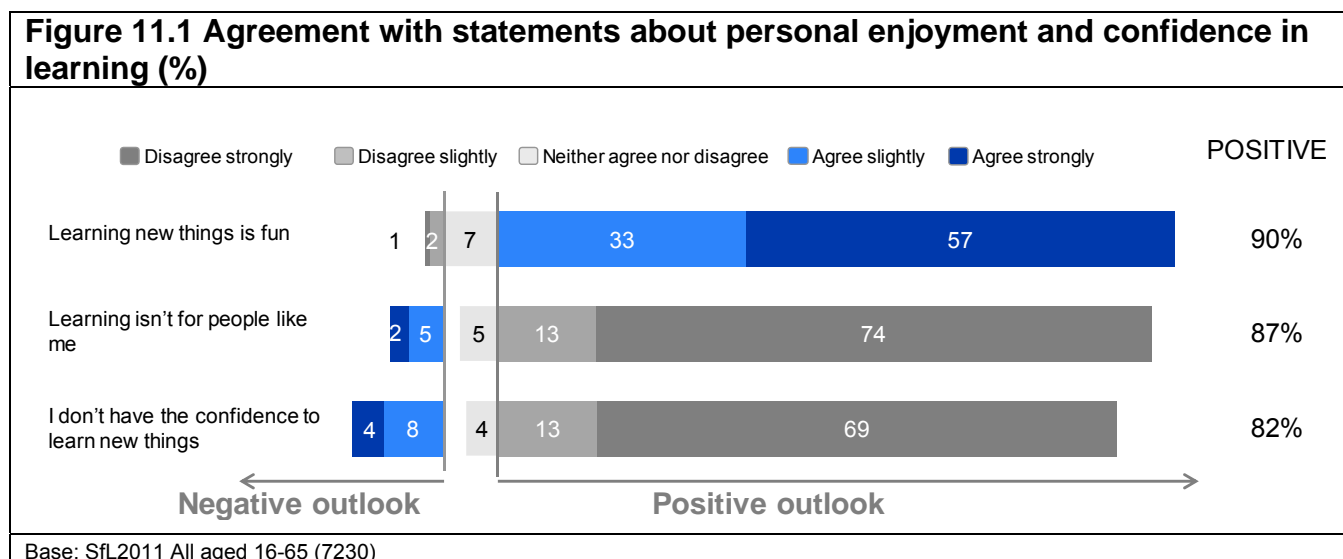
²⁶⁵ Tyers, C and A. Sinclair (2005) *Intermediate impacts of Advice and Guidance*, Department for Education and Skills: Research Report 638, available online at <https://www.education.gov.uk/publications/eOrderingDownload/RR638.pdf>, accessed on 28/03/12

outlook on learning, and their views on their educational experience to date. They were also used to seek respondents' opinions on the practical and financial value of learning, and whether they felt that learning should be an ongoing process of personal development.

11.3.1 Personal enjoyment and confidence in learning

Three statements were used to examine people's personal outlook on learning:

- Learning new things is fun
- Learning isn't for people like me
- I don't have the confidence to learn new things



As illustrated in Figure 11.1, most 16-65s felt positive about learning. Nine in ten (90 per cent) agreed that it was fun, and a similar proportion (87 per cent) felt that learning was something they were personally disposed towards, disagreeing with the notion that it 'isn't for people like me'. Confidence in learning was also high; with four fifths (82 per cent) saying they felt confident learning new things.

Respondents who agreed or disagreed 'slightly' with these statements may have been tempted to do so by the desire to present themselves in a socially desirable way. Arguably, those who gave answers on the extreme ends of the agreement scale were more likely to have firm views on these issues. On this basis, most of the analysis below focuses only on those who agreed or disagreed 'strongly' rather than people who gave more moderate views.

²⁶⁶ Department for Education and Skills (2006), *Avon Longitudinal Study of Parents and Children (ALSPAC): Adult Learning and Families*, Department for Education and Skills: Research Brief RBX02-06 available online at: <http://www.dcsf.gov.uk/rsgateway/DB/RRP/u014257/index.shtml>, accessed on 28/03/12.

²⁶⁷ Coleman, N., R. Naylor and E. Kennedy (2006), *FE Learners Longitudinal Survey Wave 1: Findings from Quantitative Research*. Department for Education and Skills Research Report 768, available online at <https://www.education.gov.uk/publications/eOrderingDownload/RR768.pdf>, accessed on 28/03/12

²⁶⁸ Pollard, E., P. Bates, W. Hunt, and A. Bellis (2008) *University is Not Just for Young People. Working Adults' Perceptions of and Orientation to Higher Education*. Department for Innovation and Skills: Research Report 0806, available online at <http://www.employment-studies.co.uk/pdflibrary/dius0806.pdf>, accessed on 28/03/12.

The three attitudes appear to be inter-related. People who felt strongly that ‘learning is not for me’ were more likely than average to admit they did not feel confident about learning (23 per cent strong agreement, compared with an average of four per cent); this same group was more likely to be opposed to the idea that learning was fun (seven per cent strong disagreement, compared with an average of one per cent). Conversely, respondents with the most confidence in their ability to learn had a tendency to oppose the idea that ‘learning isn’t for people like me’ (87 per cent strong disagreement, compared with an average of 74 per cent); they were also more likely to describe the process of learning new things as fun (63 per cent strong agreement, compared with an average of 57 per cent).

Negative attitudes towards learning were more prevalent amongst certain demographic subgroups.²⁶⁹ While four per cent of the population firmly believed they did not have the confidence to learn new things, four groups were more likely to think this: women (five per cent), 55-65 year-olds (seven per cent), people who were not in work (seven per cent), and people with limiting disabilities (nine per cent). The three latter subgroups not only lacked confidence, but were more likely than average to agree with the suggestion that ‘learning isn’t for people like me’: five per cent of 55-65 year-olds, four per cent of those outside the labour market and six per cent of people with a limiting disability agreed strongly, compared with two per cent overall.

One group in particular stood out for their positive attitude towards learning: people who had their own business. These respondents were more inclined to believe that learning was fun (64 per cent agreed strongly, compared with 57 per cent overall), to be keenly disposed towards learning (84 per cent strongly disagreed that ‘learning is not for me’, compared with 74 per cent overall) and to be highly confident about their ability to learn (77 per cent, compared with 69 per cent overall). More generally, the longer people stayed in education, the more likely they were to have a positive outlook on learning (Table 11.1).

Table 11.1 Outlook on learning by terminal education age

	All	TERMINAL EDUCATION AGE		
		16 or under	17-18	19 or over
	%	%	%	%
Strongly agree: Learning new things is fun	57	53	57	63
Strongly disagree: Learning isn't for people like me	74	62	74	83
Strongly disagree: I don't have the confidence to learn new things	69	55	68	80
Unweighted	7230	2594	1695	2487

Base: Sfl2011 All aged 16-65

There was a link between respondents’ outlook on learning and their literacy scores (Table 11.2). People who had a negative outlook were more likely than other respondents to perform poorly in the literacy assessment (Entry Level 1 or below). Meanwhile, Level 2 or above was more common amongst respondents with a positive outlook than those with a negative outlook.

²⁶⁹ See Appendix Table 11.A1.

Table 11.2 Literacy and Numeracy Levels by outlook on learning

	LITERACY			NUMERACY		
		NEGATIVE OUTLOOK ←	POSITIVE OUTLOOK →		NEGATIVE OUTLOOK ←	POSITIVE OUTLOOK →
Learning new things is fun	All	Disagree	Agree	All	Disagree	Agree
	%	%	%	%	%	%
Entry Level 1 or below	5	14	5	7	18	6
Entry Level 2	2	5	2	17	21	17
Entry Level 3	8	17	8	25	21	26
Level 1	29	25	29	29	27	29
Level 2 or above	57	40	57	22	13	22
Unweighted	5824	134	5270	5823	131	5266
Learning isn't for people like me	All	Agree	Disagree	All	Agree	Disagree
	%	%	%	%	%	%
Entry Level 1 or below	5	16	4	7	19	6
Entry Level 2	2	5	2	17	31	16
Entry Level 3	8	18	7	25	29	25
Level 1	29	38	27	29	15	30
Level 2 or above	57	23	60	22	6	23
Unweighted	5824	391	5075	5823	389	5094
I don't have the confidence to learn new things	All	Agree	Disagree	All	Agree	Disagree
	%	%	%	%	%	%
Entry Level 1 or below	5	12	4	7	15	5
Entry Level 2	2	5	2	17	27	15
Entry Level 3	8	12	7	25	30	25
Level 1	29	37	27	29	19	31
Level 2 or above	57	34	61	22	9	24
Unweighted	5824	822	4702	5823	831	4683

Base: Sfl2011 All aged 16-65 with literacy score / numeracy score

Respondents' Numeracy Levels also varied according to their outlook towards learning. People who agreed that 'learning isn't for people like me' or that 'I don't have the confidence to learn new things' were more likely than others to achieve an Entry Level 1 or below in their numeracy assessment; but they were even more likely to gain an Entry Level 2. Likewise, around a quarter of those who disagreed with these two statements – and therefore could be said to have a positive outlook towards learning – scored Level 2 or above in numeracy, but even more scored Level 1.

A similar pattern emerged with regard to ICT skills (Table 11.3). Respondents whose answers to the three statements indicated they had a negative outlook towards learning tended to achieve no more than Entry Level 2 in the three skills components of the assessment. Compared to

them, those with a positive outlook were more likely to achieve Level 1 or above in the spreadsheet component, and Level 2 or above in the three remaining components of the ICT assessment.

Table 11.3 ICT Levels by outlook on learning

	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	NEGATIVE POSITIVE ← →			NEGATIVE POSITIVE ← →			NEGATIVE POSITIVE ← →			NEGATIVE POSITIVE ← →		
	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
Learning new things is fun	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	64	42	31	52	30	39	58	38	9	32	8
Entry Level 3	16	11	16	9	17	8	27	26	28	12	10	13
Level 1	15	16	15	8	7	8	17	9	17	26	24	26
Level 2 or above	25	9	26	52	24	54	17	7	17	53	34	53
Unweighted	2253	55	2030	2247	56	2024	2228	55	2007	2274	56	2048
Learning isn't for people like me	All	Agree	Dis-agree	All	Agree	Dis-agree	All	Agree	Dis-agree	All	Agree	Dis-agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	81	39	31	69	28	39	71	35	9	33	7
Entry Level 3	16	6	18	9	9	9	27	19	29	12	26	11
Level 1	15	4	16	8	8	8	17	4	18	26	23	25
Level 2 or above	25	9	27	52	15	56	17	6	19	53	18	57
Unweighted	2253	162	1953	2247	162	1949	2228	162	1930	2274	163	1972
I don't have the confidence to learn new things	All	Agree	Dis-agree	All	Agree	Dis-agree	All	Agree	Dis-agree	All	Agree	Dis-agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	79	37	31	59	26	39	69	33	9	29	6
Entry Level 3	16	7	18	9	11	8	27	19	29	12	22	11
Level 1	15	7	17	8	9	8	17	10	18	26	27	25
Level 2 or above	25	6	29	52	21	58	17	1	20	53	22	58
Unweighted	2253	319	1816	2247	318	1812	2228	315	1796	2274	320	1836

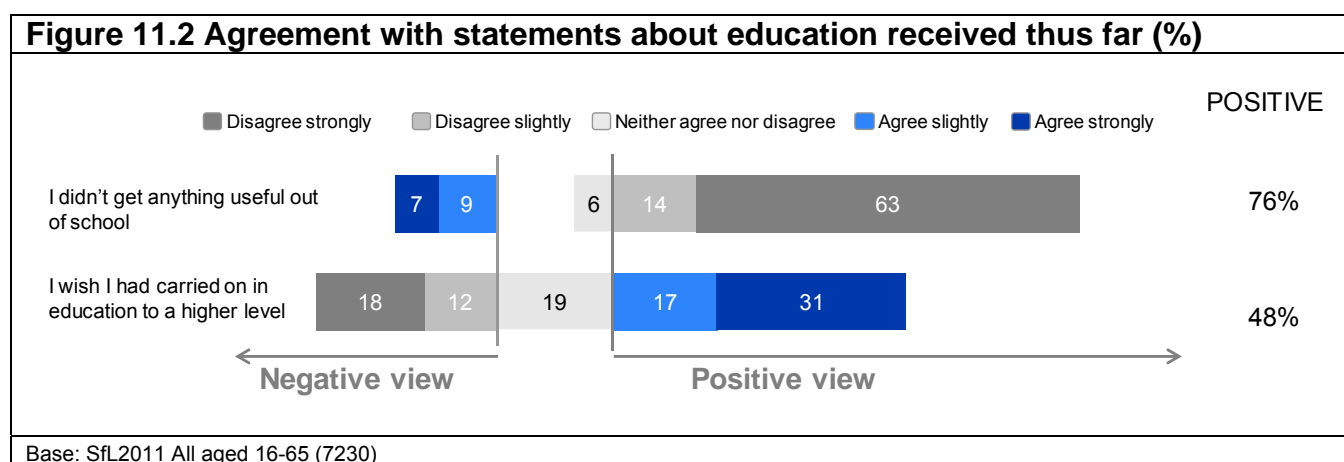
Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

11.3.2 Views on education received thus far

Respondents' personal experience of gaining their education and managing their educational development until now was explored with the following two statements:

- I didn't get anything useful out of school
- I wish I had carried on in education to a higher level

The results are shown in Figure 11.2.



Three quarters (76 per cent) of 16-65s felt that their school years were useful, with three fifths (63 per cent) strongly against the suggestion that they had got nothing useful out of school. It should be noted that these proportions include the views of people who were still in education. People who went on to study past the age of 18 or who had Black and Minority Ethnic (BME) backgrounds were the most likely to object strongly with the first of the two statements (78 per cent and 69 per cent, respectively). It was also common for 16-19 year-olds to disagree (84 per cent, compared with an average of 76 per cent disagreement).²⁷⁰ Notably, more than three quarters (77 per cent) of the 16-19 year-olds who felt their school years were useful were still in education.

Negative views of school were more likely to be held by those who left education when they were 16 or younger (31 per cent, compared with an average of 16 per cent disagreement with this statement). Similarly, the proportion of people who were out of work (22 per cent) or who had a limiting disability (29 per cent) and who felt that school had not offered them anything useful was higher than average.

A positive perception of the usefulness of school was linked to better literacy, numeracy, and ICT skills (Table 11.4, Table 11.5). People who objected to the notion that school had offered them nothing useful were more likely than those who agreed with the statement to achieve Level 2 or above in literacy (63 per cent versus 34 per cent) and twice as likely to gain Level 1 or above in numeracy (57 per cent versus 28 per cent).

²⁷⁰ See Appendix Table 11.A2.

Table 11.4 Literacy and Numeracy Levels by experience of school

I didn't get anything useful out of school	LITERACY			NUMERACY		
	All	Disagree	Agree	All	Disagree	Agree
	%	%	%	%	%	%
Entry Level 1 or below	5	3	12	7	5	15
Entry Level 2	2	1	6	17	15	29
Entry Level 3	8	6	13	25	24	28
Level 1	29	27	36	29	32	19
Level 2 or above	57	63	34	22	25	9
Unweighted	5824	4347	1038	5823	4370	1020

Base: Sfl2011 All aged 16-65 with literacy score / numeracy score

The majority of those who held a negative view of their school experience achieved no more than Entry Level 2 in the practical components of the ICT assessment (Table 11.5). This group demonstrated particular weaknesses in word processing and working with spreadsheets: they had a lower likelihood than those who held positive perceptions of school of reaching or surpassing Entry Level 3 in either skill. Nevertheless, a quarter (26 per cent) succeeded in gaining Level 2 or above in the email assessment, and a third (32 per cent) achieved a Level 2 or above in the multiple choice assessment.

Table 11.5 ICT Levels by experience of school

I didn't get anything useful out of school	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	37	70	31	25	60	39	32	66	9	6	20
Entry Level 3	16	17	12	9	8	8	27	29	19	12	10	23
Level 1	15	17	9	8	8	6	17	19	11	26	25	25
Level 2 or above	25	30	10	52	59	26	17	21	5	53	58	32
Unweighted	2253	1718	380	2247	1711	382	2228	1696	379	2274	1733	384

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

Three fifths (59 per cent) of those who felt strongly that school had provided them with nothing useful had a desire to further their education: this group was the most likely to agree with the second statement, saying they wished they had continued on in education to a higher level. Across the whole population of 16-65 year-olds, 48 per cent felt they should have carried on with their education. Respondents who had already studied past the age of 18 naturally had less reason to agree with this statement (38 per cent). Conversely, people who were out of work were more likely than average to feel that they should have carried on (52 per cent); in fact, two fifths (41 per cent) of those who were unemployed and actively seeking work were in strong

agreement with the statement. People from BME backgrounds and those with a limiting disability were also inclined to hold this view (57 per cent and 60 per cent agreement, respectively).²⁷¹

Many of those who wished they had extended their education had plenty of room to improve their skills: the respondents who expressed this wish were more likely than those who did not to fall short of Level 1 in the literacy assessment and Entry Level 3 in the numeracy assessment (Table 11.6).

Table 11.6 Literacy and Numeracy Levels by desire to continue education

I wish I had carried on in education to a higher level	LITERACY			NUMERACY		
	All	Disagree	Agree	All	Disagree	Agree
	%	%	%	%	%	%
Entry Level 1 or below	5	5	6	7	5	9
Entry Level 2	2	1	3	17	15	21
Entry Level 3	8	7	9	25	24	28
Level 1	29	25	33	29	31	26
Level 2 or above	57	62	49	22	25	16
Unweighted	5824	1736	2857	5823	1730	2887

Base: Sfl2011 All aged 16-65 with literacy score / numeracy score

This group also had room to improve their ICT skills, with around half scoring no more than Entry Level 2 in word processing and working with spreadsheets (Table 11.7).

Table 11.7 ICT Levels by desire to continue education

I wish I had carried on in education to a higher level	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	44	52	31	33	37	39	38	47	9	9	11
Entry Level 3	16	15	17	9	8	9	27	26	27	12	12	16
Level 1	15	14	14	8	7	8	17	17	15	26	22	29
Level 2 or above	25	27	18	52	53	46	17	18	11	53	58	43
Unweighted	2253	696	1117	2247	695	1112	2228	689	1105	2274	701	1130

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

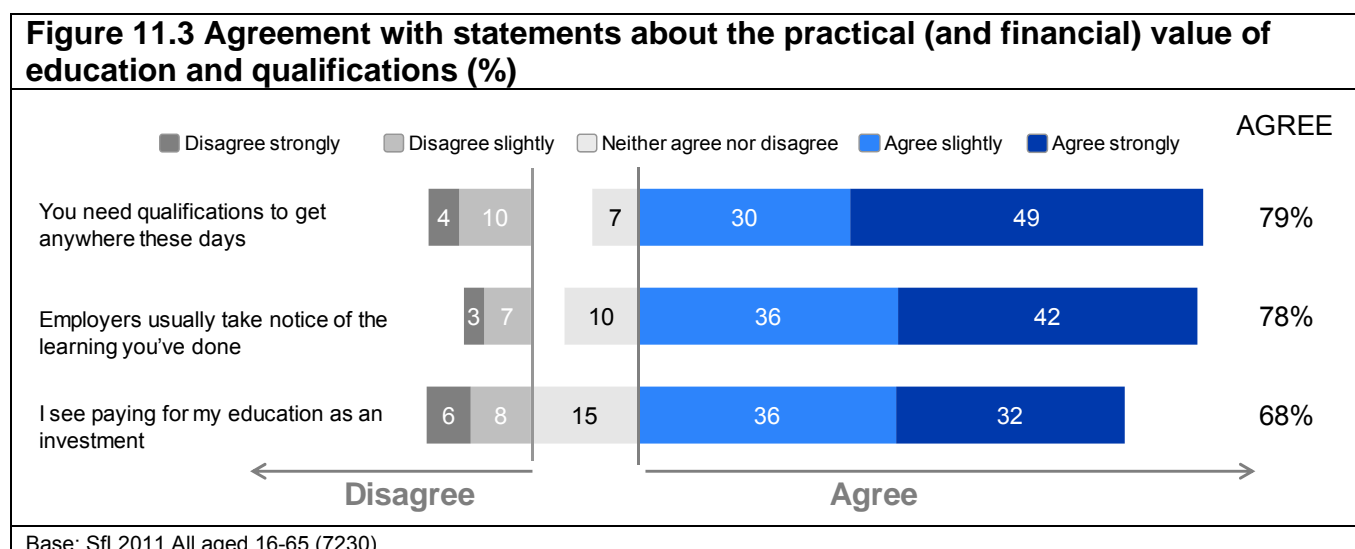
11.3.3 The practical value of education and qualifications

The survey explored the practical (and financial) value which respondents placed on learning and formal qualifications as a means of progressing in the workplace and in other areas of life. Three statements were presented to respondents:

²⁷¹ See Appendix Table 11.A2.

- a) You need qualifications to get anywhere these days
- b) Employers usually take notice of the learning you've done
- c) I see paying for my education as an investment.

The majority of 16-65 year-olds felt that qualifications, learning and education had a practical value, with between two thirds and four fifths in agreement with each of these statements (Figure 11.3).



Half (49 per cent) agreed emphatically that proof of learning, in the form of qualifications, was needed 'to get anywhere these days', and two fifths (42 per cent) felt strongly that any learning that people undertook was usually noted by employers. Strong views on the financial value of education were somewhat less frequent: just a third (32 per cent) strongly agreed that paying for their education was an investment. Respondents from BME backgrounds stood out as being disproportionately likely to agree strongly with all three statements (57 per cent, 44 per cent, and 42 per cent, respectively).²⁷²

The value of qualifications in 'getting anywhere' was more commonly asserted by people in the 45 to 65 age bracket and people in Higher managerial or professional occupations (82 per cent each, compared with an average of 79 per cent). Some subgroups, however, were more likely to object to this notion. Overall, four per cent strongly disagreed, but the proportion was higher amongst respondents who worked as Small employers and own account workers (six per cent), and people with a limiting disability (six per cent). It was also strongly opposed by people who had no qualifications and those whose highest qualification was Level 1 or below (six per cent each), who perhaps felt they were able to make advances in their own lives in spite of their lack of qualifications.²⁷³

People who agreed that qualifications were necessary for 'getting anywhere' were more likely to have been on a literacy course (11 per cent) than those who disagreed (eight per cent). They were also more likely to have received training in ICT (56 per cent of those who agreed,

²⁷² See Appendix Table 11.A3.

²⁷³ See Appendix Tables 11.A4 and 11.A5.

compared with just 50 per cent of those who disagreed). The probability of attending a maths course was not affected by people's views on this topic.

Apart from respondents from BME backgrounds, women were the only demographic subgroup with a higher than average likelihood of believing that employers noticed the learning they had undertaken (80 per cent agreement, compared with an average of 78 per cent). This belief was contested by almost one in ten people across the population (nine per cent), with particularly high proportions amongst respondents with a limiting disability (13 per cent), those who left education aged 16 or below (12 per cent), and people aged between 55 and 65 (11 per cent). Amongst respondents who were currently in work, those in Routine occupations (15 per cent disagreement) and those in lower supervisory and technical occupations (14 per cent disagreement) were the most likely to feel that employers were not inclined to notice any learning they may have done.²⁷⁴

The skills standards of people who agreed with the first statement were no different to those of people who disagreed: their Literacy and Numeracy Levels showed a similar distribution (Table 11.8). Similarly, there was broad correspondence between the literacy and numeracy standards of respondents who felt that employers noticed the learning they had done and respondents who did not share this view (though the former had a slightly higher likelihood of reaching or surpassing Level 2 in the two assessments).

Table 11.8 Literacy and Numeracy Levels by views on the practical value of learning

	LITERACY			NUMERACY		
	All	Disagree	Agree	All	Disagree	Agree
You need qualifications to get anywhere these days	%	%	%	%	%	%
Entry Level 1 or below	5	4	5	7	6	7
Entry Level 2	2	2	2	17	18	17
Entry Level 3	8	7	8	25	24	26
Level 1	29	31	28	29	32	29
Level 2 or above	57	57	57	22	21	22
Unweighted	5824	843	4591	5823	829	4602
	LITERACY			NUMERACY		
	All	Disagree	Agree	All	Disagree	Agree
Employers usually take notice of the learning you've done	%	%	%	%	%	%
Entry Level 1 or below	5	6	4	7	6	7
Entry Level 2	2	2	2	17	22	16
Entry Level 3	8	8	8	25	26	25
Level 1	29	34	28	29	30	29
Level 2 or above	57	51	58	22	16	23
Unweighted	5824	562	4491	5823	577	4488

Base: SFL2011 All aged 16-65 with literacy score / numeracy score

When it came to ICT performance, respondents who agreed that qualifications were necessary 'to get anywhere' achieved similar scores to those who disagreed with this notion (Table 11.9).

²⁷⁴ See Appendix Table 11.A6 and 11.A3.

However, there were differences in ICT skills between people who felt that employers took notice of any learning they had done, and those who felt they did not take notice. The two groups performed alike in the spreadsheet and multiple choice components of the assessment, but those who felt their employers were indifferent to any learning they achieved were more likely to fall short of Entry Level 3 in word processing and email.

Table 11.9 ICT Levels by views on the practical value of learning

You need qualifications to get anywhere these days	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	45	43	31	31	31	39	36	40	9	10	9
Entry Level 3	16	17	16	9	10	8	27	29	27	12	15	12
Level 1	15	14	16	8	7	8	17	18	17	26	25	27
Level 2 or above	25	23	26	52	53	52	17	17	17	53	50	53
Unweighted	2253	333	1778	2247	334	1773	2228	330	1759	2274	339	1793
Employers usually take notice of the learning you've done	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	50	42	31	40	29	39	44	38	9	8	9
Entry Level 3	16	20	16	9	12	8	27	27	27	12	15	12
Level 1	15	12	16	8	7	8	17	15	17	26	28	26
Level 2 or above	25	19	26	52	41	55	17	14	18	53	49	53
Unweighted	2253	216	1764	2247	218	1758	2228	214	1744	2274	220	1779

Base: SfL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

Respondents were more ambivalent regarding the third statement than either of the two previous ones. Fifteen per cent neither agreed nor disagreed that paying for their education was a worthwhile investment. People who finished their education when they were 18 or younger were more likely to give this answer (17 per cent), possibly because few in this group had personal experience of having to invest financially in their own education.

Generally speaking, people who had stayed in education for longer were more inclined to view education as something worth paying for (Table 11.10). People with BME backgrounds were also more likely than average to recognise the potential of education as a worthwhile investment (76 per cent agreement, compared with 68 per cent overall).

Table 11.10 Views on education as an investment by terminal education age

I see paying for my education as an investment	All	TERMINAL EDUCATION AGE		
		16 or under	17-18	19 or over
	%	%	%	%
Agree	68	57	67	76
Neither agree nor disagree	15	18	17	12
Disagree	15	21	15	10
Unweighted	7230	2594	1695	2487

Base: SfL2011 All aged 16-65

As with the previous two statements, a disproportionately high number 55 to 65 year-olds and people with a limiting disability objected to the view that paying for education should be seen as an investment (20 per cent and 22 per cent, respectively, compared with an average of 15 per cent). Their dissent on this issue was shared by a fifth of those who were not in work (19 per cent), principally respondents who were actively seeking employment (21 per cent).²⁷⁵

People who viewed education as an investment performed better in the skills assessments than those who did not: they were more likely to achieve Level 2 or above in both literacy and numeracy (Table 11.11). In addition, they had a higher likelihood of gaining Entry Level 3 or above in word processing, and Level 2 or above in the other two practical ICT skills and the multiple choice component (Table 11.12).

Table 11.11 Literacy and Numeracy Levels by views on education as an investment

I see paying for my education as an investment	LITERACY			NUMERACY		
	All	Disagree	Agree	All	Disagree	Agree
	%	%	%	%	%	%
Entry Level 1 or below	5	9	4	7	11	6
Entry Level 2	2	3	2	17	23	15
Entry Level 3	8	10	7	25	27	25
Level 1	29	34	27	29	26	30
Level 2 or above	57	45	61	22	13	25
Unweighted	5824	844	3922	5823	855	3902

Base: SfL2011 All aged 16-65 with literacy score / numeracy score

²⁷⁵ See Appendix Table 11.A3.

Table 11.12 ICT Levels by views on education as an investment

I see paying for my education as an investment	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	62	39	31	51	27	39	55	36	9	18	7
Entry Level 3	16	11	17	9	9	8	27	24	27	12	17	11
Level 1	15	12	17	8	7	7	17	14	17	26	26	25
Level 2 or above	25	15	28	52	34	58	17	8	20	53	39	57
Unweighted	2253	352	1489	2247	353	1483	2228	350	1473	2274	354	1504

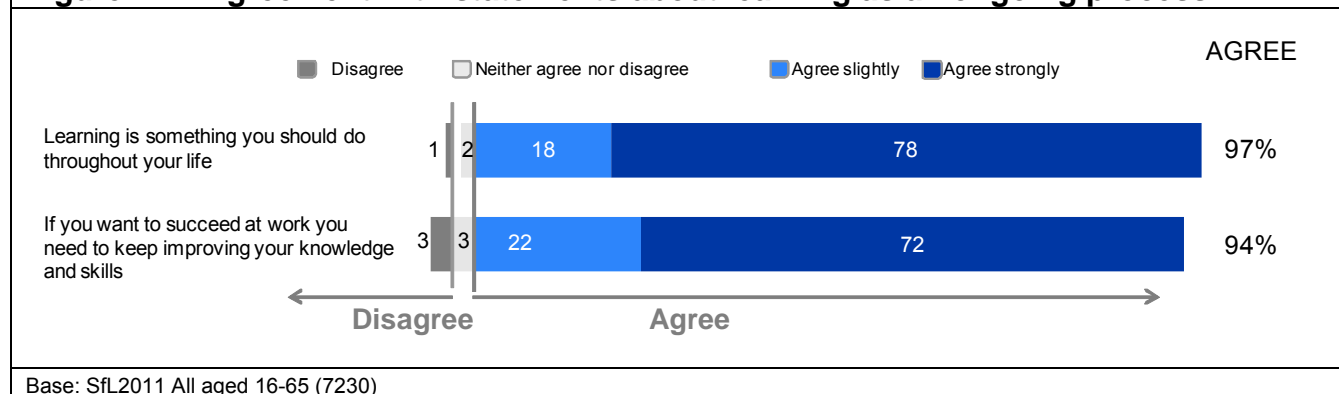
Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

11.3.4 Learning as a continuous process

Respondents were presented with two statements in order to gauge the prevalence of the notion that learning should be an ongoing process of personal and professional development:

- Learning is something you should do throughout your life
- If you want to succeed at work you need to keep improving your knowledge and skills.

Figure 11.4 illustrates the results. Agreement was almost universal for both statements.

Figure 11.4 Agreement with statements about learning as an ongoing process

Only one per cent of the population was at odds with the notion of lifelong learning. Disagreement was more common amongst certain subgroups: 16-19 year-olds, people who were outside the labour market and not in search of work, people with a limiting disability, and those from BME backgrounds (three per cent each).²⁷⁶

A mere three per cent did not believe that continuous improvement was necessary in order to succeed at work and therefore disagreed with the second statement. People in Routine occupations were more likely to disagree (five per cent).²⁷⁷

²⁷⁶ See Appendix Table 11.A7.

²⁷⁷ See Appendix Table 11.A8.

Paradoxically, people from BME backgrounds were more likely than others to regard learning as an ongoing process within the workplace, but less likely than others to think this about learning outside of work. Most respondents in this group agreed that continuous learning and development was required at work as a means to success (96 per cent agreement, compared with 94 per cent overall), but at the same time they had a greater tendency than other respondents to object to the notion that learning should be a lifelong process (three per cent disagreement, compared with one per cent overall).

The longer people stayed in education, the more likely they were to feel strongly in favour of the concept of ongoing learning in life and the workplace (Table 11.13).

Table 11.13 Views on learning as a continuous process by terminal education age

	All	TERMINAL EDUCATION AGE		
		16 or under	17-18	19 or over
	%	%	%	%
Strongly agree: Learning is something you should do throughout your life	78	74	77	84
Strongly agree: If you want to succeed at work you need to keep improving your knowledge and skills	72	68	73	77
Unweighted	7230	2594	1695	2487

Base: Sfl2011 All aged 16-65

Respondents who believed that 'learning is something you should do throughout your life' were more likely to achieve Level 2 or above in the literacy and numeracy assessments, compared to respondents who disagreed with this statement (Table 11.14). Similarly, they were more likely to achieve Level 2 or above in all components of the ICT assessment (Table 11.15).

Table 11.14 Literacy and Numeracy Levels by views on learning as a continuous process

Learning is something you should do throughout your life	LITERACY			NUMERACY		
	All	Disagree	Agree	All	Disagree	Agree
	%	%	%	%	%	%
Entry Level 1 or below	5	17	5	7	17	7
Entry Level 2	2	2	2	17	24	17
Entry Level 3	8	12	8	25	19	26
Level 1	29	33	28	29	27	29
Level 2 or above	57	36	57	22	13	22
Unweighted	5824	73	5626	5823	72	5628
If you want to succeed at work you need to keep improving your knowledge and skills	All	Disagree	Agree	All	Disagree	Agree
	%	%	%	%	%	%
	%	%	%	%	%	%
Entry Level 1 or below	5	13	5	7	17	6
Entry Level 2	2	3	2	17	18	17
Entry Level 3	8	11	8	25	23	26
Level 1	29	22	29	29	24	29
Level 2 or above	57	51	57	22	18	22
Unweighted	5824	127	5497	5823	132	5483

Base: Sfl2011 All aged 16-65 with literacy score / numeracy score

Table 11.15 ICT Levels by views on learning as a continuous process

Learning is something you should do throughout your life	WORD PROCESSING			EMAIL			SPREADSHEET			MULTIPLE CHOICE		
	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	79	43	31	56	31	39	62	38	9	43	9
Entry Level 3	16	0	17	9	0	9	27	29	27	12	31	12
Level 1	15	14	15	8	13	8	17	6	17	26	5	26
Level 2 or above	25	7	26	52	32	53	17	4	17	53	21	53
Unweighted	2253	21	2187	2247	21	2181	2228	21	2162	2274	21	2208
If you want to succeed at work you need to keep improving your knowledge and skills	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree	All	Dis-agree	Agree
	%	%	%	%	%	%	%	%	%	%	%	%
	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	56	43	31	47	30	39	50	38	9	18	9
Entry Level 3	16	21	16	9	8	9	27	30	28	12	17	12
Level 1	15	16	16	8	4	8	17	12	17	26	21	26
Level 2 or above	25	7	26	52	40	53	17	10	17	53	45	53
Unweighted	2253	59	2115	2247	58	2110	2228	57	2094	2274	59	2135

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

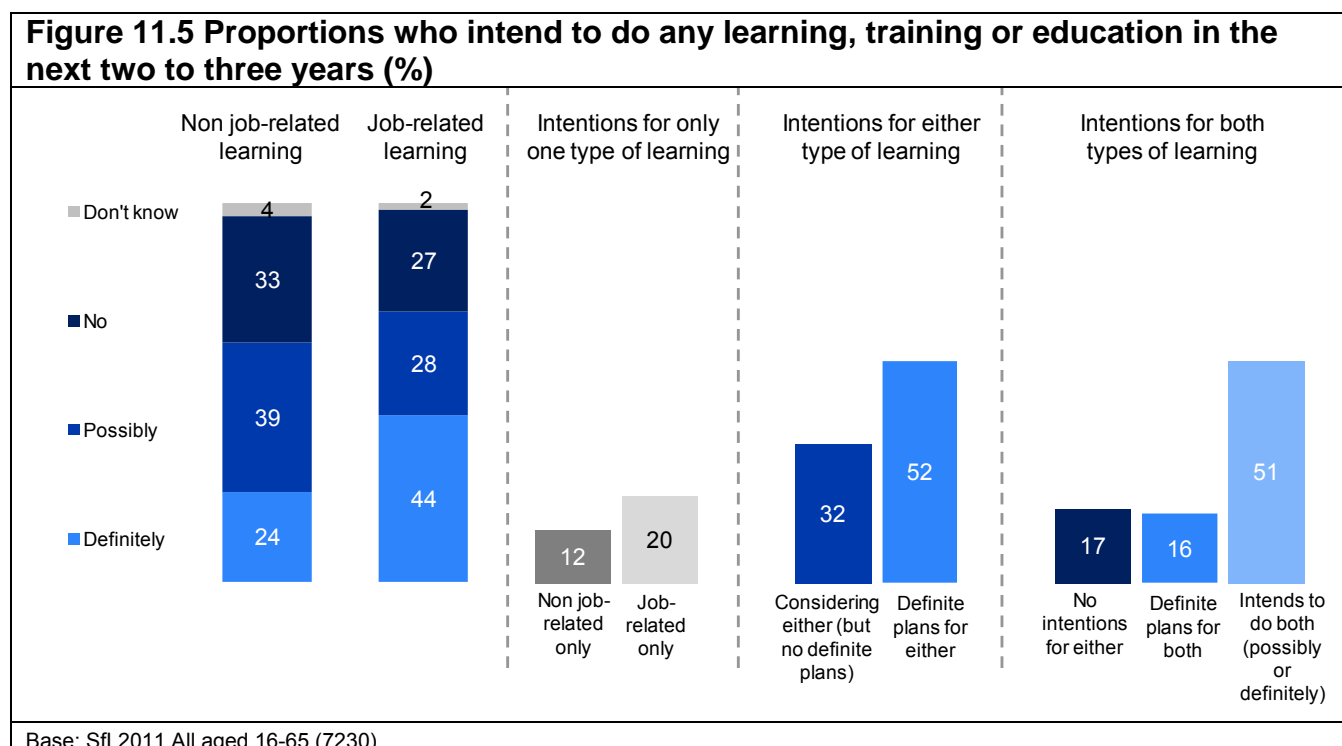
Note: small base sizes

By contrast, there was little difference in the literacy and numeracy standards of those who believed that improvement was necessary to succeed at work and those who objected to this notion. People who held this view were just as likely to score highly in the literacy and numeracy assessments as respondents who did not share their view (though the former did have a lower tendency to score Entry Level 1 or below). The two groups performed equally well in the spreadsheet and multiple choice components, but people who believed in improving knowledge and skills in the workplace were more likely to achieve a Level 2 or above in the email and word processing assessments.

11.4 Future intentions towards learning

Respondents were asked whether they were considering undertaking any learning, training or education in the next two to three years, either in relation to their jobs or in non work-related subjects. One in six people (17 per cent) had no intention of doing this. However, over half of 16-65 year-olds (52 per cent) were definitely planning to do some learning, and a further third of the population (32 per cent) was considering it, but had no definite plans in this regard.

Half (51 per cent) were thinking about, or planning on, undertaking two types of learning: some that was related to their job and some that was not. Overall, it was more common to make plans with regards to job-related learning (Figure 11.5).



The proportion who said they were definitely planning to undertake learning for their jobs was almost double the proportion who said the same regarding non job-related learning (44 per cent versus 24 per cent). This may reflect the fact that some workplaces provide training for their employees, and that this is often mandatory and free of charge for the participants, whereas non job-related training courses need to be sourced and paid for by individuals and undertaken outside of working hours where they may conflict with other commitments.

Many of those who strongly supported the idea that ‘Learning is something you should do throughout your life’ translated this attitude into a definite plan to undertake learning. They were more likely than others to be planning on taking courses or training related to their job (47 per cent, compared with an average of 44 per cent who said they would ‘definitely’ do some job-related learning) and more likely to want to undertake learning unrelated to work (26 per cent, compared with an average of 24 per cent who said they would ‘definitely’ do some non job-related learning). Similarly, almost half of those who were strongly in agreement with the statement ‘If you want to succeed at work you need to keep improving your knowledge and skills’ had definite plans to do courses or training related to their job (49 per cent, compared with an average of 44 per cent).

People who remained in education longer were not only more likely to agree with the two statements regarding ongoing learning (see Section 11.3.4), but also to have definite plans for their own future learning (Table 11.16).

Table 11.16 Proportions with definite plans for future learning by terminal education age

	All	TERMINAL EDUCATION AGE		
		16 or under	17-18	19 or over
	%	%	%	%
Job-related learning	44	30	45	52
Non job-related learning	24	19	24	26
Unweighted	7230	2594	1695	2487

Base: Sfl2011 All aged 16-65

Respondents in search of work arguably have the most to gain by equipping themselves with job-related skills, as these skills could help them secure employment. It is not surprising to find that people in search of work were therefore the most inclined to say that they definitely wanted to undertake job-related training (55 per cent, compared with an average of 44 per cent agreement). On the other hand, people in certain types of employment were more likely than other respondents to have no intentions regarding job-related learning in the future: this was true of Small employers and own account workers, and people in Routine or Intermediate occupations (37 per cent, 32 per cent, and 27 per cent, respectively, compared with an average of 23 per cent disagreement amongst respondents in work).²⁷⁸

One group stood out as being particularly unlikely to have any plans to undertake training or courses: respondents aged 55 to 65. Two thirds of this group had no intention of doing any training in association with their job (64 per cent, compared with an average of 27 per cent who said they had no plans). Moreover, two fifths of 55- 65 year-olds had no plans for future learning in other subjects (42 per cent, compared with an average of 33 per cent who said they had no plans). This age group’s tendency to have a negative outlook on learning (see Section 11.3.1) might partly account for their propensity to avoid making plans for future learning. Respondents who had a limiting disability were likewise indifferent towards the prospect of future learning,

²⁷⁸ See Appendix Table 11.A9.

though it is worth remembering that there is a substantial degree of overlap between this group and people aged 55-65.²⁷⁹

The people who were least inclined to have aspirations or plans for developing themselves through future learning were precisely those who had the greatest room to improve their skills. Respondents who had no plans at all to undertake any learning performed less well in the literacy and numeracy assessments than those who had plans or were considering taking up some learning in the next two to three years (Table 11.17). People with no future plans were more likely than other respondents to gain Entry Level 3 or below in the literacy assessment, and Entry level 2 or below in the numeracy assessment, while proportionately fewer of them reached Level 2 or above in either skill.

Table 11.17 Literacy and Numeracy Levels by whether intends to undertake future learning

Whether would like to do any <u>job-related</u> learning, training or education in the next two to three years	LITERACY				NUMERACY			
	All %	No %	Possibly %	Definitely %	All %	No %	Possibly %	Definitely %
Entry Level 1 or below	5	8	4	4	7	10	6	5
Entry Level 2	2	3	2	1	17	20	17	14
Entry Level 3	8	10	8	7	25	26	25	25
Level 1	29	33	28	26	29	27	30	30
Level 2 or above	57	46	58	63	22	17	21	25
Unweighted	5824	1738	1510	2480	5823	1734	1511	2483
Whether would like to do any <u>non job-related</u> learning, training or education in the next two to three years	All	No	Possibly	Definitely	All	No	Possibly	Definitely
	%	%	%	%	%	%	%	%
Entry Level 1 or below	5	8	3	4	7	10	5	6
Entry Level 2	2	4	1	1	17	23	14	13
Entry Level 3	8	12	6	5	25	28	25	23
Level 1	29	32	28	26	29	24	32	31
Level 2 or above	57	46	62	64	22	15	25	27
Unweighted	5824	1954	2276	1411	5823	1925	2308	1408

Base: Sfl2011 All aged 16-65 with literacy score / numeracy score

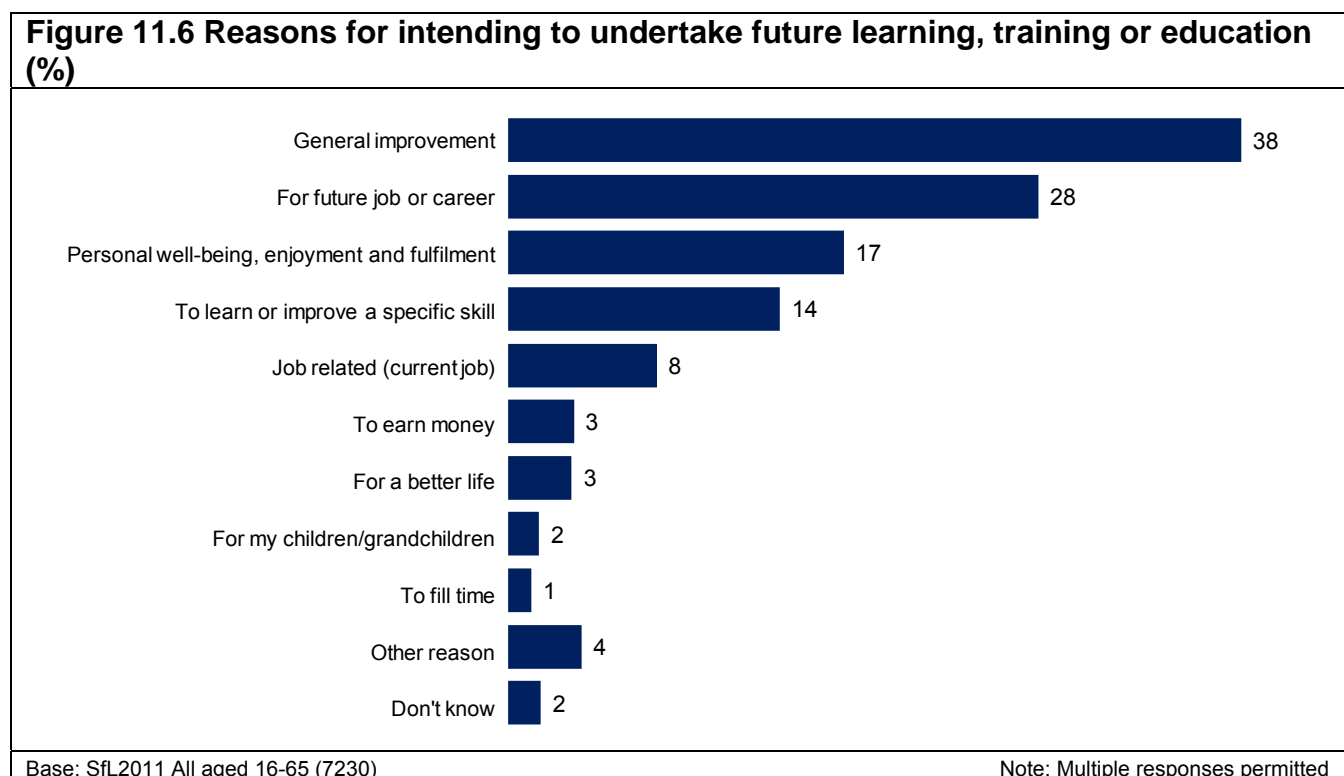
The same was true with regards to ICT skills: those with no intention of improving their skills through job-related or non job-related learning were disproportionately likely to achieve a low score in the four components of the ICT assessment (Table 11.18). Conversely, the respondents who said they would definitely be undertaking learning in the future were more likely than anyone else to already possess considerable skills in the four areas: compared to those who had no plans, around twice as many reached Level 2 or above.

Table 11.18 ICT Levels by whether intends to undertake future learning

Whether would like to do any <u>job-related</u> learning, training or education in the next two to three years	WORD PROCESSING				EMAIL				SPREADSHEET				MULTIPLE CHOICE			
	All	No	Possibly	Definitely	All	No	Possibly	Definitely	All	No	Possibly	Definitely	All	No	Possibly	Definitely
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	66	42	30	31	52	30	19	39	60	34	28	9	22	7	4
Entry Level 3	16	12	18	18	9	9	9	9	27	21	28	31	12	16	12	10
Level 1	15	9	16	19	8	7	7	8	17	10	20	19	26	26	29	23
Level 2 or above	25	13	25	33	52	32	54	64	17	9	17	22	53	36	52	63
Unweighted	2253	665	621	933	2247	663	621	929	2228	658	612	924	2274	670	628	941
Whether would like to do any <u>non job-related</u> learning training or education in the next two to three years	All	No	Possibly	Definitely	All	No	Possibly	Definitely	All	No	Possibly	Definitely	All	No	Possibly	Definitely
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	59	36	31	31	47	23	21	39	55	31	28	9	17	6	5
Entry Level 3	16	13	18	16	9	10	8	8	27	22	30	31	12	16	10	9
Level 1	15	11	18	18	8	7	8	10	17	14	19	18	26	28	25	22
Level 2 or above	25	17	28	35	52	37	61	60	17	9	20	23	53	39	59	64
Unweighted	2253	813	889	492	2247	810	888	490	2228	804	877	488	2274	815	901	499
Base: SfL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score																

11.5 Reasons for future learning

An open-ended question was used to collect the reasons why respondents who intended to undertake learning, training, or education (either related or unrelated to work) wanted to do so. The most common explanation was that it would contribute towards their personal development (a reason given by 38 per cent of all respondents). All the reasons cited by respondents are shown in Figure 11.6.



One of the most significant motives was work: eight per cent explained that the learning or training they intended to take was linked to their current jobs, while over a quarter (28 per cent) gave a reason related to their career plans. Different groups tended to give each of these reasons. Those most likely to link their motives to their current job were 35-54 year-olds (10 per cent) and people in work (10 per cent). Amongst people in work, this reason was mentioned by disproportionately more of those who had their own business (12 per cent), who worked full time (11 per cent), or who worked in managerial or professional occupations (13 per cent). By contrast, people who linked their motives to their future career aspirations tended to be younger (35 per cent of 16-44 year-olds), and they were more likely to have BME backgrounds (34 per cent) or be actively looking for work (43 per cent).²⁸⁰

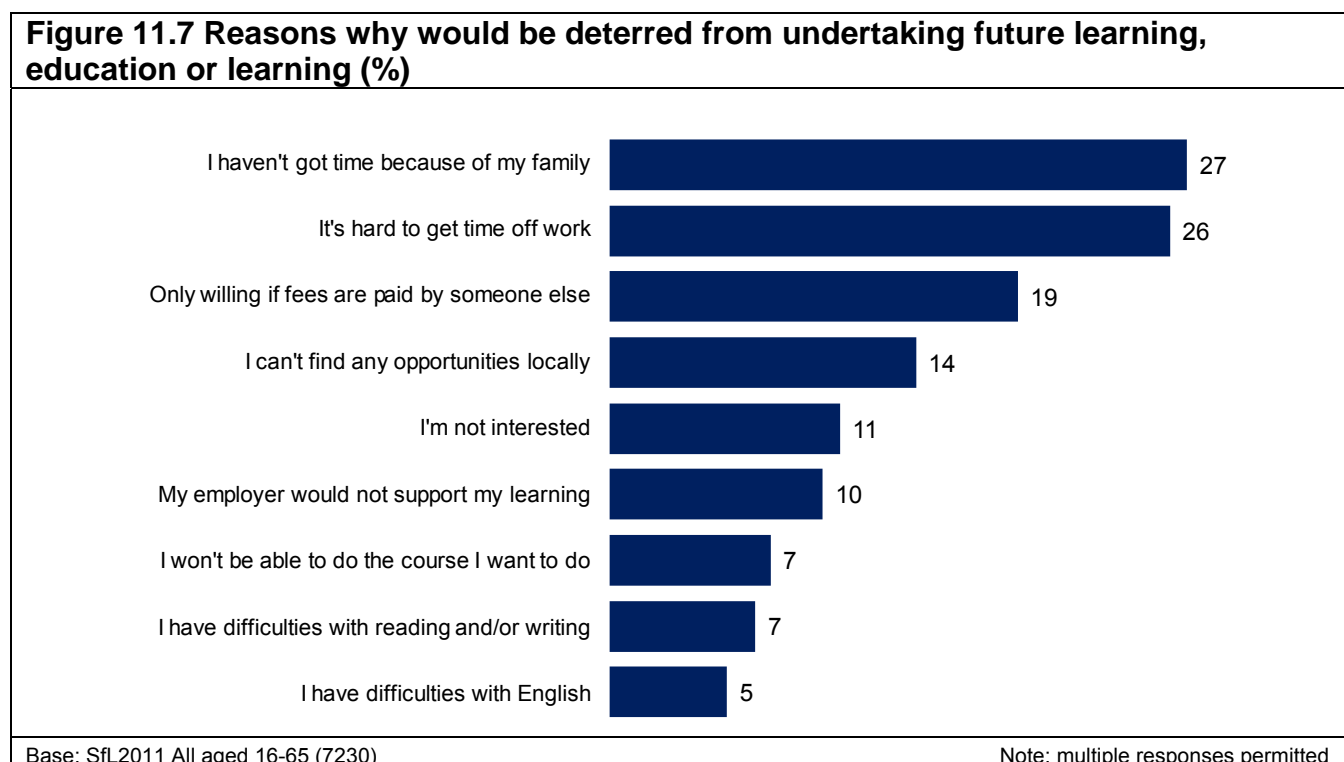
While it was common for people to wish to undertake future learning on practical grounds, non-practical reasons were also mentioned. One in six (17 per cent) respondents felt that taking a course would provide them with a sense of personal wellbeing, enjoyment, or fulfilment, and

²⁸⁰ See Appendix Tables 11.A11 and 11.A12.

small numbers linked their intentions to a 'better life' (three per cent) or viewed learning as a pastime (one per cent).

11.6 Barriers against future learning

Emotional and practical barriers that can deter people from wanting to undertake any learning were also explored. All respondents were shown a list of nine conditions which could put people off from future learning and asked to select which barriers (if any) applied to them.²⁸¹ The proportions that chose each barrier are charted in Figure 11.7.



Over two fifths of respondents (42 per cent) mentioned that time constraints were a major barrier, with equivalent proportions citing constraints due to family (27 per cent) or work (26 per cent), and ten per cent citing both factors. Other frequently cited barriers included the cost of training, deemed an impediment by a fifth of 16-65 year-olds (19 per cent), and the lack of opportunities in the local area, cited by one in seven respondents (14 per cent). Small proportions of the population said they were deterred from undertaking any future learning by a weakness in their literacy skills (seven per cent) or difficulties with English (five per cent). Their perceived weaknesses were born out by their poor performance in the literacy assessment (Table 11.19).

²⁸¹ The question (FBarr in the Background Questionnaire) was phrased in two different ways, one for those who had no intention of undertaking any learning in the next two to three years, and another for those who had already said that they were considering or definitely planning on undertaking some learning in the next two to three years.

Table 11.19 Literacy Levels by literacy-related barriers to future learning

	All	BARRIER	
		I have difficulties with reading and/or writing	I have difficulties with English
	%	%	%
Entry Level 1 or below	5	31	35
Entry Level 2	2	9	6
Entry Level 3	8	17	20
Level 1	29	27	26
Level 2 or above	57	17	13
Unweighted	5824	378	292

Base: SfL2011 All aged 16-65 with literacy score / who cited difficulties with literacy or difficulties with English as a barrier to future learning

The two most common barriers were time-related. Amongst people in work, part-time workers were the most likely to mention restrictions due to family commitments (33 per cent, compared to an average of 28 per cent amongst all people in work). Since part-time workers tend to be female and in the 35-44 age range, these two demographic groups had a higher tendency than the rest of the population to cite this barrier (32 per cent of women, and 45 per cent of 35-44 year-olds). Unsurprisingly, full-time workers were the most likely to mention the problem of getting time off work (42 per cent, compared to an average of 36 per cent amongst all people in work)). Accordingly, it was men (30 per cent) and people aged 25 to 44 (32 per cent) who tended to cite this as a barrier. Amongst those in employment, this reason was more commonly cited by people engaged in Lower supervisory and technical occupations (44 per cent) or those working in Routine occupations or as Small employers and own account workers (39 per cent each).²⁸²

The impact of time restrictions on future learning intentions differed, depending on whether the learning was related to work or was unrelated to the respondents' occupation or job prospects (Table 11.20). Those who cited time barriers were just as likely as other respondents to consider taking a training course related to their job or career (though fewer of them had definite plans for carrying out their intention), suggesting that people who are short of time tend not to forgo job-related training altogether. When it came to non job-related learning, on the other hand, people who cited time barriers were more likely than average to have no intentions at all: an indication perhaps that this type of learning is seen as a luxury that can be dispensed with when faced with time constraints.

²⁸² See Appendix Tables 11.A13 and 11.A14.

Table 11.20 Whether intends to undertake future learning by time-related barriers to future learning

	JOB-RELATED LEARNING			NON JOB-RELATED LEARNING		
	All	I haven't got time because of my family	It's hard to get time off work to do any learning for my job	All	I haven't got time because of my family	It's hard to get time off work to do any learning for my job
	%	%	%	%	%	%
Definite plans	44	39	43	24	18	22
Possible plans	28	32	31	39	40	40
No plans	27	28	25	33	40	36
Unweighted	7230	1988	1764	7230	1988	1764
Base: SfL2011 All aged 16-65 / SfL2011 All aged 16-65 who cited family-related or work-related time constraints as a barrier to future learning						

12 Analysis of policy subgroups

12.1 Key Findings

This chapter explores the basic skills amongst the priority learner groups identified within the original Skills for Life strategy and amongst some of the current key government policy sub-groups.

Unemployed and in receipt of benefits

- Respondents who were unemployed and seeking work were less likely than the rest of the population to achieve Literacy Level 1 or above and/or Numeracy Entry Level 3 or above. There was little change in the standard of skills of this group since 2003. They also had lower than average ICT skills.
- The patterns noted above were mirrored amongst those claiming Job Seeker's Allowance (JSA).

Low skilled adults in employment

- 'Low skilled' employed adults were less likely than employed adults with 'higher' skills to achieve Level 1 or above in literacy and Entry Level 3 or above in numeracy. These respondents also tended to have lower ICT skills.

Adults (16-65) who are not in education, employment or training including young NEETS aged 16-24.

- Fewer NEET than 'non-NEET' respondents were classified at Literacy Level 1 or above and Numeracy Entry Level 3 or above. The proportion of respondents reaching these standards remains unchanged since 2003. This group also exhibited lower ICT skills.
- Within the NEET group, unemployed and economically inactive respondents had similar standards of literacy and numeracy. However the unemployed group tended to outperform the economically inactive group in the ICT assessment.
- Young NEET respondents (those aged 16-24) generally achieved lower literacy and numeracy scores than 'non-NEET' respondents of the same age. Their ICT performance was broadly similar.

Those at risk from social and digital exclusion

- Low literacy, numeracy and ICT skills were associated with the indicators of both social exclusion and digital exclusion.

Individuals whose first language is not English

- Respondents whose first language was not English tended to have weaker skills than native English speakers. The standard of their skills was broadly in line with those of their counterparts from the Skills for Life 2003 Survey.

Individual with disabilities, including learning difficulties

- Respondents with a limiting disability or learning difficulty had lower than average

literacy and numeracy skills. Numeracy standards are unchanged since 2003, but the literacy of both groups has improved, with more now reaching Level 1 or above.

Young people (aged under 25)

- The literacy performance of young people was broadly in line with that of older people. However, their numeracy performance was weaker and had fallen since 2003. ICT performance tended to be strong.
- Despite being less likely to be in education or employment, young lone parents did not have lower literacy skills than young people in general. They were, however, slightly less likely to achieve Entry Level 3 or above on the numeracy assessment.

12.2 Introduction

Skills needs and barriers to opportunities vary widely for each individual, and this requires different responses.²⁸³ As identified in earlier chapters, skill standards and needs vary by a range of factors such as education (Chapter 7) and employment (Chapter 8). These factors, however, interrelate, and individuals do not fall into distinct categories. The aim of this chapter is to examine the skills needs and abilities of a variety of groups within society, bringing together some of these interrelating factors.

At the time of commissioning the Skills for Life 2011 Survey (SfL2011), the government had identified four priority learner groups within the Skills for Life strategy, for whom they felt needed their collective efforts and support to improve their Skills for Life so that they were not left behind:²⁸⁴

1. People who are unemployed and on benefits
2. Low Skilled Adults in employment
3. Prisoners and those supervised in the community
4. Other groups at risk of social exclusion including some ethnic minorities and those living in the most disadvantaged areas of the country.

In addition, English for Speakers of Other languages (ESOL) was a key part of the strategy.

In 2010 additional groups became of interest including: individuals who are Not in Employment, Education or Training ('NEET'), those who are socially and digitally excluded, people with disabilities and learning difficulties, and young people.

This chapter explores the basic skills amongst the priority learner groups identified within the original Skills for Life strategy and amongst some of the current key government subgroups.

²⁸³ Department for Business, Innovation and Skills (2010) *Skills for Sustainable Growth*. Strategy Document, available online at: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/s/10-1274-skills-for-sustainable-growth-strategy.pdf>, accessed on 28/03/12.

²⁸⁴ Department for Innovation, Universities and Skills (2009) *Skills for Life: Changing Lives*, available online at: <http://www.bis.gov.uk/assets/biscore/corporate/migratedD/publications/S/SkillsforLifeChangingLives>, accessed on 28/03/12.

Some of the sub-groups analysis is based on very small base sizes and therefore must be treated with caution.

12.3 People who are unemployed and on benefits

The relationship between employment and basic skills Levels was documented in the Skills for Life 2003 Survey (SfL2003). As reported in a recent report by the National Research and Development Centre (NRDC), 'high levels of literacy, and especially numeracy, are associated with improved employment prospects, and higher skills levels with higher earning'.²⁸⁵ Concern regarding unemployment and standards of basic skills is widespread throughout government, with the Department for Work and Pensions estimating that, of those adults who are unemployed for six months or more, 30 per cent have literacy and numeracy below 'functional' levels.²⁸⁶

Chapter 8 examined the relationship between economic activity and basic skills, and identified that respondents who were economically active tended to perform much better than those who were outside the labour market in the literacy, numeracy and ICT assessments.

12.3.1 Unemployed and seeking work

In 2011 five per cent of respondents were unemployed and seeking work.²⁸⁷ This represents a small increase from three per cent in 2003. Reflecting the findings from Chapter 8, these respondents were less likely than average to achieve Level 1 or above in literacy and Entry Level 3 or above in numeracy (Table 12.1). There has been little change in the literacy and numeracy of this group since 2003.²⁸⁸ Performance on the ICT assessment was stronger, with scores broadly in line with the average (Table 12.2).²⁸⁹ Whilst some differences are apparent (particularly for the word processing and spreadsheet components), these do not reach conventions of statistical significance (at the five per cent confidence level) due to the limited sizes of the sub groups.

²⁸⁵ Reisenberger, A., D. Barton, C. Satchwell, A. Wilson, C. Law and S. Weaver (2010) *Engaging Homeless, Black and Minority Ethnic and Other Priority Groups in Skills for Life*. National Research and Development Centre for Adult Literacy and Numeracy Research Report, available online at: http://www.nrdc.org.uk/publications_details.asp?ID=182#, accessed on 28/03/12: p.11.

²⁸⁶ Department for Innovation, Universities and Skills (2009) *Skills for Life: Changing Lives*, available online at: <http://www.bis.gov.uk/assets/biscore/corporate/migratedD/publications/S/SkillsforLifeChangingLives>, accessed on 28/03/12: p.12.

²⁸⁷ Defined as looking for any kind of paid work or a place on a government scheme during the last four weeks (and if offered a job or a place on a government training scheme they would have been available to start within the next two weeks).

²⁸⁸ See Appendix Table 12.A1.

²⁸⁹ For full breakdowns see Appendix Table 12.A2.

Table 12.1 Literacy and Numeracy Levels amongst those who are unemployed and looking for work

	LITERACY		NUMERACY	
	All	Unemployed and looking for work	All	Unemployed and looking for work
	%	%	%	%
Entry Level 1 or below	5	7	7	11
Entry Level 2	2	2	17	25
Entry Level 3	8	13	25	31
Level 1	28	35	29	19
Level 2 or above	57	43	22	14
Literacy - Entry Level 3 or below / Numeracy - Entry Level 2 or below	15	22	24	36
Literacy - Level 1 or above / Numeracy - Entry Level 3 or above	85	78	76	64
Unweighted	5824	305	5823	294

Base: Sfl2011 All aged 16-65 literacy score / SFL 2011 All aged 16-65 with numeracy score

Table 12.2 ICT Levels amongst those who are unemployed and looking for work

	WORD PROCESSING		EMAIL		SPREADSHEET		MULTIPLE CHOICE	
	All	Unemployed and looking for work	All	Unemployed and looking for work	All	Unemployed and looking for work	All	Unemployed and looking for work
	%	%	%	%	%	%	%	%
Entry Level 2 or below	43	53	31	34	39	46	9	10
Entry Level 3 or above	57	47	69	66	61	54	91	90
Unweighted	2253	124	2247	123	2228	121	2274	124

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

12.3.2 People on active work-seeking benefits

A further key group of interest is those on active work-seeking benefits.²⁹⁰ Three per cent of respondents claimed to be on Jobseeker's Allowance (JSA), which represents a small increase from two per cent in 2003. These respondents tended to achieve lower scores than average across literacy and numeracy. For literacy, the biggest difference in performance was at the Level 2 or above category, with two fifths (39 per cent) of JSA claimants achieving this, compared to the average of just under three fifths (57 per cent) (Table 12.3).

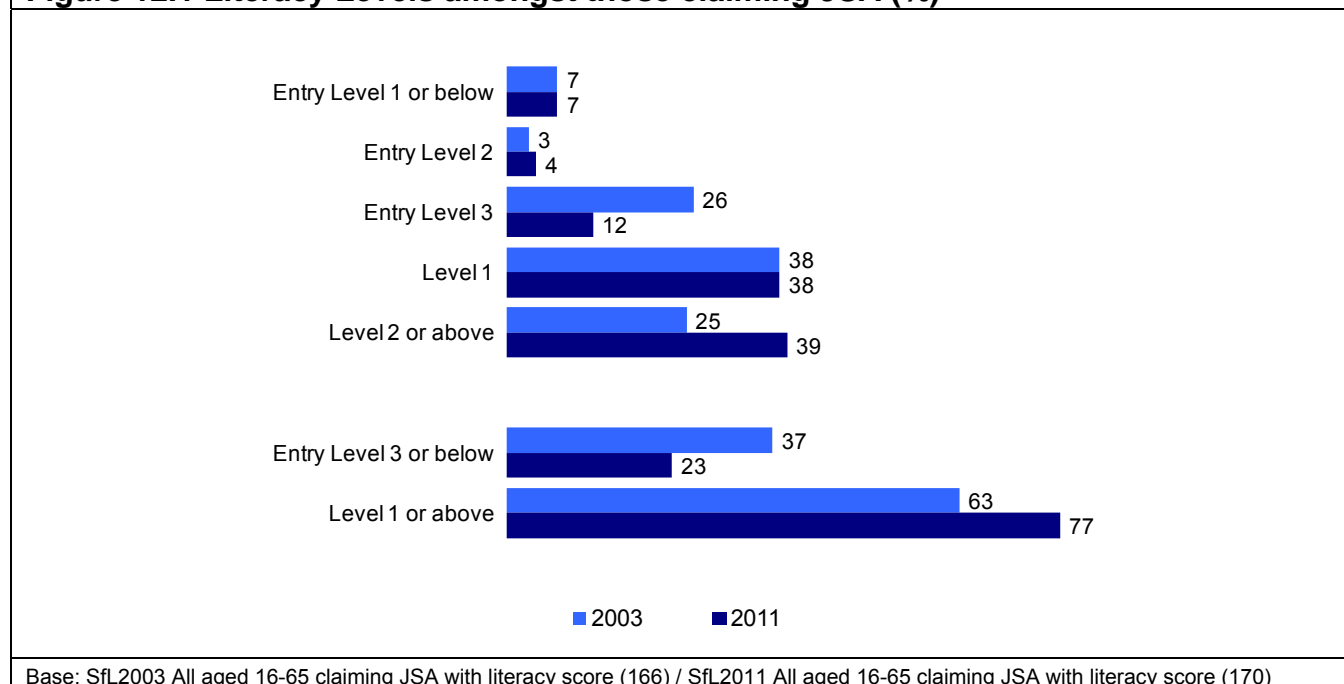
²⁹⁰ For the survey this is defined as people claimed Job Seekers Allowance (JSA). JSA is the principle benefit paid to eligible people who are unemployed and looking for work.

Table 12.3 Literacy and Numeracy Levels amongst those claiming JSA

	LITERACY		NUMERACY	
	All	Claiming JSA	All	Claiming JSA
	%	%	%	%
Entry Level 1 or below	5	7	7	12
Entry Level 2	2	4	17	31
Entry Level 3	8	12	25	29
Level 1	28	38	29	16
Level 2 or above	57	39	22	11
Literacy - Entry Level 3 or below)/ Numeracy - (Entry Level 2 or below	15	23	24	44
Literacy - Level 1 or above / Numeracy - Entry Level 3 or above	85	77	76	56
Unweighted	5824	170	5823	164

Base: Sfl2011 All aged 16-65 with literacy score / All Sfl2011 aged 16-65 with numeracy score

An improvement was evident in the literacy performance of this group, with the proportion achieving Level 1 or above rising from 63 per cent in 2003 to 77 per cent in 2011. Upon closer inspection, changes were evident at both Entry Level 3 and Level 2 or above (Figure 12.1). No changes in the numeracy performance of this group were apparent.²⁹¹

Figure 12.1 Literacy Levels amongst those claiming JSA (%)

²⁹¹ See Appendix Table 12.A3.

Respondents claiming JSA also tended to achieve lower scores than average across the three practical ICT components (ranging from 19 percentage points below the average proportion achieving Entry Level 3 or above for the spreadsheet component, to 15 percentage points below the average for the email component) (Table 12.4).²⁹²

Table 12.4 ICT Levels amongst those claiming JSA

	WORD PROCESSING		EMAIL		SPREADSHEET		MULTIPLE CHOICE	
	All %	Claiming JSA %	All %	Claiming JSA %	All %	Claiming JSA %	All %	Claiming JSA %
Entry Level 2 or below	43	61	31	46	39	58	9	16
Entry Level 3 or above	57	39	69	54	61	42	91	84
Unweighted	2253	71	2247	71	2228	69	2274	70

Base: Sfl2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

12.4 Low skilled adults in employment

The 2009 Skills for Life strategy²⁹³ highlighted concern regarding individuals who are in employment but have weak basic skills, emphasising that these individuals may not be able to perform their job effectively. For example, 40 per cent of Confederation of British Industry (CBI) member employers believe that their employees' poor literacy, language and numeracy skills have a negative impact on customer service, and 34 per cent report a negative impact on productivity.²⁹⁴ Skills needs amongst those in employment have been documented elsewhere, for example, the National Employer Skills Survey for England 2009 (NESS 2009)²⁹⁵ found that the proportion of employers with any staff at their establishment not fully proficient in their jobs (i.e. that have a skills gap) was 19 per cent. Amongst employers who reported skills gaps, one in four (24 per cent) reported there were literacy skills gaps, and one in five (21 per cent) reported numeracy skills gaps. The Coalition Government has identified as a priority those adults who are unemployed and lack basic literacy and numeracy

In 2011, 13 per cent of respondents were 'low skilled' and in paid employment. 'Low skilled' was defined as respondents who had finished their education and whose highest qualification was below a Level 2 (including respondents with no qualifications). These respondents were less

²⁹² See Appendix Table 12.A4.

²⁹³ Department for Innovation, Universities and Skills (2009) *Skills for Life: Changing Lives*, available online at: <http://www.bis.gov.uk/assets/biscore/corporate/migratedD/publications/S/SkillsforLifeChangingLives>, accessed on 28/03/12: p. 7.

²⁹⁴ Dugdale, G. and C. Clark (2008) *Literacy Changes Lives: An Advocacy Resource*. National Literacy Trust. London: National Literacy Trust. Also available online at: http://www.literacytrust.org.uk/assets/0000/0401/Literacy_changes_lives_2008.pdf, accessed on 28/03/12: p. 23.

²⁹⁵ Shury, J., M. Winterbotham, K. Oldfield, M. Spilsbury, and S. Constable (2010) *National Employer Skills Survey for England 2009: Main Report*. UK Commission for Employment and Skills Evidence Report 23, available online at: <http://www.ukces.org.uk/assets/bispartners/ukces/docs/publications/evidence-report-23-ness-main-report-2009.pdf>, accessed 28/03/12.

likely than their 'medium-high'²⁹⁶ skilled employed counterparts to achieve Level 1 or above in literacy. In particular they were less likely to achieve a Level 2 score, but more likely to achieve an Entry Level 2, Entry Level 3 and Level 1 score (Table 12.5).

Table 12.5 Literacy Levels amongst 'low skilled' respondents in paid employment in 2003 and 2011

	2003			2011		
	All	'Low skilled' in paid employment	'Medium-high skilled' in paid employment	All	'Low skilled' in paid employment	'Medium-high skilled' in paid employment
	%	%	%	%	%	%
Entry Level 1 or below	3	5	1	5	6	2
Entry Level 2	2	4	*	2	5	1
Entry Level 3	11	16	5	8	11	5
Level 1	40	46	38	28	41	26
Level 2 or above	44	29	55	57	37	67
Entry Level 3 or below	16	25	7	15	22	7
Level 1 or above	84	75	93	85	78	93
Unweighted	7874	1457	3501	5824	701	2793

Base: Sfl2003 All aged 16-65 with literacy score / Sfl2011 All aged 16-65 with literacy score

For numeracy, a similar pattern emerges, with these respondents less likely than their 'medium-high skilled' employed counterparts to achieve Entry Level 3 or above. In particular a lower proportion of these respondents achieved a Level 1 or a Level 2 score; and a higher proportion achieved an Entry Level 3 score, an Entry Level 2 score and an Entry Level 1 or below score (Table 12.5).

²⁹⁶ 'Medium-high' skilled respondents are those who have finished their education and whose highest qualification is at Level 2 or above.

Table 12.6 Numeracy Levels amongst 'low skilled' respondents in paid employment in 2003 and 2011

	2003			2011		
	All	'Low skilled' in paid employment	'Medium-high skilled' in paid employment	All	'Low skilled' in paid employment	'Medium-high skilled' in paid employment
	%	%	%	%	%	%
Entry Level 1 or below	5	7	2	7	9	3
Entry Level 2	16	23	9	17	24	11
Entry Level 3	25	33	21	25	34	22
Level 1	28	24	32	29	25	35
Level 2 or above	25	13	37	22	8	30
Entry Level 2 or below	21	30	11	24	34	14
Entry Level 3 or above	79	70	89	76	66	86
Unweighted	8040	1492	3518	5823	690	2799

Base: Sfl2003 All aged 16-65 with numeracy score / Sfl2011 All aged 16-65 with numeracy score

In comparison to 2003, there has been no change in the proportion of these respondents achieving a Level 1 or above score in literacy. There has, however, been an increase in the proportion achieving Literacy Level 2 or above, but unlike the trend seen for all respondents, the proportion at Entry Level 3 has decreased, and the proportion at Level 1 has remained relatively unchanged. The data is displayed in Table 12.5. For numeracy the proportion of 'low skilled' respondents in paid employment performing at Entry Level 3 or above has remained relatively unchanged since 2003. However, there has been a small decrease in the proportion being classified at Level 2 or above (Table 12.6).

The ICT performance of respondents in 'low skilled' paid employment tended to be lower across the four ICT components, with a much smaller proportion of these respondents performing at Entry Level 3 or above, than amongst all respondents or 'medium-high skilled' employees (Table 12.7).²⁹⁷

²⁹⁷ See Appendix Table 12.A5.

Table 12.7 ICT Levels of 'low skilled' respondents in paid employment

	All	'Low skilled' in paid employment	'Medium-high skilled' in paid employment
	%	%	%
WORD PROCESSING			
Entry Level 2 or below	43	72	29
Entry Level 3 and above	57	28	71
Unweighted	2253	262	1098
EMAIL			
Entry Level 2 or below	31	51	19
Entry Level 3 and above	69	49	81
Unweighted	2247	260	1097
SPREADSHEET			
Entry Level 2 or below	39	57	28
Entry Level 3 and above	61	43	72
Unweighted	2228	260	1082
MULTIPLE CHOICE			
Entry Level 2 or below	9	17	3
Entry Level 3 and above	91	83	97
Unweighted	2274	265	1112
Base: Sfl2011 All aged 16-65 with multiple choice / word processing / email / spreadsheet score			

12.4.1 Low skilled adults in low paid employment

A further group of interest is those 'low skilled' respondents in 'low paid' employment. 'Low skilled' is defined in line with the definition in the previous section, and 'low paid' can be defined as respondents who work full time and earn £12,000 a year or less.²⁹⁸

This group represents one per cent of survey respondents. Due to the small base size of this group, more detailed analysis is not possible.

12.5 Individuals who are not in education, employment or training

Just over one fifth (22 per cent) of all respondents (those aged 16-65 inclusive) were not in education, employment or training (known as 'NEET'). This represents a small decrease from 24 per cent in 2003.

Within this NEET category, there are distinct groups: those who are unemployed and looking for work, and those who are not looking for work and are therefore economically inactive. Those who are unemployed (using the International Labour Organisation's (ILO) definition of

²⁹⁸ It is not possible to identify respondents who earn the minimum wage or below as the number of hours worked is not recorded in the survey (only full time or part time status was collected). This group has also been restricted to those who work full time, because it is not possible to calculate 'low' earnings amongst the part time employees.

unemployment)²⁹⁹ account for 20 per cent of this NEET group (four per cent of all respondents), and those who are economically inactive account for 80 per cent (18 per cent of all respondents). Since 2003, the NEET unemployed group has increased slightly (from three per cent of all respondents in 2003), and the NEET economically inactive group has decreased (from 21 per cent of all respondents in 2003).³⁰⁰

The NEET economically inactive category consists of different groups of people including: those who are looking after the family and home, those who are temporarily sick or injured, those who are long term sick or disabled and those who are retired. The full breakdown is shown in Table 12.8

Table 12.8 Breakdown of the NEET group

	All %	NEET %	Economically inactive NEET %
ALL			
In employment, education or training	78		
Not in employment education or training (NEET)	22	100	
NEET			
Unemployed	4	20	
'Other - economically inactive'	18	80	
NEET economically inactive			100
Looking after the family and home	6	28	35
Temporarily sick or injured	*	2	2
Long term sick or disabled	4	17	21
Retired from paid work	6	25	31
Something else	2	8	10
Unweighted	7230	1923	1593

Base: Sfl2011 All aged 16-65

NEET respondents had lower literacy than respondents in education, employment or training; just under three quarters (73 per cent) of NEET respondents performed at Level 1 or above in the literacy assessment, compared to 89 per cent of respondents who were not NEET. As can be seen in Table 12.9, this is predominantly driven by the differing proportion achieving a Level 2 or above score. Performance between the two NEET groups was broadly similar, although both groups were outperformed by the 'non NEET' group.

²⁹⁹ The ILO 'Unemployed' group comprise of all persons who during the reference period were: a) without work, b) available for work, c) seeking work. The full description available online at: <http://laborsta.ilo.org/applv8/data/c3e.html>, accessed 28/03/12.

³⁰⁰ See Appendix Table 12.A6.

Table 12.9 Literacy Levels amongst the NEET group

	ALL			NEET	
	All	In education, employment and training	Not in education, employment or training (NEET)	NEET – Unemployed	NEET – Economically inactive
	%	%	%	%	%
Entry Level 1 or below	5	3	10	7	11
Entry Level 2	2	2	4	3	4
Entry Level 3	8	6	13	14	12
Level 1	28	28	32	37	30
Level 2 or above	57	61	41	40	42
Entry Level 3 or below	15	11	27	23	28
Level 1 or above	85	89	73	77	72
Unweighted	5824	4280	1544	266	1278

Base: Sfl2011 All aged 16-65 with literacy score / Sfl2011 All aged 16-65 NEET with literacy score

The proportion of NEET respondents achieving Level 1 or above in literacy has not changed since 2003. In line with all respondents, there has been an increase in the proportion classified at Level 2 or above (33 per cent in 2003 compared to 41 per cent in 2011) and a decrease at Level 1 (39 per cent versus 32 per cent). At the lowest end of the spectrum there has been an increase from seven per cent being classified at Entry Level 1 or below in 2003 to 10 per cent in 2011.³⁰¹

NEET respondents also tended to have lower numeracy than those in education, employment or training (Table 12.10).

³⁰¹ See Appendix Table 12.A7.

Table 12.10 Numeracy Levels amongst the NEET group

	ALL			NEET	
	All	In education, employment and training	Not in education, employment or training (NEET)	NEET – Unemployed	NEET – Economically inactive
	%	%	%	%	%
Entry Level 1 or below	7	5	14	11	14
Entry Level 2	17	15	25	25	25
Entry Level 3	25	25	28	33	27
Level 1	29	31	21	18	21
Level 2 or above	22	25	12	12	12
Entry Level 2 or below	24	19	39	37	39
Entry Level 3 or above	76	81	61	63	61
Unweighted	5823	4288	1535	260	1275

Base: Sfl2011 All aged 16-65 with numeracy score / Sfl2011 All aged 16-65 NEET with numeracy score

Three fifths (61 per cent) achieved Entry Level 3 or above compared to 81 per cent of their 'non-NEET' counterparts. The differences in performance were slightly larger for numeracy than for literacy; a 19 percentage point difference was apparent between the two groups for achieving Entry Level 3 or above in numeracy, compared to a 15 percentage point difference for achieving Level 1 or above in literacy. As with literacy, numeracy performance between the two NEET groups (those unemployed and those economically inactive) was comparable, but both groups were lower than the 'non NEET' group. The numeracy performance of the NEET group remains relatively unchanged from 2003.³⁰²

NEET respondents had substantially lower ICT performance across the four components. Across the three practical components, there was around a 30 percentage point difference in the proportion of NEETs achieving Entry Level 3 or above, compared to the 'non NEET' group (Table 12.11).³⁰³ However, unlike literacy and numeracy, the performance of the two NEET groups varied, with those unemployed more likely than those economically inactive to achieve Entry Level 3 or above. This indicates that there is a clear distinction in the ICT usage of these groups. Those who were unemployed were more likely to be frequent computer users (74 per cent) than those who were economically inactive (58 per cent). This may be because they are likely to have been in the workforce more recently or possibly carrying out computer based activities such as online job searching during their unemployment period.

³⁰² See Appendix Table 12.A8.

³⁰³ See Appendix Table 12.A9.

Table 12.11 ICT Levels amongst the NEET group

	ALL			NEET	
	All	In education, employment and training	Not in education, employment or training (NEET)	NEET – Unemployed	NEET – Economically inactive
	%	%	%	%	%
WORD PROCESSING					
Entry Level 2 or below	43	37	67	53	70
Entry Level 3 and above	57	63	33	47	30
Unweighted	2253	1660	593	103	490
EMAIL					
Entry Level 2 or below	31	25	53	33	58
Entry Level 3 and above	69	75	47	67	42
Unweighted	2247	1658	589	102	487
SPREADSHEET					
Entry Level 2 or below	39	32	63	48	66
Entry Level 3 and above	61	68	37	52	34
Unweighted	2288	1641	587	100	487
MULTIPLE CHOICE					
Entry Level 2 or below	9	6	21	10	24
Entry Level 3 and above	91	94	79	90	76
Unweighted	2274	1678	596	103	493
Base 1: Sfl2011 All aged 16-65 with multiple choice / word processing / email / spreadsheet score					
Base 2: Sfl2011 All aged 16-65 NEET with multiple choice / word processing / email / spreadsheet score					

As identified earlier, respondents were economically inactive for a range of reasons. It is therefore interesting to examine how skills vary between these different groups. The literacy and numeracy performance of these groups are shown in Table 12.12.³⁰⁴

³⁰⁴ For full breakdowns see Appendix Table 12.A10.

Table 12.12 Literacy and Numeracy Levels amongst the NEET 'economically inactive' group

	All	Looking after the home and family	Temporarily sick or injured	Long term sick or disabled	Retired from paid work	Something else
	%	%	%	%	%	%
LITERACY						
Entry Level 3 or below	15	24	20	43	17	42
Level 1 or above	85	76	80	57	83	58
Unweighted	5824	407	34	296	442	99
NUMERACY						
Entry Level 2 or below	24	42	41	56	25	42
Entry Level 3 or above	76	58	59	44	75	58
Unweighted	5823	414	34	276	458	93
Base: Sfl2011 All aged 16-65 'other' economically inactive with literacy scores / Sfl2011 All aged 16-65 'other' economically inactive respondents with numeracy scores						

Note: Small base size

Those who had retired from paid work performed in line with the average on both the literacy and numeracy assessment. This suggests that recent retirement does not lead to a skills reduction. This is in accordance with the generational analysis in Chapter 6, which found that whilst numeracy standards declined amongst the oldest generation, retirees performed at a similar standard to those in work (even when controlling for (small) differences in occupational profile). For literacy no such decline was evident. It is not possible, however, to explore this further as retirement age was not collected in the survey.

Long term sick and disabled respondents also tended to have lower than average literacy and numeracy, as did those who were looking after the family and home. The latter group's weak performance on the numeracy assessment was particularly notable: 58 per cent were classified at Entry Level 3 or above compared to 76 per cent of all respondents. Since nearly all respondents in this group (93 per cent) were female, their poor performance is likely to be linked to gender: as reported in Chapter 5, women tended to achieve lower scores in the numeracy assessment.

In respect of the ICT assessment, a different pattern emerged. Across the three practical components of the assessment, the performance of the NEET 'economically inactive' groups tended to be lower than average.³⁰⁵ For those who were looking after the family and home, and those who were long term sick or disabled, this may be related to time spent outside the labour market. Whilst time outside the labour market may likewise be a contributing factor in the relatively poor performance of those who were retired, age is also likely to play a role: these respondents were all over the age of 44 and, as Chapter 5 showed, ICT performance was lower amongst the older age groups.

³⁰⁵ See Appendix Table 12.A11.

12.5.1 Young people who are Not in Employment Education or Training (NEET)

The government is committed to reducing the numbers of 18-24 year-olds who are NEET.³⁰⁶ In 2011, fifteen per cent of respondents below the age of 25 were NEET. Just under half (46 per cent) of these were unemployed (seven per cent of all under-25s), and just over half (54 per cent) were economically inactive (eight per cent of all under-25s).

As might be expected, NEET respondents under the age of 25 generally achieved lower literacy and numeracy scores than their 'non NEET' counterparts. The data for literacy are shown in Table 12.13 and for numeracy in Table 12.14.

Young unemployed NEET respondents were more likely to achieve Level 1 or above in literacy than those in the NEET economically inactive group, and were just as likely as all young 'non NEETs' to achieve Level 1 or above (86 per cent versus 88 per cent).

Table 12.13 Literacy Levels amongst 16-24 year-olds and amongst 16-24 year old NEET respondents

	ALL 16-24 YEAR-OLDS			16-24 YEAR-OLDS NEET	
	All	In education, employment and training	Not in education, employment or training (NEET)	NEET – Unemployed	NEET – Economically inactive
	%	%	%	%	%
Entry Level 1 or below	4	3	6	3	8
Entry Level 2	1	1	2	-	5
Entry Level 3	9	8	16	11	21
Level 1	29	28	36	47	26
Level 2 or above	57	60	40	39	41
Entry Level 3 or below	14	12	24	14	33
Level 1 or above	86	88	76	86	67
Unweighted	732	602	130	60	70

Base: Sfl2011 All aged 16-24 with literacy score / Sfl2011 All aged 16-24 NEET with literacy score

For numeracy those in the young NEET economically inactive group were less likely than the 'non NEET' group to achieve Entry Level 3 or above. Due to the small base sizes, no other apparent differences illustrated in the table reach the conventional levels of statistical significance (at the five per cent confidence level).

³⁰⁶ Department for Business, Innovation and Skills (2010) *Skills for Sustainable Growth*. Strategy Document, available online at: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/s/10-1274-skills-for-sustainable-growth-strategy.pdf>, accessed on 28/03/12: p. 60.

Table 12.14 Numeracy Levels amongst 16-24 year-olds and amongst 16-24 year old NEET respondents

	ALL 16-24 YEAR-OLDS			16-24 YEAR-OLDS NEET	
	All	In education, employment and training	Not in education, employment or training (NEET)	NEET – Unemployed	NEET – Economically inactive
	%	%	%	%	%
Entry Level 1 or below	6	4	13	8	17
Entry Level 2	21	20	27	26	28
Entry Level 3	29	27	38	38	39
Level 1	27	30	14	18	11
Level 2 or above	17	19	8	11	6
Entry Level 2 or below	27	25	40	33	45
Entry Level 3 or below	73	75	60	67	55
Unweighted	734	600	134	57	77

Base: Sfl2011 All aged 16-24 with numeracy score / Sfl2011 All aged 16-24 NEET with numeracy score

Tables 12.15 and 12.16 compare the literacy and numeracy performance of 16-24 year old NEET respondents against that of their older counterparts (25-65 year old NEET respondents). For both literacy and numeracy, no differences were evident.

Table 12.15 Literacy Levels amongst 16-24 year-olds and 25-65 year-old NEET respondents

	16-24 YEAR-OLDS			25-65 YEAR-OLDS		
	All	In education, employment and training	Not in education, employment or training (NEET)	All	In education, employment and training	Not in education, employment or training (NEET)
	%	%	%	%	%	%
Entry Level 1 or below	4	3	6	5	3	11
Entry Level 2	1	1	2	2	2	4
Entry Level 3	9	8	16	7	6	12
Level 1	29	28	36	28	27	31
Level 2 or above	57	60	40	57	61	42
Entry Level 3 or below	14	12	24	15	11	27
Level 1 or above	86	88	76	85	89	73
Unweighted	732	602	130	5089	3677	1412

Base: Sfl2011 All aged 16-24 with literacy score / Sfl2011 All aged 25-65 with literacy score

Table 12.16 Numeracy Levels amongst 16-24 year-olds and 25-65 year-old NEET respondents

	16-24 YEAR-OLDS			25-65 YEAR-OLDS		
	All	In education, employment and training	Not in education, employment or training (NEET)	All	In education, employment and training	Not in education, employment or training (NEET)
	%	%	%	%	%	%
Entry Level 1 or below	6	4	13	7	5	14
Entry Level 2	21	20	27	16	13	24
Entry Level 3	29	27	38	25	24	27
Level 1	27	30	14	29	32	22
Level 2 or above	17	19	8	23	26	13
Entry Level 2 or below	27	25	40	23	18	38
Entry Level 3 or above	73	75	60	77	82	62
Unweighted	734	600	134	5086	3687	1399

Base: Sfl2011 All aged 16-24 with numeracy score / Sfl2011 All aged 25-65 with numeracy score /

When the ICT performance of 16-24 NEET respondents is compared to the performance of their 'non NEET' counterparts, the only substantial difference related to the word processing component where 62 per cent of NEET respondents achieved Entry Level 3 or above, compared to 82 per cent of 'non NEETs'.³⁰⁷

Comparative analysis between 16-18 year-olds and 19-24 years olds is not possible due to inadequate base sizes of the 16-18 NEET group.

12.6 Individuals at risk from social exclusion

This section will examine basic skills in relation to some of the standard indicators of social exclusion including: including relative poverty, deprived neighbourhoods, an absence of qualifications, economic inactivity, low and semi-skilled employment and self reported ill health. The Government's approach to tackling poverty and disadvantage is set out in the Social Justice Strategy, *Social Justice: transforming lives* published in March 2012.³⁰⁸

12.6.1 Relative poverty

Townsend (1979) defines relative poverty as income below an identified percentage of the median national average. It is not possible to explore the relationship between relative poverty and skill standards, as household income was not recorded in the survey. However, household NS-SEC (National Statistics Socio-Economic Classification) is a useful alternative to this (and is

³⁰⁷ See Appendix Table 12.A12.

³⁰⁸ HM Government (March 2012) *Social Justice: transforming lives*, available online at: <http://www.dwp.gov.uk/docs/social-justice-transforming-lives.pdf>, accessed on 24/5/12.

less prone to the high levels of non-response that household income is often subject to). Household NS-SEC was explored in Chapter 5, and when using the five class NS-SEC classification the data shows that literacy, numeracy and ICT skills declined down the scale from NS-SEC group 1 (Managerial and professional occupation households) to group 5 ('Working class' households). The proportion of respondents achieving a Level 1 or above score in literacy, an Entry Level 3 or above score in numeracy, and an Entry Level 3 or above score in each of the ICT components was lowest amongst group 5 ('Working class' households). These performance differences were sizable. For numeracy, 60 per cent of those in group 5 ('Working class' households) achieved Entry Level 3 or above, compared to 88 per cent in group 1 (Managerial and professional occupation households); a difference of 28 percentage points. For literacy there was a difference of 22 percentage points in the proportion achieving Level 1 or above between groups 1 and 5.³⁰⁹

12.6.2 Other indicators of social exclusion

All of the indicators of social exclusion (identified above) have been examined within this report. Weak skills have been found to be associated with all these indicators:

- Chapter 5 (Section 5.4.2), explored the relationship between basic skills and deprived neighbourhoods using IMD 2011. Skills in literacy, numeracy and ICT were found to vary with IMD: areas with lower IMD scores (the least deprived) were linked with the highest skills Levels, while areas with the highest IMD scores (most deprived) exhibiting the greatest skill needs.
- A lack of qualifications was associated with literacy, numeracy and ICT scores that were substantially below the average. It was notable that the performance of those with no qualifications was substantially weaker than those with low level qualifications (those at Level 1 or Level 2). These data are reported in detail in Chapter 7 (Section 7.4).
- As examined in Chapter 8 (Section 8.6), people who were economically inactive tended to have weaker literacy, numeracy and ICT skills than those who were economically active.
- Those in Semi-routine and Routine occupations also tended to have weaker skills. Amongst respondents in these two occupational groups, performance tended to be poorest for respondents who worked in Routine occupations (Section 8.7).
- Performance in the assessments was associated with ratings of ill health. Skills Levels tended to decline down each rating of the self-reported health scale (from 'very good' to 'poor / very poor') (Section 5.5.3).

These findings suggest that individuals associated with indicators of social exclusion are likely to have skills needs. However it is important to remember that individuals do not fall into distinct categories and therefore their skills will be related to the combination and interrelations of these categories and indicators.

³⁰⁹ See Tables 5.35 and 5.36 in Chapter 5.

12.7 Individuals at risk from digital exclusion

In recent decades changes and advances in Information and Communication Technologies (ICT) have been driving changes in how individuals, organisations and the government interact.³¹⁰ In the 1990s there was a distinct digital divide to 'haves' and 'have nots' but this has radically changed in recent years as most people in the UK now have access to some digital technology.³¹¹

Whilst access to the internet is widespread, ONS figures suggest that in the first quarter of 2011, 8.71 million adults had never used the internet,³¹² and these tended to be those aged over 65, the widowed and those with a disability. This is potentially concerning as 'using a computer and the internet are now basic skills for employability and many other aspects of learning and living'.³¹³

There is no agreed definition of digital exclusion, but there is widespread consensus that key determinants of digital exclusion are access to and regular use of the internet. The vast majority of SfL2011 respondents (94 per cent) had used a computer, with only six per cent reporting that they had never used one. Of those who had used a computer, 89 per cent currently used a computer to access the internet (82 per cent of all respondents).

As shown in Table 12.17, literacy and numeracy skills were related to computer and internet use. Those who used a computer to access the internet were more likely than average to achieve Level 1 or above in literacy, and Entry Level 3 or above for numeracy. Those respondents who currently used a computer but did not access the internet, and those who did not currently use a computer or had never used one, had lower than average literacy and numeracy performance. Performance between these groups also varied, with current computer users who did not access the internet more likely to achieve a Level 1 or above score on literacy and an Entry Level 3 or above score on numeracy than those who did not use a computer or have never used one.

³¹⁰ Freshminds (2008) *Understanding Digital Exclusion*. Department for Communities and Local Government Research Report, available online at <http://www.communities.gov.uk/documents/communities/pdf/1000404.pdf>, accessed on 28/03/12: p. 5.

³¹¹ Longley, P. and A. Singleton (2008) *Social Deprivation and Digital Exclusion in England*. UCL Working Papers Series Paper 145.

³¹² Williams, M. (2011) *Internet Access Quarterly Update 2011 Q1*. Office for National Statistics, available online at: http://www.ons.gov.uk/ons/dcp171766_241030.pdf, accessed on 28/03/12.

³¹³ Department for Business, Innovation and Skills (2010) *Skills for Sustainable Growth*. Strategy Document, available online at: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/s/10-1274-skills-for-sustainable-growth-strategy.pdf>, accessed on 28/03/12: p. 37.

Table 12.17 Literacy and Numeracy Levels by computer and internet use

	LITERACY				NUMERACY			
	All	Currently accesses internet	Uses a computer but does not access internet	Does not currently use a computer / never used a computer	All	Currently accesses internet	Uses a computer but does not access internet	Does not currently use a computer / never used a computer
	%	%	%	%	%	%	%	%
Entry Level 3 or below	5	3	7	19	7	4	14	21
Entry Level 2	2	1	3	7	17	14	22	34
Entry Level 3	8	6	15	17	25	25	31	25
Level 1	28	27	32	34	29	32	21	14
Level 2	57	62	43	23	22	25	12	6
Literacy - Entry Level 3 or below / Numeracy - Entry Level 2 or below	15	10	25	43	24	19	36	55
Literacy - Level 1 or above / Numeracy - Entry Level 3 or above	85	90	75	57	76	81	64	45
Unweighted	5824	4644	346	834	5823	4652	341	830

Base: SfL2011 All aged 16-65 with literacy score / SfL2011 All aged 16-65 with numeracy score

Respondents who did not currently use a computer but had done so in the past were also asked if they had previously accessed the internet. Just under two thirds of them had done so (64 per cent), and these respondents tended to perform at a similar standard to current computer users who did not use the internet. Those who had used a computer in the past but had not accessed the internet tended to have lower scores.³¹⁴

Table 12.18 displays the data for ICT performance, and the picture that emerges is similar to that for literacy and numeracy. Respondents who currently used a computer but did not access the internet were generally less likely to achieve an Entry Level 3 or above score.³¹⁵

³¹⁴ See Appendix Tables 12.A13 and 12.A14.

³¹⁵ See Appendix Table 12.A15.

Table 12.18 ICT Levels by computer and internet use

	All %	Currently accesses internet %	Uses a computer but does not access internet %	Does not currently use a computer / never used a computer %
WORD PROCESSING				
Entry Level 2 or below	43	34	67	97
Entry Level 3 and above	57	66	33	3
Unweighted	2253	1796	136	321
EMAIL				
Entry Level 2 or below	31	21	44	93
Entry Level 3 and above	69	79	56	7
Unweighted	2247	1793	133	321
SPREADSHEET				
Entry Level 2 or below	39	29	54	95
Entry Level 3 and above	61	71	46	5
Unweighted	2228	1773	134	321
MULTIPLE CHOICE				
Entry Level 2 or below	9	2	10	63
Entry Level 3 and above	91	98	90	37
Unweighted	2274	1816	136	322
Base: Sfl2011 All aged 16-65 with multiple choice / word processing / email / spreadsheet score				

When considering the skills needs of digitally excluded respondents, it is important to remember the link between digital and social exclusion which has been highlighted in recent research. Longley and Singleton (2008)³¹⁶ examined material deprivation (measured by IMD) and 'digital un-engagement' and found that the two were linked with high levels of material deprivation generally associated with low levels of ICT engagement. They did however, also find that some neighbourhoods were 'digitally unengaged' but not materially deprived. Helsper (2008)³¹⁷ examined three major datasets and found there to be a strong association between the social disadvantages an individual faces and their inability to access and use digital services. The study concluded that those who are most deprived socially are the least likely to access digital resources such as online services.

12.8 Individuals whose first language is not English

English for Speakers of Other Languages (ESOL) was a key part of the original Skills for Life strategy. English language skills are critical in order to access training and employment and to

³¹⁶ Longley, P. and A. Singleton (2008) *Social Deprivation and Digital Exclusion in England*. UCL Working Papers Series Paper 145.

³¹⁷ Helsper, E. (2008) *Digital Inclusion: An Analysis of Social Disadvantage and the Information Society*. Department for Communities and Local Government, available online at: <http://www.communities.gov.uk/documents/communities/pdf/digitalinclusionanalysis>, accessed on 28/03/12.

participate in society. The strategy set out that people who gained a Level 1 or above ESOL qualification would count towards the previous 2004 and 2010 PSA targets.

Since 2001, there has been a large increase in demand for ESOL courses, and current policy aims to target public funding at those who most need it. Full Government funding for ESOL courses is now available for people on Jobseekers Allowance and Employment Support Allowance (Work Related Activity Group) to help them find work. In addition, for those on a wider range of state benefits the provider can use their discretion to provide full funding. The Government also continues to fund 50 per cent of the cost of ESOL training for eligible adults who are settled in England with individuals expected to meet the remainder of the costs.

The skills of respondents whose first language is not English (ENFL) are explored in Chapter 5 of this report. As identified there, respondents with ENFL tended to have lower literacy and numeracy skills than respondents with English as a first language (EFL) (Table 12.19 and 12.20). However, amongst respondents with ENFL who rated their spoken English ability as 'very good', performance was higher, and much more in line with native English speakers.³¹⁸

There has been little change in the literacy and numeracy standards of people with ENFL over the past seven years, with abilities in 2011 broadly in line with the 2003 figures (Tables 12.19 and 12.20).

Table 12.19 Literacy Levels by first language in 2003 and 2011

	2003			2011		
	All %	EFL %	ENFL %	All %	EFL %	ENFL %
Entry Level 3 or below	3	2	20	5	3	21
Entry Level 2	2	2	4	2	2	5
Entry Level 3	11	10	21	8	7	17
Level 1	40	40	29	28	29	27
Level 2	44	45	25	57	60	31
Entry Level 3 or below	16	14	46	15	12	42
Level 1 or above	84	86	54	85	88	58
Unweighted	7874	7489	385	5824	5345	479

Base: Sfl2003 All aged 16-65 with literacy score / Sfl2011 All aged 16-65 with literacy score

³¹⁸ See Table 5.5 in Chapter 5.

Table 12.20 Numeracy Levels by first language in 2003 and 2011

	2003			2011		
	All	EFL	ENFL	All	EFL	ENFL
	%	%	%	%	%	%
Entry Level 3 or below	5	4	22	7	5	18
Entry Level 2	16	16	19	17	16	20
Entry Level 3	28	25	28	25	26	23
Level 1	28	28	20	29	30	25
Level 2	25	26	11	22	23	14
Entry Level 2 or below	21	20	41	24	22	38
Entry Level 3 or above	79	80	59	76	78	62
Unweighted	8040	7648	392	5823	5328	495
Base: Sfl2003 All aged 16-65 with numeracy score / Sfl2011 All aged 16-65 with numeracy score						

A third (34 per cent) of respondents with ENFL had attended a basic skills training course in one or more aspects of English literacy (reading, writing or speaking), substantially more than their native English speaking counterparts (eight per cent). However those respondents with ENFL who attended training generally did not perform at a higher standard than respondents with ENFL who had not attended (54 per cent achieved Level 1 or above compared to 60 per cent of respondents who had not been on any training).³¹⁹ The reason for this is unclear, although it could be because respondents with ENFL who sought out literacy training had weaker literacy to begin with when compared with other ENFL respondents. However it is important that when interpreting this analysis the cautions that are discussed in Section 10.2 in Chapter 10 are borne in mind.

Looking at ICT skills, a similar pattern to literacy and numeracy emerges. Respondents with ENFL tended to perform at a lower standard on the multiple choice and spreadsheet components. No differences, however, were apparent on the email or the word processing components.³²⁰ Again, the performance of respondents with ENFL who rated themselves as 'very good' at speaking English is much more in line with respondents with EFL. The exception to this was in the email component, where respondents with ENFL who rated themselves as 'very good' at speaking English were more likely to achieve a Level 2 or above score (67 per cent) than native English speakers (53 per cent).³²¹

³¹⁹ See Appendix Table 12.A16.

³²⁰ See Table 5.6 in Chapter 5.

³²¹ See Appendix Table 5.A6.

12.9 Individuals with disabilities, including learning difficulties

Whilst people with learning difficulties and disabilities were not identified as a priority group in the Skills for Life 2001 strategy, they are a key group of interest, as many people with disabilities and learning difficulties may also be in other disadvantaged groups such as the unemployed.³²²

One in five (20 per cent) SfL2011 respondents had a self reported longstanding illness, disability or infirmity. Table 12.21 displays the illnesses and disabilities reported.

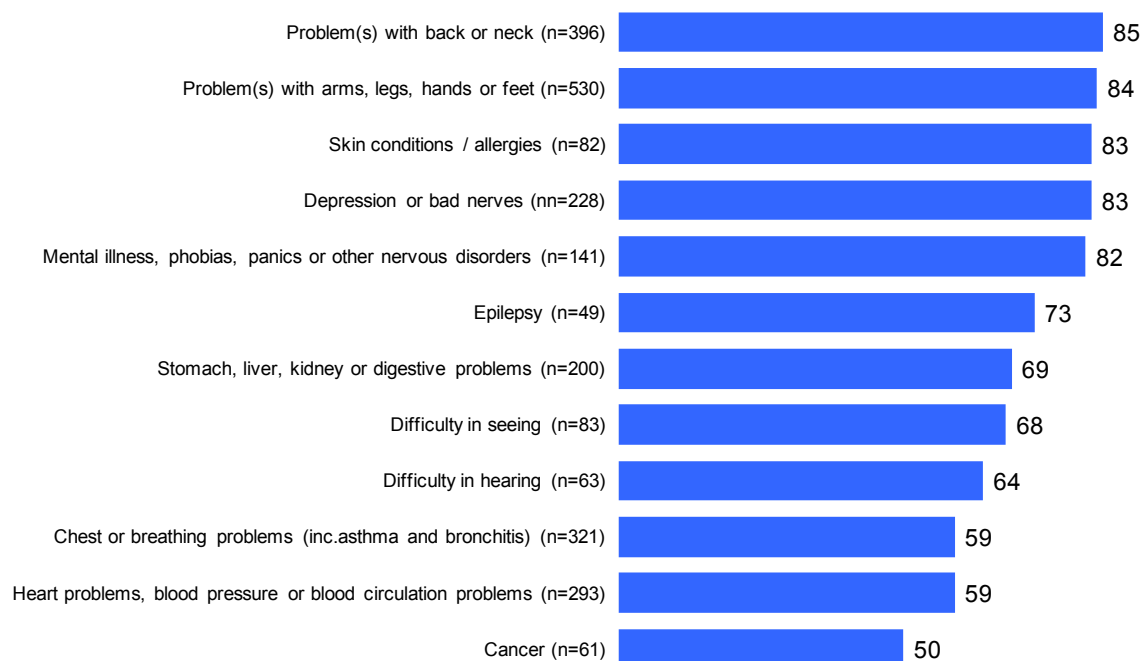
Table 12.21 Self reported illnesses, disabilities and infirmities amongst those with a self reported illness, disability of infirmity

	%
Problem(s) with arms, legs, hands or feet (inc. arthritis or rheumatism)	30
Problem(s) with back or neck	22
Chest or breathing problems (including asthma and bronchitis)	19
Heart problems, high blood pressure or blood circulation problems	17
Stomach, liver, kidney or digestive problems	12
Diabetes	12
Depression or bad nerves	12
Mental illness or phobias, panics or other nervous disorders	7
Difficulty in seeing	5
Skin conditions / allergies	5
Difficulty in hearing	4
Epilepsy	3
Cancer	3
Other	11
Don't Know	*
Refused	1
Unweighted	1648
Base: SfL2011 All aged 16-65 with a self reported illness, disability or infirmity	

Note: Multiple responses were permitted

Six in ten (62 per cent) respondents reported that their illness, disability or infirmity limited their activities (13 per cent of all respondents). Figure 12.2 displays the proportion of respondents with each type of illness/disability who reported that it limited their activities in some way.

³²² Reisenberger, A., D. Barton, C. Satchwell, A. Wilson, C. Law and S. Weaver (2010) *Engaging Homeless, Black and Minority Ethnic and Other Priority Groups in Skills for Life*. National Research and Development Centre for Adult Literacy and Numeracy Research Report, available online at: http://www.nrdc.org.uk/publications_details.asp?ID=182#, accessed on 28/03/12.

Figure 12.2 Illness, disabilities and infirmities reported to be limiting amongst those with each illness/disability/infirmity (%)

Base: Sfl2011 All aged 16-65 with each illness / disability (as indicated on chart)

As discussed in Chapter 5, respondents with longstanding illnesses and disabilities tended to perform less well in the literacy and numeracy assessments than the overall population. The skills standards of those whose disability was not limiting were very similar to respondents who lacked any disability. Consequently, the difference in performance between those with a disability and those without is attributable to people whose disability limited their activity in some way (Table 12.22 overleaf).³²³

Table 12.22 Literacy and Numeracy Levels by disability and learning difficulty

	All	LONGSTANDING ILLNESS OR DISABILITY		LIMITING LONGSTANDING ILLNESS OR DISABILITY	NON-LIMITING LONGSTANDING ILLNESS OR DISABILITY	LEARNING DIFFICULTY		LIMITING LEARNING DIFFICULTY	NON-LIMITING LEARNING DIFFICULTY
		Yes	No			Yes	No		
	%	%	%	%	%	%	%	%	%
LITERACY									
Entry Level 3 or below	15	20	14	24	12	33	14	49	20
Level 1 or above	85	80	86	76	88	67	86	51	80
Unweighted	5824	1333	4475	879	453	292	5501	135	154
NUMERACY									
Entry Level 2 or below	24	30	22	37	19	51	22	61	43
Entry Level 3 or above	76	70	78	63	81	49	78	39	57
Unweighted	5823	1331	4474	857	472	301	5943	134	163

Base: Sfl2011 All aged 16-65 in each category with literacy score /Sfl2011 All aged 16-65 in each category with numeracy score

Respondents with a learning difficulty also tended to achieve lower than average Literacy and Numeracy Levels. These respondents were less likely to achieve a Level 1 or above score in literacy, and an Entry Level 3 or above score in numeracy than those without a learning difficulty. The difference, however, was substantially larger for numeracy than literacy (a difference of 29 percentage points in achieving Entry Level 3 or above on the numeracy assessment, compared to 19 percentage points in achieving Level 1 or above on the literacy assessment).

In the literacy assessment, respondents who had a non-limiting learning difficulty performed at a similar standard to those with no learning difficulty. It should be noted that whilst the proportion of respondents with a non-limiting learning difficulty who achieved Level 1 or above was six percentage points lower compared to those with no learning difficulty, this difference was not statistically significant (at the five per cent confidence level). Again the limiting nature of the difficulty was the key driving factor. For numeracy this was not the case, with both groups of respondents performing at a lower standard than those without a learning difficulty. However, those with a non-limiting learning difficulty tended to outperform those with a limiting difficulty.

Since 2003 there have been some improvements in the literacy performance of these groups: 80 per cent of Sfl2011 respondents achieved a Level 1 or above score compared to 76 per cent of Sfl2003 respondents. The same is also true amongst those with a learning difficulty, with 67 per cent achieving Level 1 or above in 2011 compared to 57 per cent in 2003 (Table 12.23).

No corresponding improvement in numeracy was evident for these two groups, with performance broadly in line with 2003.³²⁴

Table 12.23 Literacy Levels by disability and learning difficulty in 2003 and 2011

	All		LONGSTANDING ILLNESS OR DISABILITY				LEARNING DIFFICULTY			
	2011	2003	2003		2011		2003		2011	
	%	%	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %
Entry Level 3 or below	15	16	24	14	20	14	43	15	33	14
Level 1 or above	85	84	76	86	80	86	57	85	67	86
Unweighted	5824	7874	1784	6083	1333	4475	351	7507	292	5501

Base: Sfl2003 All aged 16-65 with literacy score / Sfl2011 All aged 16-65 with literacy score

In the ICT assessment a similar pattern emerged. Respondents who had a longstanding illness or disability tended to have weaker skills across all four ICT components, with such respondents less likely to achieve Entry Level 3 or above compared to respondents without an illness or disability (Table 12.24 overleaf). The limiting nature of the disability was again the driving factor.³²⁵

³²⁴ For full breakdowns see Appendix Table 12.A18.

³²⁵ For full breakdowns see Appendix Table 12.A19.

Table 12.24 ICT Levels by disability and learning difficulty

	All	LONGSTANDING ILLNESS OR DISABILITY		LIMITING LONGSTANDING ILLNESS OR DISABILITY	NON-LIMITING LONGSTANDING ILLNESS OR DISABILITY	LEARNING DIFFICULTY		LIMITING LEARNING DIFFICULTY	NON-LIMITING LEARNING DIFFICULTY
		Yes	No			Yes	No		
	%	%	%	%	%	%	%	%	%
WORD PROCESSING									
Entry Level 2 or below	43	58	39	69	42	66	42	73	60
Entry Level 3 or above	57	42	61	31	58	34	58	27	40
Unweighted	2257	516	1734	329	186	122	2118	60	61
EMAIL									
Entry Level 2 or below	31	44	28	54	29	48	30	50	46
Entry Level 3 or above	69	56	72	46	71	52	70	50	54
Unweighted	2247	515	1729	329	185	122	2112	59	62
SPREADSHEET									
Entry Level 2 or below	39	51	35	65	30	50	38	58	42
Entry Level 3 or above	61	49	65	35	70	50	62	42	58
Unweighted	2288	513	1712	327	185	120	2095	59	60
MULTIPLE CHOICE									
Entry Level 2 or below	9	17	7	22	9	15	9	17	13
Entry Level 3 or above	91	83	93	78	91	85	91	83	87
Unweighted	2274	522	1748	333	188	121	2140	59	61

Base: SfL2011 All aged 16-65 in each category with word processing / email/ spreadsheet / multiple choice score

Respondents with a learning difficulty also tended to perform at a lower standard to the rest of the population across all four components of the ICT assessment. The main driving factor for their poor performance in the spreadsheet and multiple choice components was the limiting nature of their learning difficulty: respondents with a non-limiting learning difficulty performed at a similar standard to those with no learning difficulty. However, on the word processing and email components the limiting nature of the disability was irrelevant. Respondents whose learning difficulty was limiting, along with respondents whose learning difficulty did not limit them in any way were both outperformed by those who lacked any learning difficulty. The base sizes of all these groups were small, however, and this must be borne in mind when interpreting these findings.

12.10 Young people

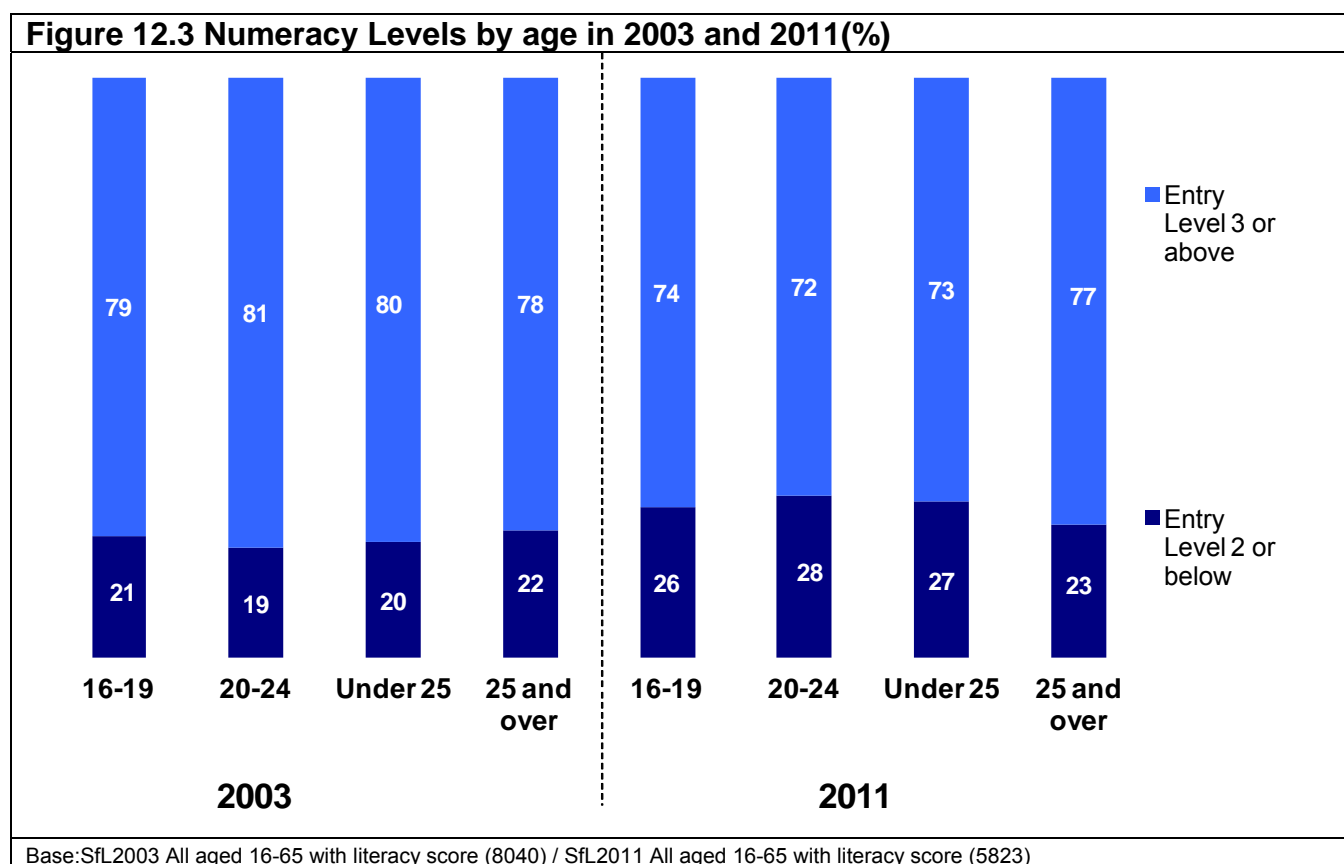
The experience and skills young people learn at school will have a major bearing on the wider outcomes they go on to experience in later life including employability and participation in society. In the economic downturn of recent years, young people have been particularly hard hit in relation to employment. As emphasised in the Skills for Sustainable Growth consultation paper 'young people have suffered disproportionately from unemployment as a result of the recession, and those who are unemployed in their youth are more likely to be in unemployment throughout their lives'.³²⁶

The relationship between basic skills and age is explored fully in Section 5.5.1. This section focuses on respondents aged below 25. These respondents' literacy was in line with that of respondents aged 25 and above (86 per cent of under 25s achieved Level 1 or above compared with 85 per cent of those aged over 24). No variation was apparent between respondents in the 'under 25' group, with 16-19 year-olds performing at a very similar standard to 20-24 year-olds. As identified earlier in Chapter 5 there was little change in the performance of this group between Sfl2003 and Sfl2011.³²⁷

For numeracy, the picture is slightly different. Respondents aged under 25 generally scored slightly lower than those aged 25 and over, with 73 per cent achieving Entry Level 3 or above, compared to 77 per cent of those aged over 25. As highlighted previously, it is this young group that have had a sizeable decline in Numeracy Levels since 2003. In 2003, this group was just as likely to achieve Entry Level 3 or above as those aged 25 and over. However since 2003 the proportion of those aged under 25 scoring Entry Level 3 or above has fallen from 80 to 73 per cent, whilst the proportion aged over 25 achieving this has remained unchanged (Figure 12.3). This decrease was most notable amongst 20-24 year-olds.

³²⁶ Department for Business, Innovation and Skills (2010) *Skills for Sustainable Growth*. Strategy Document, available online at: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/s/10-1274-skills-for-sustainable-growth-strategy.pdf>, accessed on 28/03/12: p. 9.

³²⁷ See Appendix Table 12.A20.



As discussed in Chapter 5, ICT skills decreased with age. Respondents aged below 25 generally scored higher than respondents aged 25 and over across all four of the ICT components. This generational gap is likely due to large changes to computer ownership and use in recent years, and the higher frequency of computer use amongst young people (for example nine in ten respondents aged 25 and under were 'frequent' computer users, compared to eight in ten respondents aged 25 and over).³²⁸

The majority of respondents aged under 25 had a positive outlook on learning and confidence in learning new things. For example 88 per cent of young people were inclined to agree that 'learning new things is fun', and 85 per cent felt that learning was something they were personally disposed towards, disagreeing with the notion that it 'isn't for people like me'. These respondents also felt there was value in learning and education: 80 per cent agreed that 'employers usually take notice of the learning you've done', and 77 per cent agreed that 'you need qualifications to get anywhere these days'.

Exploring young people's feelings towards school, around one in ten (11 per cent) agreed with the notion that they 'didn't get anything useful out of school'. These respondents tended to achieve lower scores in the literacy assessment (67 per cent achieved Level 1 or above compared to 89 per cent of young people who disagreed with the statement), and in the numeracy assessment (42 per cent achieved Entry Level 3 or above, compared to 78 per cent). These respondents were also less likely to consider doing any learning in the next two to three years (40 per cent compared to 64 per cent). This suggests that engagement and attitudes

³²⁸ See Appendix Table 12.A21.

towards school are important in determining (or reflecting) the abilities of young people and their attitudes towards future learning.

12.10.1 Young lone parents

Young lone parents are potentially a vulnerable group in society, as the demands of single parenthood at a young age lead to an increased chance of leaving education early, and not being in employment. Young lone parents (those aged under 25) made up one per cent of the survey respondents, which meant only limited analysis could be conducted with regards to this group. Therefore the following analysis must be treated with caution.

Young lone parents were less likely to be in paid employment than all under 25 year-olds (36 per cent versus 52 per cent), and more likely not to be in education or training (NET) (84 per cent versus 48 per cent). Despite their lower likelihood of being in employment, education or training, young lone parents were not found to have lower Literacy Levels than young people in general (86 per cent in each group achieved Level 1 or above). Their numeracy performance was slightly weaker, with a smaller proportion achieving Level 1 (11 per cent versus 27 per cent of all under-25 year-olds) or Level 2 or above (six per cent versus 17 per cent of all under-25 year-olds).³²⁹ Analysis of ICT Levels is not possible due to small base sizes

Examination of young lone parents' attitudes towards learning suggests that a sizeable proportion of them may return to education in the future. Just under six in ten (58 per cent) agreed with the statement 'I wish I had carried on longer in education'; a similar proportion (57 per cent) reported that they would like to do some sort of learning again in the future.

13 Spiky profiles

13.1 Key Findings

This chapter provides an analysis of respondents' sub-skills in literacy, numeracy and ICT, as demonstrated in the Skills for Life 2003 Survey (SfL2003) and Skills for Life 2011 Survey (SfL2011).

Literacy sub-skills

- The following literacy sub-skills were assessed: reading comprehension, vocabulary and word recognition, elements of composition, and writing (composition, spelling, grammar and punctuation). Speaking and listening skills were not assessed.
- Analysis of the literacy sub-skills revealed that, with few exceptions, SfL2003 respondents and SfL2011 respondents who achieved the same Literacy Level share largely the same profile of strengths and weaknesses.
- Reading and word recognition is the strongest skill area for both SfL2003 and SfL2011 respondents at all Literacy Levels. Elements of composition was the skill area that consistently revealed the largest gap between SfL2003 and SfL2011 respondents, suggesting a possible loss of writing composition skills over the period.
- At Entry Levels, SfL2003 and SfL2011 respondents tended to have substantially better word recognition skills than comprehension skills. The difference between standards in these two topics is much reduced at Levels 1 and 2. Respondents at Levels 1 and 2 have stronger reading skills than writing skills.

Numeracy sub-skills

- For numeracy, the following sub-skills were assessed: number, measures, shape and space, and handling data.
- Analysis of the sub-skills revealed that, irrespective of the Numeracy Level achieved, SfL2003 respondents displayed either higher or equivalent skills to their SfL2011 counterparts. Moreover, the ranking of the sub-skill areas (from strongest to weakest) is the same for SfL2003 and SfL2011 respondents who achieved the same Numeracy Level. Taken together, these findings suggest a consistent difference between 2003 and 2011 sub-skill performance, with higher skills overall in 2003 than in 2011.
- At Entry Levels 1 and 2, number skills are weakest and handling data is the strongest skill area. At Levels 1 and 2, number skills are stronger than the other sub-skill areas.

ICT sub-skills

- The ICT assessment in SfL2011 assessed email, word processing and spreadsheet practical skills, and ICT knowledge using multiple choice questions. No comparable assessment data are available from 2003.
- Skills in each of the three practical components are highly correlated. However, success on the multiple choice component is not a very good predictor of real practical skills.

13.2 Introduction

This chapter presents additional detail about the Skills for Life 2011 Survey (SfL2011) respondents' sub-skills in the topics assessed in the literacy, numeracy and ICT assessments, and compares the results with findings from the Skills for Life 2003 Survey (SfL2003). The topics assessed are as follows:

- For literacy, reading comprehension, vocabulary and word recognition, elements of composition and writing (composition, spelling, grammar and punctuation). Note that speaking and listening skills were not assessed;
- For numeracy, number, measures, shape and space, and handling data;
- For ICT, skills in email, word processing and spreadsheets, and wider knowledge of ICT.

With respect to the profiling of skills in adult literacy and numeracy, it is worth repeating here what was written as the introduction to Chapter 9 (Spiky profiles in literacy and numeracy) of the SfL2003 report, as the same concerns and considerations apply to SfL2011.³³⁰

'It is widely accepted that any assessment of adults' literacy and numeracy skills will reveal a wide range of different skill profiles reflecting individual strengths and weaknesses. These are often called 'spiky profiles'. Adults operating at broadly the same level are likely to perform at a higher level in certain skill areas than in others. They may, for example, be at a higher level for reading than writing or, at a more detailed level, be stronger at spelling than grammar.'

Each test covered a number of different topic areas so it is possible to assess respondents' relative performance in each. However, it should be borne in mind that each respondent will have faced only a small number of questions on each topic. This makes any topic analysis very sensitive to the 'single item effect'. Some questions will prove more (or less) difficult than expected because of the way they are presented to respondents. This effect can never be entirely neutralised and is an accepted fact of test design. When there are very few questions, the influence of each question's presentation will be magnified. Unfortunately, a question cannot be stripped of its presentation to reveal its 'underlying' difficulty.

Therefore, a strong caveat must be placed upon the following analysis. Although unlikely, conclusions reached about respondents' relative performance on each topic may be due to accumulated single item effect. This analysis should be taken as a prompt for further investigation rather than the last word on the subject.'

We enlarge on these matters in the analysis that follows.

The profiling of sub-skills in ICT was undertaken entirely separately from the work on literacy and numeracy, and involves far fewer caveats as the assessment is not adaptive, and the topics

³³⁰ Williams, J., S. Clemens, S. Oleinikova, and K. Tarvin (2003) *The Skills for Life Survey: a National Needs and Impact Survey of Literacy, Numeracy and ICT skills*. Department for Education and Skills Research Report 490, available online at: <https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RR490>, accessed on 28/03/12: p. 129-134.

considered align with the assessment activities undertaken very closely so concerns about content validity and adequate item numbers are greatly reduced.

13.3 Methodology for analysis of literacy and numeracy sub-skills

The purpose of the analysis in this chapter is to identify the profile of skills in the topics listed in the chapter introduction, for each of literacy, numeracy and ICT. The method aims to assess relative skill standards in these topics for each of the five outcome Level groups completing each of the assessments, so that conclusions such as 'Level 2 or above literacy respondents tended to be stronger at punctuation than at grammar' can be drawn.

For both the literacy and numeracy assessments, respondents follow different paths through the questions as the assessments adapt to their performance. More information about the design of the assessment is included in Annex 2, and the pathways followed are described in Annex 4. Additionally, Annex 6 describes the problems encountered during the 2003 survey which led to level outcomes for around 6 per cent of respondents not being recorded, and, for the remainder, some respondents' answers to certain questions not being recorded properly. Although the assessment design aims to present a balanced range of topics irrespective of the path followed, inevitably some respondents will attempt more and/or harder questions on certain topics than others. This means that a simple performance index based on score on items by topic cannot be used – rather, a weighting is applied to the score achieved for each item based on its Level.

13.3.1 Classification of literacy and numeracy assessment items

Each item (a question, but including multi-part questions which are considered as a single question) was assigned to a topic. In the case of literacy, the topics were retained from the work in 2003 and the mapping of items to topics is shown in Annex Table 2.1 in Annex 2 Section 2.4.5. For numeracy a new range of three topics was created and items were coded against it (as the original coding from 2003 is not recorded other than for items derived from pre-existing tests). The mapping for numeracy items to topics is shown in Annex Tables 2.4 and 2.5 in Annex 2 Section 2.5.5). For both subjects, items commonly cover more than one topic. This results from the design brief requiring coverage of as many topics as possible within a given time for the assessment. In each case the main topic covered based on expert review is included.

13.3.2 Calculation of sub-skill topic performance index for literacy and numeracy

The method used to calculate the skill Levels in individual topics is as follows, repeated for literacy and numeracy.³³¹ It is also repeated on the SfL2003 dataset: the methodology presented here was seen to offer improvements over that used in the SfL2003 report.

³³¹ The methodology presented here is similar to the one presented in Chapter 9 of the SfL2003 report. It has not been possible to fully recreate the 2003 methodology as fully detailed information about the handling of partial scores and item exclusions was not recorded in the 2003 analysis of Literacy as has information about the curriculum/topic coding of numeracy items in the 2003 analysis has also not been recorded. This makes faithful replication of the method impossible, and so the method presented here has been run on both the SfL2003 and SfL2011 datasets.

1. Remove from analysis of both the SfL2003 and SfL2011 datasets those items for which sound data do not exist (see Section 13.3.3).
2. Divide the respondents into five groups by outcome Level.
3. For each topic and skill Level:
 - a. Calculate the item weighted score for each item. This is calculated as item marks x item Level
 - i. Item marks is the score the respondent achieved on the item.
 - ii. Item Level is as follows: Entry Level 1=1, Entry Level 2=2, etc. Level 2=5.
 - iii. So, for example, a Level 1 item where the respondent scores 3 is worth 12, a Level 2 item with a score of 2 scores 10, etc.
 - b. Calculate the weighted score total for all items attempted – the sum of item weighted scores.
 - c. Calculate the weighted item maximum mark. This is calculated as item maximum marks x item Level.
 - i. Item maximum marks is the maximum marks available for each item.
 - d. Calculate the weighted maximum marks total for all items attempted – the sum of weighted item maximum marks.
 - e. Calculate the topic performance index: (weighted score total/weighted maximum marks total). This has no units – it is simply an index from 0 to 1, a relative measure of respondents' performance on items covering a particular topic.
4. Calculate the average topic performance index for all respondents in the Level group.
5. Repeat for all topics and all Level groups.
6. For each Level and for each topic, calculate the average number of items per respondent (across all respondents in the group) that have contributed to the weighted score total. Set a threshold and report results in (5) that are below that Level as less reliable than others.

The output from these analyses is, for each respondent group (by outcome Level), an estimated Level for each of the topics that the assessment measures. These can be compared against each other (for example to conclude that respondents at Level 2 or above in literacy tend to be stronger at reading tasks than writing tasks). It cannot be used to compare topic performance between respondent groups (for example, comparing respondents at Level 1 in literacy with those at Level 2 or above) for the reasons described below.

As a final point, it should be noted that the method used for assigning literacy and numeracy overall outcome levels to respondents in the survey, described in Annex 2, allows for an element of compensation (doing particularly well in one topic can compensate for particularly poor

performance in another). This is discussed in more detail in Section 13.3.4 (point 5 below). In the analysis in this chapter, which considers performance on specific topics for groups of respondents at each of the outcome levels, a different method of performance calculation is used which does not include any form of compensation.

13.3.3 Issues with the literacy and numeracy data

In implementing this method, a number of issues were encountered in the literacy data.

1. In 2003, the data non-capture problem meant that data for certain items was not recorded for some respondents (although account was taken of the responses in the adaptive routing). Since all data for these items was deleted in the SfL2003 dataset, this deletion was repeated for the SfL2011 dataset in the interests of comparability. The items in question are: BB104, BB61, BB93, MY5, MY115, MY9, RR104, RR42, RR9 (see Annex 2 Section 2.3.5). These items play no part in the profile analysis in this chapter.
2. Three items (BB6, BB8, RR8) have unreliable data in the SfL2003 dataset: each item is worth more than one mark, but the SfL2003 dataset resolves all scores to 1 or 0, and it is not clear how that process was undertaken for these items. These items are therefore also excluded from the analysis in this chapter.
3. Finally, spiky profile analysis was not undertaken for around 250 SfL2011 respondents without Levels recorded for numeracy and/or literacy (e.g. those who chose not to respond, or could not read English).

13.3.4 Caveats for the literacy and numeracy sub-skill analysis

There are several strong caveats associated with the spiky profile analysis undertaken in 2003 and 2011. These have an unquantifiable impact. For this reason, the results in this chapter must be treated with great care.

1. ***Very limited numbers of appropriate Level items to make a judgement about the Level of skill in a topic***

In a typical minimum competence assessment, respondents would be expected to undertake a significant number of items at the required Level. The SfL2003 and SfL2011 literacy and numeracy assessments were not designed with the intention of measuring skills in a topic but for producing an overall Level. For all topic areas, the number of items on which the skill judgement is based is limited, as a result of the time constraints for the assessment. Many items also cover more than one topic, as mentioned above, which potentially affects the discriminating power of these items for a single topic. The results where the average number of items presented per topic per respondent (for each group) falls below three have been noted, but arguably in many cases there is insufficient evidence to draw a secure judgement about respondents' topic Level.

2. ***Conflation of topics***

Many of the topics are broad – for example the entire numeracy domain is divided into only three topics ('number', 'measures, shape and space', and 'handling data'). It cannot be assumed that within that topic all the items for particular sub-topics are of equal difficulty. Given that respondents experience differing sets of items (particularly respondents in different outcome Level groups), no comparison can be made between the reported topic Levels between these different output Level groups. So, for example, a score of 0.75 for

respondents with Level 2 or above Numeracy has no meaning when considering the score for respondents with Level 1 Numeracy.

3. *Assumption that all marks available for multi-mark items cover the same topic and all items only cover one topic each*

There is a major assumption that each item tests one topic only. In practice this was not a design requirement for the literacy and numeracy assessments. Instead, the requirement was to assess overall skill standards as quickly as possible, and the testing of multiple topics within a single item (more common for higher Level items) offers some benefits in this scenario. The spiky profile analysis assumes that items cover only one topic and in the case of numeracy in 2011 the topic coding of items has been done by inspection rather than being based on the design data at the time.

4. *Item tariff assumptions (literacy only)*

In literacy, some items are worth more than one raw mark, with partial marks available. Given that these higher tariff items count as more valuable than a single mark item for determining a respondent's overall Level, the methodology for the skills profile retains that weight. However, this does mean that high tariff items (for example item 44 (MY3), which is worth five marks) have a very high bearing on the topic skill Level for those respondents that attempted the item. This increases the reliance on individual items, and includes an assumption (noting caveat 3) that multi-mark items are essentially multiple items with several competency assessments contained within them, rather than a graded assessment of skills (this is the case for most items by inspection but may not be true for all).

5. *Compensation*

Fundamentally Skills for Life is a competency-based set of standards. This means that (in assessment terms) respondents are expected to be able to demonstrate competency in the majority of topics. Being really good at one topic should not compensate for poor performance in another topic, and similarly, for example, having Level 1 skills in a topic should have no bearing on assessment of ability at Level 2 or above. This is in contrast to GCSE and other academic qualifications where the norm is to allow scores for strength in one area to compensate (to an extent at least) for weakness in another.

Both the literacy and numeracy assessments use a degree of compensation in calculating a final Level. For example, all respondents' performance on all items counts for something in calculating a Numeracy Level. This derogation is common in competency assessments, particularly for assessments at lower Levels, but pass marks/cut scores are generally held high, which reduces the possibility of passing an assessment with very low skills in particular topics.

An ideal analysis would consider each respondent's performance at each Level in each topic to form a judgement as to their Level. However there are insufficient items to do this so, as an alternative, items are weighted according to Level (which is counter to the principles of competency assessment) and results are displayed as a score index. Thus, no interpretation of the Level of skill required for each topic should be made.

6. *The profiles are based on item performance*

Within competency based curricula and standards there is generally no requirement that topics must all be of the same difficulty. The Skills for Life curricula are based on

requirements for literacy and numeracy in everyday life, which in turn are based on judgements of skill Levels required in individual topics for adequacy. A judgement of overall skill Level underlies the curriculum design and is implicit in the assessment criteria and examination content. With each new version of the curricula, some topics are moved from one Level to another, reflecting changes in the requirements of adequacy or perhaps differing views between curriculum experts. Thus, if certain topics are harder than others this is not necessarily a cause for concern (in practice though, topic difficulty tends to play a part in adequacy judgements).

While the SfL2003 and SfL2011 assessment items were designed to provide reasonable coverage of testable topics, the primary concern was a reliable judgement of overall Level. With such a small number of items for each topic, it is impossible to distinguish between the difficulty of the item and the difficulty of the topic as a whole. The fact that certain topics appear more difficult may relate to the difficulty of individual items. This is, of course, a feature of many assessments, however the development of assessments often involves benchmarking against other assessment information. This was not done for the SfL2003 and SfL2011 assessments: the assessments were based solely on the live assessment items and curricula specification which were in existence at the time, coupled with expert judgement.

7. *Weighting of items is based on a linear scale*

Items are weighted by a multiple of 1 to 5. This assumes that, for example, Entry Level 2 represents twice the skill standards of Entry Level 1 (or below), or that Level 2 (or above) is 25 per cent higher than Level 1, etc. This involves very large assumptions about respondent progression which cannot be quantified in this work.

13.4 Sub-skill outcomes for literacy

The purpose of SfL2011 with regards to literacy was to establish as accurately as possible the literacy competences of the adult population (aged 16-65) of England and make comparisons with its performance in 2003, using the same assessment instruments. The items used for the assessments in both surveys were based on a limited range of assessment criteria and accompanying examples taken from the Adult Literacy Core Curriculum.³³² Neither SfL2003 nor SfL2011 included, for example, items relating to Speaking & Listening. Moreover, given the nature of the computerised assessment instrument, items could not be included to assess practical, hands-on, writing skills. However, it was possible to include items on both reading and writing skills and thus reveal some particular strengths and weaknesses from the ways in which respondents performed in different skill areas.

Skills for Life programmes emphasise the need to carry out initial assessments of learners in order to establish not only their general standard of skills but also a profile of their strengths and weaknesses. This provides a platform on which to focus teaching and learning. The resulting profile for any individual learner is often uneven, so that she/he may be strong in reading skills

³³² Department for Education and Skills (2001) *Adult Literacy Core Curriculum including Spoken Communication*, available online at: <http://rwp.excellencegateway.org.uk/resource/Adult+literacy+core+curriculum/pdf/>, accessed on 28/03/12.

but weak in spelling, punctuation and/or grammar. This is commonly referred to as a 'spiky profile' by teachers of adults and is particularly valuable when working with less able learners who tend to show greater degrees of 'spikiness' than their more able colleagues.

SfL2011 employs the same items and assessment instrument as that used in SfL2003 and is therefore designed to take account of the variations in performance item by item, skill by skill. By extrapolation, it is thus possible to draw broad conclusions about the literacy skills' profile of the adult population (aged 16-65 inclusive) of England.

As in SfL2003, the analysis of data for SfL2011 respondents reveals that it is possible to consider 'spikiness' under three headings:

4. the spiky profile of the mean scores of groups of respondents at each Level;
5. the spiky profiles of individual respondents; and
6. the movement of respondents between Levels.

It should be emphasised that the summary findings here cover only the first of these. As mentioned above, the nature and limitations of the computerised assessment instrument and the amount of time available for the survey enable only a partial snapshot of *aspects of literacy* and by no means complete coverage of the skills identified in the Adult Core Curriculum.

The literacy assessment used an adaptive algorithm with a total of 70 items (see Annex 2 for a full description of how the assessment functions). The items cover five Levels from Entry Level 1 to Level 2 and are organised in three layers - the first being a screening layer. All respondents attempt the first four items in the screening layer but, thereafter are routed automatically on the basis of how well they perform, to appropriate Levels and items. The individual respondent is unaware of the route they are on or how well they have performed. This arrangement has the advantage of routing respondents quickly to items at an appropriate Level.

It should be noted that although the items assess performance criteria at each of five levels from Entry Level 1 to Level 2, outcomes for respondents are in five groups from Entry Level 1 *or below* to Level 2 *or above*. With no items assessing performance against criteria below Entry Level 1 or above Level 2, the assessment cannot distinguish between those respondents at Entry Level 1 and those below it, or between those respondents at Level 2 and those above it.

13.4.1 Literacy coverage

The items used in SfL2011 are taken from the Adult Literacy Core Curriculum and can be divided into five broad sub-skill areas:

- Reading (comprehension) – text focus, curriculum code (Rt)
- Reading (vocabulary, word recognition) - word focus, curriculum code (Rw)
- Writing (composition) – text focus, curriculum code (Wt)
- Writing (spelling) – curriculum code (Ww)
- Writing (grammar and punctuation) – curriculum code (Ws).

The algorithm was structured to ensure that all respondents faced a small number of items in each of the above categories and care was taken to ensure that, as far as possible, comparable criteria were addressed at all Levels as respondents progressed through the algorithm, layer by layer.

Bearing that in mind, we may draw the following tentative conclusions from the data below. Note that each Level group is presented separately, and that the proportions of the population cited at

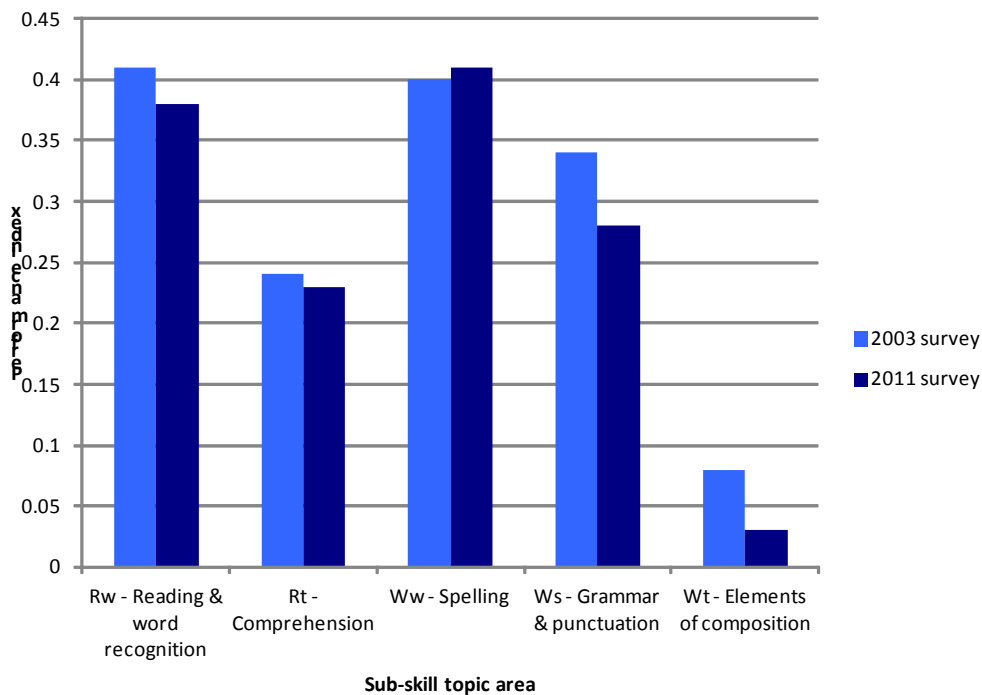
each Level for literacy are unweighted as compared with the weighted proportions shown in Table 4.1, etc. *Italics* indicate that the calculation is based on an average of less than three items per respondent for that topic.

13.4.2 Entry Level 1 or below Literacy

Each table entry contains the topic performance index for the topic for respondents at each outcome Level. As described in Section 13.3.2, this index has no units – it is simply an index from 0 to 1, a relative measure of respondents' performance on items covering a particular topic. As such it can be compared with other indices in the table, but not with indices in other tables. It represents a consolidated performance on the topic for all respondents with the given outcome Level in overall literacy, i.e. a kind of average. Individual respondents' scores will vary.

Table 13.1 and Figure 13.1 show the performance indices by literacy sub-skill topic for respondents with Entry Level 1 or below outcomes.

Table 13.1 Entry Level 1 or below Literacy performance indices by sub-skill topic area			
		2003	2011
Reading and Word Recognition	(Rw)	0.41	0.38
Comprehension	(Rt)	0.24	0.23
Spelling	(Ww)	0.4	0.41
Grammar and Punctuation	(Ws)	<i>0.34</i>	<i>0.28</i>
Elements of composition	(Wt)	<i>0.08</i>	<i>0.03</i>
Mean Number of items per respondent used to compute topics		20.8	20.62
Proportion of all respondents (unweighted)		3%	4%
Unweighted		266	246
Base: SfL2003 All aged 16-65 with Literacy Entry Level 1 or below score / SfL2011 All aged 16-65 with Literacy Entry Level 1 or below score			

Figure 13.1 Literacy Entry Level 1 or below Group – relative performance by topic

Base: SfL2003 All aged 16-65 with Literacy Entry Level 1 or below score (266) / SfL2011 All aged 16-65 with Literacy Entry Level 1 or below score (246)

From 2003 to 2011 the proportionate size of the Entry Level 1 or below group, expressed as a percentage of the total number of respondents, rose (from three per cent in 2003 to four per cent in 2011). Both the SfL2003 and SfL2011 groups showed similar weaknesses in comprehension (Rt) and elements of composition (Wt). Respondents were marginally stronger at reading and word recognition (Rw) in 2003 and again marginally stronger at spelling (Ww) in 2011. Although the low number of items per respondent for grammar and punctuation (Ws) and elements of composition (Wt) make any comparisons of those sub-skills potentially unreliable, there do not appear to be large changes to the skills profiles of the 2003 and 2011 groups with elements of composition (Wt) presenting major difficulties to both.

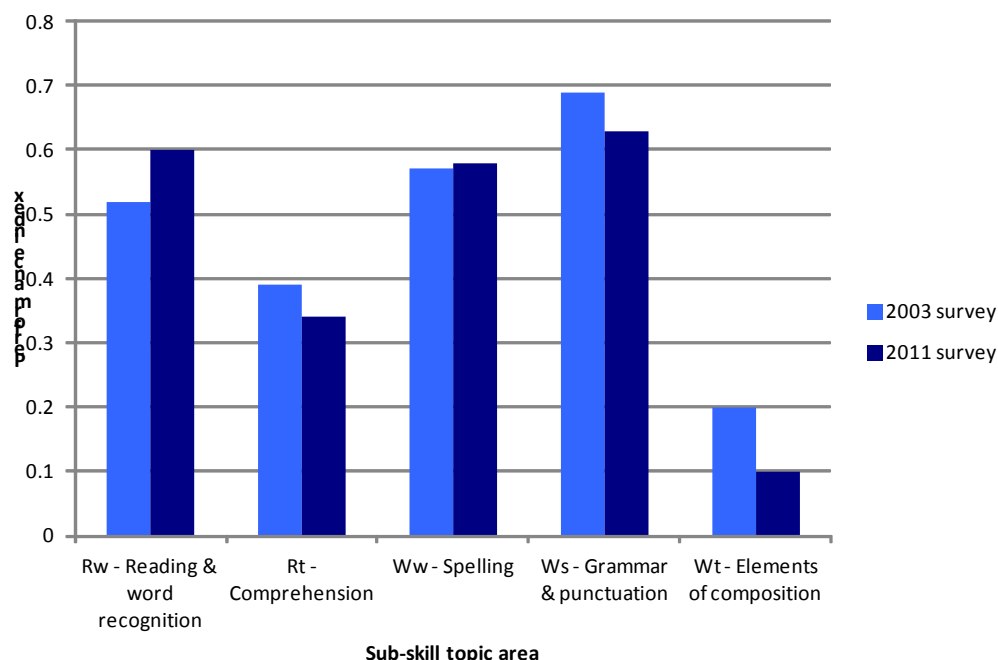
13.4.3 Entry Level 2 Literacy

Table 13.2 and Figure 13.2 show the performance indices by literacy sub-skill topic for respondents with Entry Level 2 outcomes.

Table 13.2 Entry Level 2 Literacy performance indices by sub-skill topic area

		2003	2011
Reading and Word Recognition	(Rw)	0.52	0.6
Comprehension	(Rt)	0.39	0.34
Spelling	(Ww)	0.57	0.58
Grammar and Punctuation	(Ws)	0.69	0.63
Elements of composition	(Wt)	0.2	0.1
Mean Number of items per respondent used to compute topics		21.44	22.01
Proportion of all respondents (unweighted)		2%	2%
Unweighted		176	121
Base: Sfl2003 All aged 16-65 with Literacy Entry Level 2 score / Sfl2011 All aged 16-65 with Literacy Entry Level 2 score			

The proportionate size of the Entry Level 2 group, expressed as a percentage of the total number of respondents, remained almost constant between 2003 and 2011 (at two per cent). Both the Sfl2003 and Sfl2011 groups showed the greatest strengths in the skill area of grammar and punctuation (Ws) and the greatest weakness in the skills areas of comprehension (Rt) and elements of composition (Wt). The Sfl2011 group does, however, show a small decline in performance in each of these skill areas, although the low number of items per respondent for elements of composition (Wt) means these comparisons should be treated with caution. But Sfl2011 respondents appear to be stronger in the areas of reading and word recognition (Rw) and in spelling (Ww), where there has been a marginal increase in performance. Overall however, there do not appear to be large changes to the skills profiles of the Sfl2003 and Sfl2011 groups, with comprehension (RT) and elements of composition (Wt) presenting the most challenges to both.

Figure 13.2 Literacy Entry Level 2 Group – relative performance by topic

Base: Sfl2003 All aged 16-65 with Literacy Entry Level 2 score (176) / Sfl2011 All aged 16-65 with Literacy Entry Level 2 score (121)

13.4.4 Entry Level 3 Literacy

Tables 13.3 and Figure 13.3 show the performance indices by literacy sub-skill topic for respondents with Entry Level 3 outcomes.

Table 13.3 Entry Level 3 Literacy performance indices by sub-skill topic area

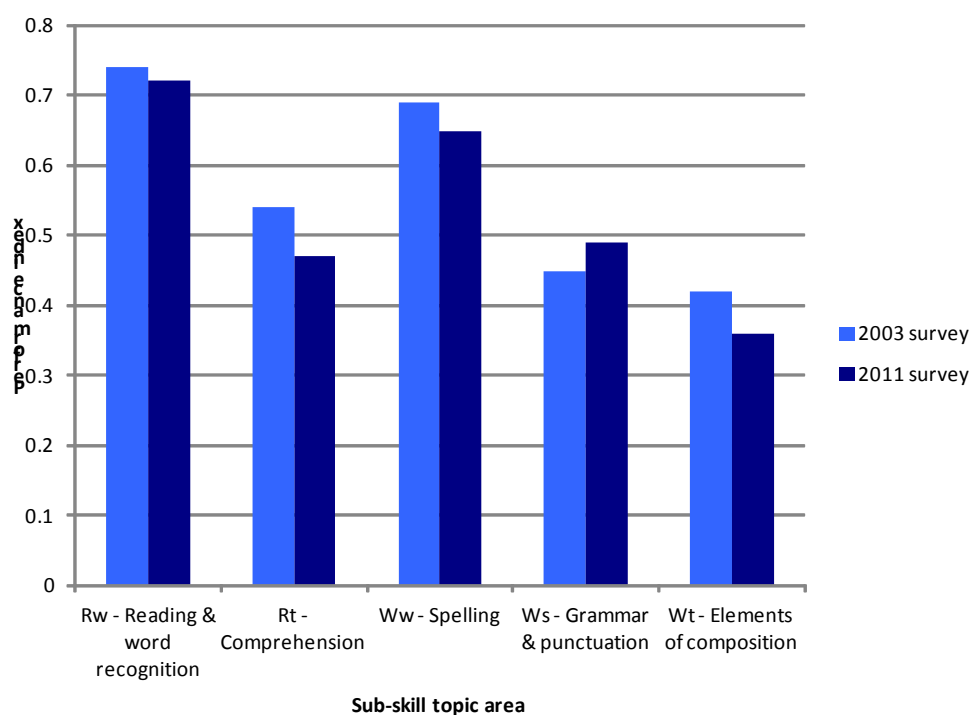
		2003	2011
Reading and Word Recognition	(Rw)	0.74	0.72
Comprehension	(Rt)	0.54	0.47
Spelling	(Ww)	0.69	0.65
Grammar and Punctuation	(Ws)	0.45	0.49
Elements of composition	(Wt)	0.42	0.36
Mean Number of items per respondent used to compute topics		28.05	27.64
Proportion of all respondents (unweighted)		11%	8%
Unweighted		880	458

Base: Sfl2003 All aged 16-65 with Literacy Entry Level 3 score / Sfl2011 All aged 16-65 with Literacy Entry Level 3 score

There was a drop between 2003 and 2011 in the proportion of people falling into the Entry Level 3 group, from 11 per cent to eight per cent. The overall skills profile shows the Sfl2003 Entry Level 3 group marginally stronger in all skill areas apart from grammar and punctuation (Ws) although measurement of grammar and punctuation (Ws) may be unreliable due to the low

number of items answered per respondent for this skill area. Both the Sfl2003 and Sfl2011 respondents showed greater strengths in the skill areas of reading and word recognition (Rw) and spelling (Ww) and weakness in elements of composition (Wt).

Figure 13.3 Literacy Entry Level 3 Group – relative performance by topic



Base: Sfl2003 All aged 16-65 with Literacy Entry Level 3 score (880) / Sfl2011 All aged 16-65 with Literacy Entry Level 3 score (458)

13.4.5 Level 1 Literacy

Tables 13.4 and Figure 13.4 show the performance indices by literacy sub-skill topic for respondents with Level 1 outcomes.

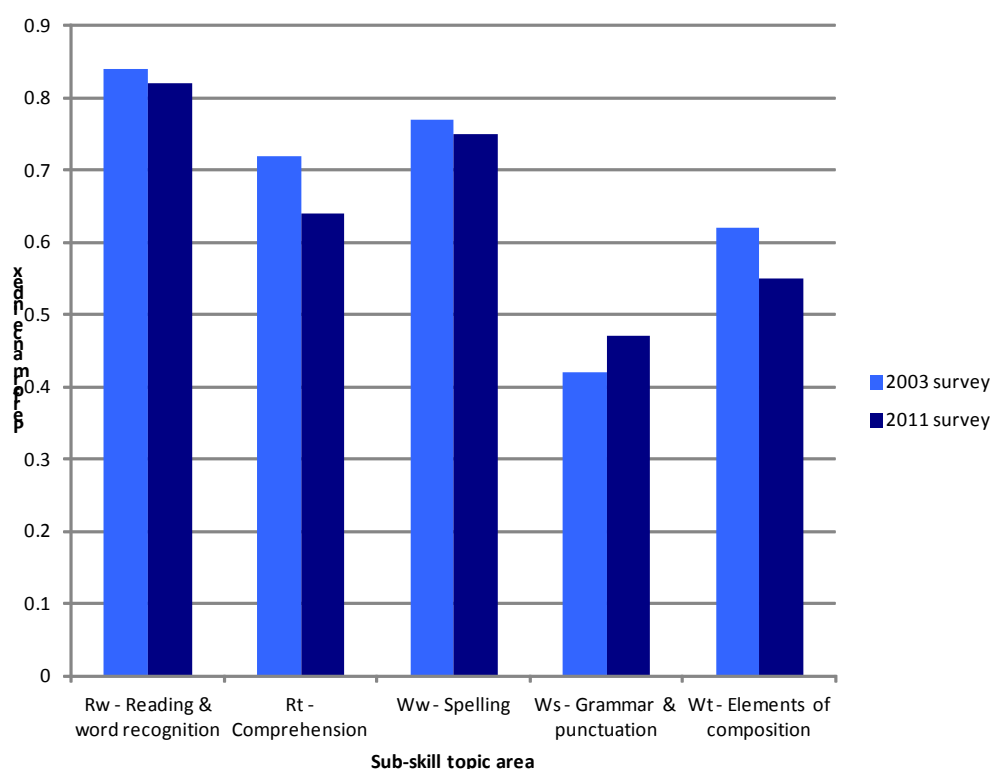
Table 13.4 Level 1 Literacy performance indices by sub-skill topic area

		2003	2011
Reading and Word Recognition	(Rw)	0.84	0.82
Comprehension	(Rt)	0.72	0.64
Spelling	(Ww)	0.77	0.75
Grammar and Punctuation	(Ws)	0.42	0.47
Elements of composition	(Wt)	0.62	0.55
Mean Number of items per respondent used to compute topics		26.2	26.47
Proportion of all respondents (unweighted)		40%	29%
Unweighted		3138	1657

Base: Sfl2003 All aged 16-65 with Literacy Level 1 score / Sfl2011 All aged 16-65 with Literacy Level 1 score

The proportion of respondents who achieved Level 1 Literacy in 2011 was down compared to 2003 (29 per cent of all SfL2011 respondents, down from 40 per cent of all SfL2003 respondents). As with the decline in numbers achieving Entry Level 3, this was probably the direct result of a greater number of respondents achieving Level 2 or above in 2011. The overall skills profile of the SfL2003 Level 1 group shows it to be marginally stronger than the SfL2011 Level 1 group in all skill areas apart from grammar and punctuation (Ws). Both the SfL2003 and SfL2011 groups showed greater strengths in the skill areas of reading and word recognition (Rw) and spelling (Ww) and were weaker in elements of composition (Wt) and grammar and punctuation (Ws).

Figure 13.4 Literacy Level 1 Group – relative performance by topic



Base: SfL2003 All aged 16-65 with Literacy Level 1 score (3138) / SfL2011 All aged 16-65 with Literacy Level 1 score (1657)

13.4.6 Level 2 or above Literacy

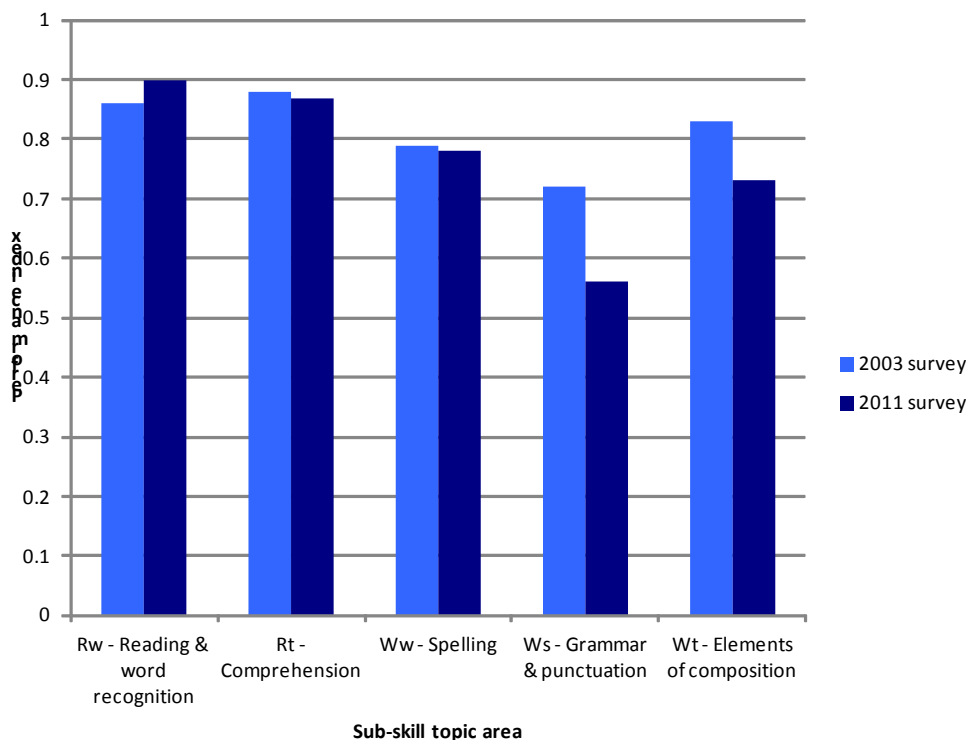
Tables 13.5 and Figure 13.5 show the performance indices by literacy sub-skill topic for respondents with Level 2 or above outcomes.

Table 13.5 Level 2 or above Literacy performance indices by sub-skill topic area

		2003	2011
Reading and Word Recognition	(Rw)	0.86	0.9
Comprehension	(Rt)	0.88	0.87
Spelling	(Ww)	0.79	0.78
Grammar and Punctuation	(Ws)	0.72	0.56
Elements of composition	(Wt)	0.83	0.73
Mean Number of items per respondent used to compute topics		24.34	24.92
Proportion of all respondents (unweighted)		43%	57%
Unweighted		3413	3316
Base: Sfl2003 All aged 16-65 with Literacy Level 2 or above score / Sfl2011 All aged 16-65 with Literacy Level 2 or above score			

The Sfl2011 Level 2 or above group was larger in 2011 compared to eight years earlier (up from 43 per cent in 2003 to 57 per cent in 2011). The overall skills profile of the Sfl2003 Level 2 or above group was marginally stronger than the Sfl2011 Level 2 or above group, with larger decreases observed in grammar and punctuation (Ws) and elements of composition (Wt). However, this last point may not be reliable due to the low number of items answered per respondent for these skill areas.

Both the Sfl2003 and Sfl2011 groups showed similarly high performance indicators, especially in reading and word recognition (Rw) comprehension (Rt) and spelling (Ww), resulting in the flattest skills profile for any of the groups. Most weaknesses were in elements of composition (Wt) and grammar and punctuation (Ws) but these results might not be entirely reliable due to the low number of items answered per respondent for these skill areas.

Figure 13.5 Literacy Level 2 or above Group – relative performance by topic

Base: SfL2003 All aged 16-65 with Literacy Level 2 or above score (3413) / SfL2011 All aged 16-65 with Literacy Level 2 or above score (3316)

13.4.7 Conclusions: literacy spiky profiles

The following conclusions can be drawn from the spiky profile analysis of literacy sub-skills:

- On a continuum of performance from Entry Level 1 or below to Level 2 or above, the 'spikiness' of the skills profile for both SfL2003 and SfL2011 groups 'flattens out' a little, i.e. at higher levels of overall literacy, respondents' skills (in both 2003 and 2011) are more balanced with smaller variations from one topic to the next.
- With few exceptions, the SfL2003 and SfL2011 groups share largely the same profile of strengths and weaknesses across the topics.
- Reading and word recognition (Rw) is consistently the strongest skill area.
- Across all five Levels, elements of composition (Wt) was the single skill area that consistently revealed the largest gap between SfL2003 and SfL2011 respondents, suggesting a possible loss of writing composition skills over the period.
- At Entry Levels, in reading topics, SfL2003 and SfL2011 respondents tended to have substantially better word recognition (Rw) skills than comprehension (Rt) skills. The difference between skills in these two topics is much reduced at Levels 1 and 2.
- At Entry Levels, elements of composition (Wt) is the weakest skill area although it has to be stressed here that items on this topic were entirely about knowledge of the aspects of the skill of writing, rather than actually assessing a real writing task.

- At Levels 1 and 2, respondents' reading skills are stronger than their writing skills.
- At Level 2 or above (the group which has seen the largest growth since 2003) SfL2011 respondents were weaker than their 2003 counterparts at grammar and punctuation (Ws) and elements of composition (Wt). This perhaps indicates a loss of sentence/paragraph level skills (grammar and punctuation, composing longer pieces of text). Coupled with the similarity of performance on other topics between the two groups, it also indicates that respondents at Literacy Level 2 or above in 2003 achieved higher scores than those in 2011.

13.5 Sub-skill outcomes for numeracy

13.5.1 Numeracy coverage

Three sub-skill areas are tested under numeracy:

- Number – involves counting and basic arithmetic, including fractions, ratios and percentages text (Nr)
- Measure, shape and space - involves calculating with and converting between units such as money, lengths and areas, weight and time (Ss)
- Handling data – involves extracting information from tables and lists, using mean, median and mode, and reading simple charts (Hd).

Each entry in the tables below contains the topic performance index for respondents at each outcome Level. As described in Section 13.3.2, this index has no units – it is simply an index from 0 to 1, a relative measure of respondents' performance on items covering a particular topic. As such it can be compared with other indices in the table, but not with indices in other tables. It represents a consolidated performance on the topic for all respondents with the given Numeracy Level outcome, i.e. a kind of average. Individual respondents' scores will vary.

As for literacy, it should be noted that although the numeracy items assess performance criteria at each of five levels from Entry Level 1 to Level 2, outcomes for respondents are in five groups from Entry Level 1 *or below* to Level 2 *or above*. With no items assessing performance against numeracy criteria below Entry Level 1 or above Level 2, the assessment cannot distinguish between those respondents at Entry Level 1 and those below it, or between those respondents at Level 2 and those above it.

It should be noted that the proportions of the population cited at each Level for numeracy are unweighted as compared with the weighted proportions shown in Table 4.4.

13.5.2 Entry Level 1 or below Numeracy

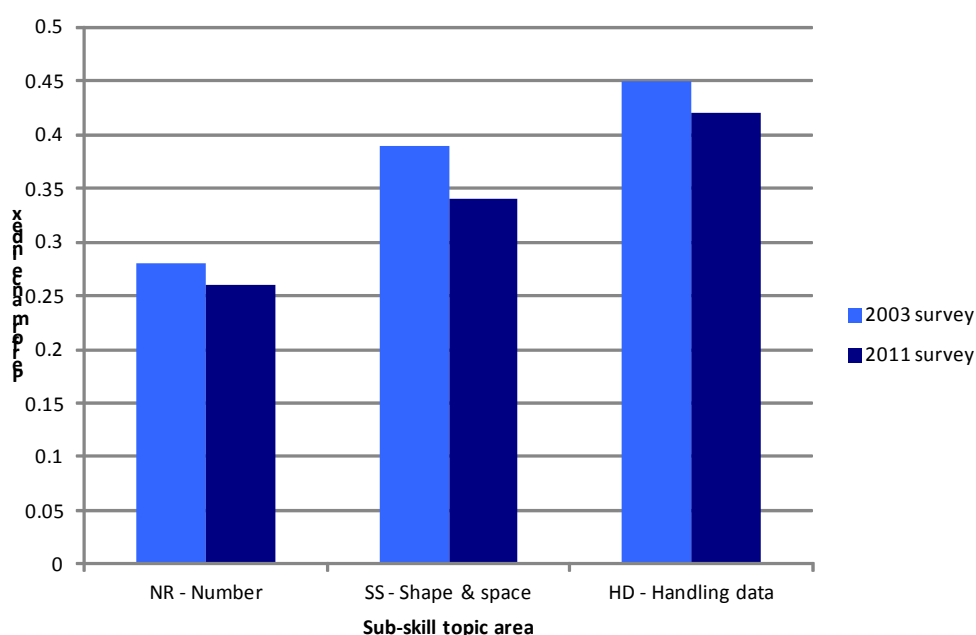
Table 13.6 and Figure 13.6 show the performance indices by numeracy sub-skill topic for SfL2003 and SfL2011 respondents with Entry Level 1 or below outcomes.

Table 13.6 Entry Level 1 or below Numeracy performance indices by sub-skill topic area

		2003	2011
Number	(Nr)	0.28	0.26
Shape and space	(Ss)	0.39	0.34
Handling data	(Hd)	0.45	0.42
Mean Number of items per respondent used to compute topics		19	19
Proportion of all respondents (unweighted)		6%	7%
Unweighted		457	392

Base: SfL2003 All aged 16-65 with Numeracy Entry Level 1 or below score / SfL2011 All aged 16-65 with Numeracy Entry Level 1 or below

From 2003 to 2011 the proportionate size of the Entry Level 1 or below group, expressed as a percentage of the total number of respondents, was unchanged (six per cent in 2003 and seven per cent in 2011). The SfL2003 and SfL2011 groups showed the same distribution of skills, with handling data (Hd) as the strongest skill and number (Nr) as the weakest. SfL2003 respondents with Entry Level 1 or below Numeracy were stronger in all three topics compared to their SfL2011 counterparts.

Figure 13.6 Numeracy Entry Level 1 or below Group – relative performance by topic

Base: SfL2003 All aged 16-65 with Numeracy Entry Level 1 or below score (457) / SfL2011 All aged 16-65 with Numeracy Entry Level 1 or below score (392)

13.5.3 Entry Level 2 Numeracy

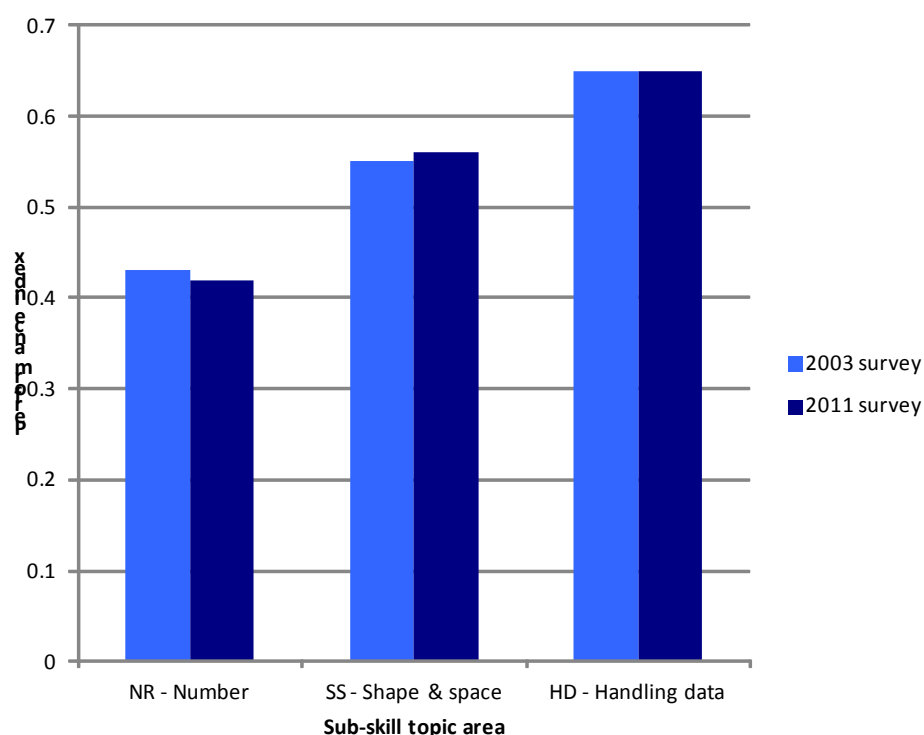
Table 13.7 and Figure 13.7 show the performance indices by numeracy sub-skill topic for respondents with Entry Level 2 or below outcomes.

Table 13.7 Entry Level 2 Numeracy performance indices by sub-skill topic area

		2003	2011
Number	(Nr)	0.43	0.42
Shape and space	(Ss)	0.55	0.56
Handling data	(Hd)	0.65	0.65
Mean Number of items per respondent used to compute topics		19	19
Proportion of all respondents (unweighted)		17%	18%
Unweighted		1370	1047

Base: SfL2003 All aged 16-65 with Numeracy Entry Level 2 score / SfL2011 All aged 16-65 with Numeracy Entry Level 2 score

There was no significant difference in the proportion of respondents achieving Entry Level 2 or above in numeracy between 2003 (17 per cent) and 2011 (18 per cent), but with a marginal decrease in number skills (Nr) and a marginal increase in shape and space (Ss) being noted in 2011. SfL2003 and SfL2011 Entry Level 2 groups showed the same distribution of skills as for Entry Level 1: handling data (Hd) was the strongest skill area and number (Nr) was the weakest.

Figure 13.7 Numeracy Entry Level 2 Group – relative performance by topic

Base: SfL2003 All aged 16-65 with Numeracy Entry Level 2 score (1370) / SfL2011 All aged 16-65 with Numeracy Entry Level 2 score (1047)

13.5.4 Entry Level 3 Numeracy

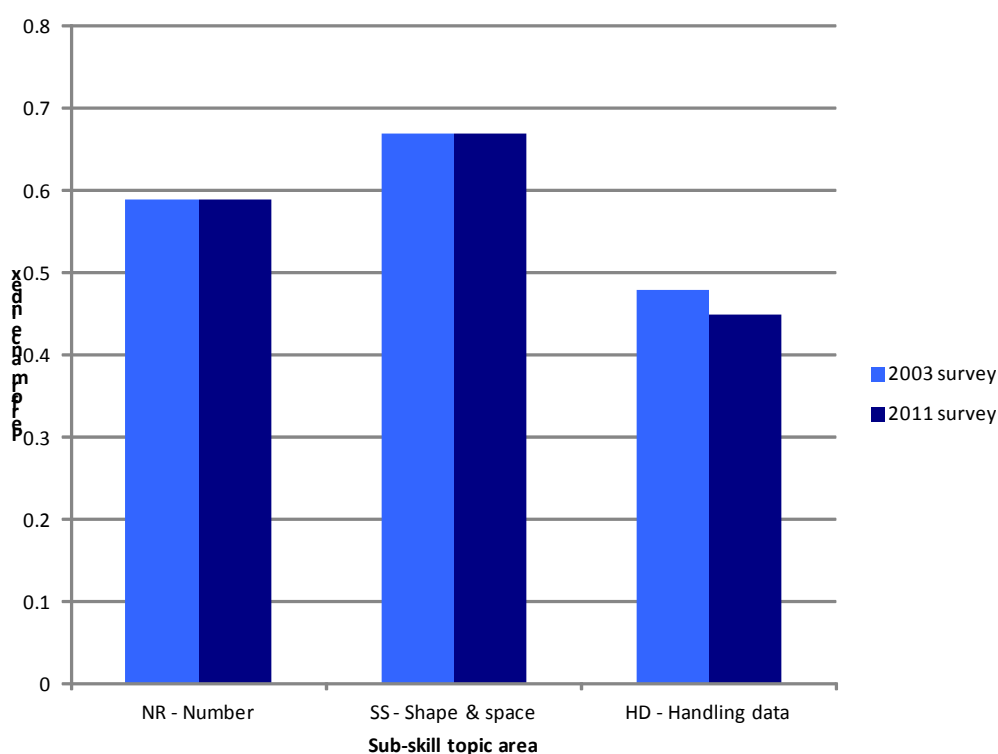
Table 13.8 and Figure 13.8 show the performance indices by numeracy sub-skill topic for respondents with Entry Level 3 outcomes.

Table 13.8 Entry Level 3 numeracy performance indices by sub-skill topic area

		2003	2011
Number	(Nr)	0.59	0.59
Shape and space	(Ss)	0.67	0.67
Handling data	(Hd)	0.48	0.45
Mean Number of items per respondent used to compute topics		19	19
Proportion of all respondents (unweighted)		26%	25%
Unweighted		2071	1483

Base: SfL2003 All aged 16-65 with Numeracy Entry Level 3 score / SfL2011 All aged 16-65 with Numeracy Entry Level 3 score

A quarter of respondents scored Numeracy Entry Level 3 in 2003 and 2011. In both years the Entry Level 3 groups had handling data (Hd) as the weakest skill, reversing the pattern seen at Entry Levels 1 and 2, perhaps as a result of item effects. Shape and space (Ss) was the strongest skill for both groups.

Figure 13.8 Numeracy Entry Level 3 Group – relative performance by topic

Base: SfL2003 All aged 16-65 with Numeracy Entry Level 3 score (2071) / SfL2011 All aged 16-65 with Numeracy Entry Level 3 score (1483)

SfL2003 and SfL2011 respondents with Entry Level 3 Numeracy performed at a similar standard in the shape and space (Ss) and number (Nr) sub-skills. However, SfL2003 respondents with Entry Level 3 Numeracy slightly outperformed their SfL2011 counterparts in handling data (Hd).

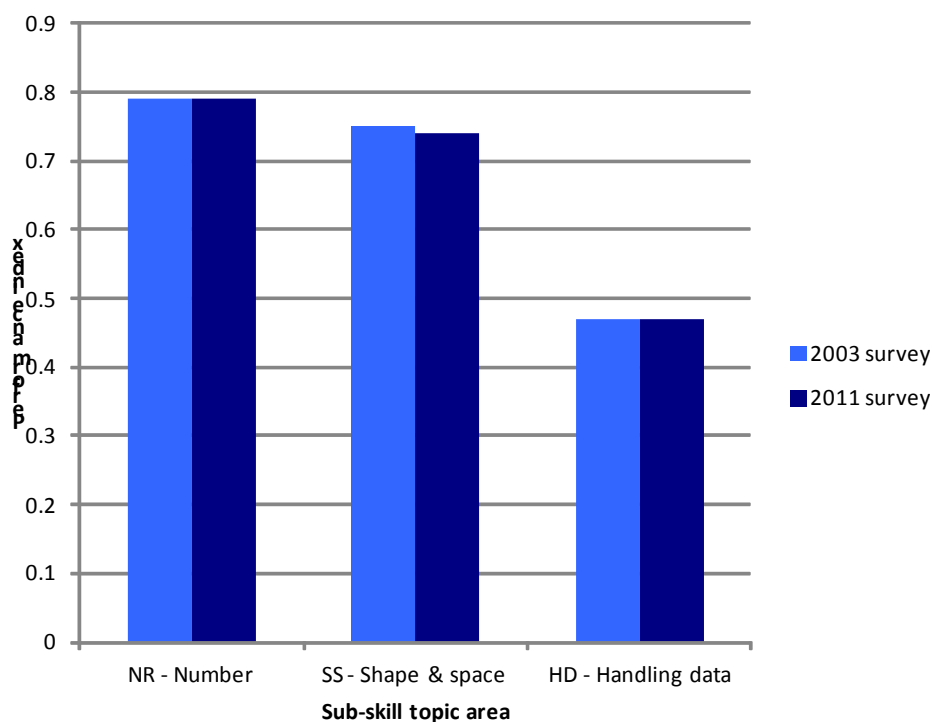
13.5.5 Level 1 Numeracy

Table 13.9 and Figure 13.9 show the performance indices by numeracy sub-skill topic for respondents with Level 1 outcomes.

Table 13.9 Level 1 numeracy performance indices by sub-skill topic area			
		2003	2011
Number	(Nr)	0.79	0.79
Shape and space	(Ss)	0.75	0.74
Handling data	(Hd)	0.47	0.47
Mean Number of items per respondent used to compute topics		19	19
Proportion of all respondents (unweighted)		27%	28%
Unweighted		2208	1646
Base: Sfl2003 All aged 16-65 with Numeracy Level 1 score (2208) / Sfl2011 All aged 16-65 with Numeracy Level 1 score (1646)			

There was no difference in the proportion of respondents achieving Numeracy Level 1 in 2003 (27 per cent) and 2011 (28 per cent). The Sfl2003 and Sfl2011 groups showed the same distribution of skills, with number (Nr) as the strongest and handling data (Hd) as the weakest. The performance of the Sfl2003 and Sfl2011 groups was almost identical across the three topics, with only a marginal decrease in Space and shape (Ss) being observed.

Figure 13.9 Numeracy Level 1 Group – relative performance by topic



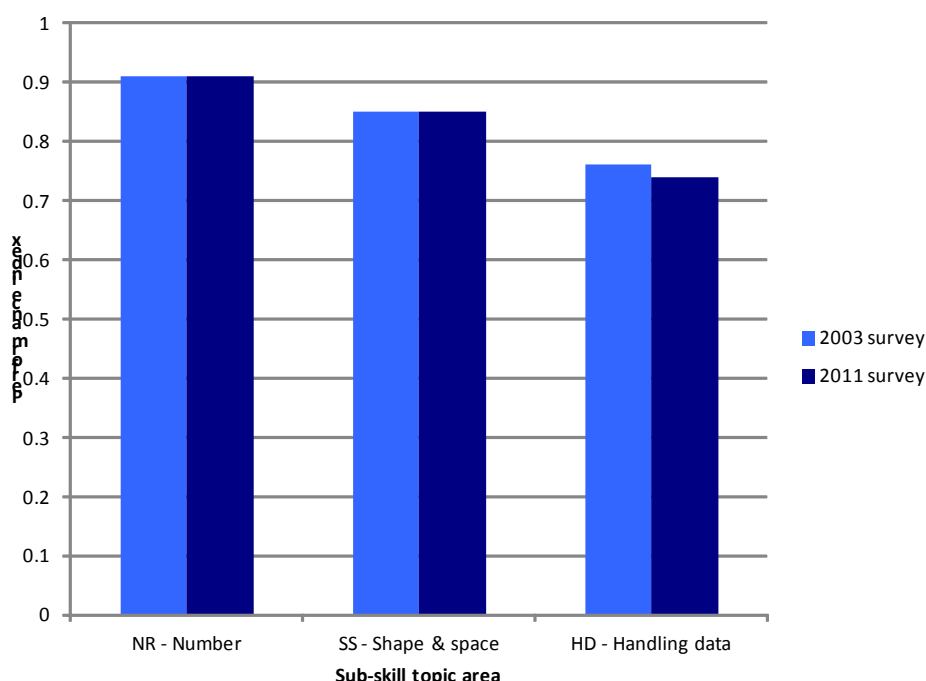
Base: Sfl2003 All aged 16-65 with Numeracy Level 1 score (2208) / Sfl2011 All aged 16-65 with Numeracy Level 1 score (1646)

13.5.6 Level 2 or above Numeracy

Table 13.10 and Figure 13.10 show the performance indices by numeracy sub-skill topic for respondents with Level 2 or above outcomes.

Table 13.10 Level 2 or above Numeracy performance indices by sub-skill topic area			
		2003	2011
Number	(Nr)	0.91	0.91
Shape and space	(Ss)	0.85	0.85
Handling data	(Hd)	0.76	0.74
Mean Number of items per respondent used to compute topics		19	19
Proportion of all respondents (unweighted)		24%	21%
Unweighted		1934	1230
Base: SfL2003 All aged 16-65 with Numeracy Level 2 or above score / SfL2011 All aged 16-65 with Numeracy Level 2 or above score			

There was a decrease in the proportion of respondents achieving Level 2 or above in numeracy between 2003 (24 per cent) and 2011 (21 per cent). SfL2003 and SfL2011 respondents who performed at this standard showed the same distribution of skills, with number (Nr) their strongest sub-skill, and handling data (Hd) their weakest. The relative performance for the SfL2003 and SfL2011 groups was almost identical, with only a marginal decrease in Handling data (Hd) being noted in 2011 (although a low number of items was answered by respondents in this area, so the change needs to be treated with caution).

Figure 13.10 Numeracy Level 2 or above Group – relative performance by topic

Base: SfL2003 All aged 16-65 with Numeracy Level 2 or above score (1934) / SfL2011 All aged 16-65 with Numeracy Level 2 or above score (1230)

13.5.7 Conclusions: numeracy spiky profiles

The following conclusions can be drawn from the spiky profile analysis of numeracy sub-skills:

- Except for Entry Level 1 or below, the skills demonstrated by the SFL2003 group are broadly the same as for the SFL2011 group. The topic skill index was never higher for SFL2011 respondents than for SFL2003 respondents.
- At each Level, the skill areas are in the same rank order for the SFL2003 and SFL2011 groups
- Together these suggest a consistent sub-skill performance difference between 2003 and 2011, but with higher skills overall in 2003 than in 2011.
- Number (Nr) skills are weakest in comparison to the other two topics at Entry Levels 1 or below and 2, but stronger at Levels 1 and 2.
- Handling data is the strongest skill area at Entry Level 1 or below and Entry Level 2, but the weakest for respondents who achieved Entry Level 3 or above.

13.6 Methodology for analysis of ICT sub-skills

The SFL2011 ICT assessment was newly developed for the survey and cannot be compared to the more basic assessment of ICT knowledge used in 2003 (see Annex 2 for more information).

As detailed in the Chapter 2 (Section 2.6.2), no combined score for ICT is presented in this report. Skill Levels relate to individual assessments: word processing, email, spreadsheet, and knowledge testing of ICT through multiple choice questions.

In a minimum competence test such as the ICT assessment used in SfL2011, respondents would be expected to undertake a substantial number of items at the required Level in order to make an accurate assessment of their skills standards. Whilst each assessment was partially designed with the intention of measuring skills in a topic (e.g. word processing), the priority was the reliable production of a Level per topic within the time available for the test (approximately 25 minutes), noting the potentially very wide range of skills that respondents might have. Hence for all topic areas, the number of items on which the skill assessment is based is limited, and respondents are presented with items at a range of Levels in order that a judgement (based on a degree of compensation) can be made as to the skill Level for a topic. This is something that should be borne in mind in looking at the ICT Level outcomes for the sub-skills assessed in SfL2011.

13.7 Sub-skills outcomes for ICT

As can be seen from analysis in previous chapters, the proportion of respondents achieving the various skill Levels varied considerably across the four assessed sub-skills.

Based on the data in Table 4.6, Table 13.11 shows the skill Levels of SfL2011 respondents. The results of the three practical components of the assessment, show fewer respondents able to demonstrate skills at Level 1 or above in spreadsheet work compared with word processing, and fewer able to demonstrate Level 1 or above skills in word processing compared with email. On the basis solely of the proportions achieving Level 1 or above, multiple choice would appear to be the least challenging component of the assessment, followed by email, word processing and spreadsheet, in that order. It is worth noting, however, that there are more respondents at Entry Level 2 or below in word processing than in spreadsheets.

Table 13.11 Adult ICT performance in England

	EMAIL ³³³	WORD PROCESSING	SPREADSHEETS ³³⁴	MULTIPLE CHOICE
	%	%	%	%
Below Entry Level	30	15	39	8
Entry Level 1		12		*
Entry Level 2	1	17		1
Entry Level 3	9	16	27	12
Level 1	8	15	17	26
Level 2 or above	52	25	17	53
Unweighted	2247	2253	2228	2274

Base: SFL2011 All aged 16-65 with word processing / email / spreadsheet / multiple choice score

Note this is based on Table 4.6

³³³ The lowest level on this component is Entry Level 1 and below.

³³⁴ The lowest level on this component is Entry Level 2 and below.

13.7.1 Correlations between the ICT assessment components

Multiple choice item tests, most notably the national Key Skills ICT tests at Level 1 and Level 2, have often been used as a proxy for real practical tests of skills. Multiple choice assessment items were also used in the assessment of ICT skills in SfL2003, as described in the SfL2003 report.³³⁵

The data from the SfL2011 ICT assessment allows comparisons to be made between performance on the multiple choice component of the survey and the practical components (the correlations between respondents' performance on the ICT components are shown in Table 4.15). In the multiple choice component, 53 per cent of respondents achieved a Level 2 or above score, but as illustrated in Table 13.12, only 23 per cent of this group were also able to achieve a Level 2 or above score in all other parts of the assessment. Thus, success on the multiple choice component is not a very good predictor of real practical skills.

The outcomes of the multiple choice component compared with the practical components may be indicative of the amount of passive learning of ICT that occurs and/or a reflection of knowledge and understanding being higher than associated practical skills. The success on the spreadsheet component is, however, a good predictor of practical skills in other areas, and of knowledge. Seventeen per cent of respondents were classified at Level 2 or above on this component, and as shown in Table 13.12, 72 per cent of these respondents were also able to achieve Level 2 or above in all of the other parts of the assessment.

Table 13.12 Comparisons between achieving Level 2 or above in each of the ICT components

Respondents who achieved Level 2 or above in:					
	ALL components	SPREADSHEET and also achieved Level 2 or above in all other components	WORD PROCESSING and also achieved Level 2 or above in all other components	EMAIL and also achieved Level 2 or above in all other components	MULTIPLE CHOICE and also achieved Level 2 or above in all other components
	%	%	%	%	%
	12	72	48	23	23
Unweighted	2284	343	504	1116	1155
Base: SfL2011 All aged 16-65 with Level 2 or above score in spreadsheet / word processing / email / multiple choice					

The picture is similar when repeated for Level 1 or above outcomes (Table 13.13).

³³⁵ Williams, J., S. Clemens, S. Oleinikova, and K. Tarvin (2003) *The Skills for Life Survey: a National Needs and Impact Survey of Literacy, Numeracy and ICT skills*. Department for Education and Skills Research Report 490, available online at: <https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RR490>, accessed on 28/03/12.

Table 13.13 Comparisons between achieving Level 1 or above in each of the ICT components

Respondents who achieved Level 1 or above in:

	ALL components	SPREADSHEET and also achieved Level 1 or above in all other components	WORD PROCESSING and also achieved Level 1 or above in all other components	EMAIL and also achieved Level 1 or above in all other components	MULTIPLE CHOICE and also achieved Level 1 or above in all other components
	%	%	%	%	%
	28	84	69	47	36
Unweighted	2284	677	842	1291	1752

Base: SfL2011 All aged 16-65 with Level 1 or above score in spreadsheet / word processing / email / multiple choice

Perhaps not unexpectedly, poor performance on the multiple choice questions is a good predictor of poor practical skills, as shown in Table 13.14. Nearly nine in ten respondents (87 per cent) who failed to achieve a Level 1 or above score on the multiple choice component, also failed to achieve a Level 1 or above score on all of the three practical components.

Table 13.14 Comparisons between achieving below Level 1 on the ICT components

Respondents who were below Level 1 in:

	ALL components	MULTIPLE CHOICE and were also below level 1 or above in all other components
	%	%
	19	87
Unweighted	2284	522

Base: SfL2011 All aged 16-65 with Entry Level 3 or below score in spreadsheet / word processing / email / multiple choice

The fact that good performance on a multiple choice test does not reflect strong practical skills does not necessarily invalidate the use of multiple choice tests; however, care needs to be taken in interpreting the results. These results seem to indicate that knowledge and understanding of ICT is often in advance of real, demonstrable, practical skills.

13.7.2 ICT spiky profiles

The following conclusions can be drawn from the spiky profile analysis of ICT sub-skills:

- In terms of the proportion of respondents achieving Level 1 or above, respondents performed best on the multiple choice component, and then on the email, word processing and spreadsheet components, in descending order.
- The four ICT components measure different skill sets, and it is possible for people to have limited experience of one skill set and therefore perform at a low level, but be capable of achieving a much higher level on another skill set.
- Nevertheless, skills in each of the three practical components are highly correlated. On the other hand, success on the multiple choice component of the ICT assessment is not a

very good predictor of real practical skills, although a low score on this component does appear to be a good indicator of low score levels on the other ICT elements

14 Comparisons of survey results with other surveys and standards

14.1 Key Findings

This chapter compares the Skills for Life survey assessments in literacy, numeracy and ICT with national standards and qualification assessments in England, as well as national and international surveys including:

- The Skills for Life, Key Skills and Functional Skills standards in England, and the assessments for these qualifications. The chapter describes how the survey assessments necessarily take a more sampled approach to assessing skills than equivalent qualification assessments, particularly in the case of literacy, and how the newly introduced Functional Skills assessments take a more applied approach to assessing literacy and numeracy.
- The 1997 International Adult Literacy Survey (IALS) and the 1997 Centre for Longitudinal Studies / National Foundation for Educational Research survey based on the National Child Development Study. These surveys provided important parts of the evidence base on which subsequent Skills for Life strategy was based, highlighting that Britain had around one in five people with low literacy and a similar number with low numeracy.
- The National Surveys of Adult Skills in Wales, 2010 and 2004, which indicates that, starting from a lower base in 2004, literacy and numeracy skills have improved faster in Wales than England.
- The Scottish Survey of Adult Literacies (SSAL), 2009, which suggests that literacy and numeracy skills are higher in Scotland than in England. However differences in methodology between the Scottish and English surveys make direct comparisons impossible.
- The Progress In International Reading Literacy Study (PIRLS), which identifies a decline from 2001 to 2006 in reading skills among 10 year-olds in England, and a corresponding drop in England's position in the '10 year-olds' reading skills league table of countries participating in the survey. Although in the Skills for Life surveys a similar fall in skill has not been observed.
- The Trends in International Mathematics and Science Study (TIMSS), the Programme for the International Assessment of Adult Competences (PIAAC) survey and the Programme for International Student Assessment (PISA) survey are also discussed.

14.2 Introduction

This chapter examines the comparability of the assessments used in the Skills for Life 2003 Survey (SfL2003) and Skills for Life 2011 Survey (SfL2011) for literacy, numeracy and ICT with:

- current standards, curricula and assessment resources from related qualifications in use in England; and, where appropriate,
 - other national and international surveys of adult literacy and numeracy in terms of both the design and coverage of the assessments and the outcomes of the surveys.
7. In setting the scene for this chapter it is worth stressing that the same literacy and numeracy tests were used in both SfL2003 and SfL2011.

14.3 The Skills for Life literacy assessment background

The Skills for Life 2011 survey literacy assessment was based on the standards and tests used in paper-based Key Skills/adult literacy tests published by the then QCA at the time the literacy survey assessment was created in 2002. This ensured that the Level 1 and Level 2 items used were 'tried and tested', although the conversion of items from paper to computer screen could, in some cases, change items as well as impose limitations on the types of items that could be used. New items were written for Entry Levels 1, 2 and 3 as national testing at these Levels did not exist at the time when SfL2003 was conducted. The adult literacy standards (as opposed to Key Skills or other curricula) were used for SfL2011 because the survey addressed the English adult population. Further, these standards extended from Entry Level 1 to Level 2 and provided more detailed guidance than Key Skills, for example. All items were 'tagged', using the reference codes taken from the adult literacy standards for reading and writing,³³⁶ and these codes are presented in Annex 2.

Due to the limitations of the technology and the logistics of the survey, the assessment of speaking and listening was not included, nor were many aspects of writing.

14.3.1 Skills for Life Literacy Levels

The authors of the Skills for Life survey used the examples and illustrations given in the adult literacy Core Curriculum guidance materials in order to devise suitable contexts and ensure that questions were pitched at an appropriate Level. So, for example, the adult literacy standards³³⁷ state that:

³³⁶ Department for Education and Skills (2001) *Adult Literacy Core Curriculum including Spoken Communication*, available online at: <http://rwp.excellencegateway.org.uk/resource/Adult+literacy+core+curriculum/pdf/>, accessed on 28/03/12: p. 6-7.

³³⁷ Department for Education and Skills (2001) *Adult Literacy Core Curriculum including Spoken Communication*, available online at: <http://rwp.excellencegateway.org.uk/resource/Adult+literacy+core+curriculum/pdf/>, accessed on 28/03/12: p. 14-19.

- **At Entry Level 1**, an adult can read short texts with repeated language patterns on familiar topics; read signs and symbols and produce limited writing – very short sentences only;
- **At Entry Level 2**, an adult can read short straightforward texts on familiar topics and obtain information from familiar sources (e.g. a leaflet, short letter). She/he shows some awareness of audience when writing (e.g. a short informal letter or note);
- **At Entry Level 3**, an adult reads more accurately and independently and obtains information from everyday sources (e.g. a popular newspaper). She/he is able to communicate in writing information and opinions with some adaption to the intended audience (e.g. a short formal letter, note or form);
- **At Level 1**, an adult reads texts of varying lengths on a variety of topics and obtains information from different sources (e.g. reports, text books and work manuals). Written communication demonstrates an ability to express ideas and opinions (e.g. in a formal letter, memo, brief report);
- **At Level 2**, the adult reads from texts of varying complexity, accurately and independently (e.g. complex books, text books, reports, training manuals etc.). She/he writes to communicate information, ideas and opinions clearly and effectively, using length, format and style appropriate to purpose, context and audience (e.g. complex letter, essay, report).

14.3.2 Literacy criteria tested in the Skills for Life Survey literacy assessment

The range of criteria tested in the Skills for Life Survey literacy assessment is relatively small because of the limitations imposed by multiple choice testing, the technology available at the time of the assessment's development and the time available for the respondent to take the assessment. These limitations and their implications are discussed further in Annex 2 and Annex 4. The assessment of writing skills is restricted to spelling, punctuation, grammar and a limited range of skills and techniques more accurately described as '*knowledge about writing*' rather than the skill of writing itself. The brevity of the survey and the use of multiple choice questions were prerequisites in the survey design brief.

14.3.3 The structure of the Skills for Life Survey literacy assessment

The assessment comprised a bank of 70 questions organised by Levels and stages. An underpinning algorithm controlled the assessment so that respondents were routed automatically from one question to the next, depending on their responses, ensuring that they were answering questions at an appropriate standard.

The assessment was designed to be completed in 25 to 30 minutes, during which time a respondent would be expected to respond to 35 multiple choice items. Questions were based on short pieces of everyday reading matter such as memos, letters, advertisements and news reports. The number of questions per item was commensurate with the length of text; the longer the text, the greater the number of questions. Onscreen devices, such as drop-down multiple choice questions, made it possible for the assessment to be completed within the allocated time. The range of criteria addressed within each stage of the algorithm was broadly similar for each of the five Levels assessed.

14.4 Comparisons between Skills for Life literacy assessment with National Tests, Key Skills tests, and Functional Skills assessments

14.4.1 Comparisons between the Skills for Life literacy assessment and National Tests in Adult Literacy and Key Skills Communication assessments

Both the Key Skills tests and the National Tests are summative: each test is set at a specified Level and candidates are entered for that specific Level, obtaining a pass or fail outcome for that Level (and no information is gained about how candidates might perform at other Levels). The Skills for Life survey literacy assessment is an initial assessment, aiming to measure a range of Levels. Because of the very different natures of these tests, they will produce different types of outcomes. The outcome from the Skills for Life survey literacy assessment indicates at which of the five Levels a respondent is likely to be operating. The Key Skills and National Tests can confirm this indication by assessing across the full coverage and range of that one specific Level. It is however possible to compare the content of the Key Skills and National Tests and the Skills for Life survey literacy assessment (Table 14.1).

Table 14.1 Key Skills Communication / National Skills Tests at Levels 1 and 2³³⁸

Structure	Context	Comparison with Skills for Life literacy assessment
<p>Content: 40 multiple choice questions</p> <p>Duration: to be completed in 60 minutes for both Level 1 and Level 2.</p> <p>Structure: 8 scenarios carrying five multiple choice questions.</p> <p>Weighting of the assessment: 25 per cent Spelling, Punctuation and Grammar (SPaG). Award dependent on assessment result and portfolio evidence.</p>	<p>Assessment of reading and writing skills.</p> <p>Read and Obtain information:</p> <p>At Level 1: identify the main points and ideas in different types of document: obtain information from images.</p> <p>At Level 2: use different types of document to obtain relevant information: scan documents to identify information: identify main points, ideas and lines of meaning from texts and images.</p> <p>Write documents:</p> <p>At Level 1: spell words commonly used in work, studies or daily life accurately: know how sentences are formed with consistent use of tense and accurate subject-verb agreement; punctuate sentences using capital letters, full stops and question marks.</p> <p>At Level 2: spell words and familiar technical words accurately: know how sentences are formed with accurate use of conjunctions: punctuate sentences accurately using commas, apostrophes and inverted commas.</p>	<p>The Level 1 and Level 2 items in the Skills for Life survey literacy assessment were taken from the Key Skills Communication assessments. These individual items would therefore have performed identically in both the Key Skills Communication and the National tests and the Skills for Life survey literacy assessment.</p>

³³⁸ Information about the test specifications for the National Skills Tests used for Key Skills and Skills for Life qualifications can be found online at: <http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/qualifications/6136.aspx>, accessed on 28/03/12.

14.4.2 Comparisons between the Skills for Life survey literacy assessment and Functional Skills English assessments

Functional Skills qualifications became available in September 2010, and are replacing Key Skills qualifications from that date.³³⁹ Functional Skills qualifications are now offered by a number of awarding organisations each of whom now offer their own external³⁴⁰ assessments (i.e. there are no standardised national assessments for Functional Skills). A comparison of the Functional Skills assessment criteria with the Skills for Life literacy assessments is shown in Table 14.2, based on the Functional Skills criteria published by Ofqual.³⁴¹

³³⁹ Functional Skills Questions and Answers, LSC, <http://readingroom.lsc.gov.uk/SFA/SFA-functionalsSkillsQandA2010.pdf>, accessed on 28/03/12.

³⁴⁰ Assessments that are set and marked by external agencies such as an awarding organisation, i.e. not by the candidate's teacher/tutor.

³⁴¹ Office of Qualifications and Examinations Regulation (2011) *Functional Skills Criteria for English. Entry 1, Entry 2, Entry 3, Level 1 and Level 2*, available online at: <http://www.ofqual.gov.uk/downloads/category/68-functional-skills-subject-criteria?download=1171%3Afunctional-skills-criteria-for-english>, accessed on 28/03/12.

Table 14.2 Comparisons of the Skills for Life 2011 literacy assessment with the Functional Skills English assessments at Levels 1 and 2³⁴²

Structure	Context	Comparison with Skills for Life literacy assessment
<p>Content: series of tasks set in realistic scenarios; duration: 1 hour.</p> <p>Structure: reading, writing and speaking and listening assessed and awarded independently. Open tasks can vary in number but must assess all coverage and range statements.</p> <p>Weighting of the assessment: 100 per cent external assessment for reading and writing at Levels 1 and 2.</p>	<p>Assessments focus on functionality and purpose that reflect real-life situations.</p> <p>Reading:</p> <p>At Level 1: identify the main points and ideas and how they are presented; understand texts in detail; read and understand texts and take appropriate action.</p> <p>At Level 2: select and use different types of texts to obtain relevant information; read and summarise information from different sources; identify the purpose of texts and comment on how meaning is conveyed; detect point of view, implicit meaning / bias; read and actively respond to different texts.</p> <p>Writing:</p> <p>At Level 1: write a range of texts to communicate information, ideas and opinions, using formats and styles suitable for their purpose; write clearly and coherently, including an appropriate level of detail; present information in a logical sequence; use language, format and structure suitable for purpose and audience; use correct grammar, including correct and consistent use of tense; ensure written work includes generally accurate punctuation and spelling and that meaning is clear.</p> <p>At Level 2: write a range of texts, including extended written documents, communicating information, ideas and opinions, effectively and persuasively; present information/ideas concisely, logically, and persuasively; present information on complex subjects clearly and concisely; use a range of writing styles for different purposes; use a range of sentence structures, including complex sentences, and paragraphs to organise written communication effectively; punctuate written text using commas, apostrophes and inverted commas accurately; ensure written work is fit for purpose and audience, with accurate spelling and grammar that support clear meaning.</p>	<p>The Level 1 and Level 2 closed Multiple Choice questions in the Skills for Life survey literacy assessment bear little resemblance to the Functional skills open questions. The Functional Skills summative assessment assesses 100 per cent of the skill standards. The Skills for Life survey literacy assessment measures only 25 per cent of the coverage and range of the Key Skills standards in order to obtain a literacy 'snapshot'. Further, the strong emphasis on functionality in the Functional Skills standards introduces elements of the higher order skills of synthesis and evaluation not present in the Key Skills standards. By comparison, the Functional Skills assessments are a more robust and comprehensive test of the range and coverage of skills at a specific Level.</p>

14.4.3 Summary of the literacy comparisons

Just as approaches to skills development in Key Skills and adult literacy revealed significant differences, so the gap continues to widen as the comparison extends to include Functional Skills. For example, considering the skill of reading at Level 1, the adult literacy standards

³⁴² Information about the test specifications for the National Skills Tests used for Key Skills and Skills for Life qualifications can be found online at: <http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/qualifications/6136.aspx>, accessed on 28/03/12.

fleshed out the Key Skills criterion in greater detail. Subsequently, the Functional Skills standards and assessments add demands for further skill layers of analysis, application and purpose and consequently, as reported in the Evaluation of the Functional Skills Pilot, the Functional Skills curriculum (as delivered during the Functional Skills Pilot) is regarded as more challenging to deliver and achieve than Skills for Life.³⁴³ Similarly, in the writing tasks at Level 2 of the Functional Skills assessments, Ofqual accreditation requires that:

*'At Level 2, learners **use a range of different styles** that may require the selection of technical vocabulary where appropriate, using evidence to support argument, persuasive techniques and knowledge about how and when to use formal and informal language. Learners at this level organise their ideas into extended responses, making informed decisions about structure and presentation.'*³⁴⁴

Simultaneously, the component-specific criteria require a move away from fixed to open response assessment in order to measure a candidate's ability not only to read, but also to utilise information that they have read. This is as would be expected in a summative assessment.

For direct comparison purposes, Table 14.A1 in the Appendix of Tables illustrates differences between Key Skills, adult literacy and Functional Skills reading standards as assessed at Level 1 and Level 2 as examples, providing an 'element-by-element', 'level-by-level' and 'component-by-component' overview of the criteria measured in the Skills for Life survey literacy assessment (the adult literacy standards), Key Skills tests and Functional Skills assessments.

There is a close relationship between Key Skills, adult literacy skills and the Skills for Life survey literacy assessment: the adult literacy standards extend from Entry Level 1 to Level 2 and thus provide a more appropriate basis for baseline literacy testing. The content of the Key Skills and adult literacy standards are broadly the same for both reading skills and writing skills but the latter is fleshed out in greater detail. Because the specification for the Skills for Life survey literacy assessment required that it be completed in less than 30 minutes, a wide variety of brief scenarios, no more than a paragraph in length, were used. Thus, the number of questions attached to each context varies. However, a balance was maintained throughout the assessment to ensure that both reading skills and knowledge of writing skills were assessed in roughly equal measure and the number of criteria assessed was consistent across the Levels.

Whilst comparisons can be drawn between the content of the Skills for Life survey literacy assessment and the Level 1 and Level 2 Key Skills/National Test assessments, the comparison of the findings from both assessments is a less valid exercise if only because the two instruments have a radically different function. The Skills for Life survey literacy assessment provides, in 30 minutes, a 'snapshot' of an anonymous respondent's literacy skills based on assessment across a range of levels and a sample of skill areas. In contrast, the Key Skills national tests exist only at Levels 1 and 2 and are 1 hour summative assessments of skills at one Level only. In the case of Key Skills, the National Tests are used in conjunction with a

³⁴³ Qualifications and Curriculum Development Authority (2011) *Evaluation of the Functional Skills Pilot*, available online at: <http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/resources/7585.aspx>, pages ii, iii, accessed on 28/03/12.

³⁴⁴ Qualifications and Curriculum Authority (2007) *Functional Skills Standards*, available online at: <http://www.excellencegateway.org.uk/pdf/Functional%20skills%20standards.pdf>, accessed on 28/03/12: p. 16.

portfolio of evidence to confirm whether a candidate has achieved the skill Level and therefore is competent across the full coverage and range of criteria for that Level.

Few comparisons can be drawn between Functional Skills English assessments and the Skills for Life survey literacy assessment. Not only do they share the same generic dissimilarities to the Skills for Life survey literacy assessment as do the Key Skills tests, they comprise mainly open questions and confine multiple choice questions to the reading paper, where they represent only four per cent of the total marks for the qualification. Each version of a Functional Skills assessment covers 100 per cent of the coverage and range requirements, and thereby is able to confirm that a candidate has reached a specific Level of functional English/literacy, and cannot provide any information about attainment at other Levels.

14.5 Comparisons between the Skills for Life 2011 literacy survey, the International Adult Literacy Survey (IALS 1997)³⁴⁵ and the Centre for Longitudinal Studies/National Foundation for Educational Research 1997 survey³⁴⁶ for literacy

Apart from comparisons with contemporary curricula in England, it is also useful to compare the findings of SfL2011 alongside contemporary national and international surveys.

The closest contemporary surveys of the scale of need for adult literacy skills in Britain to SfL2011 were 'Adult Literacy in Britain',³⁴⁷ which formed part of the International Adult Literacy Survey (IALS), and the reports from the Centre for Longitudinal Studies (CLS) at the Institute of Education, 'It Doesn't Get Any Better'³⁴⁸ and 'The Basic Skills of Young Adults',³⁴⁹ both of which are discussed as underpinning evidence for the findings in the Moser report. These produced similar results and so are discussed together in the following sections.

14.5.1 Methodology of IALS

The British IALS survey was the first literacy survey to be carried out in Britain on a national random sample of adults of working age. The survey was undertaken by the Office for National Statistics in 1996, and covered a sample of 3,811 adults, reporting in 1997. The survey set assessment tasks taken from a range of contexts simulating the range of activities that adults would encounter in everyday life. Note that, despite its title, IALS assesses both literacy and numeracy (mainly arithmetic) skills – IALS refers to this latter as 'quantitative literacy', by which they mean the ability to use arithmetic to perform tasks such as balancing a chequebook, verifying an invoice, or determining the amount of interest on a loan from an advertisement.

³⁴⁵ Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12 and Kirsch, I. S. (2001) *The International Adult Literacy Survey (IALS): Understanding What Was Measured*. Educational Testing Service Research Report, available online at: <http://www.ets.org/Media/Research/pdf/RR-01-25-Kirsch.pdf>, accessed on 28/03/12.

³⁴⁶ Referred to in: Moser, C. et al. (1999) *Improving literacy and numeracy: a fresh start*. The report of the working group chaired by Sir Claus Moser on behalf of the Department for Education and Skills, available online at: <http://www.lifelonglearning.co.uk/mosergroup/index>, accessed 28/03/12: Annex A.

³⁴⁷ Carey, S., Low, S., and J. Hansboro (1997). *Adult literacy in Britain*. Office for National Statistics.

³⁴⁸ Bynner, J. and S. Parsons (1997) *It Doesn't Get any Better*. The Basic Skills Agency,

³⁴⁹ Ekinsmyth, C. and J. Bynner (1994) *The Basic Skills of Young Adults*. London: The Basic Skills Agency.

The survey produced measurements for three broad categories of literacy:³⁵⁰

- **Prose literacy** - Understanding and using information from text, e.g. understanding a newspaper article.
- **Document literacy** - Locating and using information from other formats, e.g. reading a bus timetable.
- **Quantitative literacy** - Applying arithmetic operations to numbers embedded in print, e.g. working out the price of a loan from an advert.

Each of the three scales measuring these dimensions of literacy was grouped into five Literacy Levels: to be placed at a particular Level, respondents had to perform tasks at that Level correctly and consistently. The definition of consistent performance was set at 80 per cent.

The survey was conducted by personal interview in respondents' homes and consisted of two main elements, a background questionnaire and a 'literacy' assessment. The background questionnaire collected information on the socio-demographic characteristics of the respondent such as age, sex, education, occupation and income as well as asking about literacy activities such as reading as part of their job or for pleasure, television viewing, and participation in training or adult education. In Britain both the questionnaire and administration of the assessment used computer-assisted interviewing methods.

After the interview, respondents completed a short screening assessment which sought to identify those with very limited literacy skills. Respondents who correctly answered at least two of the six screening tasks were then asked to complete a larger assessment booklet which measured literacy. Although respondents had to write their answers in the booklet, the assessment did not measure writing ability.

In order to ensure as broad a range of item content as possible, the total number of tasks in the assessment was larger than any one individual could complete in the time available. Each respondent therefore was only asked to complete a subset of the total assessment. The assessment was paper-based and each respondent was required to attempt a number of tasks.

IALS contexts and text types

IALS assessments consisted of a varied collection of stimulus material/texts, each of which was used as the basis for a number of questions/tasks. The emphasis was on measuring a broad range of information-processing skills covering a variety of contexts. The six broad contexts used were:

- Home and family;
- Health and safety;
- Community and citizenship;

³⁵⁰ Kirsch, I. S. (2001) *The International Adult Literacy Survey (IALS): Understanding What Was Measured*. Educational Testing Service Research Report, available online at: <http://www.ets.org/Media/Research/pdf/RR-01-25-Kirsch.pdf>, accessed on 28/03/12.

- Consumer economics;
- Work; and
- Leisure and recreation.

Each text was designed to stand alone without requiring additional printed material. The texts consisted of:

- Continuous texts in which organisation occurs by paragraph setting, indentation, and headings;
- Non-continuous texts that allow the reader to employ different strategies for entering and extracting information from them (e.g. tables, schedules, charts, graphs, maps and forms).

A total of thirty-four tasks were developed for the survey, each question being graded according to its standard of difficulty using the IALS document literacy scale.

IALS measurement of literacy

IALS shares a number of features with SfL2011: both surveys employ a combination of questionnaire, interview and individual assessment; texts/contexts are taken from everyday adult life; assessments are graded in difficulty; and a screening device is used in both surveys. However, there are significant differences. The IALS survey:

- assessed both literacy and numeracy in integrated assessments;
- did not assess writing skills;
- was entirely paper-based and used open-ended questions;
- required human marking; and
- used assessment criteria developed especially for the survey.

The IALS survey measured two dimensions of literacy: prose literacy and document literacy. Writing, and speaking and listening skills were not assessed. IALS also made use of Item Response Theory (IRT), a statistical method for scaling assessment items for difficulty so that each item had a known probability of being correctly completed by an individual with a given proficiency level.

14.5.2 Methodology of CLS/NFER NCDS survey, 1997

The Centre for Longitudinal Studies carried out a series of studies of adults' basic skills for the Basic Skills Agency based on two birth cohort studies. The first, known as the National Child Development Study (NCDS) comprises a sample of over 17,000 people born in one week in 1958. The other, known as the 1970 British Cohort Study (BCS70), is similar, and comprises a sample of over 17,000 people born in a single week in 1970.

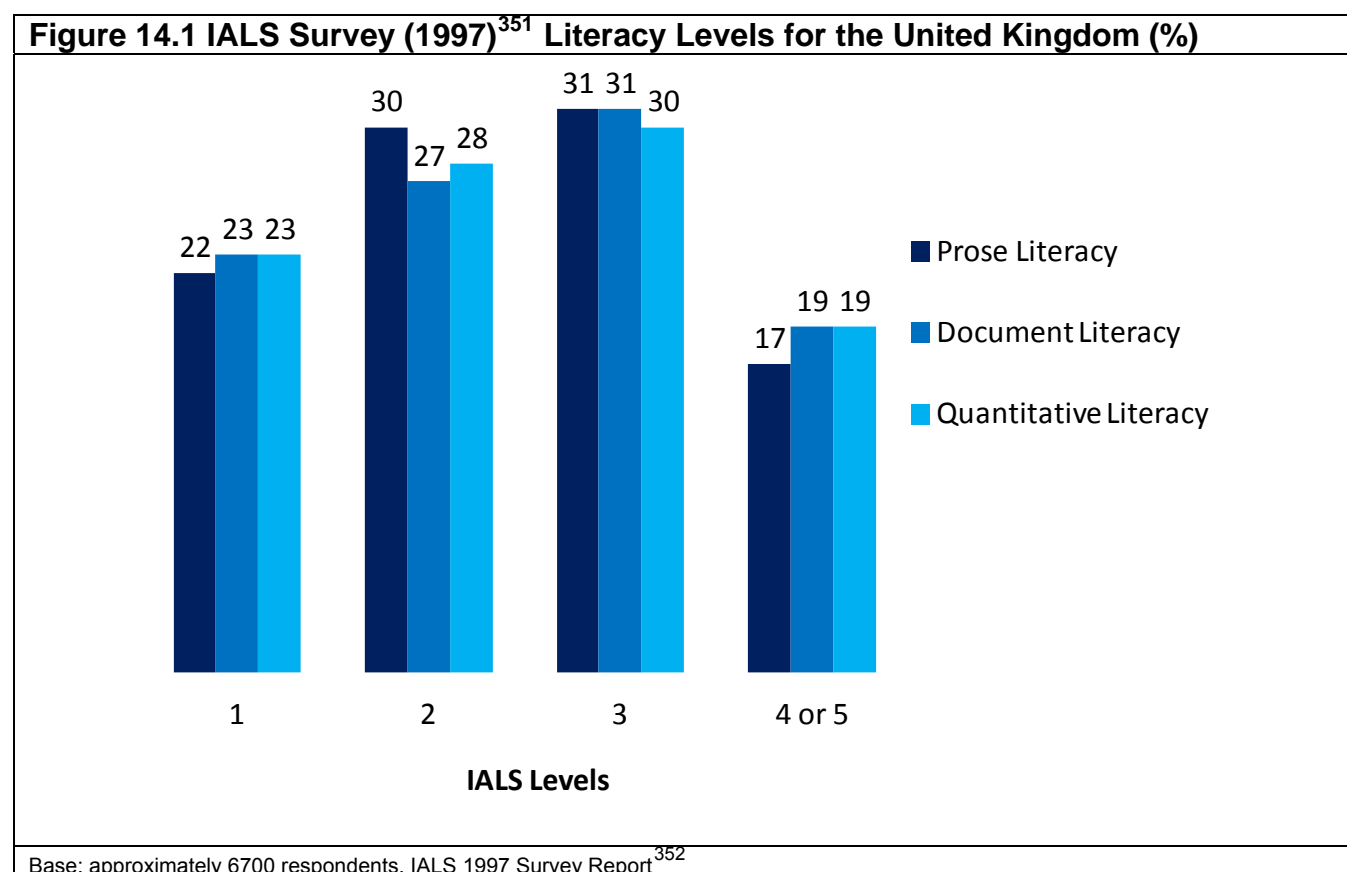
The 1997 survey, reported in the 'It Doesn't Get any Better: the Impact of Poor Basic Skills on the Lives of 37 Year Olds' was carried out on a 10 per cent sample of the NCDS cohort

members. It included a basic skills assessment, which comprised a set of functional literacy and numeracy tasks designed by the National Foundation for Educational Research (NFER) and grouped at Levels corresponding to the Basic Skills Standards at the time. Scores were grouped into four ability categories: 'very low', 'low', 'average' and 'good'.

14.5.3 Broad findings from IALS and CLS/NFER NCDS

IALS

Figure 14.1 shows the outcomes of the IALS survey for the United Kingdom.



Combining the scores for Prose and Document Literacy, the results showed that in 1997 around 22 per cent of adults had poor (IALS Level 1) Literacy Levels corresponding approximately to skills at Entry Level 3 or below in the Skills for Life Core Curriculum.³⁵³ Around

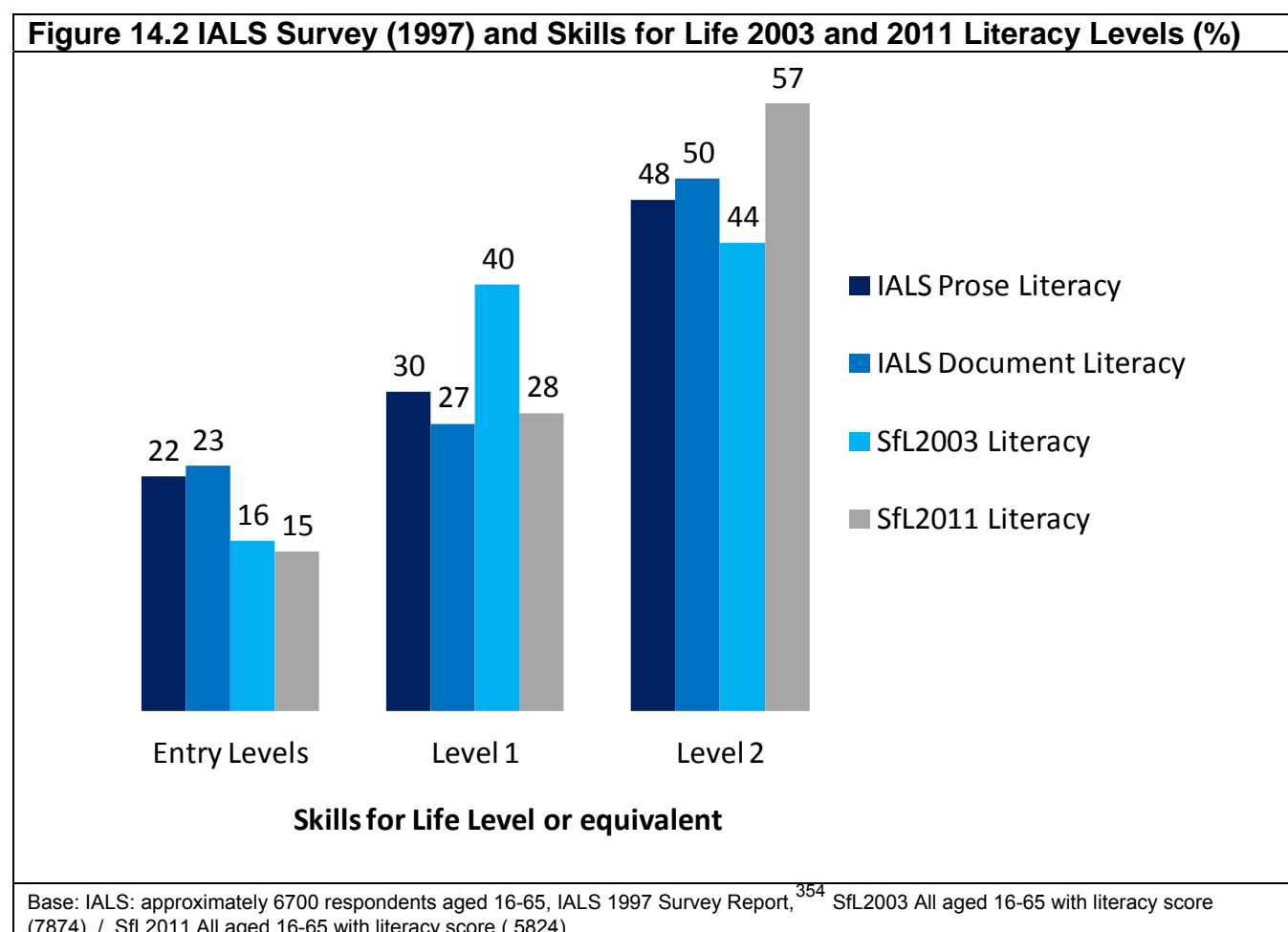
³⁵¹ Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12.

³⁵² Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12: Annex B p. 111.

³⁵³ A comparison of IALS literacy levels was made with the Adult Skills for Life Core Curriculum in the Skills for Life 2003 survey report: Williams, J., S. Clemens, S. Oleinikova, and K. Tarvin (2003) *The Skills for Life Survey: a National Needs and Impact Survey of Literacy, Numeracy and ICT skills*. Department for Education and Skills Research Report 490, available online at:

27 to 30 per cent had IALS Level 2 literacy skills (corresponding approximately to Skills for Life Level 1) and around 48 to 50 per cent had IALS Levels 3, 4 or 5 literacy skills (corresponding approximately to Skills for Life Level 2 or above).

Figure 14.2 shows the outcomes of the IALS survey (according to the broadly comparable Skills for Life Levels) compared with the Sfl2003 and Sfl2011 results for literacy.



CLS/NFER NCDS

The results from the CLS/NFER 1997 survey are shown in Table 14.3. The survey found that people in the very low groups were generally below Entry Level in the skills they had acquired, and those in the low groups had skills at Entry Level, but were not fully competent at Level 1.

Table 14.3 Literacy Levels among 37 year-olds, CLS/NFER NCDS Cohort Study, 1997³⁵⁵

<https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RR490>, accessed on 28/03/12: p. 140-141.

³⁵⁴ Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12: Annex B p. 111.

³⁵⁵ Bynner, J. and S. Parsons (1997) *It Doesn't Get any Better*. The Basic Skills Agency

Table 14.3 Literacy Levels among 37 year-olds, CLS/NFER NCDS Cohort Study, 1997³⁵⁵

Skills Levels	Approximate Skills for Life Literacy Level	%
Very low	Below Entry Level	6
Low	Entry level	13
Average	Level 1	38
Good	Level 2 or above	43

Base: approx. 1700 respondents, CLS/NFER NCDS survey, 1997

14.5.4 Summary of the comparisons

The two surveys undertaken in the late 1990s (IALS and CLS/NFER study) reach broadly similar conclusions about the scale of adult literacy need, with 19 per cent with poor literacy based on the CLS/NFER survey compared with 22 per cent in IALS. Therefore, based on the survey evidence outlined above, the baseline drawn throughout the Moser report is that some 20 per cent of adults have low literacy skills. These adults are referred to as being 'at Entry Level' or 'below Level 1'. This means that these adults have not yet acquired the literacy skills required to achieve a Key Skills qualification in Communication at Level 1, or the skills required to be at Level 4 of the National Curriculum, and this Level was specified by Moser as the threshold level for functionality.

In 2000, a final IALS report was released (Organization for Economic Co-operation and Development [OECD] and Statistics Canada).³⁵⁶ The study was conducted in eight industrialised countries over the period 1994-1996 and covered over 40,000 adults.

The Moser Report³⁵⁷ commented on the IALS findings:

'Though all countries have problems of poor literacy, Britain and the US have more severe problems than most. In 1997, the International Adult Literacy Survey (IALS) made a standard literacy assessment of 12 countries and ... shows how poorly Britain compares with our international competitors. Of the twelve countries in the survey, only Poland and Ireland had a higher proportion at this low level than Britain.'

The USA, Switzerland (French and German speaking cantons), New Zealand, Belgium (Flanders), Australia, Canada, Germany, the Netherlands and Sweden all had smaller proportions of the population with poor literacy.

Despite the differences in methodology and assessment instruments, the findings in the IALS and CLS/NFER survey are similar to the findings from SfL2003 which found that 16 per cent of adults were below Level 1 in Literacy (compared to around 22 per cent for IALS, 19 per cent

³⁵⁶ Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12.

³⁵⁷ Moser, C. et al. (1999) *Improving literacy and numeracy: a fresh start*. The report of the working group chaired by Sir Claus Moser on behalf of the Department for Education and Skills, available online at: <http://www.lifelonglearning.co.uk/mosergroup/index>, accessed 28/03/12: Chapter 2, section 2.8.

CLS/NFER), 40 per cent at Level 1 (around 28 per cent for IALS, 38 per cent for CLS/NFER) and 44 per cent at Level 2 or above (around 49 per cent for IALS, 43 per cent for CLS/NFER).

14.6 Comparisons between the Skills for Life 2011 literacy survey and the National Survey of Adult Skills in Wales, 2010³⁵⁸ for literacy

The latest statistics on adult skills produced by the Welsh Government were published in December 2011 and present summary information from The National Survey of Adult Skills in Wales.

14.6.1 Methodology

The survey was carried out during 2010, and assessed overall literacy and numeracy skills of adults (aged 16 to 65) in Wales (through the English language medium), and Welsh medium literacy skills of Welsh-speaking adults in Wales. The surveys were designed as far as was practically possible to replicate similar surveys carried out in Wales in 2004,³⁵⁹ in order to consider changes in skills. The surveys (both in 2004 and 2010) use the same literacy (and numeracy) assessment tools and similar background questionnaires to SfL2003 and SfL2011 in England.

14.6.2 Broad findings

Table 14.4 shows a comparison of the literacy results from the two surveys in England (2003 and 2011) and Wales (2004 and 2010). The results for EFL speakers in England are compared against the Welsh results of the 'English medium' survey in order to examine approximately comparable populations.³⁶⁰

³⁵⁸ Miller, N and K.Lewis (2011) *National Survey of Adult Skills in Wales 2010*. Welsh Government social research report number 27/2011, available online:

<http://new.wales.gov.uk/about/aboutresearch/social/latestresearch/5618505/?lang=en>, accessed on 28/03/12.

³⁵⁹ Williams, J, Kinnaird, R. (2004) *The national survey of Adult Basic Skills in Wales*, available online at:

<http://www.learningobservatory.com/uploads/publications/1943.pdf>, accessed on 18/06/12, with a summary available online at: : <http://wales.gov.uk/topics/statistics/headlines/post16ed-2005/hdw200505111/?lang=en>, accessed on 28/03/12.

³⁶⁰ When comparing the EFL literacy levels for the Skills for Life survey in England with the results for the Welsh English medium survey, it should be noted that the Welsh survey includes non-Welsh speaking people whose first language is not English. The parameters of the populations being compared are not precisely identical.

Table 14.4 Literacy levels from Skills for Life surveys in England (2003, 2011) for EFL speakers and the Welsh 'English Medium' survey (2004, 2010)

LITERACY LEVEL	ENGLAND			WALES*		
	2003 %	2011 %	Change since 2003 ³⁶¹ %	2004 %	2010 %	Change since 2004 %
Entry Level 1 or below	2	3	+1	4	3	-1
Entry Level 2	2	2	0	3	2	-1
Entry Level 3	10	7	-3	18	7	-11
Level 1	40	29	-11	37	29	-8
Level 2 or above	45	60	+15	38	59	+21
Entry Level 3 or below	14	12	-2	25	12	-13
Level 1 or above	85	88	+3	75	88	+13

Base: Sfl2003 England EFL respondents aged 16-65 with literacy score (7488), Sfl2011 England EFL respondents aged 16-65 with literacy score (5344), Adult Skills Wales 2004 (2555) (English Medium Only) All aged 16-65, Adult Skills Wales 2010 (2116) (English Medium Only) All aged 16-65

*Welsh survey results reported to whole number percentage level only

Overall results from the 'English medium' survey suggest there has been a greater improvement in Literacy Levels in Wales than in England over a period that is shorter by two years, although it should be noted that Wales was starting from a lower literacy base:

- Twelve per cent of adults were assessed to have Entry Level literacy in 2010, a decrease from 25 per cent in 2004.
- Twenty-nine per cent of adults were assessed at Level 1 in 2010 (a decrease from 37 per cent in 2004)
- Fifty-nine per cent of adults were assessed at Level 2 or above in 2010 (an increase from 38 per cent in 2004).

In line with the Sfl2011 survey outcomes, Welsh Literacy Levels (and Numeracy Levels) were higher amongst the employed, those with higher household incomes and those with higher level qualifications.

14.6.3 Summary of the comparison

In line with England, the results from Wales show a large increase in the proportion of respondents achieving a Level 2 or above score in literacy from 38 per cent in 2004 to 59 per

³⁶¹ The changes listed in the table do not sum to 0 due to rounding.

cent in 2010. The comparative figures for England show a similar but smaller rise from 45 per cent in 2003 to 60 per cent in 2011.³⁶²

In both Wales and England a decline in the proportion achieving Level 1 is also evident (from 40 per cent to 29 per cent in England, and from 37 per cent to 29 per cent in Wales between the two survey periods). However, unlike England, the proportion of respondents in Wales at Entry Level has declined by approximately one half (from 25 per cent to 12 per cent); which is predominantly due a decline in the proportion of respondents at Entry Level 3. However, in England the proportion of respondents at Entry Level has decreased only a little (14 per cent in 2003 and 12 per cent in 2011).

The differences in trends between the two countries could be due to policy differences, differences in migration or labour market patterns, or regression to the mean. However, further investigation would be necessary to understand with more certainty the differences in literacy trends in England and Wales.

14.7 Comparisons between the Skills for Life 2011 literacy survey and the Scottish Survey of Adult Literacies (SSAL), 2009

In November 2008, the Scottish Government commissioned the University of Glasgow and partners to survey the literacy (and numeracy) skills of the 16-65 year old population in Scotland. Prior to that, the last survey of literacy skills undertaken in Scotland was the IALS in 1997.

14.7.1 Methodology

The Scottish Survey of Adult Literacies (SSAL) used the same instruments as the 1997 IALS survey and the same Level descriptors (Table 14.5).

Table 14.5 IALS Levels from the Scottish Survey of Adult Literacies, 2009³⁶³

Level 1	Persons with very poor 'literacy' skills, where the individual may, for example, be unable to determine the correct amount of medicine to give a child from information printed on the package
Level 2	Respondents can deal only with material that is simple, clearly laid out, and for which the tasks involved are not complex. It denotes a weak level of 'literacy' skill, but more hidden than Level 1, and identifies people who can read, but test poorly. They may have developed coping skills to manage everyday 'literacy' demands, but their low standard of proficiency makes it difficult for them to face novel demands, such as learning new job skills
Level 3	This Level is considered a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill Level required for successful secondary school completion and college entry
Levels 4/5	Persons who demonstrate command of higher order information processing skills

³⁶² The figures compare 'English Medium only' respondents from the Welsh surveys with respondents with English as First Language in the England surveys.

³⁶³ Harrison, G. (2010) *Study to Identify How 'Literacy' Levels Have Developed Over Time*. Department for Employment and Learning Northern Ireland, available online at: http://www.delni.gov.uk/del_ni_literacy_trends_final_report_11_02_2010_-_final_report_9_7_10-2.pdf, accessed on 28/03/12.

The resulting SSAL in 2009 was based on IALS. The survey involved a random sample of 1,927 16-65 year-olds in Scottish households. The sampling strategy ensured a high degree of representativeness as well as allowing in-depth discussion of issues such as gender, social class, and level of urbanisation. In line with IALS, SSAL measured three scales of literacy skills: prose, document and quantitative (numeracy).

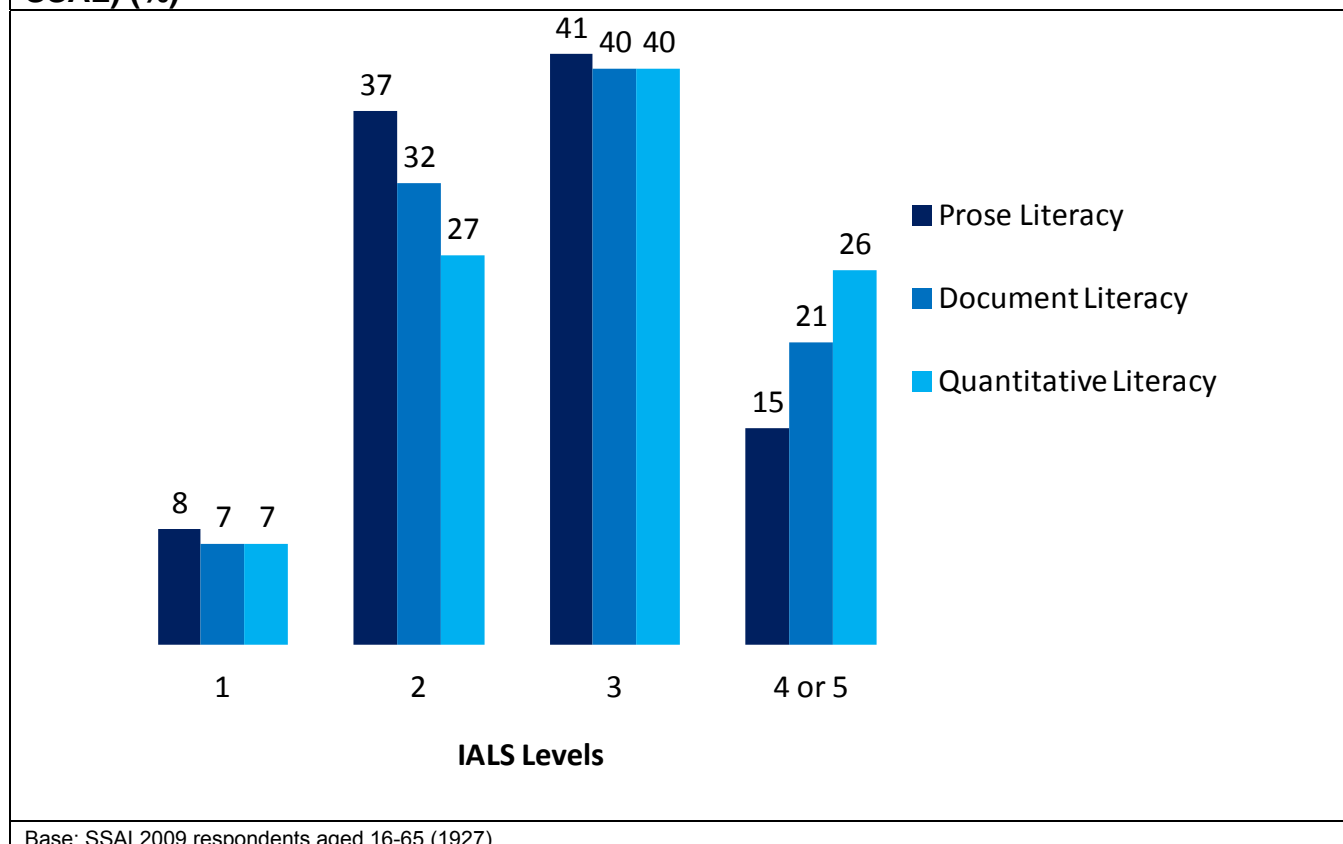
However, there were three major differences between the 1997 and 2009 Scottish surveys, making direct comparison of findings inappropriate. These were: sample size, areas of data collection and the development of a new Item Response Theory model. Whilst the effects of these changes were positive for the 2009 survey, they reduce the validity of any comparison with the 1997 IALS survey.

14.7.2 Broad findings

The levels for literacy (and numeracy) achieved by the Scottish working age population are shown in Figure 14.3. The SSAL 2009 survey report³⁶⁴ found that:

- Seventy three per cent of the Scottish working age population have a standard of literacies that is recognised internationally as appropriate for a contemporary society (IALS Level 3 or above in at least one of the three literacy scales, corresponding approximately to Skills for Life Level 2 or above in literacy and Skills for Life Level 1 or above in numeracy);
- one quarter of the Scottish population (27 per cent) may face occasional challenges and constrained opportunities due to their literacies difficulties, but will generally cope with their day-to-day lives (all three IALS skills at Level 1 or 2, corresponding approximately to Skills for Life Level 1 or below in literacy and Skills for Life Entry Level 3 or below in numeracy);
- within this quarter of the population, 3.6 per cent (one person in every 28) face serious challenges in their literacies practices (all three IALS skills at Level 1, corresponding approximately to Skills for Life Entry Level 3 or below in literacy and Skills for Life Entry Level 2 or below in numeracy).
- Skills were not strongly related to gender, though there was a relationship with age (26 to 35 year-olds have stronger skills and higher education than other age groups). There were very few people who scored in Level 5 across the survey, as was also the case in 1997, and because of this Levels 4 and 5 are combined, and referred to as 'Level 4/5.'

³⁶⁴ St.Clair, R., L. Tett and K. Maclachlan (2010) *Scottish Survey of Adult Literacies 2009: Report of Findings*. Scottish Government Research Report, available online at: <http://www.scotland.gov.uk/Resource/Doc/319174/0102005.pdf>, accessed on 28/03/12.

Figure 14.3 Distribution of Literacy Levels across the Scottish population (From SSAL) (%)

14.7.3 Summary of the comparison

On all three scales (prose, document and quantitative) the majority of people in Scotland scored at IALS Level 2 or 3. Scoring at Level 3 or above is generally recognised as indicating that individuals have the skills at a level appropriate for a contemporary economy. The proportions of adults in Scotland scoring at or above Level 3 are: 55 per cent for prose literacy, 61 per cent for document literacy and 66 per cent for quantitative literacy. These figures are similar to those of other advanced economies in the 1997 International Adult Literacy Survey.

The major differences between the SSAL 2009 and Sfl2011 that make any direct comparison inappropriate are that the SSAL 2009 population sampling was different from the previous cycle in Scotland and changes were made to the analysis model used for SSAL 2009 compared to previous IALS surveys.³⁶⁵ The previous SSAL cycle was based on IALS approaches where a comparison with Skills for Life was possible. However, the changes to SSAL methodology for 2009 make direct comparability with SSAL's previous cycle impossible, and therefore direct comparisons to Sfl2011 are also no longer possible. However, some general comparisons of magnitude and trend are feasible and made below.

³⁶⁵ St.Clair, R., L. Tett and K. MacLachlan (2010) Scottish Survey of Adult Literacies 2009: Report of Findings. Scottish Government Research Report, available online at: <http://www.scotland.gov.uk/Resource/Doc/319174/0102005.pdf>, accessed on 28/03/12: section 6.2.

In IALS 1997 the UK population at IALS Level 1 was around 22 per cent for literacy (prose and document), and in 2009 the Scottish population at IALS Level 1 was around seven per cent suggests the possibilities that:

- Scotland may have had a different profile of skills to the rest of the UK in 1997 at the time of the IALS survey, and/or
- there has been a large change in the skills of that part of the population that had weaker skills in 1997, and/or
- the skill level boundaries have moved significantly from the 1997 survey to the 2009 survey (no further information about this is available).

Noting the caveat that direct comparison is not possible, this difference is also observed between the results for Scotland in 2009 and the SfL2011 survey (for example, only around 8 per cent of adults at Entry Level or below compared to 15 per cent in England in 2011).

14.8 Comparisons between the Skills for Life 2011 literacy survey and the Progress in International Reading Literacy Study (PIRLS)³⁶⁶ for literacy

The objective of the Progress in International Reading Literacy Study (PIRLS) is to examine trends in reading achievement of children, aged 10, from different countries. The study is conducted by the International Association for the Evaluation of Educational Achievement (IEA) and is designed to measure children's reading literacy achievement, to provide a baseline for future studies of trends in achievement, and to gather information about children's home and school experiences in learning to read.

The first PIRLS was carried out in 2001 (in 35 countries including England) and repeated in 2006 (in 41 countries also including England), with the intention to carry out studies every five years thereafter. A further study was conducted in more than 60 countries, including England, in 2011, with the results due for publication in December 2012.

14.8.1 Methodology

The assessment focuses on three main areas of literacy:

- Reading behaviours and attitudes;
- Process of comprehension;
- Purposes for reading.

Four 'background' questionnaires are used to determine reading behaviours and attitudes with regards to reading:

³⁶⁶ Further information is available at: http://www.iea.nl/pirls_2011.html accessed on 28/03/12.

- **Home/Parents** – students' early reading experiences, child-parent literacy interactions, parents' reading habits and attitudes, home-school connections, and demographic and socioeconomic indicators.
- **Students** - instructional experiences, self-perception and attitudes towards reading, out-of-school reading habits, computer use, home literacy resources, and basic demographic information.
- **Teachers** - characteristics of the class tested, instructional activities for teaching reading, classroom resources, assessment practices, and about their education, training, and opportunities for professional development.
- **Schools** - enrolment and school characteristics, school organization for reading instruction, school staffing and resources, home-school connections, and the school environment.

A written assessment is used to assess comprehension and the purposes for reading. The material is divided into assessment 'blocks', each of 40 minutes. Each block consists of a passage of up to 1,000 words and its associated questions. There are five blocks containing literary texts and five containing information texts. The blocks are combined into 13 different assessment booklets with two blocks in each booklet. One booklet is a colour 'reader'; this is a separate stimulus booklet containing two reading passages and with the assessment items in an accompanying response booklet. All participating pupils were randomly allocated an assessment booklet and all materials had unique identifiers.

PIRLS identifies two purposes for reading and four comprehension processes. The underlying structure of the PIRLS assessment is shown in Table 14.6. This table also shows the percentages of the assessments devoted to each element.

Table 14.6 PIRLS weighting of assessment components

Processes for reading comprehension	Purposes for reading		
	Literary experience 50%	Acquire & use information 50%	
Focus on and retrieve explicitly stated information			20%
Make straightforward inferences			30%
Interpret and integrate information and ideas			30%
Examine and evaluate content, language and textual features			20%

Across the assessment, combinations of questions, dealing with one of the processes, enable students to demonstrate a range of abilities and skills in constructing meaning from written texts. Reading literacy is directly related to the reasons why people read, such as reading for personal interest or pleasure, reading to participate in society, and reading to learn. For young readers, emphasis is placed on reading for interest or pleasure and reading to learn.

One of the central features, and strengths, of IEA surveys, is the explicit definition of the constructs being assessed. PIRLS 2006 adopted the following definition of reading literacy:

*'For PIRLS, reading literacy is defined as the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment.'*³⁶⁷

This definition, in which reading is seen as a constructive and interactive process, is intended to embrace multi-modal forms of reading, as well as traditional print forms. At this stage in PIRLS all assessments are undertaken using paper-based texts.

The written component of PIRLS consists of a mix of multiple choice questions, short answer questions and questions requiring longer written answers. Overall, approximately 50 per cent of the questions are multiple choice. The exact breakdown of question type is shown Table 14.A3, Table 14.A4 in the Appendix of Tables. Significantly fewer multiple choice questions are used (approximately 18 per cent) to assess the reading process skills of interpretation and integration.

All questions are based on the student's reading and comprehension of the passages provided. Clearly, there are similarities between PIRLS and the assessment of reading used in the other assessment tools considered above such as the length of reading passage (Key Skills and Functional Skills); style of questions (Skills for Life, Key Skills). The amount of time required to undertake the survey, however, is significantly greater than with the other assessment approaches.

14.8.2 Broad findings

PIRLS is designed as a trend study which permits the examination of changes in performance over time. The results include average scale scores for those countries that participated in both PIRLS assessments (2001, 2006) together with the magnitude of change that occurred during that period for each and whether such a change was statistically significant. The report also describes what students know and can do in the area of reading and the relationship between hours of reading instruction and achievement in reading over time.

Between 2001 and 2006 the reading scale score for ten year-olds in England fell significantly (by 13 per cent), placing England 26th out of 28 (just ahead of Romania and Morocco) in terms of changes (no significant change was observed for Scotland, placing it mid-table), bringing England close to being downgraded on the benchmark reading scale from High to Intermediate.

The results from PIRLS in 2006 also show that 67 per cent of pupils in England received 3 hours or less formal or integrated teaching of reading per week. Not only did this place England 41st out of 46 countries, it also revealed a 14 per cent decline since 2001 in the hours dedicated to the teaching of reading. This may go some way to explaining the statistically significant fall in reading achievement in England found in the 2006 survey compared to 2001.

14.8.3 Summary of the comparison

Tentative comparisons can be drawn between the findings of the trends in literacy in the PIRLS surveys of 2001 and 2006 and the findings of SfL2011. Although the PIRLS surveys ten to eleven year-olds, those respondents (or their contemporaries) aged ten in 2001 may well have

³⁶⁷ Mullis, I. V. S., A. M. Kennedy, M. O. Martin and M. Sainsbury (2006). *PIRLS 2006 Assessment Framework and Specifications. Progress in International Reading Literacy Study*. Chestnut Hill, MA: Boston College. Available online at: <http://timss.bc.edu/PDF/P06Framework.pdf>, accessed on 28/03/12: p. 3.

taken part in SfL2011 as 16 to 20 year-olds. (The ten year-olds in 2001 would still have been too young to be included in SfL2003.) Students surveyed in PIRLS in 2006 would have been too young to participate in SfL2011.

PIRLS shows a decline in ten year-olds' skills in reading over the 2001 to 2006 period for England. If this were indicative of a longer period (i.e. from before 2001 and going on beyond 2006) of declining reading skills of ten year-olds, then it might be expected that the literacy levels of the younger groups in SfL2011 might have poorer skills than their equivalents in 2003. Table 5.29 shows that this is not found to be the case – literacy levels for young groups are higher in 2011 than they were in 2003.

Given that more information would be needed to identify with confidence the trend in reading level for ten year-olds (e.g. from the results of the 2011 PIRLS survey) and that further information would be needed about the progress in reading made by England's children between the ages of ten and 16, no further comparisons between PIRLS and the Skills for Life surveys are possible.

14.9 Comparisons between the Skills for Life 2011 literacy survey and the Programme for International Student Assessment (PISA) (2000, 2003, 2006, 2009)³⁶⁸ reading outcomes

The Programme for International Student Assessment (PISA) is an internationally standardised assessment that was jointly developed by participating economies and administered to 15 year-olds in schools (in 65 countries in 2009, risen from 43 in 2000, in both cases including the United Kingdom, with breakdowns available for the four nations). PISA assesses how far students that are near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation in society.

14.9.1 Methodology

In all cycles, the domains of reading, mathematical and scientific literacy are covered not merely in terms of mastery of the school curriculum, but in terms of important knowledge and skills needed in adult life. PISA's relevance to lifelong learning is that it is not limited to assessing students' competencies in school subjects. Students are also asked to report on their motivation to learn, their beliefs about themselves and their learning strategies.

Tests are typically administered to between 4,500 and 10,000 students in each participating country. So far four assessments have been carried out (in 2000, 2003, 2006 and 2009).

14.9.2 Broad findings

PISA results for the UK fell below the sampling standards required in 2000 and 2003 and so are not reported in PISA's longitudinal study.

Results for the assessment which took place in 2009 were released in December 2010, including both outcomes for England in terms of progress from one PISA cycle to the next, and

³⁶⁸ Further information is available online at: http://www.pisa.oecd.org/pages/0,2987,en_32252351_32235731_1_1_1_1_1,00.html, accessed on 28/03/12.

for England in terms of its rank order compared to other participating countries.³⁶⁹ Results in 2009 for reading placed England 25th out of 65 countries, with a score not significantly different from average (12 countries had reading scores significantly higher than England, 14 with scores about the same allowing for statistical significance, and 38 with lower scores). England had a relatively large difference between the scores of the weakest and strongest pupils compared with many other countries. No significant change in score was observed between PISA in 2009 and 2006 for England, although in PISA 2006 only seven countries had scores significantly higher than England.

This is perhaps a little in contrast to results from PIRLS although differences in the student age sampled and differences in methodology may be reflected in this.

14.9.3 Summary of the comparison

The PISA results for 2006 and 2009 show similar reading scores suggesting little change in the reading skills of 15 year olds between those dates. Information about reading skills in England 2000 and 2003, i.e. around the time of the SfL2003 survey, is not comparable with later PISA results.³⁷⁰

14.10 The Skills for Life numeracy assessment background

The Skills for Life 2011 survey numeracy assessment has a similar background to the literacy assessment. As for literacy, the 2011 numeracy assessment used the same questions and adaptive routing algorithm as the Skills for Life 2003 survey numeracy assessment. This section compares the content and outcomes of the numeracy survey assessment with other national tests of numeracy and international surveys involving numeracy skills.

The Skills for Life numeracy assessment questions are based on the standards and assessments used in 2003 paper-based QCA Key Skills/adult numeracy assessments in order to ensure that the items used in the survey tool were 'tried and tested', although, as for the literacy items, it was acknowledged that the conversion of items from paper to computer screen could, in some cases, change items as well as impose limitations on the items that could be used. New items were developed to assess adults operating below Level 1 as national testing at these Levels did not exist at the time. Wherever possible, however, items were devised using ideas and contexts taken from Levels 1 and 2, with reduced task demand (and simplified language).

14.10.1 Skills for Life Numeracy Levels

The authors of the assessment questions used the examples and illustrations given in the adult numeracy curriculum guidance materials and the adult numeracy standards in order to devise suitable contexts and ensure that questions were pitched at an appropriate Level. The adult numeracy curriculum covers three topics:

³⁶⁹ Organisation for Economic Co-operation and Development (2010) *PISA 2009 Results: Learning Trends: Changes in Student Performance Since 2000 (Volume V)*, PISA, OECD Publishing. Available online at: <http://www.pisa.oecd.org/dataoecd/11/15/48852742.pdf>, accessed on 28/03/12.

³⁷⁰ The PISA 2003 survey in England failed to meet international response rate benchmarks and so England's data was excluded from the published tables. Sturgis, P., Smith, P., Hughes, G., (2006) *A study of Suitable Methods for Raising Response Rates in School Surveys*, Department for Education and Skills, available online at: <https://www.education.gov.uk/publications/eOrderingDownload/RR721.pdf>, accessed on 06/08/12.

- **Number**, including numbers and the number system, and calculations
- **Measures, shape and space**, including common measures of money, time, temperature, distance, length, weight, capacity, perimeter, area and volume, and shape and position
- **Handling data**, including data and statistical measures, and probability

In summary of the Levels, the adult numeracy standards³⁷¹ state that:

- **At Entry Level 1**, an adult can read and understand information in simple graphical, numerical and written material; calculate and manipulate mathematical information to generate results which make sense and use given methods and given checking procedures appropriate to the specified purpose; present and explain results which show an understanding of the intended purpose using appropriate numbers, measures, objects or pictures.
- **At Entry Level 2**, an adult can read and understand information given by numbers, symbols, simple diagrams and charts in graphical, numerical and written material; calculate and manipulate mathematical information to generate results to a given level of accuracy using given methods and given checking procedures appropriate to the specified purpose; present and explain results which meet the intended purpose using appropriate numbers, simple diagrams and symbols.
- **At Entry Level 3**, an adult can read and understand information given by numbers, symbols, diagrams and charts used for different purposes and in different ways in graphical, numerical and written material; calculate and manipulate mathematical information to generate results to a given level of accuracy using given methods, measures and checking procedures appropriate to the specified purpose; present and explain results which meet the intended purpose using appropriate numbers, diagrams, charts and symbols.
- **At Level 1**, an adult can read and understand straightforward mathematical information used for different purposes and independently select relevant information from given graphical, numerical and written material; calculate and manipulate mathematical information to generate results to a given level of accuracy using methods, measures and checking procedures appropriate to the specified purpose; present and explain results which meet the intended purpose using an appropriate format to a given level of accuracy.
- **At Level 2**, an adult can read and understand mathematical information used for different purposes and independently select and compare relevant information from a variety of graphical, numerical and written material; calculate and manipulate mathematical information to generate results to an appropriate level of accuracy using methods,

³⁷¹ Department for Education and Skills (2001) *Adult Numeracy Core Curriculum*, available online at: <http://rwp.excellencegateway.org.uk/resource/Adult+numeracy+core+curriculum/pdf/>, accessed on 28/03/12.

measures and checking procedures appropriate to the specified purpose; present and explain results clearly and accurately using numerical, graphical and written formats appropriate to purpose, findings and audience.

14.10.2 Numeracy criteria tested in the Skills for Life numeracy assessment

The range of criteria tested in the Skills for Life survey numeracy assessment covers each of the three topic areas outlined above and described in Table 14.7 below, with more detailed about the coverage provided in Annex 2. The brevity of the survey and the use of multiple choice questions (used for all but three questions) were prerequisites in the survey design brief.

The numeracy questions were also given consideration to ensure that, where possible, the contexts were likely to be familiar to the survey audience. For example at Entry Level the questions on number may relate to counting money. At Level 1 the questions may relate to checking change following a transaction, and at Level 2 the questions may relate to calculating a percentage increase e.g. for VAT.

Table 14.7 Numeracy Skills for Life Curriculum sections and sub-sections

Number (N)	Measures, shapes and space (MSS)	Handling data (HD)
Whole numbers (N1)	Common measures (MSS1)	Data (HD1)
Fractions, decimals and percentages (N2)	Shape and Space (MSS2)	Probability (HD2)

14.10.3 The structure of the Skills for Life survey numeracy assessment

The assessment comprised a bank of 48 questions organised by Levels and stages. An underpinning algorithm controls the progress of the assessment so that respondents are routed automatically from one question to the next, ensuring that they are generally answering questions at an appropriate Level in terms of challenge. Respondents are presented with items in seven groups or 'steps'. Each of these seven steps targets different aspects of numeracy. In the first step, all respondents meet the same four items, two at Entry Level 1 and one each at Entry Levels 2 and 3. These were deliberately chosen so as to present familiar and straightforward tasks to all respondents. Based on their performance, respondents are then directed to one of three overlapping groups of five items, forming Step 2, with items ranging from Entry Level 1 to Level 2. Depending on their performance on these, the algorithm takes respondents to two items of an appropriate Level in Step 3; these range from two at Entry Level 1 to two at the top Level - Level 2. Again depending on their performance on these, the algorithm takes respondents to two appropriate items in Step 4. This is repeated through to Step 7 so that each respondent encounters 19 items in all. Further information about the numeracy assessment design is provided in Annex 2.

Note that although all questions have a one mark tariff, the marks awarded are then scaled (from one to five) depending on the Level of the question. The outcome Level for the numeracy assessment is assigned using cut scores based on the scaled score at the end of the assessment.

14.11 Comparisons between Skills for Life numeracy assessment with National Tests, Key Skills tests, and Functional Skills assessments

14.11.1 Comparisons between the Skills for Life numeracy assessment and National Tests in Adult Numeracy and Key Skills Application of Number assessments

As noted for literacy, both the Key Skills assessments and the Skills for Life National Tests for numeracy are summative. Each assessment is set at a specified Level and candidates are entered for that specific Level only. The Skills for Life numeracy assessment is effectively an initial assessment providing an indication as to at which of the five Levels a respondent is likely to be operating. It is however possible to compare the content of the Key Skills standards and National Tests with the Skills for Life numeracy assessment, as shown in Table 14.8.

Table 14.8 Key Skills Application of Number/adult numeracy tests at Levels 1 and 2³⁷²

Structure	Context	Comparison with Skills for Life numeracy assessment
<p>Content: 40 questions to be completed in 75 minutes. Calculators are not permitted in the Level 1 and 2 Key Skills Application of Number assessments.</p> <p>Structure: sets of questions based around a common scenario. The scenario is usually introduced by a single sentence e.g. Questions 1 to 7 are about a family trip to Scotland in November.</p> <p>Weighting of the assessment: Marks are allocated to the three areas as: Interpreting information – 15 marks Carry out calculations – 22 marks Interpreting results and present findings – 3 marks</p>	<p>The external assessment of Application of Number addresses the following: Interpret Information Carry out calculations Interpret results and present findings</p> <p>At Level 1 candidates are required to handle simple numerical and graphical information, and techniques applied in the context of short activities. Calculations will usually involve only one or two steps. Much of the numerical content will be concerned with whole numbers and the use of decimals in everyday contexts (e.g. in using money or taking measurements).</p> <p>At Level 2 candidates are required to set their use of application of number skills in the context of calculations that involve two or more steps and a more demanding range to techniques and understanding. Candidates will be expected to know how to work with numbers of any size, including addition and subtraction of fractions, calculations involving area and volumes, ratio, unit conversions, percentages and scaling, as well as the use of formulae and graphs.</p>	<p>The Level 1 and Level 2 questions in the SfL2011 were taken from the Key Skills Application of Number assessments.</p> <p>Key Skills and the Skills for Life numeracy assessment both use contextualised questions.</p>

³⁷² Test Specification for National Skills Tests used for Key Skills and Skills for Life qualifications can be found online at:
<http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/qualifications/6136.aspx>, accessed on 28/03/12.

14.11.2 Comparisons between the Skills for Life survey numeracy assessment and Functional Skills Mathematics assessments

As for Functional English, Functional Mathematics³⁷³ has external assessment at Levels 1 and 2, with internal assessment required for Entry Levels. Awarding organisations develop their own assessment materials for all Levels – there are no National Tests, and so comparison of the numeracy survey assessment against Functional Skills assessments is impractical. However a comparison of the Functional Mathematics criteria³⁷⁴ is possible, and is shown in Table 14.8.

The evaluation of the Functional Skills pilot³⁷⁵ identifies that Functional Skills adds demand for further skill layers of analysis, application and purpose and consequently Functional Skills is regarded as more challenging to deliver and achieve than Skills for Life (the standards against which the numeracy survey assessment is based), and this is illustrated in Table 14.9.

³⁷³ Qualifications and Curriculum Authority (2007) *Functional Skills Standards*, available online at: <http://www.excellencegateway.org.uk/pdf/Functional%20skills%20standards.pdf>, accessed on 28/03/12.

³⁷⁴ Office of Qualifications and Examinations Regulation (2011) *Functional Skills Criteria for Mathematics. Entry 1, Entry 2, Entry 3, Level 1 and Level 2*, available online at: <http://www.ofqual.gov.uk/downloads/category/68-functional-skills-subject-criteria?download=1173%3Afunctional-skills-criteria-for-mathematics>, accessed 28/03/12.

³⁷⁵ Qualifications and Curriculum Development Authority (2011) *Evaluation of the Functional Skills Pilot*, available online at: <http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/resources/7585.aspx>, accessed on 28/03/12.

Table 14.9 Functional skills mathematics at Entry Levels and Levels 1 and 2³⁷⁶

Structure	Context	Comparison with Skills for Life numeracy assessment
<p>Content: series of tasks set in realistic scenarios; duration: one hour to 90 minutes for Entry Level. Ninety minutes to two hours for Levels 1 and 2. Calculators are permitted in Functional mathematics assessments.</p> <p>Structure: The assessment of Functional Mathematics is 75 per cent open response at all Levels. This is a problem solving approach. Open response excludes the use of multiple choice questions. Another condition of open response/problem solving is that candidates are awarded marks for evidencing use of a correct method, even if they do not get the right answer.</p> <p>Weighting of the assessment: The assessment of each component (Representing, Analysing and Interpreting) is equally weighted.</p>	<p>The Functional mathematics at each Level is defined by two criteria – the Skills standards and the Coverage and range.</p> <p>The Functional Mathematics Skills standard at each Level comprises three components – Representing, Analysing and Interpreting. Each individual assessment must assess all the Skill standards.</p> <p>The Coverage and range statements provide indications of the types of mathematical content candidates are expected to apply in functional contexts. Awarding organizations are responsible for determining the extent to which the assessment tasks provide opportunities for candidates to apply the indicative coverage and range.</p> <p>Assessment tasks focus on functionality which is the effective application of process skills in purposeful contexts and scenarios that reflect real-life situations.</p> <p>Assessment tasks require candidates to demonstrate their ability to represent, analyse and interpret, using number (including algebra at Level 2), geometry and statistics in functional contexts.</p>	<p>Functional Mathematics assessments and the Skills for Life numeracy survey assessment use contextualised questions.</p> <p>The closed Multiple Choice questions in the Skills for Life numeracy survey assessment bear little resemblance to the Functional skills open questions.</p> <p>Functional mathematics is regarded as being at a standard which is slightly higher than the equivalent Level for Key Skills or adult numeracy criteria.³⁷⁷ For example Functional mathematics at Level 1 requires ‘use data to assess the likelihood of an outcome’. This does not exist in the Key Skills or adult numeracy at Level 1.</p>

14.11.3 Summary of the comparisons

As for Literacy, there are differences between skills development and assessment approaches for Skills for Life numeracy and Key Skills Application of Number, although they share the same national tests at Levels 1 and 2 and the Skills for Life numeracy standards effectively elaborate the Key Skills Application of Number criteria. Functional Mathematics standards and assessments add demand in terms of further skill layers and assessment of application and purpose. The Skills for Life numeracy/Key Skills Application of Number National Tests, and the

³⁷⁶ Office of Qualifications and Examinations Regulation (2011) *Functional Skills Criteria for Mathematics Entry 1, Entry 2, Entry 3, Level 1 and Level 2*, available online at: <http://www.ofqual.gov.uk/downloads/category/68-functional-skills-subject-criteria?download=1173%3Afunctional-skills-criteria-for-mathematics>, accessed on 28/03/12: p. 3-8 and Office of Qualifications and Examinations Regulation (2012), *Criteria for Functional Skills Qualifications*, available online at <http://www.ofqual.gov.uk/downloads/category/67-functional-skills-qualification-criteria>, accessed on 28/03/12.

³⁷⁷ Qualifications and Curriculum Development Authority (2011) *Evaluation of the Functional Skills Pilot*, available online at: <http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/resources/7585.aspx>, accessed on 28/03/12: p. ii, iii.

Functional Skills Assessments assess at a single level and cover the entire range of criteria at that level in order to reach a judgement about competence. In both cases the assessments last an hour or more. The Skills for Life survey numeracy assessments takes around half that time, and measures skills at a wide range of levels from Entry Level 1 to Level 2, and so must necessarily sample the specification and make judgements based on responses to a smaller number of items. It should however be noted though that whereas in the case of literacy, all the assessments, including the Skills for Life survey assessments, assess only a relatively small part of the criteria (reading and very limited elements of writing, not assessing most of writing or any of speaking and listening), all the numeracy assessments cover the breadth of the criteria relatively well.

For direct comparison purposes, Table 14.A2 in the Appendix of Tables illustrates differences between Key Skills, adult literacy and Functional Skills standards as assessed at Level 1 and Level 2.

14.12 Comparisons between the Skills for Life 2011 numeracy survey, the International Adult Literacy Survey (IALS 1997)³⁷⁸ and the Centre for Longitudinal Studies/ National Foundation for Educational Research 1997 survey³⁷⁹ for numeracy

As mentioned in Section 14.5, the 1997 IALS survey included as one of its three measures a score for 'quantitative literacy - the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a chequebook, figuring out a tip, completing an order form or determining the amount of interest on a loan from an advertisement.'³⁸⁰ The CLS/NFER study also included an assessment of numeracy. More information regarding the methodology for these two surveys is provided in sections 14.5.1 and 14.5.2.

14.12.1 Broad findings from IALS and CLS/NFER NCDS **IALS**

Based on the twelve fairly simple numeracy questions, 22 per cent of adults in Britain got fewer than six correct answers, as compared with Australia (14 per cent), France (ten per cent), Sweden and Denmark (both seven per cent), Japan (five per cent) and the Netherlands (four per cent).

³⁷⁸ Kirsch, I. S. (2001) *The International Adult Literacy Survey (IALS): Understanding What Was Measured*. Educational Testing Service Research Report, available online at: <http://www.ets.org/Media/Research/pdf/RR-01-25-Kirsch.pdf>, accessed on 28/03/12.

³⁷⁹ Bynner, J. and S. Parsons (1997) *It Doesn't Get any Better*. The Basic Skills Agency.

³⁸⁰ Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12.

Figure 14.1 shows the quantitative literacy (numeracy) levels achieved for IALS in terms of the IALS levels. Figure 14.4 shows these outcomes in terms of approximate Skills for Life Levels, with comparisons to the outcomes from the 2003 and 2011 Skills for Life surveys.

The survey placed the United Kingdom 15th out of 20 nations for overall numeracy and suggested that 23 per cent of adults in the United Kingdom had numeracy skills at the lowest Level in IALS, behind only Poland (39 per cent) and Ireland (25 per cent) although it noted that the United Kingdom was among the nations with the widest spread of Numeracy Levels amongst its population. A further 25 per cent of the UK population were found to have poor skills (Level 2 in IALS). These findings were further analysed in the Moser report.³⁸¹

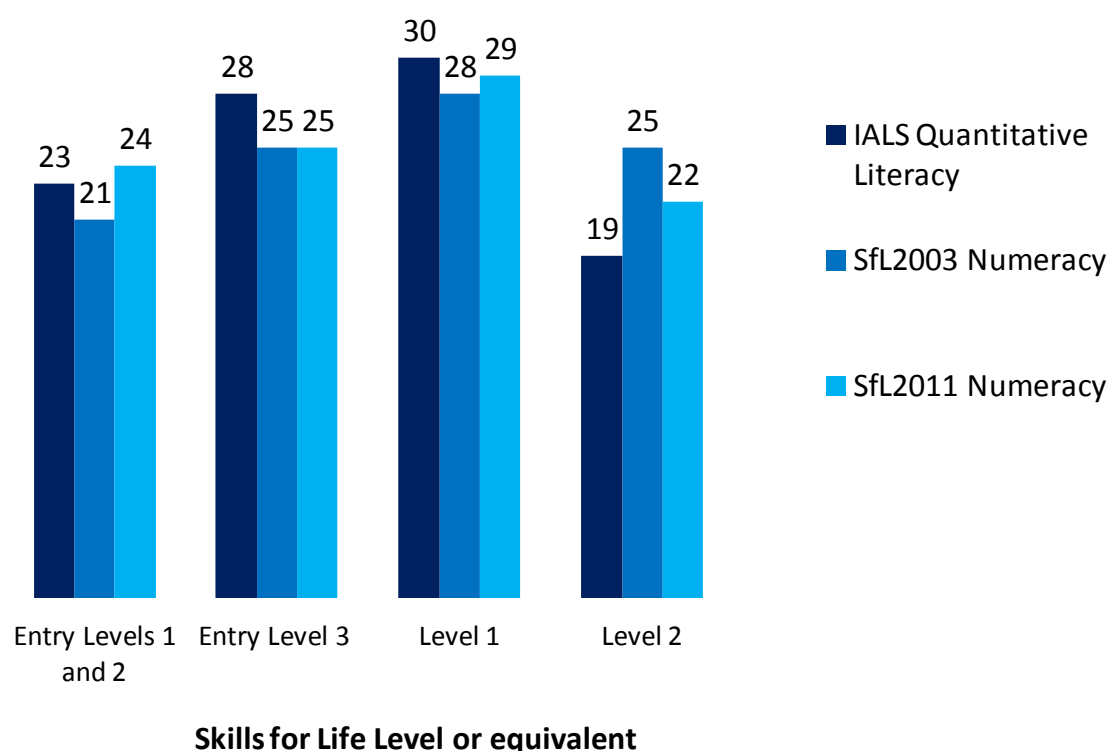
It is clear from work undertaken at the time of the Moser report, and subsequent analysis in the SfL2003 report³⁸² that mapping Skills for Life numeracy core curriculum Levels to IALS quantitative literacy is more difficult than for literacy. The number of questions presented in IALS was low and most focused on arithmetic whereas most numeracy curricula, including Skills for Life, take a broader view – including measures, shape and space and data handling for example. But although IALS quantitative literacy is not the same as the numeracy survey assessment (and although the coverage of IALS is all of the UK whereas the Skills for Life surveys cover England only), it is sufficiently similar for comparing the patterns found in each survey, if not direct percentages. The SfL2003 report describes IALS Level 1 (very poor quantitative literacy) as most closely equivalent to Skills for Life Entry Levels 1 and 2, and IALS Level 2 (poor) to Skills for Life Entry Level 3. IALS Level 3 corresponds to Skills for Life Level 1, and IALS 4/5 to Level 2 or above.

The Moser report drew the conclusion that 40 per cent of the UK population had numeracy problems (slightly fewer than the 50 per cent at IALS Levels 1 and 2), and drew what became used as the threshold Level at Entry Level 3 or above in the then Basic Skills standards.

Figure 14.4 compares the outcomes from the three surveys. It shows that in 2003, 21 per cent of adults in England were below Entry Level 3 in numeracy, and that this figure rose to 24 per cent in 2011.

³⁸¹ Moser, C. et al. (1999) *Improving literacy and numeracy: a fresh start*. The report of the working group chaired by Sir Claus Moser on behalf of the Department for Education and Skills, available online at <http://www.lifelonglearning.co.uk/mosergroup/index>, accessed 28/03/12: Annex A.

³⁸² Williams, J., S. Clemens, S. Oleinikova, and K. Tarvin (2003) *The Skills for Life Survey: a National Needs and Impact Survey of Literacy, Numeracy and ICT skills*. Department for Education and Skills Research Report 490, available online at: <https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RR490>, accessed on 28/03/12: p. 140-141.

Figure 14.4 IALS Survey (1997) and Skills for Life 2011 Numeracy Levels (%)

Base: IALS: approximately 6700 respondents aged 16-65, IALS 1997 Survey Report,³⁸³ Sfl2003 All aged 16-65 with numeracy score (8040) / Sfl2011 All aged 16-65 with numeracy score (5823)

CLS/NFER NCDS

The closest contemporary survey of the scale of need for numeracy skills in Britain at the time of the IALS survey was the reports from the Centre for Longitudinal Studies at the Institute of Education, 'It Doesn't Get any Better' and 'The Basic Skills of Young Adults' (described in Section 14.5), the key results of which are shown in Table 14.10 below. The 'low' and 'very low' groups correspond to skills below Level 1 in terms of the Skills for Life Core Curriculum. The findings here support the broad spread of Levels identified by IALS and subsequently by Sfl2003 and Sfl2011.

³⁸³ Organisation for Economic Co-operation and Development Statistics and Statistics Canada (2000) *Literacy in the Information Age*, available online at: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>, accessed on 28/03/12: Annex B p. 111.

Table 14.10 Numeracy Levels among 37 year-olds, CLS/NFER NCDS Cohort Study 1997³⁸⁴

Skills Levels	Approximate Skills for Life Numeracy Level	%
Very low	Below Entry Level	23
Low	Entry level	25
Average	Level 1	25
Good	Level 2 or above	27

Base: approx. 1700 respondents, CLS/NFER NCDS survey, 1997

The 16 to 25 year old cohort in IALS was educated at a different time from the 16 to 24 year-olds in SfL2003. So any gap in performance between this IALS cohort and the next one up may suggest an age effect rather than a cohort effect.

In IALS in 1997, there was the same significant gap in the proportions of 16 to 25 year-olds and 26 to 35 year-olds achieving the top Levels as seen in SfL2003. Only 20 per cent of 16 to 25 year-olds achieved IALS Levels 4/5 in quantitative literacy (the highest Levels, corresponding approximately to National Qualifications Framework³⁸⁵ Level 2 or above as used in SfL2003 and SfL2011), compared to 30 per cent of 26 to 35 year-olds.

The equivalent figures for the SfL2003 survey were 24 per cent for 16 to 24 year-olds achieving Level 2 or above and 29 per cent of 25 to 34 year-olds (this latter corresponding largely to the 16 to 25 year old cohort from IALS). The equivalent figures for SfL2011 were 17 per cent for 16 to 24 year-olds achieving Level 2 or above and 23 per cent for 25 to 34 year-olds.

There was very little difference in the proportions in IALS and SfL2003 survey classified at the *lowest* Level (IALS Level 1, roughly equivalent to Entry Level 2 or below), but, in SfL2011, 16 to 25 year-olds were more likely than 26 to 35 year-olds to be classified at the medium-low and low Levels in IALS (IALS Levels 1 and 2, roughly equivalent to all of Entry Level 3 or below in this survey). Sixteen to 25 year-olds were more likely than 26 to 35 year-olds to be classified at the medium-low and low Levels (IALS Levels 1 and 2, roughly equivalent to all of Entry Level 3 or below in this survey). This is similar to the results of SfL2003 and SfL2011 (27 per cent of respondents aged 16 to 24 at Entry Level 2 or below in 2011, and 20 per cent in 2003).

14.12.2 Summary of the comparisons

The IALS and CLS/NFER surveys provided similar evidence for the Moser Report which concluded in 1999 that 40 per cent of the UK population had numeracy problems, and led to the threshold of functionality being drawn at Entry Level 3 in numeracy (at the time, around 23 per cent of adults were below that level according to the IALS survey although comparisons of levels between IALS and the Skills for Life surveys is more difficult in numeracy than literacy).

³⁸⁴ Bynner, J. and S. Parsons (1997) *It Doesn't Get any Better*. The Basic Skills Agency

³⁸⁵ Office of Qualifications and Examinations Regulation (2010) *Explaining the National Qualifications Framework*, available online at: <http://www.ofqual.gov.uk/qualifications-assessments/89-articles/250-explaining-the-national-qualifications-framework>, accessed on 28/03/12.

In 2003, the Skills for Life survey concluded that 21 per cent of adults of working age in England were below that level, with the figure rising to 24 per cent in 2011.

14.13 Comparisons between the Skills for Life 2011 Survey and the National Survey of Adult Skills in Wales, 2010³⁸⁶ for numeracy

The methodology for National Survey of Adult Skills in Wales, 2010 (and its predecessor in 2004) is described in Section 14.6 and has a high level of comparability with Sfl2011 and Sfl2003 as the same survey instruments were used.

14.13.1 Broad findings

Table 14.11 shows a comparison of the numeracy results from the two surveys in England (2003 and 2011) and Wales (2004 and 2010). The results for EFL speakers in England are compared against the Welsh results of the 'English medium' survey in order to provide approximately comparable populations.³⁸⁷

Table 14.11 Numeracy levels from Skills for Life surveys in England (2003, 2011) for EFL speakers and the Welsh 'English medium' survey (2004, 2010)

NUMERACY LEVEL	ENGLAND			WALES*		
	2003 %	2011 %	Change since 2003 ³⁸⁸ %	2004 %	2010 %	Change since 2004 %
Entry Level 1 or below	4	5	+1	7	5	-2
Entry Level 2	16	16	0	20	17	-3
Entry Level 3	25	26	+1	26	29	+3
Level 1	28	30	+2	25	29	+4
Level 2 or above	26	23	-3	22	21	-1
Entry Level 2 or below	20	22	+2	27	22	-5
Entry Level 3 or above	80	78	-2	73	79	+6

Base: Sfl2003 England All aged 16-65 with numeracy score (8040), Sfl2011 England all Aged 16-65 with numeracy score (5823), Adult Skills Wales 2004 (2555) All aged 16-65, Adult Skills Wales 2010 (2116) All Aged 16-65

*Welsh survey results reported to whole number percentage level only

Overall results show that, in a similar fashion to England, there has been little change in numeracy skills in Wales amongst English speakers since the preceding survey in 2004/05:

³⁸⁶ Miller, N and K.Lewis (2011) *National Survey of Adult Skills in Wales 2010*. Welsh Government social research report number 27/2011, available online:

<http://new.wales.gov.uk/about/aboutresearch/social/latestresearch/5618505/?lang=en>, accessed on 28/03/12.

³⁸⁷ When comparing the EFL literacy levels for the Skills for Life survey in England with the results for the Welsh English medium survey, it should be noted that the Welsh survey includes non-Welsh speaking people whose first language is not English. The parameters of the populations being compared are not precisely identical.

³⁸⁸ The changes listed in the table do not sum to 0 due to rounding.

- 51 per cent of adults who in Wales were assessed to have Entry Level numeracy skills compared to 53 per cent in 2004. In comparison in England 47 per cent of respondents achieved an Entry Level score in 2011, as did 45 per cent of respondents in 2003.
- 29 per cent of adults in Wales were assessed to have Level 1 numeracy skills compared to 25 per cent in 2004. In comparison in England 30 per cent of respondents were at Level 1 in 2011 and 28 per cent in 2003.
- 21 per cent of adults in Wales were assessed to have Level 2 or above numeracy skills, compared to 22 per cent in 2004. In comparison, in England had 23 per cent at Level 2 in 2011 and 26 per cent in 2003.

14.13.2 Summary of the comparison

In contrast to literacy, numeracy skills in both England and Wales have changed little over the periods between the surveys. Numeracy skills in Wales have improved a little overall, which is in contrast to England, where they have declined slightly. In both cases, numeracy skills at Level 2 are a little lower in the later surveys than the earlier ones. It should be noted that the period between the surveys in Wales is approximately two years shorter than in England.

In line with the findings for England, numeracy skills in Wales were higher for the employed, those with higher household incomes and those with higher qualifications.

14.14 Comparisons between the Skills for Life 2011 numeracy survey and the Scottish Survey of Adult Literacies (SSAL) (numeracy outcomes), 2009

The background and methodology for the SSAL 2009 survey are described in Section 14.7.

14.14.1 Broad findings

The survey results for quantitative literacy (comparable to Skills for Life numeracy, see Section 14.5) are presented in Figure 14.3.

14.14.2 Summary of the comparison

With 66 per cent achieving IALS Levels 3, 4 or 5 (broadly equivalent to Level 2 in the Skills for Life surveys and corresponding to the skills appropriate for a contemporary economy) in 'quantitative literacy' compared to 22 per cent in England in 2011, this suggests that numeracy skills are substantially stronger among people in Scotland than in England. More detailed comparison is not possible due to the factors described in Section 14.7.3.

14.15 Comparisons between the Skills for Life 2011 Survey and the Trends in International Mathematics and Science Study (TIMSS)³⁸⁹ for numeracy

14.15.1 Methodology

The Trends in International Mathematics and Science Study (TIMSS) measures trends in mathematics and science achievement in schools around the world. Conducted on a regular 4-

³⁸⁹ Further information is available online at: http://www.iea.nl/current_studies.html, accessed on 28/03/12.

year cycle, TIMSS has assessed mathematics and science in 1995, 1999, 2003, 2007 and 2011. TIMSS 2007 involved approximately 425,000 students from 52 countries around the world. TIMSS 2011 is presently being processed and the outcomes will be published from December 2012. The aim of TIMSS is to provide comparative information about educational achievements across countries to improve teaching and learning in mathematics and science.

The study involves students in their fourth and eighth year of education (fourth grade and eighth grade). Students in England start school a year earlier than most other countries but in order to maintain the study across the same age group, TIMSS testing in England is with Year 5 and Year 9 students. The average age world-wide for the testing is 10.2 years for fourth grade students and 14.2 years for eighth grade students. This matches to the average age for English students at Year 5 and Year 9.

14.15.2 Broad findings

The outcomes of TIMSS are published as an average points score per country. TIMSS data from 2007 shows England as rated 7th in rank order for mathematics at both fourth and eighth grade (Year 5 and Year 9 for England) among the 52 countries that participated. England has maintained a consistently high standard of performance throughout the TIMSS cycle, and standards for 14 year-olds have improved with each cycle of the survey (i.e. 14 year-olds in 2007 did better than 14 year-olds in 2003, and so on).

The 14 year-olds surveyed by TIMSS in 1995 would have been 22 in 2003, and so may have participated in the SfL2003 as part of the 20-24 age group. Similarly, 14 year-olds surveyed for TIMSS in 2003 would have been 22 in 2011 and so may have participated in the SfL2011 survey. Although TIMSS suggests that numeracy improved for 14 year-olds from 1995 to 2003, the Skills for Life survey, shows (see Table 5.30) that numeracy standards declined for the 20-24 year old age groups in 2011 compared to 2003.

14.15.3 Summary of the comparisons

TIMSS analyses result in an overall average points score per country. This does not enable a comparison of trends based on Levels, as produced in SfL2011, so no further comparison can be drawn between its results and the results from the SfL2011 survey.

14.16 Comparisons between the Skills for Life 2011 numeracy survey and the Programme for International Student Assessment (PISA) (2000, 2003, 2006, 2009)³⁹⁰ mathematics outcomes

The methodology for PISA is described in Section 14.9.1. The results for mathematics in 2009 are less rigorous than for reading as mathematics was not the main focus of assessment in the 2009 PISA survey.

14.16.1 Broad findings

Results for the assessment which took place in 2009 were released in December 2010, including both outcomes for England in terms of progress from one PISA cycle to the next, and for England in terms of its rank order compared to other participating countries.³⁹¹

³⁹⁰ Further information is available online at:

http://www.pisa.oecd.org/pages/0,2987,en_32252351_32235731_1_1_1_1_1,00.html, accessed on 28/03/12.

Results in 2009 for mathematics placed England 27th out of 65 countries, with a score not significantly different from the average (20 countries had scores significantly higher than England, 12 with scores about the same allowing for statistical significance, and 32 with lower scores).

England had a relatively small difference between the mathematics scores of the weakest and strongest pupils compared with many other countries. PISA scores in mathematics for all countries increased a little between 2006 and 2009 and England retained its position relative to the average.

14.16.2 Summary of the comparison

For reasons described in Section 14.9.3 no direct comparison is drawn with the Skills for Life survey results.

14.17 Future international survey of literacy and numeracy: Programme for the International Assessment of Adult Competences (PIAAC)³⁹²

PIAAC is intended to be the most comprehensive international survey of adult skills ever undertaken, measuring literacy, numeracy and problem solving skills. It is being conducted by collaboration between governments, an international consortium of organisations and the OECD, and is taking place across 27 OECD and partner countries (including England). Collection of data began in August 2011 and the first results will be published at the end of 2013.

PIAAC comparisons were considered in the development stage of SfL2011 and the conclusion was that although the two sets of assessments have similar objectives they are constructed differently and test different skills - in this regard a simple mapping of results from one to the other would not be accurate. There will however be some scope to contextualise the SfL2011 findings within the thematic findings of the PIAAC field trial.

The rationale for BIS commissioning two basic skills survey is that the timescales for reporting are different, different skills are measured and they compare against different benchmarks – national and international. Additionally, PIAAC will provide a time-series comparison against the International Adult Literacy Survey in which the UK participated during 1996.

At the outset it should be noted that the purpose of PIAAC to determine the extent to which adults have developed the basic component skills and to help individual countries understand more about those people who are identified as having low Literacy/Numeracy Levels. The purpose of SfL2003 and SfL2011 is not as comprehensive: they were commissioned as an initial assessment to determine (within 25 minutes) the *probable* Levels of literacy at which respondents were functioning.

³⁹¹ Organisation for Economic Co-operation and Development (2010) *PISA 2009 Results: Learning Trends: Changes in Student Performance Since 2000 (Volume V)*, PISA, OECD Publishing. Available online at: <http://www.pisa.oecd.org/dataoecd/11/15/48852742.pdf>, accessed on 28/03/12, and Bradshaw, J et al (2010) *PISA 2009: Achievements of 15-year-olds in England*, available online at: <http://www.nfer.ac.uk/nfer/publications/NPDZ01/NPDZ01.pdf>, accessed 18/06/12.

³⁹² Further information available online at: http://www.oecd.org/document/35/0,3746,en_2649_201185_40277475_1_1_1_1,00.html, accessed on 28/03/12.

14.17.1 PIAAC and the Skills for Life 2011 Survey: alignment, coverage and Levels Literacy

PIAAC defines literacy as

*‘...the ability to understand and use information from written texts in a variety of contexts to achieve goals and further develop knowledge and potential.’*³⁹³

The PIAAC assessment of literacy draws heavily on previous international studies (IALS in particular, considered earlier in this chapter, in Section 14.5). However, the PIAAC assessments have been refined and extended in new ways. PIAAC is intended to give an overall measure only of ‘reading literacy’; countries can report prose and document reading literacy results separately. The PIAAC Literacy Expert Group found that an expanded and re-ordered version of the IALS/ALLS³⁹⁴ definition would meet both the descriptive, expansive, and linking criteria it wanted for PIAAC. As a result it incorporates the wide range of material introduced by IALS and ALLS, drawing about 60 per cent of the tasks/items from the existing IALS surveys, with the remaining 40 per cent being new items developed for PIAAC. It also extends the framework used in earlier surveys to include electronic texts.

During the production of this report it has not been possible to obtain the full set of IALS items (although a selection are available in the IALS technical reports), although information about the IALS outcome Levels is available and is presented in Section 14.5. The PIAAC items are not yet published.

It has to be stressed that the SfL2011 and PIAAC surveys have differing assessment criteria and weighting of assessment elements. For example, the only literacy skill area shared by both assessments is ‘Reading’. Here SfL2011 requires respondents to access and identify information from a given text. The PIAAC assessment goes much further: respondents are required to undertake descriptive, expansive, and linking tasks, i.e. initially they are required to access and identify information in a set text; they are then required to integrate and interpret information, and finally evaluate and further reflect on what they have read. Tasks can involve elements of problem solving and ‘functionality’ that involve drawing on knowledge, ideas or values external to the text.

³⁹³ OECD PIAAC information document No 88999 (2010) available online at: <http://www.oecd.org/dataoecd/13/45/41690983.pdf>, accessed on 28/03/12:p. 7.

³⁹⁴ The All Adult Literacy and Life Skills Survey (ALLS), 2003, measured the literacy and numeracy skills of a nationally representative sample of 16 to 65 year-olds from six participating countries (Bermuda, Canada, Italy, Norway, Switzerland, and the United States) and was undertaken by Statistics Canada and ETS who also undertook the IALS study.

Numeracy

PIAAC defines numeracy as

‘...the ability to access, use, interpret, and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life.’³⁹⁵

The PIAAC numeracy and the SfL2011 numeracy assessments have a number of common features as follows:

1. The SfL2011 numeracy assessment was built using the Adult Numeracy curriculum as a source. The domains covered in the Adult Numeracy curriculum are number, measures, shape and space and handling data whereas the PIAAC assessments are based on quantity and number, dimension and shape, pattern, relationships, and change, and data and chance.
2. The SfL2011 numeracy assessment establishes the respondent’s Numeracy Level based on an initial assessment model and done by using a computer based adaptive testing process in which participants are moved up or down through Levels according to their ability. The PIAAC numeracy assessment also uses a computer based adaptive testing process in which participants are moved according to the cumulative score they have achieved. The score given for questions in the PIAAC numeracy assessment are used cumulatively to place respondents on a scale of five Levels of performance (using the scale presented in Table 14.5 previously).
3. The questions in the SfL2011 numeracy assessment and the PIAAC test are both contextualised although there is some difference in the types of contexts as might be expected given that PIAAC is an international assessment so the contexts have to be a common feature for all countries involved.

Potential for further comparison work

Work was undertaken in SfL2003 to compare IALS Levels with Skills for Life Levels, as discussed earlier in this chapter (Section 14.5.3), based at the time on a review of assessment content, criteria and weighting. This qualitative comparison work could be repeated, taking similar account of item content, criteria and weighting for PIAAC, taking particular note of the:

- different purposes of the assessments;
- different structures, ‘adaptivity’ and timings;
- inclusion of problem solving in PIAAC;
- exclusion of writing from IALS and PIAAC; and

³⁹⁵ PIAAC Numeracy Expert Group (2009) *PIAAC Numeracy: A Conceptual Framework*. OECD Education Working Paper No. 35. Available online at: [http://www.oecd.org/officialdocuments/displaydocumentpdf?cote=edu/wkp\(2009\)14&doclanguage=en](http://www.oecd.org/officialdocuments/displaydocumentpdf?cote=edu/wkp(2009)14&doclanguage=en), accessed on 28/03/12: p. 20.

- dissimilar question types.

A further possibility, as considered in the research development and piloting project (prior to the main stage of SfL2011) would be for selected respondents of SfL2011 to be re-contacted and asked to undertake the PIAAC survey. If respondents completed both surveys it may be possible to build statistical models of the Skills for Life assessment items for direct comparison with the PIAAC item performance modelling (including both the IALS pre-existing items and the newly created ones). This would allow comparative work to move beyond comparison of the assessments as a whole and towards comparisons based on particular items or sub-skills. However the adaptive nature of the Skills for Life assessments will require complex statistical processes to establish suitable models and the success of this approach is not certain.

14.18 Comparisons of the Skills for Life 2011 Survey ICT assessment

The preceding sections look at comparisons between SfL2003 and SfL2011 in England and comparable surveys in those subjects undertaken in the UK and internationally. In the following sections, the Skills for Life 2011 survey ICT assessment is compared with other ICT qualifications and standards in England (there are no equivalent surveys against which it can be compared).

The authors of the Skills for Life survey ICT assessment used the adult ICT skills standards in order to devise suitable contexts and ensure that questions were pitched at an appropriate Level. So, for example, the standards³⁹⁶ describe the following progression of skills from Entry Level 1 to Level 2:

- **At Entry Level 1**, a person can follow recommended safe practices with ICT, recognising sources of information, obtaining information and receiving ICT-based communication, as well as creating and editing simple information.
- **At Entry Level 2**, an adult can also keep access information such as passwords secure, find and use information appropriately, use ICT to communicate, and present information using ICT.
- **At Entry Level 3**, an adult can also keep information secure, select and use information sources to match requirements, create and edit numerical, visual and textual information, and present information in ways that are fit for purpose.
- **At Level 1**, an adult can use ICT independently to meet their needs, following appropriate safety and security procedures, select and use information for a variety of purposes including ensuring that the information gathered and recorded is fit for purpose. They can also use ICT to communicate and exchange information, and organise, develop, format and present information of a variety of types to be fit for purpose and audience.

³⁹⁶ National Standards for adult literacy, numeracy and ICT, QCA, 2005, http://www.ifl.ac.uk/_data/assets/pdf_file/0006/6639/14130_national_standards_for_adult_literacy_numeracy_ict.pdf, accessed on 28/03/12: p. 20-21.

- **At Level 2**, an adult can also select suitable ICT systems for purpose, manage and store information efficiently, select and use information for more complex tasks, and evaluate fitness for purpose of information obtained. They can also store ICT messages (e.g. emails) effectively, manage address lists and evaluate the fitness for purpose of different methods of presenting information.

14.19 The Skills for Life 2011 ICT assessment and national IT standards

The National Occupational Standards³⁹⁷ (NOS) for ICT Users³⁹⁸ are the source from which the ICT Skills for Life Standards³⁹⁹, the ICT Key Skills standards⁴⁰⁰ and the Information Technology Qualification⁴⁰¹ (ITQ) derive.

ICT Skill for Life Standards were developed from the NOS ICT user skills standards and were finalised in 2005. They do not include the more specialised and technical skills that are part of the NOS but focus on broad general skills required to work with common user applications.

The ITQ is unit-based with each unit corresponding to an area of competence in the NOS. Each ITQ assessment criteria corresponds to a knowledge statement or performance criteria in the NOS.

Complexity of competence in the NOS is defined within areas of competence at three Levels:

- Foundation - (corresponding to QCF Level 1)
- Intermediate - (corresponding to QCF Level 2)
- Advanced - (corresponding to QCF Level 3)

The SfL2011 ICT assessment maps directly to the Skills for Life Standards from Entry Level 1 to Level 2, but as these standards align with the NOS at Levels 1 and 2,⁴⁰² the SfL2011 ICT assessment at Levels 1 and 2 could also be mapped to the NOS and ITQ, as well as the Key Skills standards.

³⁹⁷ National Occupational Standards are statements of the standards of performance that individuals must achieve when carrying out functions in the workplace. More information is available from UK Standards online at: <http://www.ukstandards.co.uk/about-nos/Pages/About-NOS.aspx>, accessed on 28/03/12.

³⁹⁸ E-Skills UK (2009) *National Occupational Standards for ICT Users v3*, available online at: <http://www.e-skills.com/standards-and-qualifications/national-occupational-standards-nos>, (from download link at bottom of page) accessed on 20/08/12

³⁹⁹ Qualifications and Curriculum Authority (2007) *Skill for Life ICT Curriculum*. Department for Education and Skills, available online at: <http://archive.niace.org.uk/Research/ICT/ICT-Skill-for-Life-curriculum-Jan07.pdf>, accessed on 28/03/12.

⁴⁰⁰ Qualifications and Curriculum Authority (2004) *The Key Skills Qualifications Standards and Guidance. Communication, Application of Number and Information and Communication Technology*, available online at: http://www.cityandguilds.com/documents/ind_general_learning_keyskills/3638_qca-stdsguidance2004_main.pdf, accessed on 28/03/12.

⁴⁰¹ More information about ICT user qualifications is available online at: <http://www.e-skills.com/itq>, accessed on 28/03/12.

⁴⁰² The National Occupational Standard for ICT Users start at Level 1 so no mapping for ICT skills between Skills for Life and NOS is possible below Level 1.

The tasks set in the three user application components of the 2011 assessment (word processing, email and spreadsheet) can be mapped to NOS performance criteria in the NOS area of competence Using IT productivity tools and applications within the Foundation and Intermediate levels of complexity.

14.19.1 Nature of skills assessed

The NOS specify skills and knowledge primarily related to the workplace. In that respect they provide a traditional view of ICT user skills based on office productivity PC applications: word processing, database, spreadsheet, presentation, graphics, email communications, web browser, plus more specialist technical applications.

The remit for SfL2011 was to assess aspects of these 'traditional' skills in a practical manner. This was accomplished by asking respondents to complete specified tasks set in credible everyday contexts using real user applications.

The NOS do not take account of recent rapid developments in the use of powerful mobile devices and 'apps', the widespread use of social media (Facebook, Twitter, LinkedIn, YouTube, blogging etc.), by both individuals and commercial organisations, and the growing integration of ICT into daily life. The survey did not set out to assess what have become everyday 'life skills', such as managing bank accounts online, making internet purchases of goods, travel tickets and services etc. Arguably, these recent developments define a different type of ICT user and skill set. The multiple choice section of the assessment does assess wider ICT knowledge to a degree but is not a skills assessment.

It is certain that among our respondents are those that have ICT skills which were not assessed in the survey. The question is to what extent these more 'modern' skills can be inferred from our results.

14.19.2 Rationale for the Skills for Life 2011 ICT assessment

The NOS are concerned with areas of competence and complexity of competence: what it is that users are able to do using appropriate ICT applications in a work setting. It was therefore considered essential that the BIS ICT assessment should be practical and task based, otherwise interpretation of outcomes would be likely to present difficulties.

As described in Annex 2, a practical assessment technology based on real user applications (RATE) had made it feasible to create an entirely automated test system that would provide a high degree of realism and familiarity for respondents. The level and range of tasks required for the assessment were well within the capabilities of the user applications and the automatic marking system.

Time constraints on the assessment limited the number of tasks that could be set at each of the Levels from Entry Level 1 to Level 2. Thus those achieving Level 2, for example, in any one of the practical components will have attempted relatively few tasks at that Level, there being insufficient time to include a confirmatory phase in the assessment which could have been used to present an extended range of tasks at a particular Level. This possible shortcoming is alleviated by the fact that each set of tasks at a given Level were presented as a contextualised group which taken together produced an overall outcome, i.e. tasks were neither atomic nor set in isolation. Another factor to be taken into account is that tasks at each Level were set for each of the three user applications, so the total number of tasks at any Level across the assessment was reasonably substantial.

14.20 The Skills for Life 2011 ICT assessment and Functional Skills ICT assessments

The ICT Functional Skills⁴⁰³ qualifications are replacing the ICT Key Skills qualifications at Levels 1 and 2, and are available as both standalone qualifications and are also embedded within the umbrella qualifications of diplomas and apprenticeships, and offered within foundation learning programmes.⁴⁰⁴ A marked difference in the assessment models is the move from a portfolio plus 40-item multiple choice assessment for Key Skills to practical, context-based, holistic examination assessments for Functional Skills. The essence of the approach is that candidates must choose and use familiar applications to solve problems, produce information and create documents (under exam conditions).

As the outcomes from SfL2011 indicate (see Chapter 4), the results from a multiple choice assessment alone cannot be used as a reliable measure of actual user skills. Indeed, the introduction of portfolio assessment alongside the multiple choice assessment in Key Skills was recognition at the time of the need to assess both knowledge and skills in a valid way. Advances in examinations – allowing candidates to take examinations using computers has facilitated the use of a single skills examination, and removed the need for a portfolio component. In that respect the move to practical assessment is to be welcomed and should certainly prove to be both more efficient and an accurate method of ICT skills measurement than previous measures (there are a number of reliability issues with portfolio assessment and it is time consuming for candidates).

At present, most, if not all, Functional Skills assessments are human marked, either from printouts or files. However, as this survey has shown, it is now possible to provide respondents with real user applications and automatically mark output. Other than consolidating results to determine respondent Levels, no human marking at all was used in the SfL2011 ICT assessment.

It is not difficult to envisage the same technology being adapted to provide an automated means of assessment for an ICT Functional Skills qualification at Entry Level 3, Level 1 or Level 2, and a number of awarding organisations offering Functional Skills ICT are working on such systems.

⁴⁰³ Office of Qualifications and Examinations Regulation (2011) *Functional Skills Criteria for ICT Entry 1, Entry 2, Entry 3, Level 1 and Level 2*, available online at: <http://www.ofqual.gov.uk/downloads/category/68-functional-skills-subject-criteria?download=1172%3Afunctional-skills-criteria-for-ict>, accessed on 28/03/12

⁴⁰⁴ Further information is available online at: http://www.direct.gov.uk/en/EducationAndLearning/QualificationsExplained/DG_173874, accessed on 28/03/12.

15 Summary of findings and issues for further consideration

15.1 Introduction

This chapter provides a brief summary of the findings from the Skills for Life 2011 Survey which are presented in greater detail in the preceding chapters, along with consideration of validity and comparability aspects of the 2011 survey and initial hypotheses providing explanations for the findings.

15.2 Summary of the findings from the Skills for Life 2011 Survey

15.2.1 Survey background

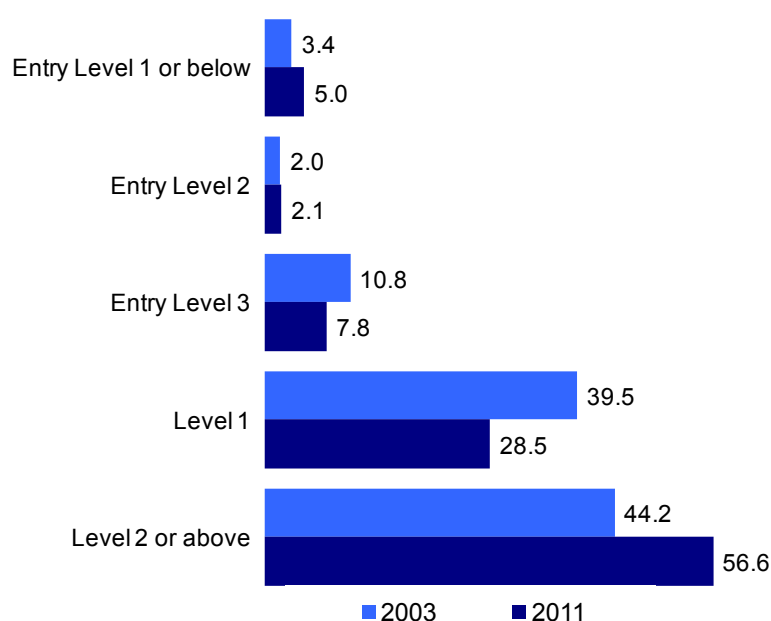
The Skills for Life 2011 Survey (SfL2011) was conducted between May 2010 and February 2011, with 7,230 interviews of adults aged 16 to 65 year-olds in England. The survey measured literacy and numeracy skills using the same assessment tools used in the Skills for Life 2003 Survey (SfL2003) to maximise comparability of results with that survey (which also surveyed 16 to 65 year-olds). SfL2011 also included a new assessment of ICT skills which has only limited comparability to the IT assessment performed in 2003.

Further information about the background to the SfL2011 is provided in Chapter 2 and Chapter 3 provides a descriptive overview of the population which took part in SfL2011.

Full details of the overall distribution of skills Levels is provided in Chapter 4, however a short summary are provided in Sections 15.2.2 to 15.2.4 below.

15.2.2 Overall distribution of Literacy Levels

Figure 15.1 shows the overall distribution of Literacy Levels in SfL2011 and SfL2003. Just under six in ten respondents (56.6 per cent) achieved a Level 2 or above score. This represents a substantial increase from 44.2 per cent in 2003. The proportion of respondents achieving a Level 1 score decreased from 39.5 per cent in 2003, to 28.5 per cent in 2011.

Figure 15.1 Literacy Levels in 2003 and 2011 (%)

Base: Sfl2003 All aged 16-65 with literacy score (7874) / Sfl2011 All aged 16-65 with literacy score (5824)

Note: this is a repeat of Figure 4.1

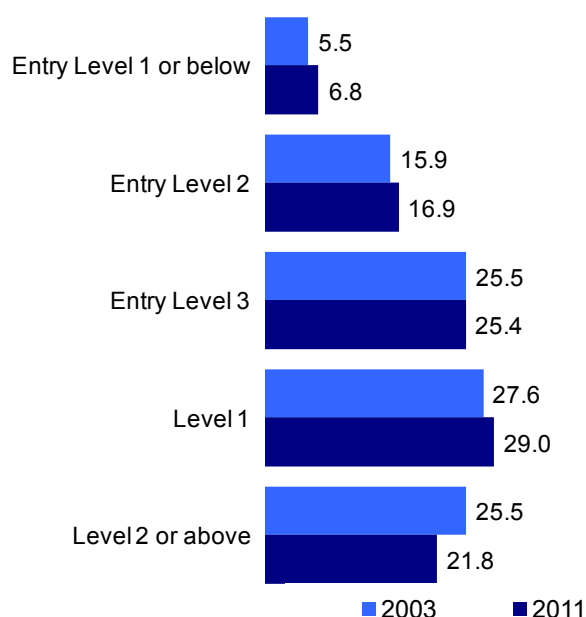
In 2011, 85 per cent of respondents achieved Level 1 or above in literacy, and 15 per cent of respondents performed at Entry Level 3 or below. Consequently, it is estimated that 29 million adults aged 16-65 in England had Level 1 or above Literacy Levels, and 5.1 million adults had Entry Level 3 or below Literacy Levels. There has been no statistically significant change in this breakdown since 2003.

15.2.3 Overall distribution of Numeracy Levels

Figure 15.2 shows the overall distribution of Numeracy Levels in the 2011 and 2003 surveys.

In 2011, 76.3 per cent of respondents achieved Entry Level 3 or above in numeracy, and 23.7 per cent performed at Entry Level 2 or below. Therefore it is estimated that 26 million adults aged 16 to 65 in England had Entry Level 3 or above numeracy skills, and 8.1 million had Entry Level 2 or below numeracy skills.

In comparison to 2003, this represents a small decrease in Numeracy Levels. The proportion of respondents being classified at Entry Level 3 or above has declined from 78.6 per cent in 2003 to 76.3 per cent in 2011, and the proportion of respondents being classified at Entry Level 2 or below has increased from 21.4 per cent to 23.7 per cent.

Figure 15.2 Numeracy Levels in 2003 and 2011 (%)

Base: Sfl2003 All aged 16-65 with numeracy score (8040) / Sfl2011 All aged 16-65 with numeracy score (5823)

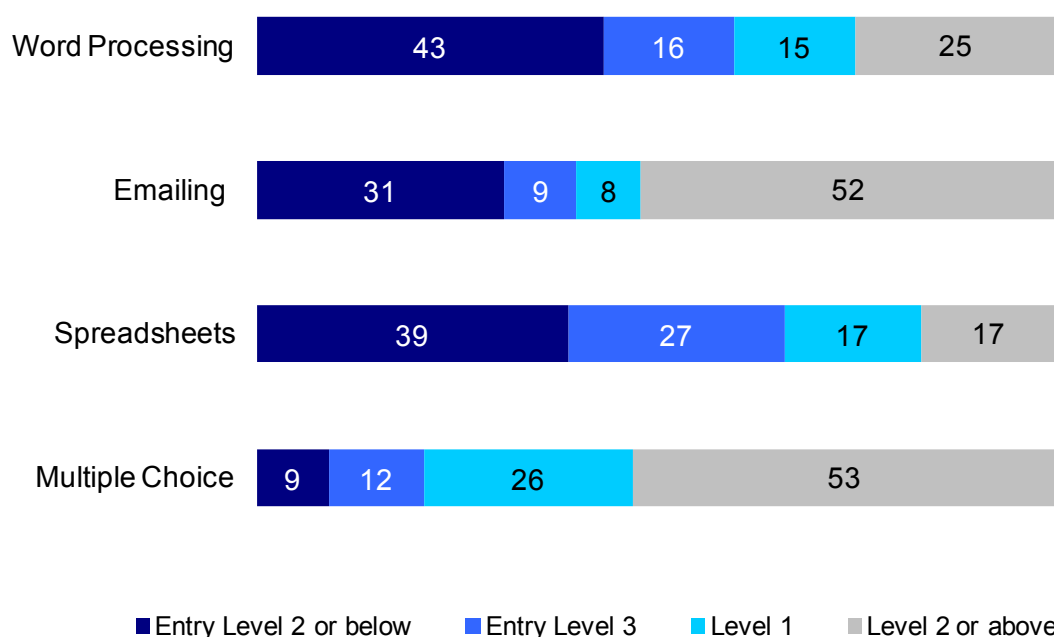
Note: this is a repeat of Figure 4.4

15.2.4 Overall distribution of ICT Levels

Figure 15.3 shows the distribution of skill Levels for the four ICT components. Of the three practical components (word processing, email and spreadsheet use), respondents achieved the highest scores in the email component with half of respondents (52 per cent, an estimate of 10.7 million adults) being classified at Level 2 or above. Respondents were least likely to achieve a Level 2 or above on the spreadsheet component, where only 17 per cent were classified at this Level (5.8 million adults). Of the four components, word processing had the highest proportion of respondents achieving Entry Level 2 or below (43 per cent, 14.8 million adults).

In the multiple choice element, which assesses knowledge of internet skills and wider ICT awareness, just over half of respondents (53 per cent, 17.9 million adults) achieved Level 2 or above, and a further quarter (26 per cent, 8.8 million adults) achieved Level 1.

The four ICT components measure different skills, and it is possible for people to have limited experience of one skill area and therefore perform at a low standard, but be capable of achieving a much higher score in another skill area. In general though, the Level of performance in any one skill component was a reasonable predictor of performance in the other three (correlations between 0.60 and 0.81).

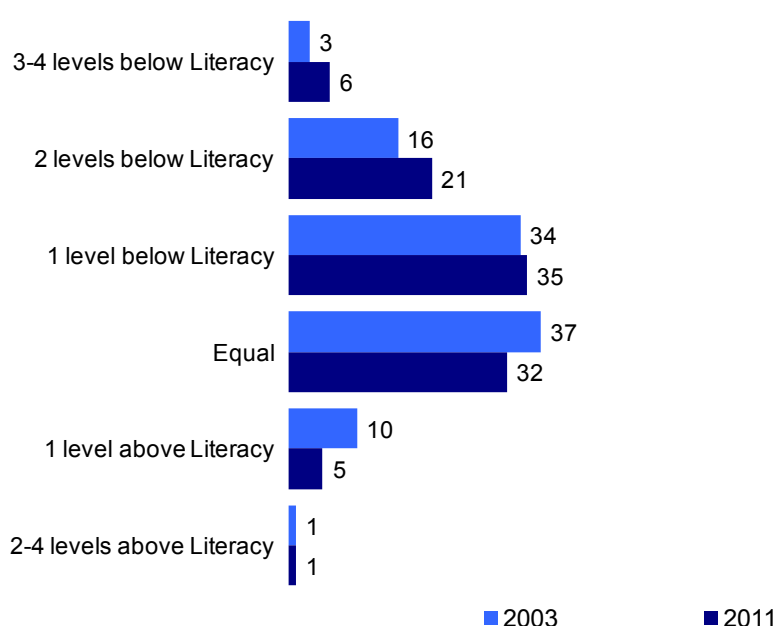
Figure 15.3 ICT Levels (%)

Base: Sfl2011 All aged 16-65 with word processing score (2253) / email score (2247) / spreadsheet score (2228) / multiple choice score (2274)

Note: this is a repeat of Figure 4.5

15.2.5 The relationship between literacy, numeracy and ICT skills

Literacy and numeracy are two different skills but as in 2003, numeracy skill was correlated with literacy skill in the 2011 survey. Just over six in ten respondents (62 per cent) performed at a lower Level in the numeracy assessment than in the literacy assessment. Only six per cent of respondents achieved a higher Level in numeracy than in literacy. This is shown in Figure 15.4. In 2003, one in ten respondents (10 per cent) were classified at a higher Level in numeracy than literacy, and 53 per cent performed to a lower standard.

Figure 15.4 Numeracy Level measured against Literacy Level in 2003 and 2011 (%)

Base: Sfl2003 All aged 16-65 with literacy and numeracy score (7517) / Sfl2011 All aged 16-65 with literacy and numeracy score (4652)

Note: this is a repeat of Figure 4.6

Table 4.12 illustrates how literacy and numeracy skills were distributed across the population, with each cell representing different 'proficiency' skill group. As in 2003, one in ten (10 per cent) failed to achieve at least Level 1 on the literacy assessment and Entry Level 3 on the numeracy assessment.

Table 15.1 Literacy and Numeracy combinations – overall percentage of sample in each cell in 2003 and 2011

	LITERACY LEVELS			
	2003		2011	
	Entry Level 3 or below %	Level 1 or above %	Entry Level 3 or below %	Level 1 or above %
Entry Level 2 and below %	10	10	10	14
Entry Level 3 or above %	5	74	4	72

Base: Sfl2003 All aged 16-65 with literacy and numeracy scores (7517) / Sfl2011 All aged 16-65 with literacy and numeracy scores (4652)

Note: this is a repeat of Table 4.12

Literacy and numeracy achievement also correlated with ICT skills – those scoring higher on literacy and/or numeracy tended to score higher on the ICT assessment as well. However some high scorers on the ICT assessment had low scores in their literacy and numeracy assessments. Further information about the relationship between literacy, numeracy and ICT skills is provided in Chapter 4 (Section 4.7).

15.2.6 Linguistic and cultural backgrounds

Eleven per cent of respondents did not speak English as a first language (ENFL) (up from seven per cent in 2003) with London having by far the largest proportion of such respondents (34 per cent). Respondents who spoke English as a first language (EFL) tended to score higher across the literacy, numeracy and ICT assessments, as they did in 2003.

Amongst EFL respondents, a small increase in the proportion reaching Level 1 or above in literacy was evident (from 86 per cent in 2003 to 88 per cent in 2011).

Eighty-six per cent of respondents selected their ethnicity as White, so it is difficult to make statistically sound judgements about the performance of other ethnic groups in the assessments due to small base sizes. Nevertheless, differences were apparent for some ethnic groups. These correspond well with the regression analysis (see Chapter 6), which showed that ethnicity (in particular for Pakistani respondents) had an additional influence on Literacy Levels over and above those associated with first language effects.

Further information about skill Levels for people from different cultural and linguistic backgrounds is provided in Chapter 5 (Section 5.3) and Chapter 6.

15.2.7 Skills in different parts of England

There was a relationship between basic skills and geo-demographic characteristics, deprivation in particular. When controlling for first language spoken, the North East tended to have the poorest numeracy and ICT performance. It also showed the poorest performance in the literacy assessment, along with London. In Yorkshire and the Humber, the West Midlands, and the South East, increases were observed in literacy performance since 2003. London was the only Region to see a significant decline in numeracy performance since 2003.

London has a higher proportion of respondents with ENFL (34 per cent). When accounting for this by considering only EFL respondents, London's literacy scores remain low compared to the average for all Regions (83 per cent at Level 1 and above compared to the average of 88 per cent). However, numeracy scores are broadly in line with the average (75 per cent at Entry Level 3 or above compared to 78 per cent across all Regions).

Further information about regional variations in literacy, numeracy and ICT skills is provided in Chapter 5 (Section 5.4).

15.2.8 The relationship between personal characteristics and skills

Age

The impact of age on basic skills was explored in two separate ways: in Chapter 5, between-cohort differences were examined (comparing the same age groups between the 2003 and 2011 surveys), and in Chapter 6, generational analysis was carried out, which looked at passage of time differences (comparing the same generation between SfL2003 and SfL2011).

Very few differences in literacy performance were evident by age at Level 1 or above. Small variations were apparent however at the highest Level, with those aged 45 or over were least likely to achieve a Level 2 or above score. This is supported by the regression analysis which found that being aged 45 or above was a predictor of 'weak' literacy. Since 2003, there has been little change in the performance of the age groups, with the exception of 55-65 year-olds. Within this group there has been a substantial increase in literacy skills. This is likely to be a cohort effect, and may be due to the educational circumstances of those aged 55-65 in SfL2003 (the majority of whom were not eligible to take part in SfL2011).

For numeracy, some variations by age were apparent. Since 2003 there has been a sizeable decrease in performance of the youngest group. In 2003, the youngest group outperformed the

oldest group; however, in 2011 the two groups performed to a similar standard. This pattern is supported by the regression analysis, which showed that both the youngest and oldest age groups were associated with 'weak' numeracy. The pattern was still evident when restricting analysis only to those respondents with EFL.

It is important to note that in the final regression models the explanatory power of age in relation to other variables is not as high as might be expected. This is due to its relationship with other variables, such as highest qualification.

The generational analysis found only minor passage of time effects for literacy. The exception to this was the youngest generation, which reached the standard of their slightly older peers: this suggests that for most people literacy reaches a 'steady state' by their mid twenties. It was also notable that there was a general 'conversion' of Level 1 into Level 2 or above skills between 2003 and 2011 among all generations, but that this was strongest for the youngest generations. The generational analysis revealed a decline in numeracy across the generations, most noticeably in the oldest generation. However, there is little evidence of retirement being the causal variable, as retirees performed at a similar standard to their working counterparts.

For ICT, older respondents (aged 35 and above) were far more likely to perform weakly across the four components of the assessment. Those aged 55 and over performed weakest of all.

Further information about the relationship between age and literacy, numeracy and ICT skills is provided in Chapter 5 (Section 5.5.1) and Chapter 6.

Other personal characteristics

Personal characteristics are explored in Chapter 5 and through the regression analysis in Chapter 6. Women were slightly more likely than men to achieve Level 2 or above in literacy, in contrast to 2003 when men and women achieved Level 2 in similar proportions. In numeracy men still outperformed women, but this was less marked than in 2003. The regression analysis shows that women were much more likely than men to be categorised below Entry Level 3 in numeracy.

In line with 2003, household socio-economic class was linked to skills in all subjects – respondents from households where the household reference person (HRP) was in managerial and professional occupations tended to have the strongest performance, and 'working class' households the weakest.

While Literacy Levels were affected by age and first language (as discussed in Sections 15.2.6 and earlier in this section), the regression analysis showed that weak literacy was also associated with other personal characteristics including working in certain industry sections, not using a computer, and working in Routine occupations.

The regression modelling for numeracy shows similarities to that for literacy, except that first language is a lesser factor, as might be expected. In addition, as mentioned above, gender is a predictive factor for weak numeracy. As for literacy, working in routine occupations in particular is associated with weaker numeracy; but while with literacy there was no strong distinction between 'white collar' categories, those in higher professional or managerial occupations score significantly better for numeracy. This suggests that either senior 'white collar' work helps individuals retain numeracy skills, or that a high standard of numeracy is one of the keys to seniority.

Health was a predictive indicator of performance in all basic skills, with performance declining in line with falling ratings in self-reported health status. The regression modelling showed that having a learning difficulty was associated with weak literacy, but not with weak numeracy.

For ICT, age is the dominant factor, with older respondents (aged 35 and above) far more likely to perform weakly, and those aged 55 and over performing weakest of all. 'Blue collar' occupations, unemployment and illness or disability are also predictive of weaker ICT skills.

Attitudes to skills and learning

Respondents' attitudes to learning were linked to skills – those with a negative outlook tended to have lower literacy, numeracy and ICT skills.

Three quarters of respondents felt that their school years were useful. A positive perception of the usefulness of school was linked to better literacy, numeracy and ICT skills.

The majority of respondents placed practical (and financial) value on qualifications, learning and education, with respondents from BME backgrounds disproportionately likely to agree with all three of the statements used to measure these attitudes. However, higher performance in the skills assessments correlated with only one of the three statements in this area: agreeing with '*see paying for my education as an investment*' (32 per cent of people agreed with this statement).

In terms of learning as a continuous process, respondents who agreed that '*learning is something you should do throughout your life*' tended to score higher on the skills assessments than those who did not agree. However, there was little difference in the skills of those who believed that improvement was necessary to succeed at work compared with those who disagreed with this notion.

When examining respondents' future intentions towards learning, 17 per cent of respondents were not considering undertaking any learning in the next two to three years. Those who were least inclined to do so had the greatest room for improvement as they tended to achieve lower scores on the skills assessments.

Further information about the relationship between attitudes toward learning and literacy, numeracy and ICT skills is provided in Chapter 11.

15.2.9 The impact of education on skills

People are staying on in education for longer than they were in 2003. The age at which people left education was linked to literacy, numeracy and ICT skills: respondents who left education at a later age tended to score higher on the skills assessments.

More respondents held qualifications than in 2003, with only 11 per cent not holding any qualifications (compared to 22 per cent in 2003). In terms of the qualifications held, there has been an increase (from 19 per cent to 24 per cent) in the proportion possessing a qualification at degree level or above. Possession of qualifications was linked to employment status and gender. As in 2003, the higher the qualification held, the higher respondents tended to score on the literacy, numeracy and ICT assessments.

Possession of GCSE English and Maths (at grade C or above) was linked to stronger performance in literacy and numeracy respectively.

When controlling for qualifications held; parental education had a low relationship with literacy and numeracy amongst those respondents who held an English/Maths GCSE (or equivalent) at grade C or above. However, amongst those holding a lower qualification (or no qualification at all) a relationship was apparent; with those respondents whose parents did not stay in education beyond 16 being more likely to achieve lower literacy and numeracy scores.

The regression modelling also supports the relationship between education and skills Levels. The association between highest qualification and performance in the numeracy assessment was high. Holding any qualifications at all was a significant advantage over holding none, and

holding Level 3 qualifications and above was a significant advantage over holding lower level qualifications. A degree is particularly valuable in this context. For literacy, an absence of qualifications was strongly associated with weak literacy.

The association between highest qualification and performance in the ICT assessment was also high. Holding any qualifications at all was a significant advantage over holding none, and the 'return' associated with a degree level qualification was greater still.

Further information about the relationship between education and literacy, numeracy and ICT skills is provided in Chapter 7.

15.2.10 Literacy, numeracy and ICT in life and work

Since 2003 there has been a rise in the population's self confidence in their literacy and numeracy skills. Respondents with higher confidence tended to achieve higher scores in the literacy and numeracy assessments.

Those who read most frequently tend to have the highest literacy skills, and those who never read the lowest. Similarly, the frequency of carrying out numerical calculations in everyday life was reflected in performance in the numeracy assessment.

People who rated themselves as poor in reading, writing and number skills also believed that their shortcomings affected their job prospects.

Respondents in work tended to be stronger in literacy, numeracy and ICT, as did those with higher personal earnings. Those on means tested benefits tended to have weaker skills in all three subjects. Their scores were in line with those of other respondents who shared their demographic characteristics (i.e. others who were unemployed, had a limiting disability, or left school before the age of 17).

As mentioned above, occupation was linked to literacy, numeracy and ICT skills, with respondents in high occupation categories generally achieving higher scores. Since 2003 there has been an improvement in literacy standards across all occupations, with more people from every group achieving Level 2 or above, though those in Semi-routine occupations were also more likely than their 2003 counterparts to achieve Level 1 or above. Decreases in numeracy performance were apparent amongst those in managerial and professional occupations.

Industry sector also had an impact, with those working in Education, Information and communication and Public administration likely to possess higher than average literacy and numeracy skills. They also had strong performance in the ICT assessment, along with those who worked in Finance and Professional, scientific and technical industries.

Further information about literacy, numeracy and ICT skills in everyday life and work is provided in Chapter 8.

15.2.11 Use of computers

Computer access has increased dramatically since 2003, with 93 per cent of respondents having access to a computer (either at home or at work) compared to 71 per cent in 2003. The past eight years have also seen a striking increase in the frequency of computer usage, with weekly and daily users rising from 51 per cent to 82 per cent amongst 16-65 year-olds.

Frequency of computer use was an effective predictor of ICT performance. Unsurprisingly, those without computer access performed considerably less well on the ICT assessment, particularly in the practical components. The most common activities carried out (at home and in the workplace) were searching the internet and emailing. As might be expected, respondents who

carried out a greater range of computer tasks tended to score higher in the various components of the ICT assessment.

Ninety per cent of respondents had internet access in their home. An absence of home internet was associated with older respondents. Those who had internet access at home tended to perform better in the ICT assessment.

Self confidence in ICT skills has also grown since 2003. These high levels of self-assurance tend to be justified when comparing ratings with performance across the ICT components.

Further information about the relationship between computer use and literacy, numeracy and ICT skills is provided in Chapter 9.

15.2.12 Basic skills training

The analysis examines the confidence and skill standards of respondents who undertook training in basic literacy, numeracy or ICT (at any time). It should be noted that inferences about the impact of training cannot be drawn from SfL2011 data, as information about individuals' skill before and after training was not collected.

Further information about the relationship between basic skills training and literacy, numeracy and ICT skills is provided in Chapter 10.

Literacy

Eleven per cent of respondents had received literacy training, with most tackling two or three skills (reading and writing more commonly than speaking) as part of a single course.

One per cent of respondents were receiving literacy training at the time of the survey. People currently in training were the most likely to rate their reading and writing negatively, and had the lowest Literacy Levels out of all those who had trained, suggesting that it is people with below-average confidence and skills who tend to access literacy courses. However, having weak literacy did not always prompt people to seek out training. Over four fifths (83 per cent) of those who scored below Level 1 in the literacy assessment – and could therefore be described as having a training need – did not enrol on any courses in literacy.

ENFL respondents were more likely to attend training than EFL respondents. The performance of respondents with ENFL who tried to improve their literacy through training was broadly similar to that of the overall population with ENFL. By contrast, people with EFL who had attended a literacy course tended to perform slightly less well than the overall population with EFL.

People who undertook their training further in the past performed no better or worse in the assessment than recent learners: this *could* be an indication that skills gained during training tend to be retained over time. People who trained more than three years ago were more self-assured about their reading abilities than recent learners, suggesting that confidence may grow as time elapses after the completion of training.

Performance in the literacy assessment was similar amongst SfL2011 respondents who had received training and their counterparts from SfL2003 survey. At both points in time, almost half achieved Level 2 or above.

Numeracy

Eight per cent of respondents had received training in numeracy, unchanged since 2003. The demographic characteristics of maths learners have changed, however, with people in search of employment and under-25s now the most likely groups to seek out training.

Less than one per cent of 16-65 year-olds were currently receiving training in basic maths or number skills. Current learners gave the weakest performance in the numeracy assessment - this is unsurprising given that this group may not yet have felt the full benefit of the training on their skills. By contrast, people who completed a course in the past demonstrated a similar standard of numeracy as those who had never trained. Whilst inferences about the impact of training must be treated with caution, as nothing is known about the Literacy Levels of individuals immediately before and after training, this *may* indicate that the completion of a training course was able to raise the maths abilities of learners to the same standard as the general population.

Numeracy skills were broadly similar amongst learners who had trained recently and those who trained further in the past: hence, there was no indication that numeracy skills become lost over time. Despite the similar performance of recent and past learners in the numeracy assessment, respondents who trained more than three years ago were more self-assured than recent learners about their maths skills, suggesting that people continue to grow in confidence after completing their course even if their skills cease to improve.

The majority of those with arguably the greatest training need did not attend a maths course: 91 per cent of the respondents who scored Numeracy Entry Level 2 or below did not seek out any training. People in the 20-24 age range were the most likely out of everyone with a training need to have accessed a maths course.

Compared to their counterparts from Sfl2003, Sfl2011 respondents with experience of maths training were less likely to achieve Entry Level 3 or above in the numeracy assessment. The relatively poor performance of Sfl2011 maths learners is linked to the presence in the survey of a 'fresh stock' of poorly skilled under-25s.

ICT

More than half of respondents (54 per cent, the same proportion as in 2003) received training in computer skills outside of school, mostly in an academic, work, or an adult education centre setting. The incidence of training was higher than average amongst women and under-25s, and low amongst those who finished their education before they were 17.

Three quarters (74 per cent) of those who could be described as having a training need (i.e. respondents who scored or were assigned Entry Level 2 or below in all the practical components of the ICT assessment), did not access any ICT courses. This group had lower confidence than other people with a training need.

In contrast to literacy and numeracy, people who attended courses in ICT tended to have higher skills than the general population. ICT trainees had a higher than average likelihood of reaching or surpassing Level 2 in all four components of the assessment. Current learners were just as likely as past learners to score highly in the various components of the assessment, suggesting that ICT skills tend to be picked up quite rapidly. People who trained more than three years ago did no better or worse in the assessment than those who received their training within the last three years, demonstrating little or no loss of ICT awareness or skills with the passage of time since the completion of a course.

15.2.13 Sub-skills

Respondents with Entry Level Literacy tended to be strongest at reading and writing at word level (i.e. dealing with individual words) and weaker at composition and meaning, grammar and punctuation. Respondents with Literacy Levels 1 and 2 tend to be stronger at reading than writing generally.

Respondents with Entry Level 1 and 2 Numeracy tended to be weaker than other respondents at number skills and stronger at measures, shape and space and interpretation of data (graphs and charts). At Levels 1 and 2, number skills and measures, shape and space are stronger than data skills.

In ICT, respondents at all Levels were stronger on the multiple choice questions than the practical assessments, suggesting many have much stronger understanding about ICT than they can demonstrate with skills in practice. Email skills were stronger among respondents than word processing and spreadsheet skills.

Further information about the sub-skill levels in literacy, numeracy and ICT skills is provided in Chapter 13.

15.2.14 Policy Sub-groups

Those who were unemployed and seeking work were less likely than average to achieve Level 1 or above in literacy and/or Entry Level 3 or above in numeracy (see Section 12.3.1), with little evident change in skills since 2003. These respondents also tended to have lower than average ICT skills.

The proportion of respondents 'Not in Education, Employment or Training' (NEET) at Level 1 or above in literacy and Entry Level 3 or above on numeracy was lower than 'non-NEET' respondents, with the proportions reaching these Levels unchanged from 2003. This group also exhibited lower ICT skills. Young NEET respondents generally achieved lower literacy and numeracy scores than young 'non-NEET' respondents, however their ICT performance was broadly in line.

The literacy performance of young people (those aged under 25) was broadly in line with that of older people. However, as revealed by the generational analysis, since 2003 the conversion from Level 1 to Level 2 or above has been particularly strong for young people. Young people's performance in numeracy was weaker and has fallen since 2003. Young people's ICT scores tended to be higher than those of older age groups.

Despite being less likely to be in education or employment, young lone parents did not have lower literacy skills than young people in general. They were, however, slightly less likely to achieve Entry Level 3 or above in the numeracy assessment.

Low literacy, numeracy and ICT skills were associated with the indicators of both social exclusion and digital exclusion.

The skills of ENFL respondents tended to be weaker than those of EFL respondents. Their skills were broadly in line with those of their Sfl2003 counterparts, although the proportion of people with ENFL in the population grew substantially from seven per cent in 2003 to 11 per cent in 2011.

Respondents with a limiting disability or learning difficulty tended to display lower literacy and numeracy performance. The literacy of both groups has improved since 2003, with a higher proportion reaching Level 1 or above. No corresponding changes in numeracy were apparent.

Further information about literacy, numeracy and ICT skill Levels among policy sub-groups is provided in Chapter 12.

15.2.15 Summary

The key findings from the Skills for Life 2011 survey are as follows:

- Literacy standards have surpassed the benchmark set in 2003, with more achieving Level 2 or above than had previously been the case. The growth in high performers, however,

reflects an upward shift from Level 1 rather than a reduction in the number of poor performers: the proportions achieving Entry Level 3 or below remains unchanged. Literacy standards have improved for all age groups.

- Numeracy standards have fallen slightly since 2003, with declines at both ends of the performance scale, with fewer people in 2011 managing to exceed Level 1 and slightly more falling below Entry Level 2. In 2003, the 55-65 year-old age group had the weakest numeracy. In 2011 this age group continued to achieve low numeracy scores; however, the youngest age group in 2011 also had very weak skills, performing to a similar standard as the oldest respondents and much more poorly than the youngest Sfl2003 respondents.
- With regards to ICT, there is now widespread knowledge of computers and communication technologies such as the internet, and large proportions of the population are skilled in using email. However many still struggle with word processing and spreadsheets.
- Skills varied according to respondents' first language, and to an extent cultural background, with EFL respondents achieving higher scores in all areas.
- Controlling for first language, numeracy and ICT skills were weakest in the North East. The North East along with London also had the weakest literacy skills. When focusing solely on EFL respondents, only London showed a significant decline in numeracy performance since 2003.
- A range of personal characteristics were linked to poor literacy and numeracy skills, including poor qualifications, level of parents' education and attitudes to learning and skills. For ICT age was an important determinant, with skills Levels decreasing with an increase in age.
- Regression analysis shows that many personal characteristics associated with weak performance are common to all three domains (literacy, numeracy and ICT) including:
 - English not being the first language of the respondent, especially for some ethnic groups;
 - Neither parent staying in education beyond the age of 16;
 - A (self-assessed) learning difficulty;
 - Having no educational qualifications;
 - Working in some industry sectors (sample size limitations prevent identification of those most closely associated with weak assessment performance); and
 - Working in routine occupations (or long-term unemployed).
- Infrequent or zero computer use appears to predict weak literacy and numeracy performance beyond that expected from educational and work status.

- Women tended to perform at a lower standard than men in numeracy.
- A mild decline after the age of 45 is seen for literacy, a gentle u-shaped distribution for numeracy (youngest and oldest age groups were weakest) and a strong linear relationship for ICT with each succeeding generation having stronger skills than the previous one.

15.3 Survey validity and comparability

The Skills for Life 2011 Survey was designed with two clear purposes:

1. To measure the literacy, numeracy and ICT skills of the working age population in England accurately against the Skills for Life standards.
2. To ensure that the survey results are directly comparable with the SfL2003 results.

This section considers the extent to which the survey assessment has validity (i.e. sufficiently comprehensive in scope of assessment, accuracy and repeatability of skills measurement, and authentic) and concludes that the survey is both valid and reliable, and directly comparable to SfL2003.

15.3.1 Comparability of results from 2003 and 2011

SfL2011 was designed so as to maximise comparability with SfL2003, in terms of reporting on literacy and numeracy. The literacy and numeracy assessments used in 2011 are the same as those used in 2003, and the sampling strategy for SfL2011 was designed to achieve a similar effective sample size to that achieved in 2003 while interviewing fewer respondents; moreover, it uses 2003 statistical wards as the Primary Sampling Units to ensure comparability. Further details are provided in Annex 1. Care was taken to ensure that the eligibility criteria used to route people in or out of the literacy and numeracy assessments in 2003 were replicated in 2011. The background questionnaire was updated and revised, but many of the items included in 2003 remain in the SfL2011 questionnaire.

A small data error occurred in Sfl2003, whereby data were not captured for all assessments (this is discussed in more detail in Annex 4), and to safeguard against this in 2011 a security wrapper was added to the tools for Sfl2011. Follow-up work was conducted to quantify the potential impact of the data non-capture (detailed in Annex 6) and it found that it did not seriously distort the survey comparisons.

In conclusion, the Skills for Life survey results from 2003 and 2011 are directly comparable.

15.3.2 Numeracy and literacy assessment validity and reliability

The literacy and numeracy assessments were based on the Key Skills standards in existence in 2001 for Communication and Application of Number, which covered Levels 1 to 5. The assessments themselves only made use of the standards for Levels 1 and 2 as there were no Key Skills standards or tests at Entry Level (nor were the Skills for Life Core Curricula available at the time), with new questions written to assess Entry Levels 1 to 3. The assessments were piloted prior to the survey being undertaken in 2002.

The literacy and numeracy assessments were critiqued by National Research and Development Centre (NRDC) in a report published in 2005,⁴⁰⁵ noting for example that the skills-area coverage was not comprehensive in that the literacy assessment focuses on reading rather than listening or writing. These limitations were in part the result of design constraints and available technology at the time. In terms of content validity they reflect a common feature of many objectively assessed literacy assessments: they do not assess constructed responses, including notably the skill of writing in literacy and mathematical process in numeracy. Furthermore, as far as Skills for Life literacy is concerned, they also do not test speaking and listening, raising questions of coverage (content validity). However, the current Skills for Life assessments⁴⁰⁶ (the National Tests on which all Skills for Life achievements at Levels 1 and 2 are based) consist entirely of multiple choice questions with the same content validity/coverage issues. Any measurement error across the two surveys should be consistent, so any observed trend can be considered to be robust.

Separately, it is conceivable that although the survey assessments measure 'literacy' and 'numeracy', they measure a different set of skills to those which learners have developed and been assessed on during basic skills training. Analysis of the assessments suggests this is not the case (more information is provided in Annex 2).

Annex 4 presents further evidence that the assessments have performed with good internal reliability. It should also be noted that the SfL2003 and SfL2011 findings largely accord with the results other national and international surveys, as presented in Chapter 14.

Although the Skills for Life Survey assessment can be seen to be close enough to the Skills for Life National Tests to be a fair assessment of skills in those terms, there are substantial wider issues in assessing literacy and numeracy. One of the most notable which might have an impact on survey results is the extent to which respondents' experience of literacy and numeracy is heavily embedded in everyday life and the possibility that they may not recognise the activities they are undertaking in the survey assessment as literacy and numeracy tasks, because the settings are unfamiliar. However it should be noted that the Skills for Life survey assessment questions are short, and have only relatively limited contextual information, so concerns about context making the assessment inaccessible should not be overstated. More recent qualifications such as Functional Skills (the replacement for Key Skills) use more heavily contextualised and open-ended assessment approaches, which involve elements of problem solving and wider skills alongside literacy and numeracy. The results from the Functional Skills Pilot evaluation suggested that Functional Skills qualifications (at that time) were more difficult to achieve than the equivalent Skills for Life qualifications.⁴⁰⁷

Finally, it is also worth noting that England's Key Skills assessment regime involves a combination of test and portfolio evidence, to provide improved reliability and curriculum coverage, a model which is common in skills qualifications settings but is clearly not practical within a survey interview.

⁴⁰⁵ Brooks, G., K. Heath, and A. Pollard (2005) *Assessing Adult Literacy and Numeracy: a Review of Assessment Instruments*. National Research and Development Centre for Adult Literacy and Numeracy, available online at: http://www.nrdc.org.uk/publications_details.asp?ID=23#, accessed on 28/03/12.

⁴⁰⁶ These assessments are no longer being supported for new learners from August 2012.

⁴⁰⁷ Qualifications and Curriculum Development Authority (2011) *Evaluation of the Functional Skills Pilot*, available online at: <http://webarchive.nationalarchives.gov.uk/20110813032310/http://www.qcda.gov.uk/resources/7585.aspx>, accessed on 28/03/12: p.44 etc. (The QCDA closed in March 2012).

In conclusion, while there are limitations in the assessments of Skills for Life both in this survey's assessments and the examinations for the qualifications (particularly in terms of curriculum coverage in literacy), and noting that other qualifications take a different approach to assessing literacy and numeracy, the survey assessments are a reliable and valid measure of the Skill for Life standards.

15.3.3 The possibility of reading, writing and cultural bias contaminating assessment results

Almost all assessments involve a degree of reading in order to be able to answer the questions. In many cases, writing is also required to present a response. This is true for the ICT assessment in part, but not for the numeracy (and literacy) assessment where answers are always selected from a pre-prepared list. So to some extent at least, the assessments of numeracy and ICT are also measuring literacy skills. Even within the literacy assessment, questions which are supposed to be testing composition skills (spelling, punctuation, grammar) inevitably involve an implicit assessment of reading skills as well. This is of course of lesser concern as the literacy assessment outcome is a holistic Literacy Level, although it could affect item functioning and hence some elements of assessment performance.

The relatively high correlations between literacy performance and each of numeracy and ICT performances suggests that such contamination is a possibility. Modern assessment design specifications often place requirements on reading level. For example, the specification for Functional mathematics requires the reading standard of the question to be no higher than one Level below the mathematics Level being assessed. Looking to SfL2011, if this requirement had been in place then approximately one per cent of numeracy respondents would have been affected (i.e. experienced numeracy questions with reading requirements potentially more than one Level above their reading standard) with perhaps a slightly higher, but still very small, proportion for ICT. However these requirements were not in place at the time the assessment was designed.

Looking first at the items in the numeracy assessment, it is clear that the items are very terse – context is kept to a minimum (one of the main causes of wordy questions). Nevertheless some questions do include significant reading requirements: for example item 27, which requires the respondent to read a TV programme schedule, or item 47, which presents two weighing scale readings and uses text to describe the difference between the readings (screenshots of these questions are included in Annex 2). However, the wordier questions are at the higher Levels of numeracy, so it is likely that the reading requirements for the assessment are sufficiently low as to have no contamination impact on the outcomes.

Turning to the ICT assessment, examples of tasks are shown in Annex 2 along with the 15 multiple choice questions. Clearly the multiple choice questions require reading, in some cases at quite a high standard due to the use of common technical terminology. Similarly, the word processor task involves both manipulating English text and reading instructions presented in English. While English composition is not assessed, reading the instructions is clearly essential for good performance; understanding the text being manipulated (while probably not strictly essential) is the intention of the assessment design. The extent to which literacy skills at or above Level 1 in literacy are an implicit requirement for word processing is unclear, although an examination of the National Occupational Standards for IT users includes high level literacy requirements throughout. The same applies to a slightly lesser extent to the email and spreadsheet assessments, where the reading load on instructions is lighter.

The correlations between literacy and the component skills of the ICT assessment, and between numeracy skill and the component skills of the ICT assessment are both moderate (at around

0.5, see Chapter 4, Section 4.7.2). It seems reasonable to assume that any contamination of ICT assessment by literacy requirements (particularly reading) is likely to be no more than a workplace competency assessment would assume, and clearly the spreadsheet skill at least requires a degree of numeracy skill.

Assessment error can also occur because of cultural bias in questions. Questions which ask respondents to make judgements in contexts that the assessment writer expects to be familiar to the respondent are likely to be harder for those respondents who have no knowledge of these. Considering the numeracy assessment, the questions are situated within a UK setting; measures include UK money, UK TV schedules, foodstuffs common in the UK (spaghetti bolognese, baked beans, etc.) and UK food labelling. In most cases this is likely to present no additional problems over and above the reading issue discussed earlier. The literacy and ICT assessments similarly use scenarios common in the UK; the weather, property rental, holidays, letters, timetables, advertisements, warning notices and user instructions for devices. As for numeracy although the contexts are designed to be familiar, the extent to which any cultural bias might affect performance over and above the effect of Literacy Level for ethnic minority groups is not known but could also be investigated.

Overall, the assessments were designed to take account of the potential for literacy contamination and cultural bias, although an inevitable degree of literacy and cultural knowledge is needed to answer some of the questions. Modern assessments of literacy, numeracy and ICT skills are similar in that they use context and require the ability to demonstrate transferable skills in new situations and so it can be concluded that the SFL2011 assessments are comparable with assessments used for related qualifications in England.

15.3.4 The possibility that population sampling led to skills improvements being missed

As with any survey, the statistics derived from SfL2003 and SfL2011 are estimates with differences noted in the headline findings statistically significant at the five per cent level: this means that it is possible to miss an effect by chance - an inevitable consequence of using a sample-based approach.

The sample size and design for SfL2011 was based on standard parameters and techniques for a survey of this type (80 per cent power and a 95 per cent confidence interval). The survey was designed so that a real difference of +/- 3 percentage points would lead to a statistically significant finding. Examining the probabilities of the actual change being within a certain range, it is noted that:

- The likelihood that the actual change in the proportion of people achieving Literacy Level 1 or above between 2003 and 2011 is less than or equal to two percentage points is 79 per cent. The likelihood of the actual change being negative is six per cent.
- The likelihood that the actual change in the proportion of people achieving Numeracy Entry Level 3 and above is less than or equal to -2 percentage points is 64 per cent. The likelihood that the actual change is positive is one per cent.

Although the survey provides estimates, these should be reliable within the parameters stated.

15.4 Initial interpretation of trends in literacy and numeracy

15.4.1 Introduction

SfL2011 shows that there has been no improvement in low-level literacy skills (below Level 1) and numeracy skills (below Entry Level 3) since the 2003 survey, despite substantial investment in adult skills provision following the publication of the Moser Report in 1999.⁴⁰⁸ Many learners have undertaken Skills for Life programmes: the Statistical First Release data for post-16 education⁴⁰⁹ shows that in 2010/11, 1,471,300 post-16 learners participated in Skills for Life courses, with similar numbers in preceding years back to 2006/07 (although it should be noted that figures from 2008/09 on are not directly comparable to earlier years due to changes in data collection and the definition of funded learners). With around 4.3 million learners overall participating in FE and Skills in 2010/11, Skills for Life is therefore a large strand of activity.

As outlined in Chapter 2, Skills for Life provision has been prioritised by successive governments which has included support and recruitment programmes to build capacity and maximise engagement.⁴¹⁰

Much of this report focuses on outcomes in terms of the literacy and numeracy thresholds in the Leitch⁴¹¹ and Moser⁴¹² reports for literacy (skills at Level 1 and above) and numeracy (skills at Entry Level 3 and above) which were reflected in historical Public Service Agreement (PSA) targets. The English School Education system today places by far the greatest emphasis (in terms of expectations for schools and students through to the end of Key Stage 4 (KS4) at age 16) on achievement at Level 2 (GCSE grade C equivalent) and, to a lesser extent, at Level 1 (GCSE grades D-G), and recognises the particular importance of students achieving both GCSE English and mathematics to at least Level 2 (Grade C).⁴¹³ Following its review of literacy and numeracy provision for adults, the Coalition Government is now focusing on supporting adults to reach Level 2 standard, which includes funding GCSE English and Maths qualifications for adults from August 2012.

Table 15.2 shows progress from 2003 to 2011 against these measures as recorded in the SfL2003 and SfL2011 surveys.

⁴⁰⁸ Moser, C. et al. (1999) *Improving literacy and numeracy: a fresh start*. The report of the working group chaired by Sir Claus Moser on behalf of the Department for Education and Skills, available online at: <http://www.lifelonglearning.co.uk/mosergroup/index>, accessed 28/03/12.

⁴⁰⁹ The Data Service (June 2012) *Quarterly Statistical First Release June 2012 Post-16 Education & Skills: Learner Participation, Outcomes and Level of Highest Qualification Held*. Available online at: http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/sfr_current/, Table 7.1, Table 9 and Table 1, accessed on 25/09/12,.

⁴¹⁰ National Audit Office (2008) *Skills for Life: Progress in Improving Adult Literacy and Numeracy*, available online at: http://www.nao.org.uk/publications/0708/skills_for_life_progress_in_i.aspx, accessed on 28/03/12: p. 18.

⁴¹¹ HM Treasury (2006) *Leitch Review of Skills. Prosperity for All in the Global Economy - World Class Skills. Final Report*, available online at: http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/media/6/4/leitch_finalreport051206.pdf, accessed on 28/03/12.

⁴¹² Moser, C. et al. (1999) *Improving literacy and numeracy: a fresh start*. The report of the working group chaired by Sir Claus Moser on behalf of the Department for Education and Skills, available online at <http://www.lifelonglearning.co.uk/mosergroup/index>, accessed on 28/03/12: Annex A.

⁴¹³ Skills for Life literacy and numeracy at Level 2 are broadly equivalent to GCSE Mathematics and English in terms of the level of challenge although cover a somewhat narrower curriculum.

Table 15.2 Literacy and Numeracy Levels (Level 1 and above, Level 2 and above) in 2003 and 2011

	2003	2011	Difference between 2003 and 2011
	%	%	%
Level 1 or above in both Literacy and Numeracy	53.0	50.1	-2.9
Level 2 or above in both Literacy and Numeracy	18.5	18.7	+0.3

Base: SfL2003 All aged 16-65 with literacy and numeracy score (7517) / SfL2011 All aged 16-65 with literacy and numeracy score (4652).

Participation and achievement in Skills for Life literacy and numeracy

Fewer people have participated in qualifications in numeracy than in literacy across the period. In 2006/07, around 820,000 Skills for Life learners were taking literacy programmes with only around 675,000 taking numeracy programmes.⁴¹⁴ By 2010/11 the number taking numeracy programmes had increased to around 994,000, and the number taking literacy programmes had increased to around 1.03 million.

Achievement in GCSE Mathematics and English

In the period since 2003, eight year groups of school students have completed Key Stage 4. These groups were not included in SfL2003 (they were too young) but are included in SfL2011. Across that period, the proportion of students completing Year 11 (at the end of Key Stage 4) with a Level 2 qualification in English and mathematics has risen steadily from 48 per cent in 2005/06 to 57 per cent in 2009/10.⁴¹⁵

It is clear therefore from both the numbers of learners involved in and achieving on Skills for Life programmes in the period between SfL2003 and SfL2011, as well as the improved GCSE scores of successive groups of Key Stage 4 completers, that improvements should be expected in literacy and numeracy skills in 2011 compared to 2003, particularly for the youngest age group in the 2011 survey. It is therefore necessary to consider why this does not appear to be reflected in the SfL2011 results for numeracy (the survey results do show a rise in proportions of people with literacy at Level 2 for the two youngest age groups).⁴¹⁶

It should be noted at this point that the scope of this report is largely descriptive: to report on and describe the findings of the survey. However, the following sections provide an initial reflection on possible explanations for the findings, noting that all would benefit from more extensive and systematic investigation. Recommendations for further investigation are also discussed.

⁴¹⁴ The Data Service (June 2012) *Quarterly Statistical First Release June 2012 Post-16 Education & Skills: Learner Participation, Outcomes and Level of Highest Qualification Held*. Available online at: http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/sfr_current/, Table 9, accessed on 25/09/12.

⁴¹⁵ Department for Education (2011), *Statistical First Release, January 2011 GCSE and Equivalent Results in England, 2009/10 (Revised)*, available online at: <http://www.education.gov.uk/rsgateway/DB/SFR/s000985/sfr01-2011t1-6v2.xls>, accessed on 28/03/12: Table 2.

⁴¹⁶ It should be noted that the Skills for Life and GCSE standards are different. Most significantly, Skills for Life is competency based, with learners expected to demonstrate competency in the majority of topics. Although GCSE specifications also include competency standards, in practice, strength in one skill area is permitted to compensate for weakness in another when grades are awarded.

15.4.2 Skills loss in literacy and numeracy

If people tend to forget what they have learned soon after completing training then this would offer an explanation for some of the survey's findings. It should be noted here that the survey data cannot be used to directly assess skills gain or loss relating to training, because respondents' skills before and after training are not known.

Concerns have been raised about the impact of 'teaching to the test' in Skills for Life programmes,⁴¹⁷ the main concern being that the pressure on achievement targets has led to a narrower curriculum in teaching, focused only on passing the tests (i.e. on developing skills only in those areas covered by the National Test, a particular concern for literacy where the test coverage in terms of the curriculum has been most limited), with associated cramming and very context-specific skills development. Such approaches may lead to more rapid skills loss after achievement than approaches focused more on consolidating skills.⁴¹⁸

People clearly do forget skills, but the extent of 'forgetting', the causes, and whether the rate of forgetting differs from one skill to the next are all clearly important factors as far as this survey is concerned, as is the impact on 'forgetting' of different approaches to training and skills development. Some skills are 'never' forgotten; learning to ride a bike for example, others appear to have an element of "use it or lose it", and whether and how this applies to literacy and numeracy is perhaps worthy of further investigation. It seems possible, for example, that low-skill jobs offer little opportunity to develop or consolidate skills learned prior to entering the workforce or as a result of training, so may exacerbate skills loss. The inconclusive evidence from the survey suggests that literacy and numeracy skills are not easily lost, but the survey's report of poor numeracy skills among young people shortly after good GCSE performance suggests it may be.

Additionally, if skills loss is significant, then an important follow-up question in terms of training impact is: 'if skills are gained and then lost, can they be regained, at need, faster than if they had never been known before'. It is conceivable that although 'skills loss' respondents cannot demonstrate their numeracy skills 'on demand', i.e. when an interviewer turns up at their door, they may be able to regain them very quickly when they need to use them.

Skills loss is a potential explanatory factor for the literacy and numeracy trends observed, although any skills loss that does occur may not affect literacy and numeracy in the same way. Further research into skills loss would be worthwhile including studying the skills of those who have recently undergone training or completed qualifications.

⁴¹⁷ For example: Cara, O., J. Litster, J. Swain and J. Vorhaus (2008) *The Teacher Study: The Impact of the Skills for Life Strategy on Teachers - Summary Report*, National Research and Development Centre for Adult Literacy and Numeracy, available online at: http://www.nrdc.org.uk/publications_details.asp?ID=151#, accessed on 28/03/12: pg 42 etc and Marsh, M. (2011) *Numeracy Counts NIACE Committee of Inquiry on Adult Numeracy Learning Final Report*, available online at: http://shop.niace.org.uk/media/catalog/product/n/u/numeracy_counts_final_report_feb_2011a.pdf, accessed on 28/03/12.

⁴¹⁸ Cepeda, N., Vul, E., Rohrer, D. Wixted, J. and Pashler, H (2008). *Spacing effects in learning: A temporal ridge line of optimal retention*, available online at <http://escholarship.org/uc/item/0kp5q19x#page-6>, accessed on 03/08/12. A full investigation of this assertion is beyond the scope of the report.

15.4.3 Numeracy skills have worsened due to poorly skilled young people entering the survey population.

The literacy performance of respondents aged under 25 was in line with the performance of those aged 25 and over, however the picture for numeracy is different: respondents aged under 25 generally scored slightly lower than those aged 25 and over, with 73 per cent achieving Entry Level 3 or above, compared to 77 per cent of those aged over 25. And, as highlighted previously, it is this young group that have had a sizeable decline in numeracy Levels since 2003. In 2003, this group was just as likely to achieve Entry Level 3 or above as those aged 25 and over. Since 2003, however, the proportion of those aged under 25 scoring Entry Level 3 or above has fallen from 80 to 73 per cent, whilst the proportion aged over 25 achieving this Level has remained unchanged. Within the under 25 age group this decrease was most notable amongst 20-24 year-olds.

This finding is in contrast to GCSE results in mathematics: the proportion of KS4 completers achieving grade C or above (equivalent to Level 2 numeracy) rose from 48 per cent in 2002/03⁴¹⁹ to 60 per cent in 2009/10.⁴²⁰ Similarly, the proportion achieving GCSE mathematics grades A* to G (equivalent to Level 1) rose from 90 per cent to 92 per cent. So, despite almost all 16 year-olds⁴²¹ receiving a qualification deemed equivalent to Level 1 numeracy, around a quarter of them cannot demonstrate those skills within a skills assessment up to 8 years later.⁴²² Indeed, the survey notes that it is possible to hold a maths GCSE (or equivalent) at grade C or above, but perform much lower on the numeracy assessment: 11 per cent of such respondents failed to reach Entry Level 3 or above numeracy in the 2011 survey. This appears to be clear evidence of skills loss over that period, and may reflect a combination of skills not properly consolidated at KS4 (for example teaching to the test issues as raised for Skills for Life programmes) and/or skills forgotten because they are not used. As stated earlier, skills loss, particularly around numeracy, is worthy of further investigation.

15.4.4 Ineffective training in numeracy

Chapter 10 considers skills in terms of self-reported participation in basic skills courses in literacy and numeracy, and in ICT training. The findings here are complex and not conclusive in that they are unable to take account of skills before and after training, but participation and achievement rates in Numeracy and Literacy Skills for Life (and in related qualifications such as Functional Skills and Key Skills), in the intervening years between the two Skills for Life surveys provide a basis for considering the outcomes that might have been expected from the Skills for Life survey in 2011.

⁴¹⁹ Department for Education (2004) *Statistical First Release January 2004 GCSE/GNVQ Results and Key Stage 3 to GCSE/GNVQ value added measure for young people in England 2002/2003 (Revised)*, available online at: <http://www.education.gov.uk/rsgateway/DB/SFR/s000442/sfr02-2004.xls>, accessed on 28/03/12: Table 7.

⁴²⁰ Department for Education (2011) *Statistical First Release January 2011 GCSE and Equivalent Results in England, 2009/10 (Revised)*, available online at: <http://www.education.gov.uk/rsgateway/DB/SFR/s000985/sfr01-2011t7-17.xls>, accessed on 28/03/12: Table 9.

⁴²¹ Approximately 94 per cent of pupils completing Key Stage 4 have attempted GCSE mathematics (see reference above) and more than 90 per cent of these achieve a result equivalent to Level 1 or above.

⁴²² It should be noted that the Skills for Life and GCSE standards are different. Most significantly, Skills for Life is competency based, with learners expected to demonstrate competency in the majority of topics. Although GCSE specifications also include competency standards, in practice, strength in one skill area is permitted to compensate for weakness in another when grades are awarded.

One hypothesis for the poor progress seen by SfL2011, particularly in numeracy, is that skills are not properly learned in the first place - whether in school or in post-compulsory education - and so cannot be demonstrated during the survey assessments although, achievement rates of around 50 per cent would suggest this is largely not the case. It may be the case that the skills are not consolidated, leading to poorer performances on future tests. The National Audit Office report highlights concerns about the quality of teachers in terms of their qualifications,⁴²³ and Ofsted's recent inspection summary identifies the ongoing need for improvements in literacy and numeracy teaching in general alongside issues of disengagement:

*'The opportunity to apply learning in a realistic work environment, either through well-structured assignments or through employment, brings vocational learning to life. This also applies to teaching the key skills of literacy and numeracy. Historically, these have been isolated from work-related aspects of learning and have suffered as a result. Young people have been disengaged and failed to see why these skills are important or how they can be applied. The most successful providers have broken down this false distinction and, by integrating key skills provision fully within a vocational context, are gaining better engagement and higher achievement.'*⁴²⁴

In a separate report on numeracy, mixed quality of provision was observed.⁴²⁵ There were issues with tutor skills (67 per cent of the 46 providers sampled had less than half their tutors qualified to the required level). In other research, some Skills for Life tutors report a strong 'teaching to the test' culture resulting from flow down of previous PSA targets and associated incentives in funding arrangements.⁴²⁶

As part of further work, the impact of numeracy provision on skills gain and loss should be considered, including the impact of reported weaknesses in the quality of numeracy provision compared to better quality numeracy provision.

⁴²³ National Audit Office (2008) *Skills for Life: Progress in Improving Adult Literacy and Numeracy*, available online at: http://www.nao.org.uk/publications/0708/skills_for_life_progress_in_i.aspx, accessed on 28/03/12: p. 33-35.

⁴²⁴ Office for Standards in Education, Children's Services and Skills (2010) *The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2009/10*, available online at: <http://www.ofsted.gov.uk/sites/default/files/documents/Ofsted%20Annual%20Report%2009-10%20-%20full%20report.pdf>, accessed on 28/03/12: p. 168.

⁴²⁵ Office for Standards in Education, Children's Services and Skills (2011) *Tackling The Challenge Of Low Numeracy Skills In Young People And Adults*, available online at: <http://www.ofsted.gov.uk/sites/default/files/documents/surveys-and-good-practice/t/Tackling%20the%20challenge%20of%20low%20numeracy%20skills%20in%20young%20people%20and%20adults.pdf>, accessed on 28/03/12.

⁴²⁶ For example:

Marsh, M. (2011) *Numeracy Counts NIACE Committee of Inquiry on Adult Numeracy Learning Final Report*, available online at: http://shop.niace.org.uk/media/catalog/product/n/u/numeracy_counts_final_report_feb_2011a.pdf, accessed on 28/03/12.

Teaching and Learning Research Programme (2007) *Policy, learning and inclusion in the learning and skills section. Research Briefing Number 28*, available online at: <http://www.tlrp.org/pub/documents/Coffield%20RB%2028%20FINAL.pdf>, accessed on 28/03/12.

15.4.5 Population changes relating to migration balance out literacy and numeracy skills gains in the 'base population'.

Eleven per cent of SfL2011 respondents did not speak English as a first language (ENFL) (an increase from seven per cent in 2003). Speaking English as a first language was linked with skills, with respondents in this category tending to score more highly across not just the literacy assessment but also the numeracy and ICT assessments. Focusing solely on respondents who speak English as a first language (EFL), there has been a small increase in the proportion achieving Level 1 or above in literacy since 2003, rising from 86 per cent in 2003 to 88 per cent in 2011.

While the survey is unable to consider migration directly, examining the results of ENFL respondents may serve as a useful proxy. The numeracy skills of ENFL respondents are broadly as they were in 2003 (41 per cent at Entry Level 2 or below in 2003 falling to 38 per cent in 2011), with a small decline also evident for literacy skills (46 per cent at Entry Level 3 or below in 2003 falling to 42 per cent in 2011). The small overall decline in literacy skills among ENFL respondents would have reduced an overall small improvement in literacy in the whole population. By inspection it is clear that in 2011 ENFL respondents account for around one third (29 per cent) of those at Entry Level Literacy and 13 per cent of those at Entry Level Numeracy, so changes in the skills of that population will have a large effect on overall skills at Entry Level.

The potential impact of migration on Numeracy Levels in young people was examined in Chapter 5. Due the rise in the proportion of ENFL in the youngest age groups, it might be hypothesised that the decline in the Numeracy Levels of young people is related to a flow of young migrants into the county with ENFL. However, this does not seem to be solely the case, as declines in the numeracy performance of the youngest age groups were also apparent amongst respondents for whom English is their first language.

Rapid or frequent population changes due to migration may have a significant impact on overall skills Levels, particularly if the skills of migrants differ greatly from those of the base population. Relatively little is known about migrants' skills Levels and so this is an area worthy of further investigation.

15.4.6 Skills improvement is marginal or long term, or not measured in terms of literacy and numeracy

It is perhaps possible that the effects of training are only measurable over the very long-term. However, there is an eight-year time gap between the fieldwork periods of SfL2003 and SfL2011 (June 2002 – May 2003 and May 2010 – February 2011), so it seems likely that any emerging trends would become apparent during that timeframe. It is also possible that Skills for Life training might not always provide a substantial increase in an individual's skills but might have more of an effect on self-confidence, employability and/or usage of skills, together with proportionate increases in skills. These might then over time increase the individual's abilities, creating a virtuous circle. Such effects might take a long time to work through though, as well as probably being small. Research into the impact of some work-based basic skills courses has found that the main outcome of shorter (typically 30 hour) courses on offer designed to increase employees' literacy skills was an increase in confidence rather than an increase in skills.⁴²⁷

⁴²⁷ Wolf, A. et al. (2009) *Enhancing 'Skills for Life': Adult Basic Skills and Workplace Learning: Full Research Report*, ESRC End of Award Report, available online at: <http://www.thelearningchain.net/Enhancing%20SfL%20Adult%20Basic%20Skills%20and%20Workplace%20Learning%20FULL%20REPORT.pdf>, accessed on 18/06/12: p32.

The SfL2011 data revealed a tendency for confidence in literacy and numeracy skills to increase as time elapses following the completion of training (although this is not necessarily because of training). Further research into the impact of provision on skills gain and the wider benefits of participating in Skills for Life training would be worthwhile.

15.4.7 Other possibilities

The discussions above represent only some of the possible explanations and interpretations of the observed outcomes. Other factors which may contribute to understanding of the outcomes, and which would be worthy of further investigation include the following:

- Successful Basic Skills interventions may be most difficult for those requiring the most help, with multiple factors perpetuating the prevalence of weak skills. Noting the extensive investment in Skills for Life and related programmes, it appears that the group of people with skills below the Level 1 in literacy and Entry Level 3 in numeracy are the hardest to help (this group has seen the smallest change between 2003 and 2011). A recent UK Commission for Employment and Skills (UKCES) report identifies the challenges faced by those with the poorest skills, for example for those in work:

'Generally, the least skilled are the least likely to be offered or to receive job-related training and this tends to reinforce the weak competitive position of low skilled people in the job market'.⁴²⁸

- **Interventions to date may have prevented decline.** It is possible that the lack of change for most skill Levels since 2003 reflects successful interventions which have prevented a decline. The survey was unable to gather information about skills before and after training. As a result, no assessment as to the impact of training interventions has been possible. Any future measurement of impact would need to consider the change in skill level before and after training.
- The importance of early education and opportunity for early experiences to counter factors such as poor education and skills of parents and other household members. Most of the factors discussed in this report relate to the skills, demographics and personal characteristics of individuals, but where skills are poor, these may be in part the consequence of social exclusion in the individual's entire household, with, for example, one in eight households having no working adult (where the households contain at least one adult of working age).⁴²⁹ The attainment of children in these households is much lower than for households where adults are in work (under 40 per cent of children

⁴²⁸ Hasluck, C, (2011) *Low skills and Social Disadvantage in a Changing Economy*. UK Commission for Employment and Skills, available online at: <http://www.ukces.org.uk/assets/bispartners/ukces/docs/publications/equality-low-skills.pdf>, accessed on 28/03/12:p31.

⁴²⁹ Hasluck, C, (2011) *Low Skills and Social Disadvantage in a Changing Economy*. UK Commission for Employment and Skills, available online at: <http://www.ukces.org.uk/assets/bispartners/ukces/docs/publications/equality-low-skills.pdf>, accessed on 28/03/12: p. 22.

obtaining five GCSEs at grade C or above, compared to around 80 per cent in households whose parents were in higher professional employment).⁴³⁰

15.5 Discussion and initial interpretation of the ICT headline findings

The initial interpretation above has concentrated on issues relating to literacy and numeracy, and in particular, possible explanations for changes observed since 2003. The 2011 survey also included a detailed analysis of ICT skills for which outline interpretation of findings is presented in the following section.

15.5.1 ICT Skills in the 2011 survey

SfL2011 measured practical ICT skills in word processing, spreadsheet use and emailing as well as knowledge of wider ICT skills such as using the internet. The results are not comparable with the more limited assessment of IT skills in the 2003 survey due to differences in the skills assessed.

In 2011, around half of those surveyed had a high standard of emailing skills, reaching Level 2 or above (the highest Level in the Skills for Life ICT standards), and good understanding of wider ICT such as the internet. Skills in word processing and spreadsheet use were a little less strong (with around 60 per cent reaching Entry Level 3 or above in each). More than half of respondents had received ICT training other than at school, which coupled with the survey outcomes from the knowledge-based multiple choice questions, suggests high levels of awareness of ICT.

15.5.2 ICT skills in work and society

The government's Race Online 2012 manifesto⁴³¹ identifies that 8.2 million adults have never used the internet in Britain, with four million of these from digitally disadvantaged groups (aged over 65, unemployed, families with children). These figures are corroborated by the 2011 SfL finding that an estimated 3.2 million people aged 16 or over in England are below Entry Level 3 in ICT awareness (tested by the multiple choice assessment), 10.7 million are below Entry Level 3 in emailing and an estimated 3.4 million are without internet access in their home.⁴³²

The SfL2011 ICT assessment focuses on a relatively traditional view of ICT skills – assessing word processing, spreadsheet and email skills, as emphasised in the Skills for Life ICT curriculum (which the tool is designed to assess), and the Key Skills and Functional Skills standards. The multiple choice questions attempt to assess other areas that cannot easily be assessed in a test (e.g. effective use of the internet) and areas not covered by these curricula and standards (use of mobile technology, social media, etc.). However the assessment here is

⁴³⁰ Department for Children, Schools and Families (2008) *Youth Cohort Study, and Longitudinal Study of Young People in England: The activities and experiences of 16 year olds: England 2007*. Statistical Bulletin, available online at: <http://www.education.gov.uk/rsgateway/DB/SBU/b000795/b01-2008.pdf>, accessed 28/03/12: Table 4.1.1. The figures mentioned for households with workless adults is taken from an 'other / not classified' NS-SEC category, which frequently denotes, but is not limited to 'no occupation'.

⁴³¹ Available online at: <http://raceonline2012.org/manifesto/1>, accessed 28/03/12.

⁴³² See Section 9.6, approximately one in ten people do not have internet access at home.

limited partly due to the number of questions but also because it assesses knowledge rather than skill. Separately, the background questionnaire captures information about ICT usage.

Recent government policy outside of education places a much greater emphasis on ICT as a tool for participation and access. For example the 'Manifesto for a networked nation'⁴³³ highlights simply the use of a browser or web-enabled application to access the internet for accessing services as critical to digital and social inclusion (largely ignoring the more 'traditional ICT user skills'). The implication here is that even email skills may be best learned as using a browser based email rather than an installed custom email application (e.g. Microsoft Outlook) as included in the survey's ICT assessment.

Social media and mobile communications are for many young people their first and sole experience of ICT. Messaging tools such as Short Message Service (SMS) text and Facebook may have replaced email, and smart phone applications ('apps') have eaten quickly and heavily into the browsers' dominance of internet usage⁴³⁴ particularly for younger users, perhaps because their internet usage is better suited to apps, or because they are more comfortable using them (probably the latter more than the former).

Against this backdrop it is clear that there are substantial elements of ICT skill not covered in the standards, or in the survey's ICT assessment. The impact of this is likely to be an under-reporting of ICT skill, and proportionately greater under-reporting for younger users.

Future surveys may wish to consider the limitations of curricula and standards (they are commonly out of date where ICT is concerned due to the rate of progress) and look to a broader specification of ICT competence based more on ICT skills for everyday life than the specific subset required for work in information rich occupations.

As might be expected, the SfL2011 findings suggest a substantial increase in computer use compared to 2003 (up from around 44 per cent using computers at least twice a week in 2003 to around 82 per cent in 2011). However, the survey also shows that older respondents are likely to have weaker ICT as are those not in work or in low-skill occupations, those with poor or no educational qualifications, and those with self-reported long-standing health problems. The implications of this are that although the vast majority of the working age population uses ICT regularly and has skills to do so, a minority do not use ICT, and therefore do not receive the benefits that it can bring. This minority group includes a high proportion of those classed as digitally disadvantaged, a group with similar characteristics to those at wider risk of disadvantage and exclusion.

15.6 Further work

It is clearly essential for future research work to focus first on why the survey results do not show the improvements in Literacy and Numeracy Levels that might have been expected based on the level of investment and high levels of participation and achievement. The hypotheses presented and discussed are complex and a single factor is unlikely to be the sole cause. The differences

⁴³³ Race Online 2012 (2010) *Manifesto for a Networked Nation*, available online at: http://raceonline2012.org/sites/default/files/resources/manifesto_for_a_networked_nation_-_race_online_2012.pdf, accessed on 28/03/12.

⁴³⁴ Newark-French, C. (2011) *Mobile Apps Put the Web in Their Rear-view Mirror*. Flurry, available online at: <http://blog.flurry.com/bid/63907/> accessed on 28/03/12.

between the changes seen for literacy and numeracy skills are particularly worthy of further investigation.

There are a number of areas of further work which may help with interpretation, including further work on the Sfl2003 and Sfl2011 datasets, and consideration of other research alongside these datasets. Noting comments made earlier in this chapter, the following areas are suggested:

- More detailed investigation into the possible effects of skills loss in literacy and particularly numeracy.
- Further consideration of aspects of policy and delivery relating to Skills for Life in Wales which might explain the significant differences in outcomes, particularly for the improving trends seen in the Welsh population's skills at Entry Levels for literacy and numeracy.
- Consideration of whether the threshold levels defined in 1999 and adopted under preceding policies as representing "functional" i.e. Level 1 or above in literacy and Entry Level 3 or above in numeracy are still suitable for today's society and workplace.
- Further and more detailed multivariate analysis of subgroups, particularly policy subgroups to identify predictive factors.
- Further research to explore the issues around training. For example, a propensity score match approach might help assess the impact of basic skills training more precisely. Additionally, further research using a longitudinal or experimental design to explore assessment scores before and after attending basic skills training.
- Research to investigate the alignment of ENFL measures with immigration, in order to allow an estimation of the extent to which population churn might contribute to the findings.
- Consideration of the impact of basic skills training including investigation of the role of mandatory and voluntary access to provision.
- Research into the appropriateness of ESOL provision for ENFL learners, and the funding, support and signposting for this provision.
- Research to investigate how employers of people in low skill jobs, typically with poor skills, might be supported to improve progression and retention through skills development as part of wider human capital development.
- It would also be worthwhile ensuring that the assessments used in subsequent surveys either measure performance above Level 2 (particularly for literacy, as 57 per cent of respondents obtained a Level 2 or above literacy outcome in 2011) or quickly filter out respondents at these Levels to concentrate more resource on assessing the strengths and weaknesses of those at Level 1 or below in more detail.
- Future surveys of ICT skill should consider the strengths and weaknesses of particular ICT curricula in order to identify a range of skills to assess which will both reflect modern society and provide respondents with the widest possible scope to demonstrate their skill.

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Quality assurance statement

TRIBAL

An outline of the work undertaken to peer review the Skills for Life Survey data, analysis and findings

Tribal Education Ltd. was commissioned by the Department for Business, Innovation and Skills (BIS) in August 2011 to undertake a peer-review of the draft Skills for Life 2011 research report, datasets and dataset documentation. The purpose of the peer-review was to provide independent quality assurance of data quality, analytical robustness and reporting clarity and to make specific recommendations for amendments (supported by clear justifications) that could be made to improve the report and supporting analysis.

The peer-review included the following strands of analysis:

- A review of the survey dataset and documentation, including an evaluation of the quality of the data, identifying any limitations this may place on the analysis and reported findings
- Replication of the analysis on which key report findings are based in order to check their technical accuracy and analytic appropriateness
- A review of the weighting and imputation strategy to assess whether the correct weightings have been employed and inferences from them are appropriate
- A review of the report to ensure that the findings reported fit with the scope and content of the analytical plan which was agreed with BIS by TNS-BMRB
- A review of the presentation and language of the report to ensure that the findings balance accuracy and clarity for an informed, non-technical audience.

The focus of the review was on the accuracy and appropriateness of reporting. The review did not examine the methodology and analysis techniques applied, only that the agreed methodology has been applied correctly. The review did not require Tribal Education Ltd. to consider matters of policy interpretation.

A brief quality assurance statement, offering an independent assessment of the data quality, appropriateness of analysis and presentation of findings

Tribal Education Ltd. is able to confirm that: the draft dataset and documentation were complete in terms of the number of cases and data fields/entries; the coverage of the background questionnaire and assessment tools was as expected; and that there was clarity in the variable labels and all values and variables were identified and explained in the supporting documentation.

Tribal Education Ltd. is also able to confirm that the findings presented in the draft report are technically accurate and supported by the statistical properties of the data. In addition, the report aligns closely to the structure and content of the Analytical Plan. The presentation of the findings is accurate, supported by the data, and suitable for an informed, non-technical audience.

A short paragraph on the peer review authors, noting relevant experience

The Tribal Education Ltd. peer review team has extensive experience in large scale survey interpretation, skills-related data set analysis and assessment issues in literacy, numeracy and Information and Communication Technology (ICT). This team also has extensive experience in the methodologies used in the 2011 and 2003 Skills for Life Surveys. Core team members have carried out numerous peer-reviews and are experienced authors of high-stakes reports at national and international level that have been used to inform policy.

Tribal
87-91 Newman Street
London W1T 3EY
T +44 (0) 20 7323 7100
info@tribalgroup.com
www.tribalgroup.com

Tribal Education Limited
Registered number: 4163300
Registered address: 87-91 Newman Street, London W1T 3EY
Place of registration: England and Wales

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Any enquiries regarding this publication should be sent to:

Department for Business, Innovation and Skills
1 Victoria Street
London SW1H 0ET
Tel: 020 7215 5000

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