The Scottish Government

Education and Lifelong Learning

Scottish Survey of Adult Literacies 2009: Report of Findings

SCOTTISH SURVEY OF ADULT LITERACIES 2009: REPORT OF FINDINGS

Ralf St.Clair
University of Glasgow

Lyn Tett
University of Edinburgh

Kathy Maclachlan
University of Glasgow

This report and research findings are published by Education Analytical Services, Lifelong Learning Research, Scottish Government, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU.

If you have any enquiries about these reports
Please contact Jeanette Hagerstrom on 0300 244 1362 ; by e-mail on recs.admin@scotland.gsi.gov.uk or visit our website www.scotland.gov.uk/insight .

Scottish Government Social Research
2010

Scottish Survey of Adult Literacies 2009
EXECUTIVE SUMMARY

Key findings

- Literacy skills in Scotland are comparable with many of the world's leading economies
- Three-quarters (73.3%) of the Scottish population have a level of skills that has been recognised internationally as appropriate for a contemporary society
- Around one quarter of the Scottish population (26.7%) may face occasional challenges and constrained opportunities due to their skills but will generally cope with their day-to-day lives
- Within this quarter of the population, we find that 3.6% (one person in 28) faces serious challenges in their literacies practices
- The proportion of people found to have limited or very limited literacies skills is lower than previous surveys, partly due to better survey methodologies
- Women below 55 have stronger skills than men, above 55 this picture reverses
- Stronger skills are associated with many other forms of advantage, such as better paying jobs and living in a less deprived area
- 26-35 year olds have stronger skills and higher education than other age groups
- There are strong links between measured literacies scores and educational qualifications, being employed, and the skill level of that employment
- People generally state they are satisfied with their literacies skills, though people with less developed skills are less satisfied
- The key issue in Scotland is distribution of literacies skills across the population, which mirrors poverty in our communities.

1. This report explores adult literacies[1] in Scotland using data from the 2009 Scottish Survey of Adult Literacies (SSAL2009). SSAL2009 is based on the International Adult Literacy Survey (IALS) carried out in the mid-1990s as part of an international programme of surveys.

2. SSAL2009 involved a random sample of 1927 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.

3. SSAL2009 used individuals' scores on a range of tasks to generate information about capabilities across the population. Literacies were measured on three

[1] "Literacies," used throughout this report, refers to sets of literacy practices required in certain contexts, such as the skills required to read and understand a bus timetable.

scales: Prose, Document and Quantitative[2]. Scores have been grouped into five levels; Level 1 represents the lowest ability range and Level 4/5 the highest.[3]

4. The paper and pen based SSAL2009 survey instruments collect data on the tasks seen as among the most valuable for economic and social life in contemporary society. The instruments approach literacy skills as a single continuum, with people being at one point or another along a line running from low skills to high skills.

5. Contemporary theory takes a more complex approach to literacies. Rather than a set of stand-alone skills, literacies are seen as a range of practices that people are able to apply to their lives when needed. People have spiky profiles, with areas of strength and weakness, and a greater ability to use texts more effectively in some circumstances than others.

6. SSAL2009 was not intended to tell us everything about the literacies skills of the Scottish population. It serves to provide clear indications regarding certain types of practices associated with valued forms of literacy. It does not follow that everybody who scores at the lower levels will have problems or difficulties with reading or writing in everyday life. However, SSAL2009 demonstrates that the valued forms of literacy are not evenly distributed across the population, and that limited or very limited skills are strongly related to several dimensions of disadvantage.

The distribution of literacy skills across the population

7. On all three scales the majority of people in Scotland score at Level 2 or 3. Scoring at Level 3 and above is generally recognised as indicating that individuals have the literacy skills appropriate for a contemporary economy. The proportion of adults in Scotland scoring above these Levels are 55% for prose literacy, 61% for document literacy and 66% for quantitative literacy. These figures are similar to those of other advanced economies in the 1996 International Adult Literacy Survey.

8. Looking at all three scales together, the majority of the population (73.3%) scored at the OECD defined level of acceptable literacies skills for a modern economy (Level 3 or above) on at least one of the three scales.

9. Skills are not strongly related to gender, though there is a relationship with age. This is shown in figure 2, which focuses on prose literacy scores in particular.[4]

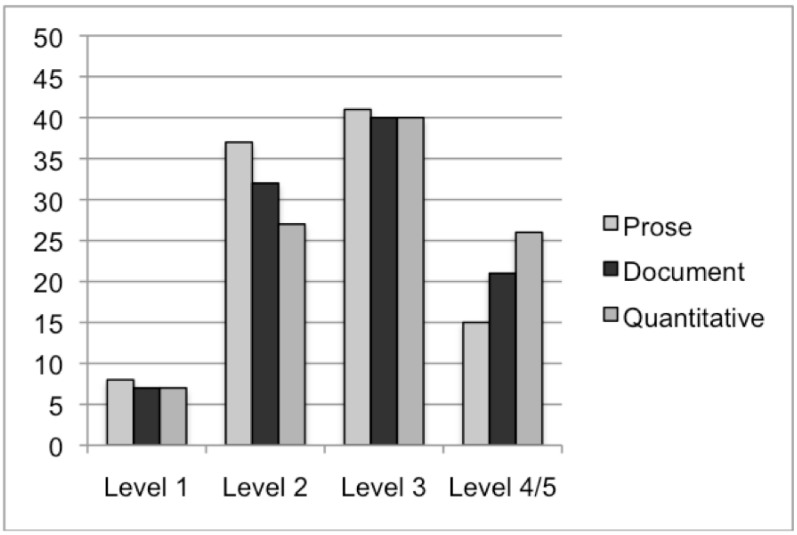
[2] Definitions of the three scales: **Prose literacy** is the knowledge and skills required to understand and to use information from texts such as newspaper articles and passages of fiction. **Document literacy** is the knowledge and skills required to locate and to use information contained in various formats such as timetables, graphs, charts and forms. **Quantitative literacy** is the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials.

[3] There were very few people who scored in Level 5 across the survey, as was also the case in 1996, and because of this Levels 4 and 5 are combined, and referred to as "Level 4/5."

[4] Many of the figures here represent prose literacy, following the reporting convention of IALS. Where other literacy scales are notably different this has been indicated.

Generally, the distribution of scores is not strongly related to age except in two aspects. First, it is interesting to see a very strong set of scores for 26-35 year olds. Over 20% scored in the top category for prose literacy and this increased to 34% in the top category for quantitative literacy.

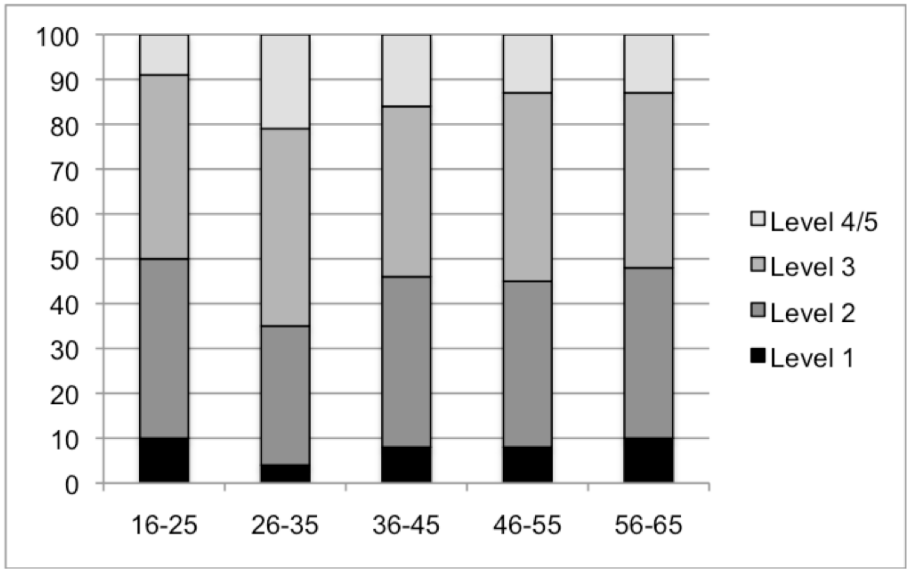
Figure 1: Distribution of scores across the Scottish population



10. The proportion of 16-25 year olds scoring at Levels 1 and 2 in prose literacy is higher than any other age group. A similar pattern, though far less marked, holds for the other two literacy scales. However, this finding has to be contextualised within the wider picture. When all groups are examined, it is the 26-35 year old group which stands out, and this is because its levels are higher than all other groups except the 36-45 year olds.

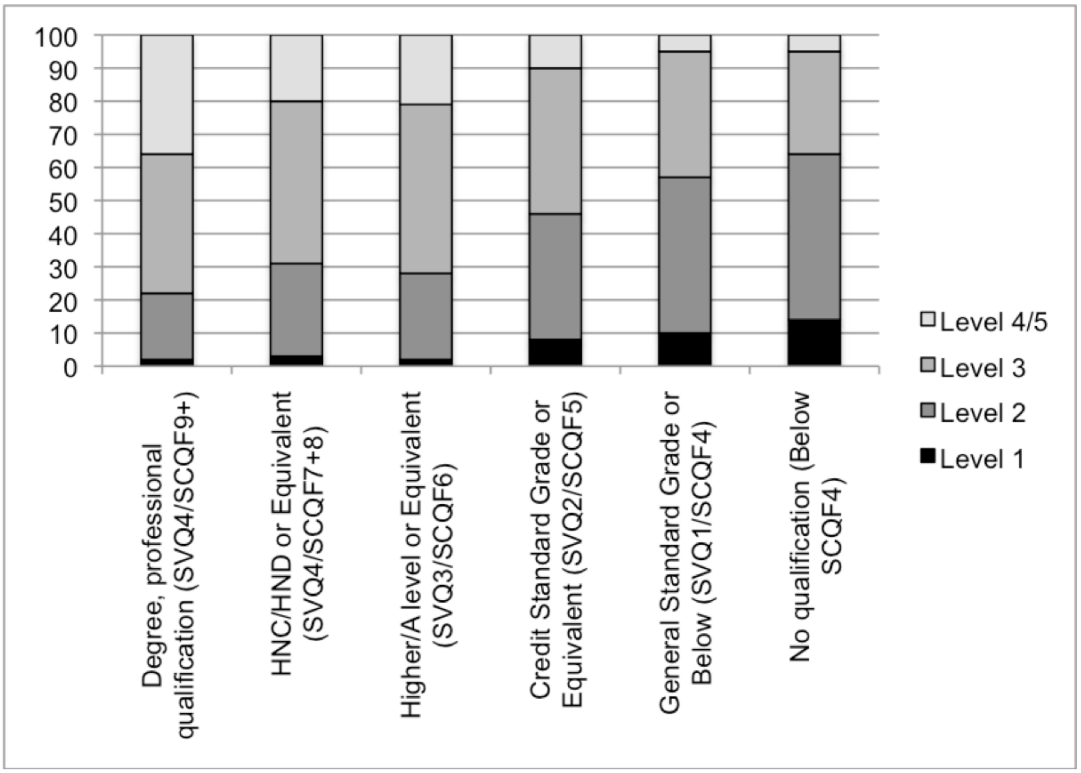
11. The second notable aspect of age is the interaction with gender. Looking at prose literacy scores as an example, in the 16-35 and 36-55 age groups women have higher proportions than men at Level 3 and above (60% vs. 56% and 58% vs. 51% respectively). In the age group 56-65 this is reversed, with women less likely to score at Level 3 or above (51% vs. 53%).

Figure 2: Prose literacy scores by age group



12. Literacy scores are also strongly related to education level, as shown in figure 3. This emerges from analysis of highest qualification.

Figure 3: Prose literacy score by highest qualification



Literacy in working life

13. Literacy scores are related to occupations and employment status. The higher the occupation is on the Standard Occupational Classification, the more likely that a person will have strong literacy skills. It follows that stronger skills also have a relationship with higher income.

14. People with stronger literacy skills are also less likely to be unemployed. The jobs they have typically involve a greater range and frequency of literacy practices, including computer use, than those reported by people with lower literacy scores.

15. Generally people report themselves as having excellent or good skills for the workplace, even among those people who attain Level 1 scores. When examined in terms of the jobs people do, however, people in more routine jobs tend to be less satisfied with their literacy skills whatever the level of their skills.

16. People with lower literacy scores were less likely to have participated in education or training over the last year, but more likely to have wanted to and been unable to do so.

17. The survey instruments did gather data on disabilities and ethnicity, including first language, but the diversity of the sample in terms of these factors was limited, and no meaningful discussion of these issues is possible.

Literacy in everyday life

18. People who live in the 15% most deprived areas in Scotland tend to have lower literacy scores than those who live in the rest of Scotland as measured by SIMD.[5] People with lower literacy scores also tend to face health problems.

19. People with lower scores tend to interact with texts much less than those with higher scores, and tend to have fewer resources such as books and dictionaries available in their homes. They also tend to watch more television.

20. People with higher scores tend to rate their own skills more strongly, indicating a degree of realism about capabilities. Satisfaction with skills is also related to frequency and type of literacy practices, such as reading books or newspapers.

21. People with lower scores are more likely to identify that they need help with everyday literacy tasks, particularly business and government information and forms.

Characteristics associated with level 1 scores

22. Analysis was conducted to see which social factors were associated with Level 1 scores. The most notable associations include age, with the youngest and oldest more likely to score at Level 1, and being a resident in one of the 15% most deprived areas in Scotland.

[5] http://www.scotland.gov.uk/Topics/Statistics/SIMD

23. Health problems were associated with Level 1 scores, as is receipt of government benefits (not including child benefit or pensions).

24. Limited years of education and lower qualifications are also associated with Level 1 literacy scores.

25. People with Level 1 scores were less likely to be employed, and if employed, were often in occupations requiring less frequent use of literacy practices.

26. Literacy resources, such as libraries and books in the home, are typically used less by those scoring at Level 1, and they watch more television. Newspapers and magazines in the home remain very common, however. People with scores at Level 1 are more likely to identify that they need help with literacy practices.

27. When the social characteristics associated with people scoring at Level 1 on all three literacy scores were analysed there are clear and strong messages about the characteristics associated with these scores. Compared to the average, people with these scores have lower qualifications, less income, less education, are older, are working in lower-skilled jobs and more likely to be living in the 15% most deprived areas of Scotland.

28. A similar set of findings holds for those who score below Level 3 on all three scales, but the differences between these adults and those scoring at or above Level 3 is much less marked.

Summary of findings

29. The findings indicate that a number of diverse social factors are associated with literacy scores and that overall they are consistent in their effects. People scoring at Level 1 or 2 are less engaged with literacy, and this is especially true for those scoring at Level 1. However, there is no clear demarcation between people at a particular point on the scales; instead there is a continuum of engagement with literacy practices.

30. This should not obscure the point that people scoring in Levels 1 and 2 tend to earn less, work in more routine occupations, be unemployed or economically inactive, live in more deprived areas, face health challenges and have lower educational levels than those scoring in Levels 3, 4/5. There are consistent relationships between key social factors and literacy scores.

Table of Contents

ACKNOWLEDGEMENTS

The research team from the Universities of Glasgow and Edinburgh would like to acknowledge the work of Gallup Europe and the Educational Testing Service.

Particular thanks go to the staff of the National Foundation for Educational Research who did so much work: Jenny Bradshaw, Julie Sewell, Hanna Vappula, Rob Ager, Dougal Hutchison and Sabia Akram.

Thanks to the Scottish Government personnel who worked with us on this so patiently.

Final thanks goes to the interviewers and the 2000 people in Scotland who agreed to be interviewed. We hope the results justify the time you so kindly agreed to spend helping us.

1 INTRODUCTION

1.1 This report explores adult literacies[6] in Scotland using data from the 2009 Scottish Survey of Adult Literacies (SSAL2009). SSAL2009 is based on the International Adult Literacy Survey (IALS) carried out in the mid-1990s as part of an international programme of surveys. IALS was carried out in 22 countries through random probability samples of adults of working age, and the UK survey was conducted in 1996.[7] SSAL2009 was based on IALS so that internationally agreed measurement instruments and survey implementation protocols could be used.

1.2 In order to ensure the quality of data so critical to this endeavour, the Scottish Government awarded a contract to literacies researchers from the Universities of Glasgow and Edinburgh. They formed a partnership with the National Foundation for Educational Research, the most highly respected educational research and statistics organisation in the UK, and Gallup Europe, an internationally known polling company. The owners of the instruments, Educational Testing Service (ETS) of the United States, were responsible for scoring and levelling the data and also took a key role in monitoring the progress of the survey.

Survey design

1.3 SSAL2009 involved a sample of 1927 randomly selected 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, education and urbanisation.

1.4 The proportions of social groups within the sample were generally close to population levels with the exception of women, who were over represented in the sample. All data was weighted, a statistical technique to allow conclusions to be drawn about the actual population even if the proportions of people in the sample are not identical to the population.

What SSAL2009 measures

1.5 Measurement of literacies, either in an individual or a population, is not a straightforward task and requires sophisticated techniques. SSAL2009 used individuals' scores on a series of literacy tasks to generate information about the capabilities across the population. The aim of this document is to provide a picture of skills levels across all the people who live in Scotland. However, some care must be taken regarding the information that this approach can provide and what it cannot.

1.6 The Scottish Government defines adult literacy and numeracy as:

[6] "Literacies," used throughout this report, refers to sets of literacy practices required in certain contexts, such as the skills required to read and understand a bus timetable.
[7] http://www.scotland.gov.uk/library3/lifelong/alals-52.asp

The ability to read, write and use numbers, to handle information, express ideas and opinions, make decisions and solve problems, as family members, workers, citizens and lifelong learners (ALNIS, 2001).

1.7 Literacies are defined in the Adult Literacy and Numeracy (ALN) Curriculum Framework of 2005[8] (p.13):

- To be literate and numerate is not only to have the mechanical skills of encoding and decoding symbols but also the knowledge, skills and understanding that enable us to do what we want to do in our private, family, community and working lives;
- The key life areas and social contexts in which literacy and numeracy are used are important in deciding on what is to be learned; and
- Literacy and numeracy skills are almost always employed for a purpose - such as making decisions or solving problems - and in a particular social context.

1.8 This definition is based on a view of literacies that emphasises the importance of the context in which people use their abilities (Barton et al, 2000). It also assumes that people are part of social networks and will rely on work colleagues, family or friends to help them with some literacies tasks. Research by Bynner and Parsons (2006:10) confirmed this perspective as they found in their analysis of the 1958 and 1970 British birth cohort studies that there was a *'continuing low awareness of literacy and numeracy difficulties, which is not surprising among adults, most of whom manage their lives well and learn to cope with any skills difficulties they have'.*

1.9 The Scottish definition of literacy and literacies is very broad, and most of what would fall within it cannot be captured usefully by any test. In SSAL2009 the response to this dilemma is to measure a particular set of literacies abilities, those shown by IALS 1996 to be associated with valued social outcomes. The precision of a large scale survey such as SSAL2009 inevitably requires a narrow and clear definition of the constructs under consideration, and brings about a number of consequences it is necessary to acknowledge.

1.10 The assessment used in the SSAL2009 tests individuals and their cognitive skills, even though the results are applied to the population as a whole. One of the implications is that SSAL2009 is not able to capture people's use of literacies in their social contexts, such as home or work. It also means that SSAL2009 cannot indicate what specific level of skill is required to run a business, manage a household, or obtain, hold or advance in a particular occupation. It is likely that the skills measured in the individual test are an underestimation of what people can do in real-world settings.

1.11 The test items require very little writing whereas the definition above includes being able to produce, as well as engage with, texts. Although the test simulates materials and activities that adults may encounter in their everyday

[8] Available at: http://www.aloscotland.com/alo/files/ALNCurriculumFramework.pdf

lives it does not capture how they engage with those materials in a real-world setting.

1.12 Literacy researchers (e.g. Papen, 2005; Wagner, 2004) point out that 'multiple literacies' is a useful way to think about reading and writing since people engage with different forms of literacy, such as media representations or icons to navigate the Internet. These literacies are not assessed in SSAL2009, which focused strongly on more formal text-based literacy.

1.13 The results of the survey do indicate a great deal about people's ability to perform specific text based tasks, and how that ability is distributed. It allows analysis of general levels of ability, as well as the ways that ability is different for different groups in the population.

How the survey works

1.14 The test items in the survey are based on an information-processing model of reading and cognition, meaning that the difficulty of test items is varied by making the language more dense, or asking people to find more complicated bits of information (National Research Council, Committee on performance levels for literacy, 2005). These factors affect the ease or difficulty of reading. For example, if the information required to answer a question about a paragraph is found in the first sentence of that paragraph then the literacy task is presumed to be easier than if a person is required to read further or to sort through distracting information.

1.15 The items used were the everyday kinds of task that people may encounter in their daily lives, generally referred to as 'functional' literacies (see Tett & St Clair, 2010). These include tasks such as reading a bus timetable, deciphering an advertisement, or filling out a form. In addition, the assessments were open-ended tasks rather than multiple-choice so that they reflected a little more closely the contexts in which literacies are used. The survey measured three dimensions of literacies:

Prose literacy: the knowledge and skills required to understand and to use information from texts such as newspaper articles and passages of fiction. The texts have a typical paragraph structure.

Document literacy: the knowledge and skills required to locate and to use information contained in various formats such as timetables, graphs, charts and forms. The texts have a varied format, use abbreviated and/or informal language and use a variety of devices and visual aids to convey meaning, such as diagrams, maps or schematics.

Quantitative literacy: the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as calculating savings on items advertised in a sale or working out the interest required to achieve a desired return on an investment.

1.16 Each of the three scales measuring these dimensions of literacies is a continuum ranging from 0 to 500. Scores have been grouped into five levels; Level 1 represents the lowest ability range and Level 4/5 the highest. Each level, as shown in Table 1, implies an ability to cope with a particular type of task. Although the three scales are highly correlated, individuals do not necessarily perform equally well on each scale.

Converting test results into literacy skills

1.17 The SSAL made use of *Item Response Theory (IRT)*, a statistical method for scaling test items for difficulty so that the item has a known probability of being correctly completed by an individual with a given proficiency level.[9] To be placed at a particular level on a scale respondents have to achieve consistent correct performance on those tasks. The definition of consistent performance for the survey was set at 80%. Individuals at Level 3, for example, should perform tasks at that level consistently –getting them right 80% of the time. They would have a higher than 80% probability of correctly answering lower level items. Similarly, they would sometimes be able to answer a higher-level task correctly but they would not be able to perform items at higher levels consistently getting them right at least 80% of the time.

1.18 Respondents received a score based on their performance on a randomly determined subset of all possible questions in the literacy assessment. Some respondents only completed part of the assessment and where they had completed insufficient tasks to calculate their performance an imputation process was used to estimate their proficiency. This was very infrequent in SSAL2009 — the vast majority of respondents completed the entire survey.

1.19 Due to the design of the survey, with different people tackling the items in different orders, it is not possible to provide a global completion figure. Of the 1953 people completing the Background Questionnaire only 26 did not proceed to the literacy assessment. Typically, questions in the assessment instruments were omitted by 2-5% of respondents, though some questions were omitted by as many as 22% of respondents. It appears that the more frequently omitted questions were among the most difficult — indeed the question omitted by 22% is given as an example of a more challenging question in IALS literature. Since omitted questions were considered as “wrong” answers they would be concretely scored rather than imputed.

1.20 The survey instruments did gather data on disabilities and ethnicity, including first language, but the diversity of the sample in terms of these factors was limited, and no meaningful discussion of these issues is possible.

[9] This is the method used also in OECD surveys such as PISA and PIRLS

Table 1: Description of the prose, document and quantitative literacy levels (Scottish Executive, 2001: 10-11)

Level	Prose	Document	Quantitative
Level 1 (0-225)	Locate one piece of information in a text that is identical or synonymous to the information in the question. Any plausible incorrect answer present in the text is not near the correct information.	Locate one piece of information in a text that is identical to the information in the question. Distracting information is usually located away from the correct answer. Some tasks may require entering given personal information on a form.	Perform a single simple operation such as addition for which the problem is already clearly stated or the numbers are provided.
Level 2 (226-275)	Locate one or more pieces of information in a text but several plausible distractors may be present or low level inferences may be required. The reader may also be required to integrate two or more pieces of information or to compare and contrast information.	Tasks at this level are more varied. Where a single match is required more distracting information may be present or a low-level inference may be required. Some tasks may require information to be entered on a form or to cycle through information in a document.	Single arithmetic operation (addition or subtraction) using numbers that are easily located in the text. The operation to be performed may be easily inferred from the wording of the question or the format of the material.
Level 3 (276-325)	Readers are required to match information that require low-level inferences or that meet specific conditions. There may be several pieces of information to be identified located in different parts of the text. Readers may also be required to integrate or to compare and contrast information across paragraphs or sections of text.	Literal or synonymous matches in a wide variety of tasks requiring the reader to take conditional information into account or to match on multiple features of information. The reader must integrate information from one or more displays of information or cycle through a document to provide multiple answers.	At this level the operations become more varied and include multiplication and division. Sometimes two or more numbers are needed to solve the problem and the numbers are often embedded in more complex texts or documents. Some tasks require higher order inferences to define the task.
Level 4 (326-375)	Match multiple features or provide several responses where the requested information must be identified through text-based inferences. Reader may be required to contrast or integrate pieces of information sometimes from lengthy texts. Texts usually contain more distracting information and the information requested is more abstract.	Match on multiple features of information, cycle through documents and integrate information. Tasks often require higher order inferences to get correct answer. Sometimes, conditional information in the document must be taken into account in arriving at the correct answer.	A single arithmetic operation where the statement of the task is not easily defined. The directive does not provide a semantic relation term to help the reader define the task.
Level 5 (376-500)	Locate information in dense text that contains a number of plausible answers. Sometimes high-level inferences are required and some text may use specialised language.	Readers are required to search though complex displays of information that contain multiple distractors, to make high-level inferences, process conditional information or use specialised language.	Readers must perform multiple operations sequentially and must state the problem from the material provided or use background knowledge to work out the problem or operations needed.

1.21 The survey does not provide scores for individuals, only levels across the population. Item Response Theory takes the limited set of answers from an individual and then combines them with everybody else's answers to create a very detailed set of responses, which can be used reliably as an indication of the skills of the population. Each respondent in SSAL2009 was allocated around forty questions out of 95 possible questions. When combined with every other set of answers this provides information on a broad range of responses.

Reading this report

1.22 This report sets out to describe the findings of the survey in an accessible way. More details of the survey process and statistical procedures can be found in the companion publication "SSAL2009: Technical Report" available from the Scottish Government website.

1.23 There are a few points regarding the presentation of these findings that are worth noting. There were very few people who scored in Level 5 across the survey, and because of this Levels 4 and 5 are combined, and referred to as 'Level 4/5.' The same strategy was adopted in every country where IALS was conducted.

1.24 The sample size for the survey was 1,927, spread across the whole of Scotland. For some of the tables the sample size is smaller because people chose not to respond to a particular question. The unweighted base (UW) is the number of people in a category before the numbers were weighted to reflect the population. So, for example, a higher proportion of the respondents were female, and their answers had to be statistically balanced with those of the male respondents to make sure that their representation reflected the population levels of men and women. In some tables there is a range for the UW Base, because questions have been brought together for the table and have different numbers of responses.

Structure of this report

1.25 The report is organised in five main chapters. Each chapter has several pages of text and graphs. Following the main chapters there is an annex containing detailed statistics regarding the topics of the chapters.

- Chapter 2 looks at the literacy scores across the population, and the general distribution of those scores by age, gender, social class, and so on. For most readers this may be the most informative chapter.
- Chapter 3 is concerned with describing the use of literacies in everyday life, and the links to social factors.
- Chapter 4 looks at the use of literacies in the workplace.
- Chapter 5 focuses on the factors that predict a lower score on the literacy scales. Predictors for Level 1 scores have been separated wherever possible

from predictors for Level 2 scores. This chapter provides information on the type of work and life literacy engagement associated with lower scores.

- Chapter 6 sets the results of SSAL2009 alongside those of IALS1996. Though the results cannot and should not be compared directly, there are some lessons to be learned from commonalities and differences.

Technical report

1.26 Readers interested in the more technical details of the survey should consult the SSAL2009 Technical Report published in tandem with this Report of Findings.

References

Barton, D., Hamilton, M., & Ivanic, R. (Eds.) (2000). *Situated literacies: Reading and writing in context*. London: Routledge.

Bynner, J. and Parsons, S. (2006) *New Light on Literacy and Numeracy*, London: NRDC

National Research Council, Committee on performance levels for literacy (2005) *Measuring Literacy: performance levels for adults*, Washington D. C., USA: National Academies Press

Papen, U. (2005) *Adult literacy as a social practice*, London: Routledge

Scottish Executive (2001) *Adult literacy in Scotland: Analysis of data from the 1996 Adult Literacy Survey*. Edinburgh: Author.

Tett L. & St Clair, R. (2010) Adult literacy. *International Encyclopaedia of Education 3rd Edition*, Oxford: Elsevier Ltd

2 THE DISTRIBUTION OF LITERACIES IN SCOTLAND

2.1 SSAL2009 measured three dimensions of literacy skills (prose, document and quantitative) for almost 2000 people living in Scotland in the spring and summer of 2009. As mentioned previously, the results of this type of survey are grouped into levels with Level 1 representing the lowest scores and Level 4/5 the highest. This grouping makes it far easier to describe relative scores. This chapter describes the overall distribution of literacy scores across the Scottish population, looking at factors such as gender, social class and area of residence. For each factor graphs and tables are provided where they are helpful in illustrating the findings, but full tables for all the factors discussed here can also be found in the annexes to the chapter (from pp. 61 onwards).

Literacies distribution across Scotland

2.2 The table below shows the proportions of respondents who scored at each literacy level across the whole sample in Scotland. This shows that on all three scales the majority of Scots score at Level 2 or 3. The graph below makes this finding clear.

Table 2.1: Proportion of respondents scoring at each of the literacy levels

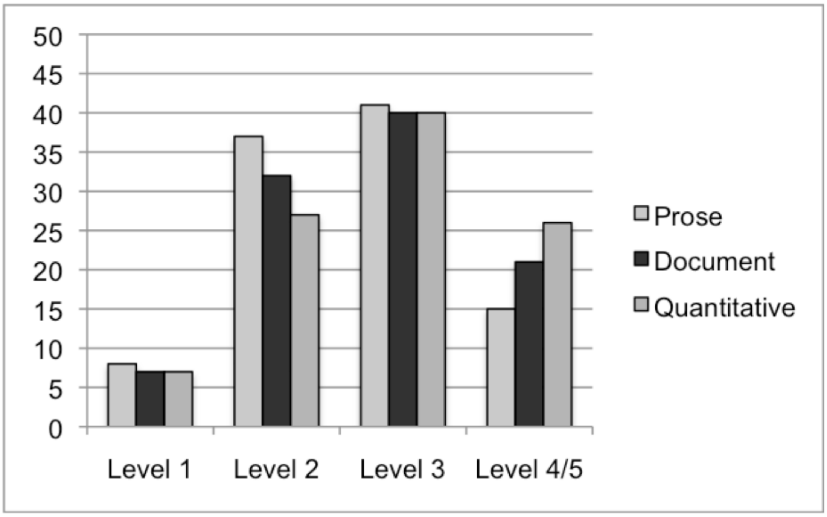
	Level 1		Level 2		Level 3		Level 4/5			
Literacy	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**Mean score**	**Unweighted Base**
Prose	8	1.20	37	2.08	41	1.97	15	1.70	282	1927
Document	7	1.21	32	2.36	40	2.61	21	1.99	289	1927
Quantitative	7	1.25	27	1.82	40	1.99	26	2.24	294	1927

s.e. = standard error associated with each percentage[10]

2.3 The scores on each of the three scales are broadly similar, though it is important to note that this does not mean that the same people are scoring the same on all three scales. It suggests that the abilities required to score well on each of the three scales are distributed in a similar way across the population.

[10] Standard error is the amount a given percentage may vary in the population since, due to the way sampling works, numbers are rarely exactly right. In the case of level 1 prose, this means that the true figure will lie between 6.80% and 9.20% 19 times out of 20. This variation is normal for all surveys, including opinion polls. When using the findings for further statistics, the s.e. is taken into account.

Figure 2.1: Distribution of scores on three literacy scales across Scottish population (%)



2.4 It is interesting that the quantitative literacy scores of the Scottish population are relatively strong. Over a quarter of the population fall into the top category for their quantitative literacy skills. These are the skills used for tasks such as calculating quantities for recipes and working with money.

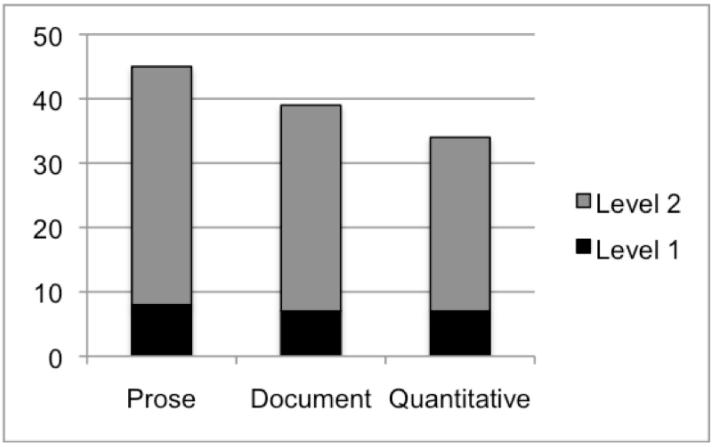
2.5 In the international literature on the use of IALS measures it has been recognised that:

Level 3 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 (OECD 2010: ¶6)[11].

2.6 Figure 2.2 shows the proportion of people in Scotland in these categories (please see p.15 for discussion of the categories and the three scales). Eight per cent of people scored at the lowest level for prose literacy, and 45% are in the bottom two levels. For document and quantitative literacy, the numbers are 39% and 34% respectively. This means that over one third of the population would attain scores suggesting *some* challenges with some type of literacy.

[11] Organisation for Economic Co-operation and Development (2010) *Adult literacy.* http://www.oecd.org/document/2/0,3343,en_2649_39263294_2670850_1_1_1_1,00.html

Figure 2.2: Proportions of people scoring at level 1 or 2 on each literacy scale

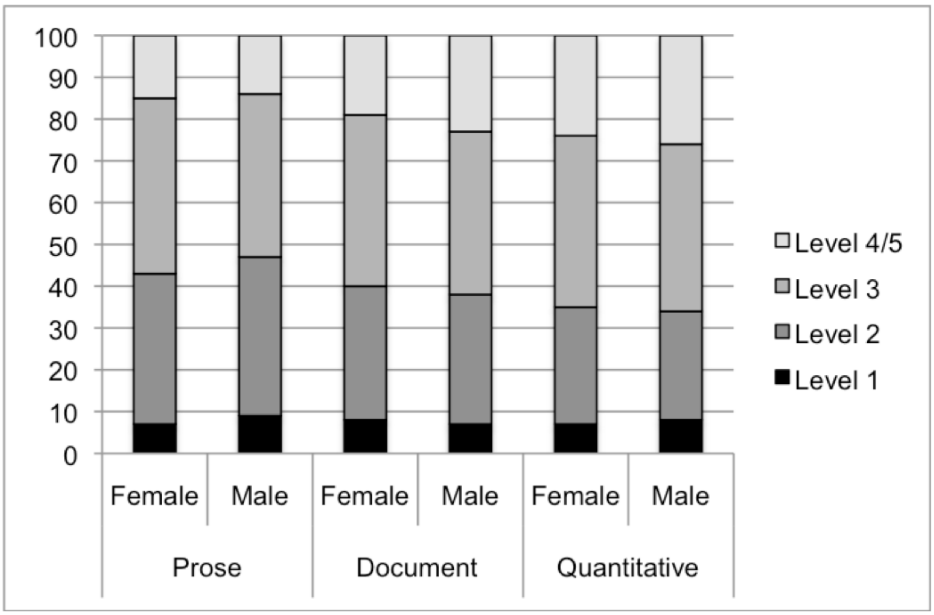


2.7 The balance of this chapter looks at these findings in more detail, and shows how the results vary for particular groups of people.

Literacies and gender

2.8 The scores on each of the three scales are not strongly differentiated by gender. The differences between mean scores for men and woman on each scale are not statistically significant (see tables A2.1.1 to A2.1.3 in the annex for this chapter). This means that any measured difference could be because of the measurement rather than a "real" difference.

Figure 2.3: Proportions at each level by gender for each of the three scales (%)



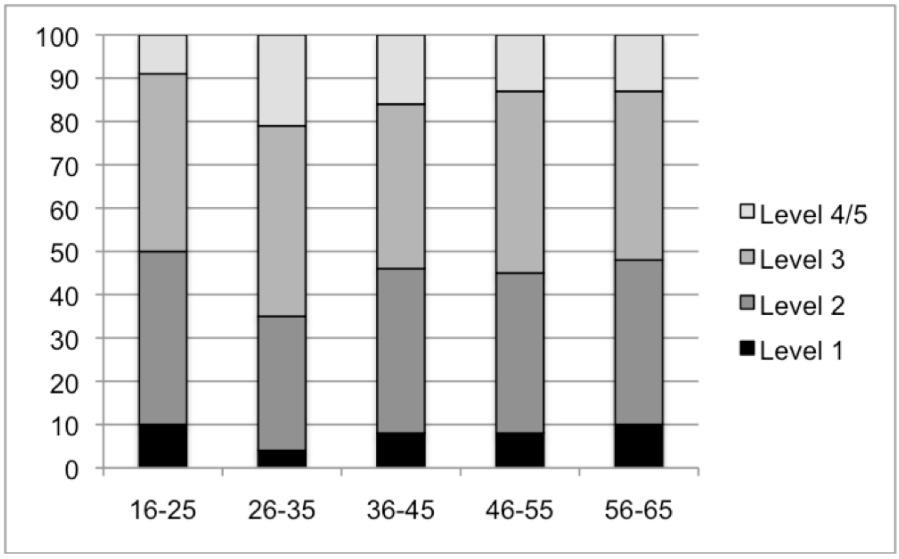
2.9 The biggest single difference in proportions is at the high end of quantitative literacy, where 27% of men fell into Level 4/5 versus 24% of women, but the difference is not statistically significant. Even though the difference is higher in documentary literacy, the findings indicate that gender alone was not a strong predictor of literacy scores in Scotland in 2009.

2.10 This finding is also reflected in the proportions in Levels 1 or 2. There is some difference in prose literacy scores, with 47% of men in Levels 1 or 2 compared to 43% of women, but more broadly the proportions at these levels are very similar.

Literacies and age

2.11 Generally, the distribution of scores is not strongly related to age except in two aspects. First, it is interesting to see a very strong set of scores for 26-35 year olds. Over 20% scored in the top category for prose literacy (see figure 2.4), and this increased to 34% in the top category for quantitative literacy.

Figure 2.4: Prose literacy scores by age group



2.12 The proportion of 16-25 year olds scoring at Levels 1 and 2 in prose literacy is higher than any other age group. A similar pattern, though far less marked, holds for the other two literacy scales. However, this finding has to be contextualised within the wider picture. The scores of the 26-35 year old group are much higher than all others, and while the scores of the 16-25 year olds are considerably lower than this group, they are broadly in line with the other age groups. The most notable finding is the strong skills of the 26-35 year olds not the less strong skills of 16-25 year olds.

2.13 International research has evidenced a similar decline in older cohorts, but the strength of results for the 26-35 age group is striking. Surveys do not allow for analysis of causal relationships, but separate analysis of data from the Scottish

Annual Population Survey shows that people of this age tend to have the highest educational levels of any age group. For example, 31% of this group have SVQ Level 5 qualifications compared to 12% of 16-25 year olds and 24% of 36-45 year olds (ONS 2010)[12].

2.14 The second notable aspect of the age distribution of scores is that it interacts with gender. Looking at prose literacy scores as an example, in the 16-35 and 36-55 age groups women have higher proportions than men at Level 3 and above (60% vs. 56% and 58% vs. 51% respectively). In the age group 56-65 this is reversed, with women less likely than men to score at Level 3 or above (51% vs. 53%) (Annex tables A2.2.4 and A2.2.5).

Literacies and educational attendance

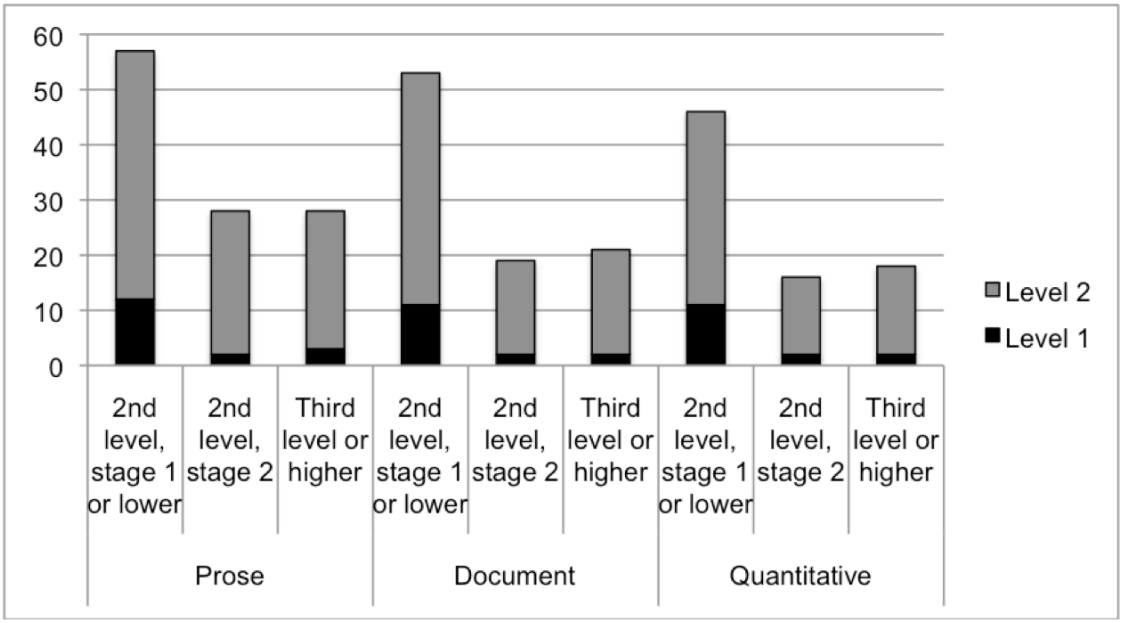
2.15 Educational attendance was classified using an international scale (International Standard Classification of Education[13]). The first category, "Second level, first stage or lower" means that people in this level of attainment have attended up to the lower level of secondary school, or around 9 years of education. The next category is people who have attended to upper secondary, or 10-11 years of school, and the final category is those people who have attended beyond compulsory education. The aim of using these categories is to get a broad idea of differences between people who left school early, those who stayed until compulsory leaving age, and those who stayed on for further education.

2.16 The distribution of scores follows educational attendance, with the proportion of people at level 1 or 2 on each of the three literacy scales decreasing markedly as attendance lengthens. The largest difference is in documentary literacy, where 53% of those with the shortest educational attendance are at Level 1 or 2 compared to 21% of those with the longest educational attendance. For prose literacy the difference is 57% vs. 28%, and for quantitative it is 46% vs. 18% (see figure 2.5). The differences between the lowest and highest, and the lowest and middle attendance groups is statistically significant. The difference between the middle and highest attendance groups is not. Staying at school for any length of time beyond the end of compulsory education is linked to stronger literacies.

2.17 The link between educational attendance and literacy scores was not absolute. Six per cent of people with the shortest educational attendance scored in Level 4/5 for prose literacy, with 10% in Level 4/5 for document literacy and 15% in the top category for quantitative literacy.

[12] Office for National Statistics (2010) *Annual Population Survey, October 2008 to September 2009.* Edinburgh: Scottish Government.
[13] ISCED is the UNESCO approved measure for comparing educational systems internationally, and is based on the number of years schooling a person receives. http://www.unesco.org/

Figure 2.5: Proportion of people by educational attendance scoring at Level 1 or 2 on each literacy scale (%)



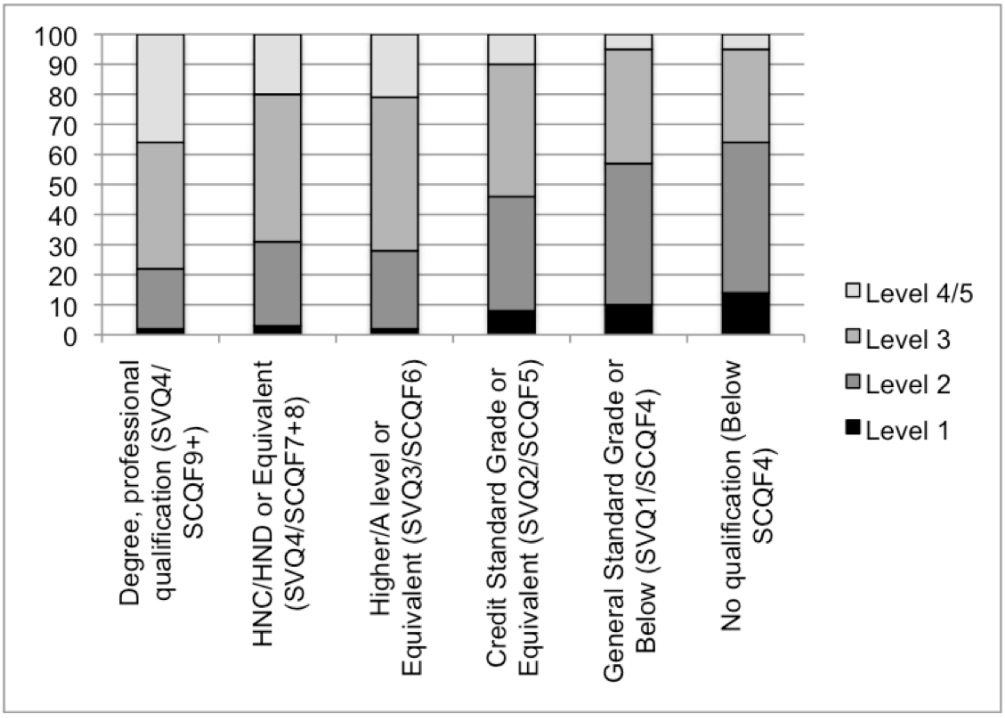
Literacies and highest qualification

2.18 Where educational attendance, following international convention, recognises years of schooling, highest qualification refers specifically to the level of the highest award possessed by the individual, and uses categories that can be related to the Scottish Credit and Qualification Framework.

2.19 The relationship between educational qualification and literacy level was strong for all three literacy scales. Figure 2.6 shows the results for prose literacy, with highest qualifications at the left and no qualifications at the right. SVQ and SCQF Levels are shown for easy reference. The proportion of people at Level 1 or Level 2 increases strongly as the graph moves from left to right, and the proportion at Level 4/5 decreases.

2.20 If it is accepted that people at Level 3 or above are far less likely to be limited in their use of literacies, then 78% of people with degrees (SVQ 4 and above) will have no issues compared with 36% of those without qualifications.

Figure 2.6: Prose literacy level by highest qualification

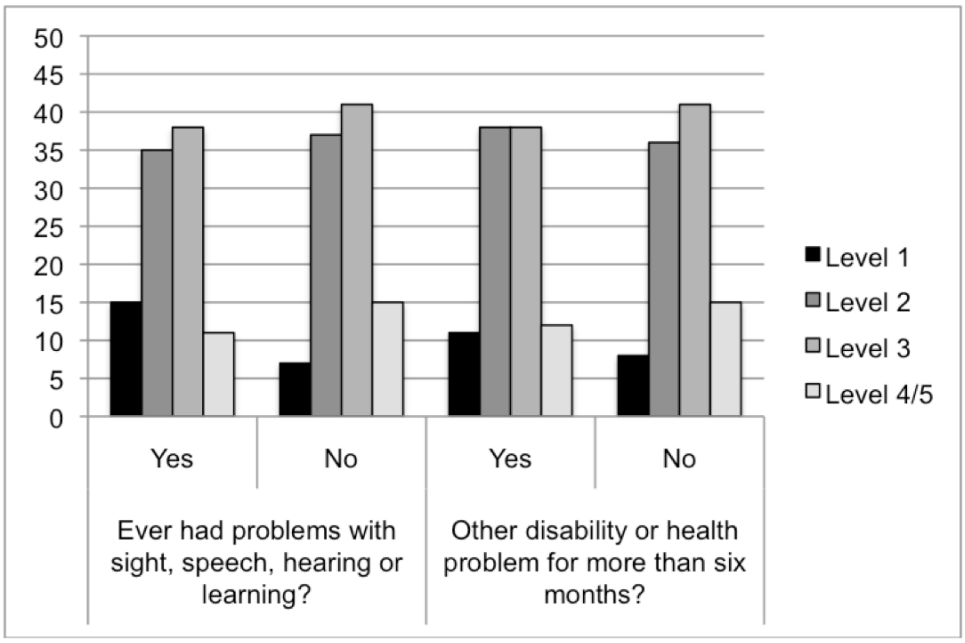


Literacies, disabilities and health issues

2.21 The survey asked people about specific health issues they may be facing. The number of respondents who indicated that they faced these issues was small, so categories have had to be combined. The first category brings together people who have eye or visual trouble that is not correctable by glasses, people with speech or hearing problems, and people with learning disabilities. The second category is people who have experienced another disability or a health problem lasting more than six months. In both cases these groups were compared with everybody else in the sample.

2.22 Across both categories and all three types of literacy, the picture was consistent. The proportion at the higher levels of literacy score was slightly lower for people facing these challenges and the proportion scoring at Level 1 was higher. However, these differences were not statistically significant across the population. This may reflect the combination of the categories, with some forms of health issue or disability having a stronger relationship to literacy skills than others.

Figure 2.7: Prose literacy scores according to self-identified disability and health challenges (%)



Literacies and social class

2.23 Social class was defined using the National Statistics Socio-Economic Classification (NS-SEC).[14] This provides six categories ranging from managerial and professional occupations to semi-routine and routine, as well as an unclassified category for cases where a category could not be assigned (see figure 2.8 on the following page for categories). Overall, there is a statistically significant difference between the scores of people in managerial/professional occupations and all others except those in intermediate occupations.

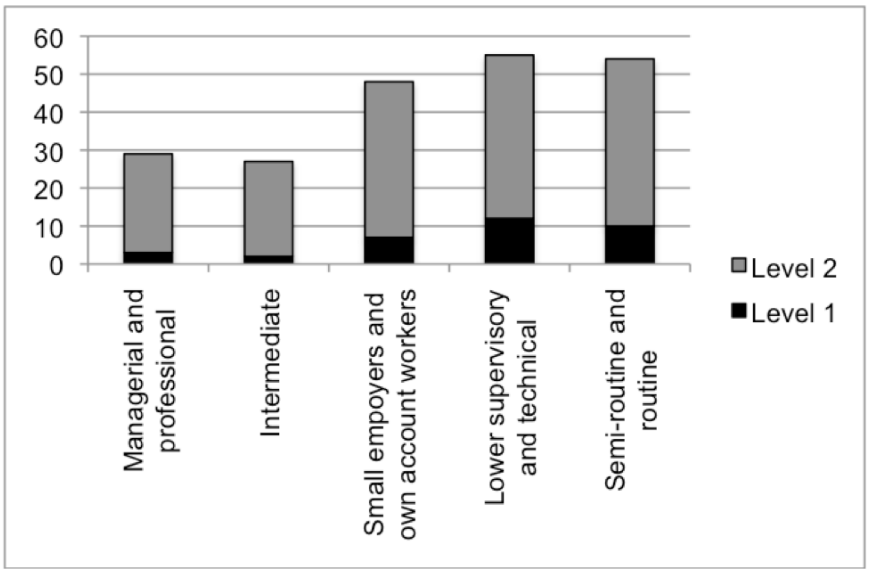
2.24 There is also a statistically significant difference between the scores of people in intermediate occupations and all others except managerial/professional occupations. This indicates that there is a difference between the tested skills of respondents in professional/managerial or intermediate occupations and those in other occupations. However, the main message is the overall distribution of skills, with higher literacy scores associated with employment at the more skilled end of the NS-SEC classification of occupations.

2.25 This trend shows up clearly in figure 2.8, which shows the proportion of people scoring at Level 1 or 2 in prose literacy according to their occupation. For managers and professionals, 29% of people attain a Level 1 or 2 score. For semi-routine and routine workers, the proportion reaches 54%. The unclassified category is omitted as little can be said about it.

2.26 At the other end of the scoring scale, 40% of managerial and professional workers were at Level 4/5 in quantitative literacy (see annex table A2.6.3).

[14] http://www.ons.gov.uk/about-statistics/classifications/current/ns-sec/index.html

Figure 2.8: Proportion scoring level 1 or 2 in prose literacy by NS-SEC (%)



Literacies and gross personal income

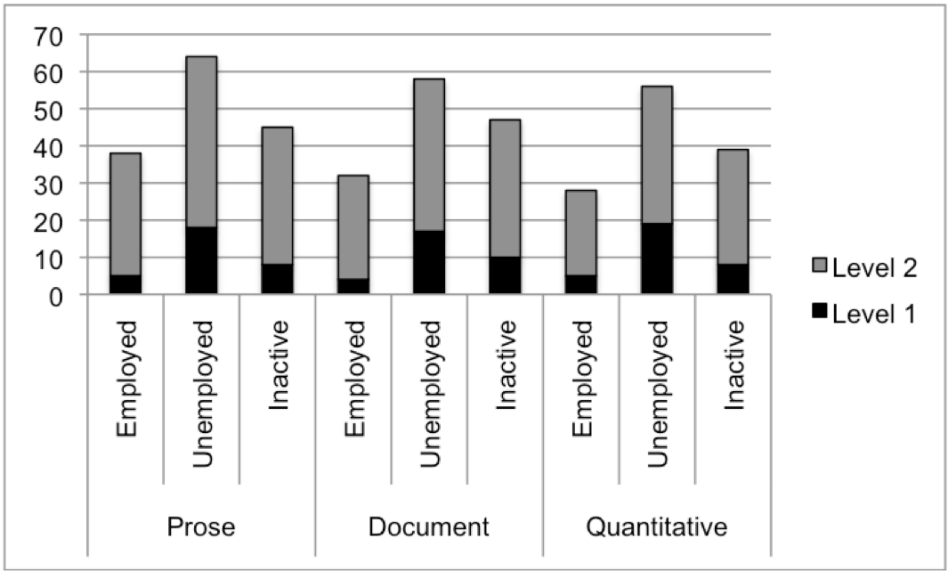
2.27 As literacy scores and type of occupation are linked so strongly, it makes sense that literacy scores and income are also related. Across all three types of literacy, 14% of people with income of less than £9500 per year scored at Level 1—almost twice the proportion of the sample as a whole. There was a marked relationship in high level skills as well. For example 47% of people with income of more than £29,501 per year scored at Level 4/5 in quantitative literacy (see annex table A2.7.3).

2.28 While there is a very small proportion of people in high income categories who have low scores, and a slightly larger proportion of people with high scores who are making less money, in general gross income and literacy scores are highly related.

Literacies and economic activity

2.29 The survey asked people about their economic activity, and placed them into three categories: employed, unemployed and economically inactive. The inactive category included students, retired people and people on long term disability payments.

Figure 2.9: Proportion of literacy scores in level 1 or 2 and economic activity



2.30 The differences in the mean scores of these three groups were statistically significant on all three scales. There are two notable aspects of these findings. The first is the degree to which employment is associated with lower proportions of Level 1 and 2 scores. A considerably higher proportion of people who are unemployed will score at Level 1 or 2—as much as 64% or almost two-thirds in the case of prose literacy. The second notable aspect is that people who are economically inactive also have a smaller proportion of Level 1 and 2 scores than those who are unemployed. This is possibly because this group includes a wide range of people including students and young retirees.

Literacies and receipt of benefits

2.31 Individuals were also asked whether they were in receipt of state benefits, such as housing benefit or jobseekers' allowance. People who were receiving benefits had lower scores and were more likely to have a Level 1 score in particular. For example, in quantitative literacy, 14% of the people receiving benefits scored in Level 1 compared to 5% of those people who were not. In addition, 48% of people receiving benefits scored in Level 1 or 2 compared to 29% of those who were not. This relationship was consistent across all three types of literacy and the differences in mean scores were statistically significant. For fuller details see annex A2.9.

Literacies and rural or urban living

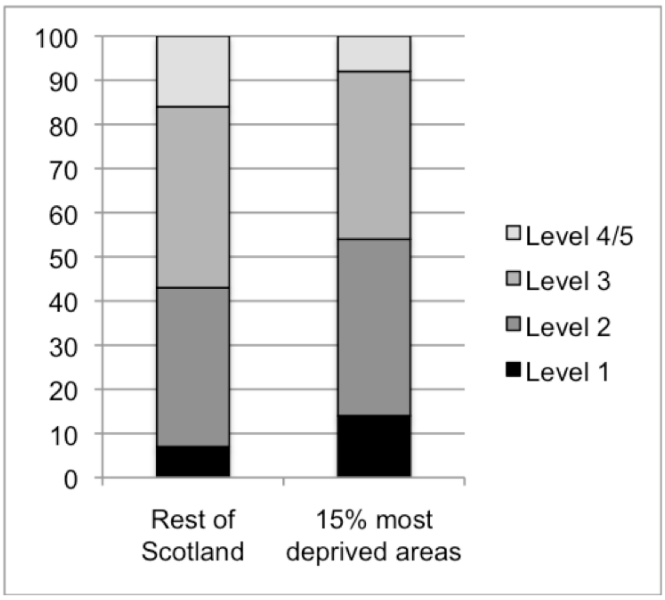
2.32 The survey examined whether the type of area people lived in was related to literacy scores. Areas were classified according to the Scottish Government's

Urban Rural Classification 2008.[15] One of the findings of this analysis was that people living in large urban areas and accessible small towns were more likely to have lower literacy scores. The highest scores, in terms of proportion in Level 4/5, were found in remote small towns and remote rural locations. The difference between large urban areas (lower mean scores) and remote rural areas (higher mean scores) was statistically significant.

Literacies and Scottish Index of Multiple Deprivation

2.33 Another way to classify areas is to look at the degree to which they suffer multiple forms of deprivation. The survey looked at whether people living in the most deprived 15% of areas in Scotland according to the Scottish Index of Multiple Deprivation (SIMD) scored differently from people who do not live in these areas. There was evidence that people from the 15% most deprived areas do tend to have lower scores, and these results were statistically significant.

Figure 2:10: Prose literacy scores by Scottish Index of Multiple Deprivation area of residence (%)



2.34 There is a considerable difference in the proportion of people in Level 1 and in level 2 depending on area of residence.

[15] http://www.scotland.gov.uk/Publications/2008/07/29152642/0

Significant relationships between factors

2.35 The factors discussed in this chapter often have relationships with each other even if literacies are not considered. An example is occupational class and income, where income generally increases with NS-SEC classification. This complicates analysis, since the relationship between one variable and literacy scores may in fact be an indirect relationship via a third factor. So the relationship between income and literacy score may be a “side-effect” of the way that occupational classification is related to literacy, or vice-versa.

2.36 In order to understand the relationships more fully, a multiple regression model was applied to the data. The aim of such a model is to identify how much each factor independently contributes to the final literacy score. All of the variables discussed in this chapter were included, and the results for the continuous variables regressions take account of:

- The systematic sampling of individuals
- The variation between plausible values for individuals
- Sample weighting
- Multilevel structure of the data

2.37 The independent variables are all based in categories and the final literacy score is taken as a continuous scale between 1 and 500 for each type of literacy. The regression model looks at how being in a certain category for each variable affects the numerical score. One category is taken as the base category, and the results for other categories are presented as contrasts or differences from this (annex table A2.12).

2.38 As an example, for occupational classification “Professional and managerial” is taken as the base category, and the table indicates that, on average, people in “Routine and semi-routine” occupations have a mean score 14.29 lower than the base category. Statistically significant differences are indicated in the table by bold type.

2.39 The table (annex table A2.12) indicates that educational attendance, type of job, age (for document literacy) and whether people live in an urban or a rural area are statistically significant in terms of an independent relationship to literacy scores.

2.40 This does not mean that other variables such as SIMD do not have a relationship to scores. It means that these variables are nested within a network of other factors, such as income, to produce a broader set of effects. SIMD is an even better example because some of the measures included in SIMD are the same as factors used in this survey. However, in terms of independent effects there are only a limited number of significant relationships.

Chapter summary

2.41 This chapter has shown that generally literacies are strong across the Scottish population, and the majority of people in Scotland have abilities the OECD considers appropriate for a modern economy. However, those literacies are not evenly distributed across the population, with the distribution determined by a number of key factors. The modest range of factors showing independent relationships with literacy suggests that literacies are strongly related to many contextual factors, and are a component of broader life experience. This is explored more fully in the following chapters.

3 LITERACIES IN EVERYDAY LIFE

3.1 This chapter examines the way people use literacy practices in everyday life. The first section discusses literacy practices more generally, and looks at the way they vary among people who score at different literacy levels. The following section looks at people's own assessment of their literacy practices, and the chapter ends by looking at the help and support people require with their literacy practices.

Literacy practices in everyday life

3.2 The survey was interested in how people practice their literacies on a day to day basis, and three of the activities that captured this were reading newspapers or magazines, reading books and writing long letters.

Table 3.1: Frequency of literacy practices

	Daily	Weekly	Monthly or less often	Never	UW Base
Reads newspapers or magazines	68	21	5	6	1918
Reads books	29	16	32	22	1911
Writes long letters	4	9	33	54	1906

NOTE: Weighted percentages are shown. Totals may not equal 100 due to rounding.

3.3 Results showed that reading newspapers or magazines daily or weekly was very common, with a total of 89% of respondents doing so. Reading books was less common, with 45% of people doing so on a daily or weekly basis, and writing long letters of one page or more was less common still, with 13% of people doing so daily or weekly.

3.4 These practices vary quite considerably by prose literacy level (see annex tables A3.1.1-A3.1.3). The most striking variation is in reading books, with 27% of those at Level 1 reading books at least weekly, compared with 53% of those at Level 3, 4 or 5. For the same two groups reading newspapers or magazines varies less, from 78% of those scoring at Level 1 to 92% of those at Level 3, 4 or 5.

3.5 Letter writing is relatively uncommon, with the highest proportion being about one sixth of people at literacy Level 3, 4 or 5 writing a long letter at least weekly.

3.6 People's literacy scores are related to other aspects of their lives besides those that directly involve text. As shown in table 3.2 people in Scotland watch quite a lot of television, with almost half (48%) watching 2 to 5 hours per day. However, this varies by literacy level, with people scoring at Level 1 on prose literacy watching more. Perhaps the most obvious difference is at the higher levels of

viewing, with 40% of those scoring at literacy Level 1 watching five or more hours per day compared with 14% of those in literacy Level 3, 4 or 5.

Table 3.2: Time spent watching television per day by prose literacy level

Time per day spent watching television	Level 1 %	Level 2 %	Level 3/4/5 %	Total
1 hour or less	2	3	6	5
1 to 2 hours	23	26	28	27
2 to 5 hours	35	46	51	48
5 or more hours	40	25	14	20
UW Base	158	720	1005	1883

NOTE: Weighted percentages are shown.

3.7 One area where there is a distinct variation by literacy level is following current events. As shown in table 3.3, 13% of people scoring at literacy Level 1 mostly follow current events compared to 44% of those with scores in Levels 3, 4 or 5. This is a considerable difference. Similarly, 8% of the group with higher scores hardly follow current events at all compared to 22% of the group with Level 1 scores. Overall, a total of 81% of the group with higher scores follow events all or most of the time, compared to 49% of the lower group. There is evidence of a relationship between literacy scores and following current events.

Table 3.3: Following current events by prose literacy level

Frequency of following current events	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Most of the time	13	24	44	34
Some of the time	36	44	37	39
Only now and then	28	20	10	15
Hardly at all	22	15	8	12
UW Base	158	725	1033	1916

NOTE: Weighted percentages are shown.

3.8 It is important to consider what resources people have in their home. Table 3.4 shows what proportion of all people have access to various literacy resources. It is interesting to note that library use is relatively low at one in five people, and that computer use is relatively common—more than three quarters of people use a computer at least once a week.

3.9 A further analysis is how availability of these resources is linked to literacy scores (see annex table A3.1.4). Access to these resources is somewhat related to people's literacy scores when those scoring at Level 1 are compared with those scoring at Level 3, 4 or 5. Getting a newspaper every day is fairly evenly distributed, but having a dictionary, more than 25 books in the house or an encyclopaedia vary strongly with literacy score. People with higher scores are more likely to have these resources.

Table 3.4: Access to literacy resources (% of all respondents)

Activity	%
Daily newspaper in the home	80
Dictionary in the home	70
More than 25 books in the home	68
Encyclopaedia in the home	33
Visits a library at least once a month	20
Uses a personal computer at least weekly	76
None of the above	3
UW Base	1927

NOTE: Weighted percentages are shown.

3.10 Personal computer use also varies by level. Forty two per cent of people with Level 1 scores stated that they never used a computer, compared with 10% of those at Level 3, 4 or 5. Similarly, 74% of people at Level 1 never used a library, compared to 54% of those scoring at higher levels.

3.11 Overall, the data for this section suggests that home literacy practices and scores are related, with individuals tending to have a wider range of practices as their scores get higher. The individual factors are also related, as might be expected. People who spend less time reading books are likely to have fewer books in their homes. These factors should not be viewed as independent factors related to literacy; rather, it makes more sense to consider patterns of literacy use across people's lives. As an example, people with lower scores are more likely to be unemployed and to watch more television. It is important to be cautious about assuming that any particular factor, on its own, is directly related to literacy skills.

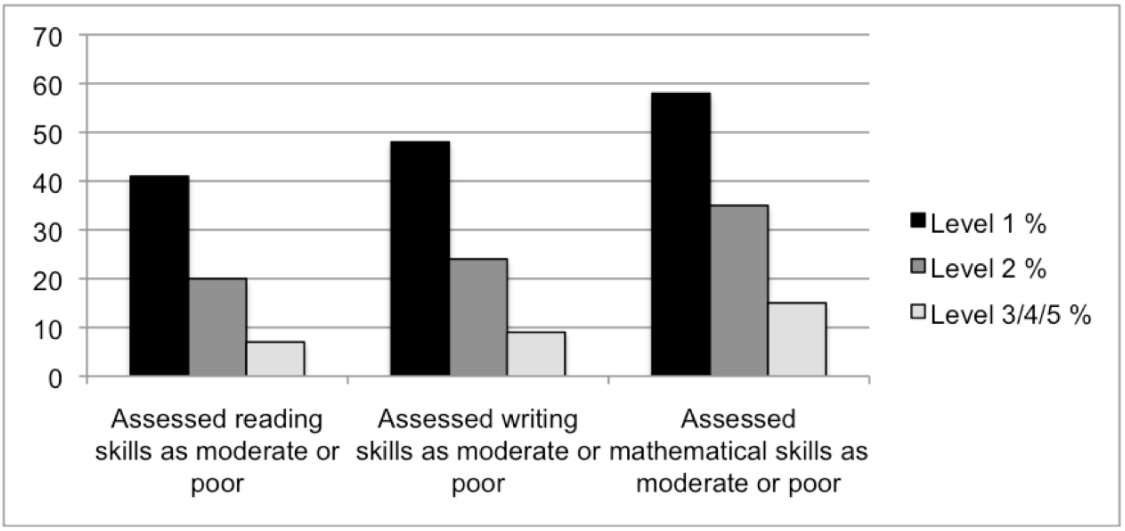
3.12 Also, the data does not indicate whether people with higher scores tend to use their practices more, or having those everyday practices leads to a higher score. Once again it is important to conceptualise webs of relationships rather than direct causation.

Self-assessment of everyday literacy skills

3.13 The survey asked people to assess their own reading, writing and mathematical skills for everyday life. The majority of respondents rated their skills very strongly. Overall, 85% rated their reading skills as excellent or good, 82% rated their writing skills as excellent or good, and 76% rated their mathematical skills as excellent or good. This suggests that people have a good degree of confidence in their own skills.

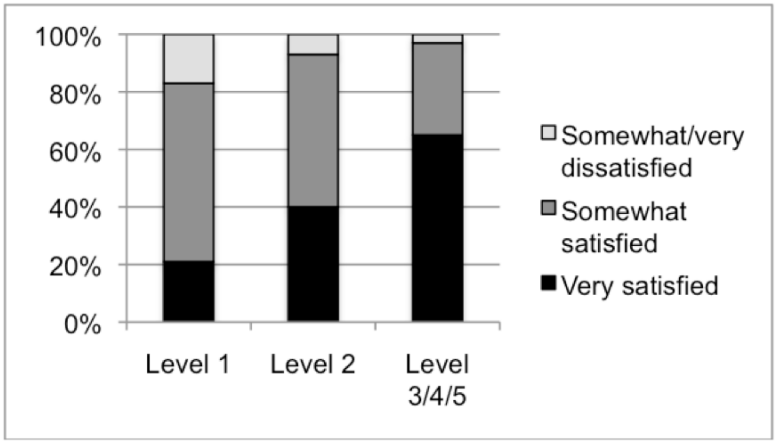
3.14 It is interesting to look at the responses people gave to this question compared to the scores they achieved on the literacy survey (figure 3.1). There is a strong relationship between people's tested scores and their perception of their skills. In other words, even though the general perception is that skills are strong, people with lower scores are more likely to believe that their skills are limited.

Figure 3.1: Proportion assessing their own skills as moderate or poor by prose/quantitative literacy level (%)



3.15 The same pattern emerges when looking at how satisfied people are with their own skills. Figure 3.2 shows satisfaction by prose literacy scores, and the proportion of people who are very or somewhat satisfied with their skills increases markedly as scores increase.

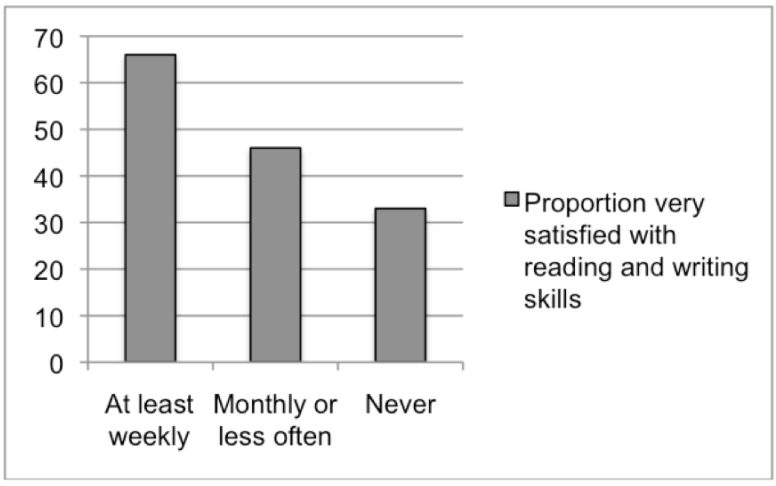
Figure 3.2: Satisfaction with own skills by prose literacy level



3.16 The self assessment of an individual's skills is also related to gender (annex tables A3.2.6-A3.2.8). In reading and writing, men markedly more often describe their skills as moderate or poor. In the case of reading, 19% of men describe their skills this way compared to 11% of women. In writing, 22% of men describe their skills as moderate or poor compared to 13% or women. The difference is far less in self assessment of mathematical skills.

3.17 The everyday literacy practices of respondents also have a relationship with the satisfaction they have with their skills (figure 3.3). Those who read books or magazines at least weekly are twice as likely to be very satisfied with their skills as those people who never read books or magazines (66% vs. 33%). The same pattern, though with lesser differences, holds for letter writing and use of a library (annex tables A3.2.10 and A3.2.11).

Figure 3.3: Proportion very satisfied with reading and writing skills by frequency of reading books



3.18 Though this is not the place to discuss the issue fully, the high level of satisfaction people have with their skills, even if the skills are at the lower levels, can be read two ways. On one hand, it points to the way that people's skills and the real life demands they encounter match. On the other, it creates an interesting issue in the provision of support—if people are happy with their skills level upgrading may not be a priority even if there are objective reasons to think it might be helpful.

Support and help with literacy practices

3.19 Respondents generally stated that they exercised their literacy practices independently. As table 3.5 shows, 75% of those who rated their skills as poor or moderate do not need help with any of the tasks given as examples in the survey.

Table 3.5: Help or support needed with literacy tasks by self assessment of skills (%)

	Excellent	Good	Moderate or Poor	Total
Help needed with none of the tasks	96	94	75	91
Help needed sometimes or often with one of the tasks	1	3	12	4
Help needed sometimes or often with more than one of the tasks	3	3	12	4
UW Base	486	1077	346	1909

Note: Weighted percentages are shown. % may not equal 100 because of rounding.

3.20 Annex tables A3.3.1 and A3.3.2 help to clarify who *does* need help, and with what. A3.3.1 shows that people who rate their own skills more highly are less likely to require help with these tasks, as might be anticipated. Self assessment of skills and the likelihood of requiring help seem to be strongly associated.

3.21 Annex table A3.3.2 shows that people with Level 1 scores are more likely to need help with all of the tasks listed, including reading the newspaper, writing short notes and doing basic arithmetic. The two categories of "government" and "banking" paperwork pose a particular challenge, with almost 1 in 5 (19%) sometimes or often needing help with these.

Chapter summary

3.22 This chapter has discussed people's use of literacies in everyday life. Among the key messages are that people are generally satisfied with their abilities, and that they rate them quite strongly. However, there are clear indications that higher literacy scores on SSAL2009 are linked to lifestyles that have more use of literacies within them.

3.23 There are further indications that even though the majority of people in Scotland rate their skills strongly, people with lower scores are more likely to rate their skills as poor, and to need help with everyday literacy tasks. This does not imply a "literacies divide," but it does indicate that the scores on SSAL2009 point to important aspects of people's experience with literacies.

4 LITERACIES IN THE WORKPLACE

4.1 In this chapter results regarding literacy scores and literacy practices in the context of the workplace are presented. Sections cover how literacies relate to the type of work an individual does, what kinds of literacy practices people use at work, how they assess their own skills, and participation in education and training.

Literacy and occupation

4.2 In chapter 2 the relationship between the individual's literacy scores on each of the three scales and their occupation was mentioned. While there were indications of a relationship between scores and occupation, it was necessary to assess this for statistical significance. The relationship might be coincidental, or perhaps not as strong as it looked.

4.3 Annex tables A4.1.1 to A4.1.3 show the relationships between the three literacy scores and occupational classification (NS-SEC). It is analysed by mean score rather than literacy level to allow more accuracy in the analysis. The overall finding is that all three literacy scores are significantly related to occupational classification. It can be stated with confidence that people in more highly paid types of jobs are likely to have far stronger literacy skills than those in less highly paid jobs.

4.4 This also shows up when the scores of employed people are compared to those of people who are unemployed or economically inactive, and again the relationship is statistically significant (annex table A4.1.4).

4.5 These findings indicate that literacy scores are related both to being employed and the type of employment an individual holds. In general, higher literacy scores are associated with both holding employment and having more skilled employment for those in work.

Literacy practices at work

4.6 Many of the workplace literacy practices recorded in SSAL2009 were linked to literacy scores and to the type of work an individual did (see annex section A4.2). There were a number of notable patterns in this data, and in general they reinforce the idea discussed above — occupation and literacy scores are highly related.

4.7 Figure 4.1 shows the distribution of document literacy scores by workplace practices. Document scores are used both because they show the relationships most clearly and because work literacies are very often documentary. These examples show the strength of the relationship between reading practices at work and attaining a high literacy score. Perhaps the most striking is reading or using information from computers — 76% of those scoring in literacy Levels 3, 4 or 5 did this at least weekly, compared to 29% of those scoring at Level 1 and

51% of those at Level 2. Figure 4.2 shows that the same pattern holds for writing practices and literacy score levels.

Figure 4.1: Weekly or more frequent reading practices at work by document literacy level

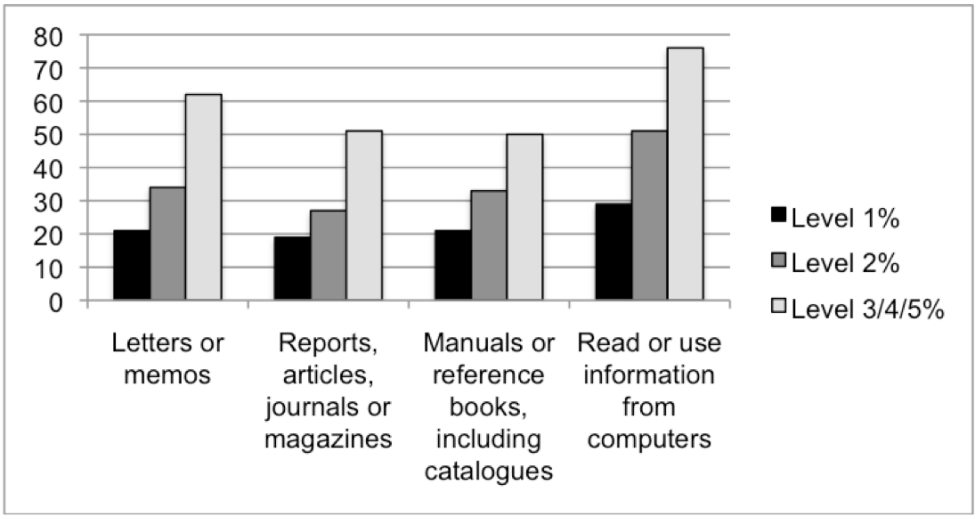
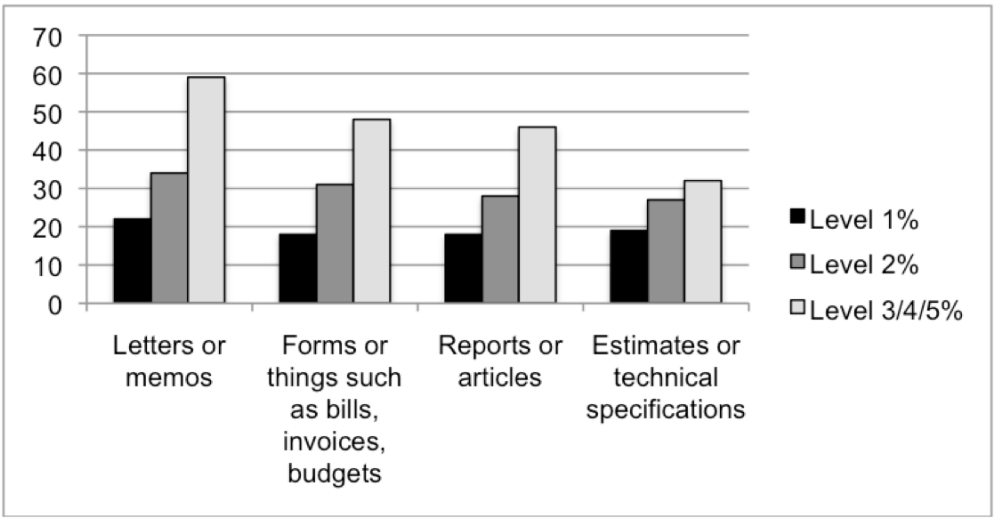


Figure 4.2: Weekly or more frequent writing practices at work by document literacy level (%)

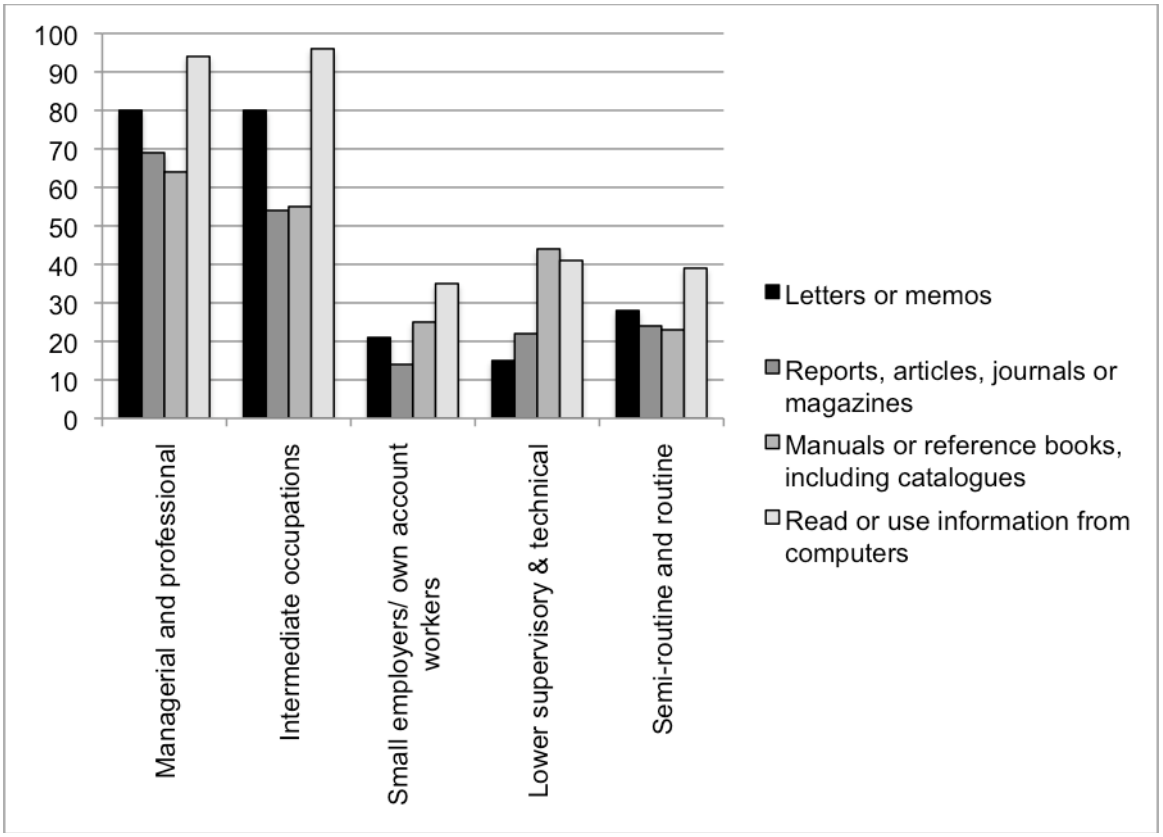


4.8 It is interesting to note that the pattern is not as strong for quantitative literacy, though there is some relationship between calculating prices, costs or budgets and quantitative literacy score (Table A4.2.3).

4.9 Given the relationship between NS-SEC and literacy scores it would be reasonable to expect that literacy practices would also be patterned by NS-SEC, and this does prove to be the case. This can be illustrated by looking at

the data represented in figure 4.3, which shows the relationship between NS-SEC classification and literacy practices. The two left columns, representing managerial and professional occupations and intermediate occupations, are consistently higher than the others, showing how literacy practices relate to work. Computers come up again in this data, with 94% of managerial and professional workers using them frequently compared to 39% of routine and semi-routine workers.

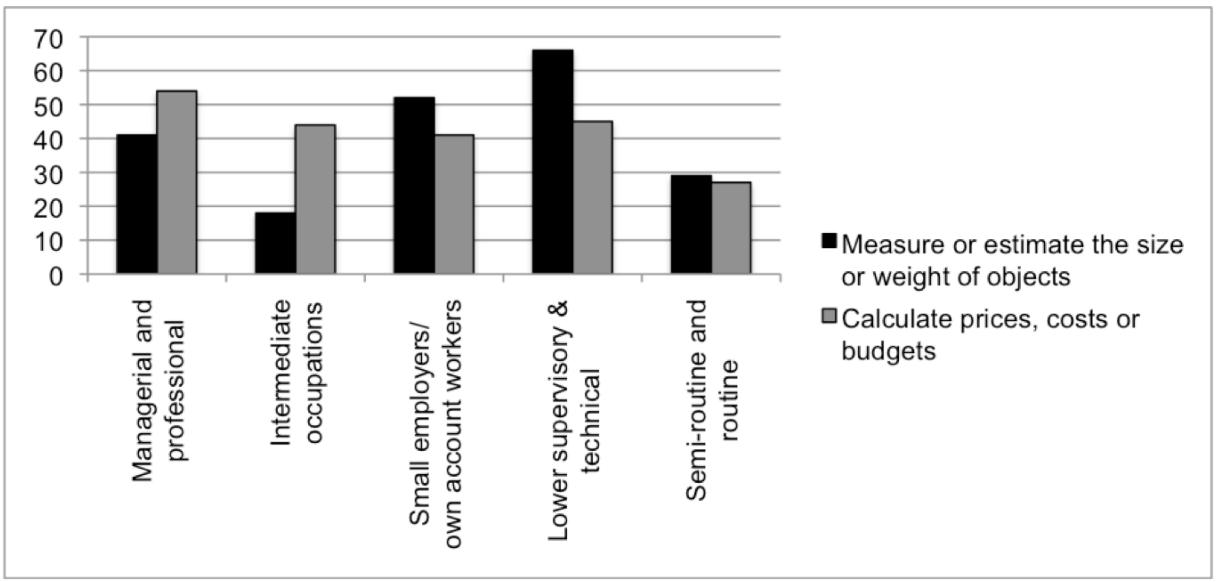
Figure 4.3: Weekly or more frequent reading practices at work by NS-SEC (%) (unclassified responses omitted)



4.10 The same pattern holds for writing practices, but much less strongly for quantitative literacy practices (Figure 4.4). The pattern of relatively strong quantitative scores across the population that emerges in the top level findings (see chapter 2) appears to be echoed here, with relatively consistent quantitative practices across the different classifications of work.

4.11 Overall, these findings suggest that the actual literacy practices of work relate strongly to literacy scores and to the type of occupation the individual pursues. Though the data does not support a conclusion on this point, there is a possibility that demands for the use of literacies at work may strengthen an individual's capabilities in those areas.

Figure 4.4: Weekly or more frequent quantitative practices at work by NS-SEC (%) (unclassified responses omitted)



Self Assessment of practices in the workplace

4.12 One important question to ask in a survey such as this is how the people responding to the survey see their own skills. The responses to this question were gathered and analysed in a number of different ways (see annex table A4.3). It is interesting to note that there was a good match between people's assessment of their skills for daily life and for the workplace.

Table 4.1: Self assessment of reading skills for work by self assessment of reading skills for daily life

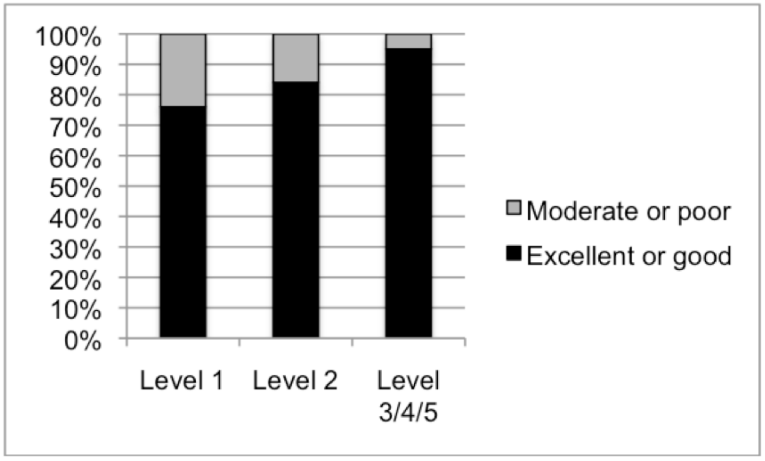
		How would you rate your reading skills in English for your main job?		
		Excellent/ Good	**Moderate/ Poor**	**UW Base**
How would you rate your reading skills in English needed in daily life?	**Excellent/ Good**	88.0	1.8	1142
	Moderate/ Poor	2.4	7.8	136
	Total	90.4%	9.6%	1278

Note: Weighted percentages are shown

4.13 The most notable finding in this section is that the vast majority of people consider their literacy skills to be excellent or good. Annex table A4.3.1 shows that when asked about their skills in relation to their job, 91% saw their reading

skills as good or excellent, 87% felt the same about their writing skills and 81% felt the same about their mathematical skills. Overall, the people interviewed were mostly very confident in their literacy skills.

Figure 4.5: Proportion of people assessing their own prose literacy skills as excellent/good or moderate/poor for their main job by literacy level



4.14 There was some change in self assessment related to the individual's literacy score, as shown in figure 4.5. Altogether 5% of people with scores at Level 3, 4 or 5 saw their skills as moderate or poor, compared to 24% at Level 1.

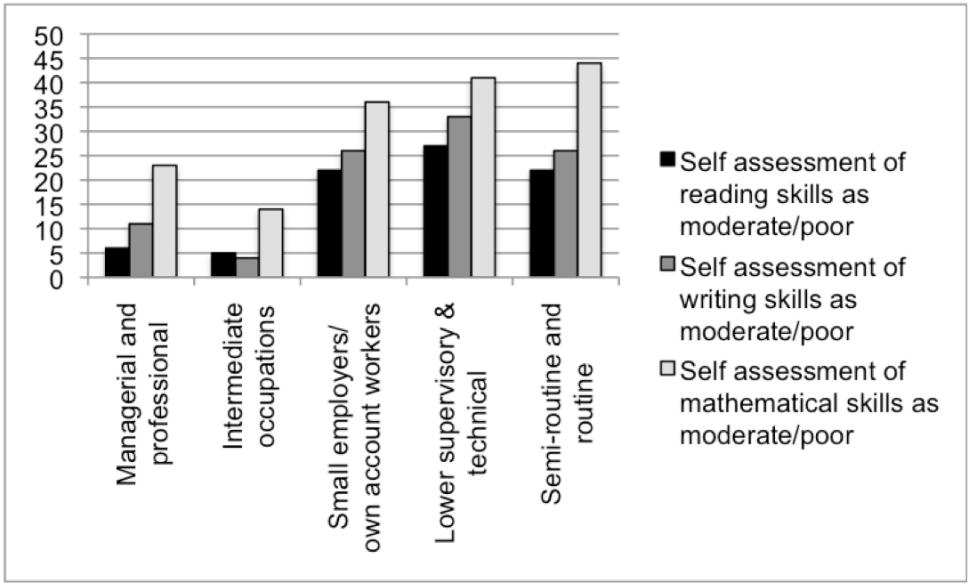
4.15 There was also a difference in self assessment according to the occupation of individuals. People in management and professional occupations described their reading skills as moderate or poor 3% of the time, compared with 16% of the time for people with semi-routine and routine occupations. This pattern held for writing (7% vs. 19%) and mathematical skills (11% vs. 30%). The occupational group most likely to see their skills as poor or moderate were lower supervisory and technical occupations.

4.16 Individuals' assessment of their skills was strongly related to their specific practices at work. People were much less likely to assess their skills as poor or moderate if they were regularly performing literacy tasks at work (annex tables A4.3.6-A4.3.8). For example, 2% of people who read letters and memos at work at least once a week rated their skills as poor or moderate compared to 18% who performed these practices less than once a week. This was a consistent pattern across all categories of reading, writing and use of mathematics and arithmetic — use of skills is related to confidence in skills.

4.17 As mentioned above, people scoring at Level 1 or 2 were more likely to assess their skills for work as poor or moderate. This was not affected by an individual's gender (Annex table A4.3.9). However, it was affected by occupational classification. The numbers are small, so this finding should be treated with caution. What the data suggests is that scoring at Level 1 or 2 is understood differently by people in different jobs (Figure 4.6). For example, 6% of people in managerial and professional occupations with literacy scores in

Level 1 or 2 view their reading skills as moderate or poor compared to 22% in semi-routine and routine occupations. So even though the skills are similar, people in better paid jobs see their skills as stronger.

Figure 4.6: Percentage of people at level 1 or 2 who assess their own skills for work as poor or moderate by occupational classification



4.18 The survey also asked people if they thought their literacy skills were limiting their job opportunities (annex table A4.3.11). The single highest proportion of people who agreed with this was 29% of people with Level 1 quantitative skills — in every other case the proportion was under 10%, with a low of 2% of those testing at Level 3, 4 or 5 in prose skills.

4.19 These self-perceptions raise the same issue as in the previous chapter, regarding the group of people with lower skills levels who regard their skills as satisfactory. This group may be less likely to consider upgrading their skills than would otherwise be the case.

Participation in education and training

4.20 The survey also examined the pattern of participation, both actual and desired, in adult education and training. There was evidence that people with scores in Levels 3, 4 and 5 were more likely to participate than people with scores in Level 1 or 2 (Annex table A4.4.1). However, people with scores in Levels 1 and 2 were more likely to have wanted to participate in adult education and training but not done so.

4.21 Turning to occupational classification, people in managerial and professional occupations were more likely to have participated in adult education or training in the last twelve months than any other group. The lowest participation rate

was people who identified themselves as small employers and own account workers (annex table A4.4.2).

4.22 Managerial and professional workers were also the group most likely to have wanted to take an adult education or training course not related to work and not done so.

Chapter summary

4.23 This chapter has looked at the data in SSAL2009 on literacies in the workplace. There is a strong relationship between being in work, the type of job held and literacies. The higher paid the job (more towards the managerial than the routine end of the NS-SEC categories) the more the literacies practices specified in the survey were used in the workplace. There is no information on whether stronger literacies lead to better paid jobs or more use of literacies at work leads to stronger tested skills. People generally rated their own skills for the workplace quite strongly. Limited data suggested that people in better paid jobs tended to rate their skills more highly even when their scores were at Level 1 and 2. Overall, there is support for a relationship between literacies and work, though the data does not provide information on the direction of that relationship.

5 FACTORS ASSOCIATED WITH LOWER LITERACY SCORES

5.1 This chapter provides details about the factors associated with scoring at Level 1 or 2 on the literacy scales. It is important to note that because of the statistical approach taken in the survey these are analyses of the population rather than a description of the actual individuals who achieved such scores. It is only possible to identify broad tendencies for people who achieve Level 1 scores to have, for example, certain types of job, but it does not mean that everybody with such a score will have these types of jobs.

5.2 In addition to the statistical reasons for not attaching scores to people, there is a pragmatic reason. Most people did not score at the same level on all three literacy scales. As an example from the higher end of the scoring range, 31.7% scored at Level 4/5 on at least one scale, but only 9.9% scored at Level 4/5 on all three scales. People tend to have different strengths on different types of literacy. The point to bear in mind throughout this chapter is that the discussion is not concerned with individual people, but with the social factors that make it more likely that a person will attain a given level.

5.3 In the following two sections, factors associated with Level 1 scores and Level 2 scores are discussed. In each case issues to do with literacies in the workplace and in everyday life are addressed. Some of this analysis is unique to this chapter, but the findings are also drawn from data contained in chapters 3 and 4. In the final section of the chapter a different form of analysis is presented, where there is an attempt to understand what the patterns of scores across the three literacy scales are likely to indicate about people with those scores.

Factors associated with level 1 scores

5.4 While 12.3% of respondents scored at Level 1 on at least one scale (prose, document or quantitative literacy) only 3.6% scored at Level 1 on all three scales (see annex table A5.1.1). Nonetheless, there is a wide range of social factors associated with Level 1 scores. These factors range across background, education, work and everyday life.

Background factors

5.5 People living in the 15% most deprived areas in Scotland are around twice as likely to score at Level 1 than those not living in such areas. For prose literacy, the difference is 14% scoring at Level 1 for people who live in the 15% most deprived areas compared to 7% scoring at Level 1 for people who do not. The comparable figures for document literacy are 13% compared to 6%, and for quantitative literacy, 12% compared to 7% (annex tables A2.11.1-A2.11.3).

5.6 People who have had problems with eyesight, hearing, speech or a learning disability are considerably more likely to score at Level 1 on each of the three scales (annex tables A5.1.5-A5.1.7). For prose literacy, 17% of people at Level 1 have these problems compared to 8% of those at Level 3, 4 or 5.

5.7 People scoring at Level 1 are more likely to receive benefits (other than pensions or child benefit) than people scoring at other Levels. In the case of document literacy, 47% of those scoring at Level 1 receive benefits compared to 19% of those scoring at Level 3, 4 or 5, and this relationship holds across all three scales (annex tables A5.1.18-A5.1.20).

5.8 People scoring at Level 1 on prose literacy are slightly more likely to be male than female (annex table A5.1.14).

5.9 People at either end of the age range (16-25 and 56-65) are slightly more likely to score at Level 1 on prose literacy. This is also broadly true of quantitative literacy, though for documentary literacy the pattern is different. Here the oldest cohort (56-65) is markedly more likely to score at Level 1 (annex tables A2.2.1-A2.2.3).

Educational factors

5.10 Level 1 scores are associated with fewer years of schooling, with 85% of those scoring at Level 1 for prose literacy having up to 9 years of schooling compared to 44% of those scoring at Levels 3, 4 or 5. Comparable differences are found in documentary and qualitative literacy (annex tables A5.1.8-A5.1.10).

5.11 The same pattern appears when people are asked for their highest educational qualifications. While 8% of all people score at Level 1 on the prose scale, 14% of those without qualifications score at this level and this difference holds across all three literacy scales (annex tables A2.4.1-A2.4.3).

Occupational factors

5.12 Level 1 scores are associated with less skilled employment in the NS-SEC occupational classification (annex tables A5.1.2-A5.1.4). For example, 13% of those at Level 1 of prose literacy held jobs in the managerial, professional or intermediate categories and 42% held jobs in the routine or semi-routine categories. For comparison, 50% of those scoring at Level 3, 4 or 5 held managerial, professional or intermediate jobs. These findings were consistent for all three literacy scales.

5.13 Income is also related to literacy scores, with 76% of those at prose Level 1 in the lowest income category of less than £15,000 per year, compared with 46% of those scoring at Levels 3, 4 or 5 (annex tables A5.1.11-A5.1.13). Again, the same pattern holds across all three literacy scales.

5.14 People scoring at Level 1 on each of the scales are less likely to be employed compared to those at the higher levels. For document literacy, 39% of people scoring at Level 1 are employed compared to 74% of those at Levels 3, 4 and 5. This relationship holds across all three scales (annex tables A5.1.16-A5.1.18). Conversely, people scoring at Level 1 are considerably more likely to be unemployed.

5.15 For those who are currently employed, the findings show that people scoring at Level 1 are in occupations requiring less use of literacies at work. For example, just 18% of people scoring at Level 1 on document literacy fill out forms, bills, invoices or budgets at least once a week compared to 48% of people scoring at Level 3, 4 or 5. This relationship holds for a wide range of practices (annex tables A4.2.1-A4.2.3).

5.16 People scoring at Level 1 are less likely to have participated in adult education and training than those scoring at higher levels and yet are more likely to have wanted to participate (annex table A4.4.1). In the case of prose literacy, 11% of those at Level 1 participated in training, and 11% wanted to but did not, compared to 27% participating and 6% wanting to but not doing so for Levels 3, 4 and 5.

Everyday factors

5.17 In general terms, people scoring at Level 1 tend to have less engagement with text literacies in their everyday practices. The data suggests that they tend to watch more television and be slightly less aware of current events than those scoring at higher levels (tables 3.2 and 3.3).

5.18 People scoring at Level 1 are more likely than those scoring at Levels 3, 4/5 never to use a library (74% vs. 54%), never to use a computer (42% vs. 10%) and never to read a book (46% vs. 14%) (annex tables A3.1.1-A3.1.6).

5.19 There is also some evidence that literacy resources in the home are associated with literacy scores, with dictionaries, encyclopaedias, or a total of more than 25 books considerably less likely to be found in the homes of people scoring at Level 1 (annex table A3.1.4). Newspapers, however, are present in around 80% of all homes.

5.20 People with Level 1 prose literacy scores are more likely to identify that they need help with everyday literacy practices than those with higher scores. For example, 19% of those at Level 1 often or sometimes need help with filling out forms or reading information from government and businesses, and 16% often or sometimes needs help with basic arithmetic. This compares with 4% of those at Level 3, 4 or 5 (annex tables A3.3.2).

Factors associated with level 1 or 2 scores

5.21 Expanding the category from Level 1 to Levels 1 and 2 brings in many more responses. Altogether 50.4% of respondents scored in Level 1 or 2 on at least one scale, and 26.7% scored at Level 1 or 2 on all three scales (annex table A5.1.1).

5.22 The factors associated with scoring at Level 1 and 2 are similar to those associated with Level 1 scores, but the relationships are often less strong. In this section the associations are laid out following the format of the previous section to allow for continuity. In each case the reference to tables and figures is identical, as each table and figure covers both Level 1 and Level 2 findings.

Background factors

5.23 The people scoring at Level 2 are evenly split between men and women, so overall there is no significant gender difference in the people scoring at Level 1 or 2 (annex table A5.1.14).

5.24 People at either end of the age range (16-25 and 56-65) are slightly more likely to score at Level 1 or 2 on prose literacy. This is also broadly true of quantitative and document literacy (annex tables A2.2.1-A2.2.3).

5.25 People living in the 15% most deprived areas in Scotland are more likely to score at Level 1 or 2 on each literacy scale than those not living in such areas. For example, document literacy scores at Level 1 or 2 are attained by 51% of those living in the 15% most deprived areas compared to 37% of those living elsewhere (annex tables A2.11.1-2.11.3).

5.26 The proportion of people who have had problems with eyesight, hearing, speech or a learning disability scoring at Level 2 is very similar to the proportion overall on each of the three scales (annex tables A5.1.5-A5.1.7). While there is a difference, it is small.

5.27 People scoring at Level 2 are more likely to receive benefits (other than pensions or child benefit) than people scoring at higher levels, but less likely than those scoring at Level 1. Combining Levels 1 and 2 there is a notable difference from people scoring at Levels 3, 4 or 5 (annex tables A5.1.18-5.1.20).

Educational factors

5.28 Level 1 and 2 scores are associated with shorter educational attendance. Combining Level 1 with Level 2 reduces this association, since Level 2 individuals generally have more education. Nonetheless there is still a marked contrast between the educational attendance associated with Levels 1 and 2 and that associated with Levels 3, 4 and 5 (annex tables A5.1.8- A5.1.10).

5.29 The same pattern appears with educational qualifications. There is a gradient of qualifications, with people scoring at Level 1 or 2 far likely to have less advanced qualifications (annex tables A2.4.1-2.4.3).

Occupational factors

5.30 Level 1 and 2 scores are associated with less skilled employment in the NS-SEC occupational classification (annex tables A5.1.2-A5.1.4). For example, 13% of those at Level 1 for prose literacy held managerial, professional or intermediate jobs compared to 28% of those scoring at Level 2 and 50% of those scoring higher. These findings were consistent for all three literacy scales.

5.31 Income also follows a gradient, with people at Level 1 or 2 considerably more likely to be in the lowest income category and far less likely to be in the top

category (annex tables A5.1.11-A5.1.13). The same pattern holds across all three literacy scales.

5.32 People scoring at Level 1 or 2 on each of the scales are less likely to be employed than those scoring at Level 3, 4 or 5. This relationship holds across all three scales (annex tables A5.1.15-A5.1.17). People scoring at Level 2 are somewhat more likely to be unemployed than those scoring at Levels 3, 4 or 5.

5.33 For those who are currently employed, people scoring at Level 1 or 2 are in occupations requiring less use of literacies at work. People scoring at Level 3, 4 or 5 consistently use literacies at work (annex tables A4.2.1-A4.2.3).

5.34 People scoring at Level 1 or 2 are less likely to have participated in adult education and training than those scoring at higher levels and yet are more likely to have wanted to participate (annex table A4.4.1). The difference between Level 2 and Levels 3, 4 and 5 is less marked than between Level 1 and the higher levels, but it remains a notable difference.

5.35 There is one further interesting aspect of people who attain Level 1 or 2. These individuals overwhelmingly view their own skills as excellent or good. For example, the lowest proportion seeing their own skills as excellent or good is people in semi-routine occupations assessing their own mathematics skills, but even then 56% assess their skills highly (annex table A5.1.21).

5.36 People's self-assessment varies a great deal by their occupational category even though their skills have been measured to be at comparable levels. People with Level 1 or 2 scores in managerial and professional organisations rate their prose literacy skills as excellent or good 94% of the time, compared to 78% in routine and semi-routine occupations.

Everyday factors

5.37 In general terms, people scoring at Level 1 or 2 tend to have less day to day engagement with text literacies than people scoring at higher levels. The data suggests that they tend to watch more television and be slightly less aware of current events than those scoring at Levels 3, 4 or 5 (tables 3.2 and 3.3).

5.38 People scoring at Level 2 have patterns of library usage, book and magazine reading and similar factors that fall between Level 1 and Levels 3, 4 and 5, so while Level 1 and 2 together are distinct from the higher levels the difference is less stark than for Level 1 alone. The same is true for literacy resources in the home (annex tables A3.1.1-A3.1.6).

5.39 People with Level 2 prose literacy scores are more likely to identify that they need help with everyday literacy practices than those with higher scores, but less often than those people scoring at Level 1 (annex tables A3.3.2).

Factors increasing the odds of scoring at level 1

5.40 As part of the analysis of survey findings, regression procedures were used to calculate the odds ratios for different factors. The aim was to find out how much

more likely a person was to score at Level 1 if a particular social factor applied to them. This approach could provide information on how much more likely somebody in a particular type of job was to score at Level 1 compared to the average person, for example.

5.41 The results are shown in annex tables A5.2.1 and A5.2.2. In this multivariate analysis there is no evidence of any factors that relate to the likelihood of scoring at Level 1 to a statistically significant degree, except for education to Highers (SCQF 6) or beyond making it less likely to score at Level 1 or 2 in document literacy.

5.42 This means that it is not possible to identify a group of factors that indicate a person is more likely to attain a Level 1 score.

5.43 It is important to note that this finding does not contradict the findings in chapter 2 that certain factors are significant. This is a different type of analysis. The earlier findings are that social factors have a consistent effect on mean scores, so that two identical people with different jobs will score differently on the SSAL2009. Here the question is whether any combination of those effects are powerful enough to push people towards Level 1 specifically. It seems that they are not.

Understanding the implications of the scores across all three scales

5.44 The discussion so far has followed the traditional IALS pattern of linking scores from the three literacy scales to social factors without considering the patterns of scores of each individual respondent. This section reports on a different approach to the data, where scores were attached to individuals so that they could be grouped. Some care is needed with this approach, as the primary aim of the survey is to identify patterns across the population rather than provide accurate scores for individuals. Nonetheless, grouping people's scores in this way can provide insights that would be hard to achieve otherwise.

5.45 Annex tables A.5.3.1-A5.3.3 show the results for three groups: people who score at Level 1 on all three scales, people who score below Level 3 for all three scales, and people who score at Level 1 on at least one scale, irrespective of their other scores. The first group contains 3.6% of the Scottish population, so is a small group. Scoring at Level 1 on all three scales can be considered to indicate that people potentially have very limited literacy skills. The proportion of the population scoring at Level 1 or 2 on all three scales is 26.7%, and these people may face challenges and constraints in their day to day use of literacies.

5.46 A different way to look at the data is to examine the group who score at Level 1 on at least one literacy scale, who are 12.3% of the population. These people may have strong scores on one or two scales, but their scores are grounded at Level 1 for one scale. Rather than trying to understand a consistent low score, this approach asks if there are specific characteristics of people who have one low score. In other words, the key factor is the lowest point of their spiky profile.

5.47 Table 5.1 shows a range of characteristics associated with scoring at Level 1 on all three scales. It suggests that there are clear and strong messages about the characteristics associated with these scores. Compared to the average, people with these scores have lower qualifications, less income, less education, are older, are working in lower-skilled jobs and more likely to be living in the 15% most deprived areas of Scotland.

5.48 Table 5.2 shows a range of characteristics associated with having all three scores below Level 3. The same key messages emerge, though considerably less strongly. The results reported in these two tables indicate that having consistently low scores can be associated with a range of social factors.

Table 5.1: Characteristics associated with scoring at level 1 on all three literacy scales

	Scoring at level 1 on all three scores
Age	People in this group are less likely to be below the age of 35 and considerably more likely to be 56-65.
Highest Qualification	This group are much less likely than average to have education beyond compulsory schooling. (8% vs. 38% average)
Educational level	This group are very much less likely to have education beyond standard grade level. The frequency of having no qualifications is twice the average (61% vs. 32% average).
Occupation	This group are more likely to have an unclassified occupation, meaning that they may not be in work (31% vs. 15% average). If working, they are more likely to be in a routine or semi-routine position and much less likely to be in a managerial/ professional or intermediate occupation (7% vs. 39% average).
Income	This group are more likely to have an income below £15,000 per year (82% vs. 58% average).
Area	People in this group are much more likely to live in an area in the 15% most deprived in Scotland (32% vs. 18% average)

Table 5.2: Characteristics associated with scoring below level 3 on all three literacy scales

	All scores below level 3
Age	The differences, while following the same pattern as table 5.1, are very slight.
Highest Qualification	This group are much less likely than average to have education beyond compulsory schooling. (18% vs. 38% average)
Educational level	This group are slightly more likely than average to have standard grade level qualifications. However, they are still much more likely than average to have no qualifications (48% vs. 32% average) and less likely to have gone beyond standard grade.
Occupation	This group are more likely to have an unclassified occupation, meaning that they may not be in work (22% vs. 15% average). If working, they are more likely than average to be in a routine or semi-routine position and much less likely to be in a managerial/professional or intermediate occupation (18% vs. 39% average).
Income	This group are more likely to have an income below £15,000 per year (73% vs. 58% average).
Area	People in this group are more likely to live in an area in the 15% most deprived in Scotland (22% vs. 18% average)

5.49 Table 5.3 shows the results for the group with at least one score at Level 1, irrespective of other scores. This follows up on the finding of spiky profiles, by asking how much the lowest score indicates social characteristics. The results are strikingly similar to those for table 5.2, and it is quite likely that many of the same people are in both groups. This suggests that spiky profiles, while important to note, do not significantly change the findings compared to examination of groups with homogeneous scores.

Table 5.3: Characteristics associated with scoring at level 1 on at least one literacy scale

	At least one score at level 1
Age	People in this group are a little less likely to be below 35 and somewhat more likely to be 55-65.
Highest Qualification	This group are much less likely than average to have education beyond compulsory schooling. (16% vs. 38% average)
Educational level	This group are slightly more likely to have standard grade level qualifications. However, they are still much more likely than average to have no qualifications (49% vs. 32% average) and less likely to have gone beyond standard grade.
Occupation	This group are more likely to have an unclassified occupation, meaning that they may not be in work (25% vs. 15% average). If working, they are more likely than average to be in a routine or semi-routine position and much less likely to be in a managerial/ professional or intermediate occupation (17% vs. 39% average).
Income	This group are more likely to have an income below £15,000 per year (74% vs. 58% average).
Area	People in this group are more likely to live in an area in the 15% most deprived in Scotland (24% vs. 18% average)

Chapter Summary

5.50 The findings indicate that a number of diverse social factors are associated with literacy scores and that overall they are consistent in their effects. People scoring at Level 1 or 2 are less engaged with literacy, and this is especially true for those scoring at Level 1. However, there is no clear demarcation between people at a particular point on the scales; instead there is a continuum of engagement with literacy practices.

5.51 This should not, however, obscure the point that people scoring in Levels 1 and 2 tend to earn less, work in more routine occupations, be unemployed or economically inactive, live in more deprived areas, face health challenges and have lower educational levels than those scoring in Levels 3, 4 and 5. This shows up strongly both in analysis of scores alone, and in analysis of scores grouped by individuals.

6 COMPARING SSAL2009 WITH IALS 1996

6.1 The last survey on the distribution of literacy skills undertaken in Scotland was in 1996, as part of the UK implementation of the International Adult Literacy Survey.[16] SSAL2009 used the same instruments as the 1996 survey, and the analysis of literacy levels was conducted by the same survey team, based in Educational Testing Services of Princeton, New Jersey. During the planning stages of the 2009 survey there was considerable discussion about the importance of comparability between 1996 and 2009 results. There was a balance to be struck between providing the best possible baseline figure for 2009 and allowing for direct comparisons. The final decision, with the full support of all research partners, was to aim for the highest possible data quality in 2009 even is this meant reduced comparability.

6.2 There are three major differences between the 1996 and 2009 surveys, making direct comparison of scores inappropriate. These differences are:

- The sample size in 1996 was 704, whereas in 2009 it was 1,927. This means that the later survey can be a lot more precise in its findings. However, the change means that there will be differences in the data and no way of knowing how much of that difference comes from changes in population skills levels and how much from changes in the sample.

- In 1996, data collection stopped at the Caledonian Canal. In 2009 it covered the whole of Scotland. This means that the later survey can be a lot more precise in its findings. However, as above, the change in data collection means that it cannot be determined how much of the variation arises from this as opposed to actual changes in the sample.

- In 1996, Scottish data was analysed alongside data from the other parts of the UK using an Item Response Theory (IRT) model particular to the UK. In 2009 an IRT model was developed for Scotland alone.[17] This model was more similar to that used internationally in 1996 than the one used in the UK at that time. Again, the effects of this change are entirely positive for the 2009 findings, but reduce comparability.

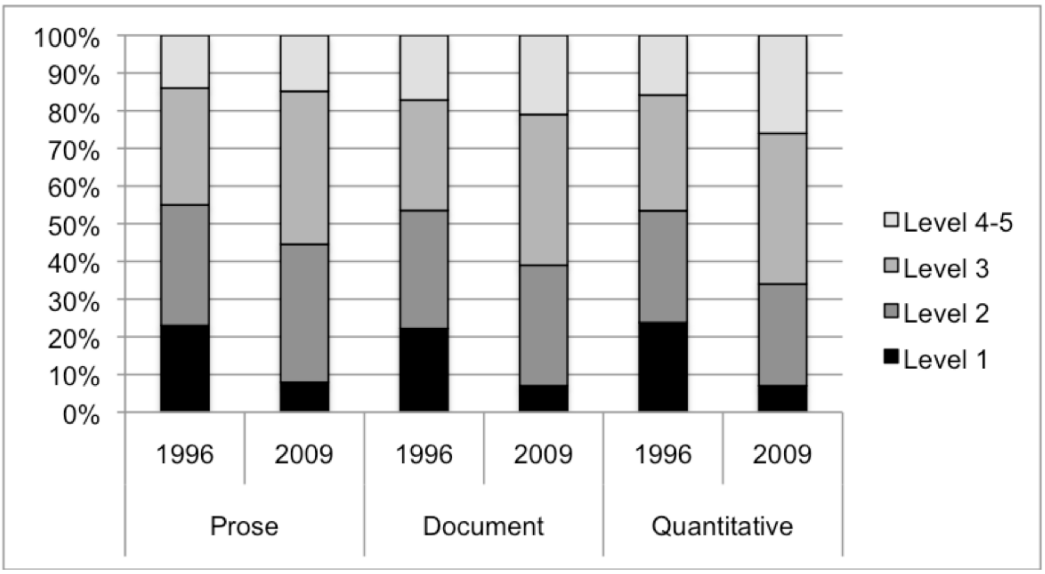
6.3 Nonetheless, the authors are aware that comparisons will be made between the 1996 and 2009 findings, and have therefore provided conclusions that can be drawn responsibly and credibly. The rest of this chapter describes these. In each case, the comments must be read as broad tendencies rather than the results of rigorous statistical analysis.

[16] http://www.scotland.gov.uk/library3/lifelong/alals-00.asp
[17] See page 14.

Distribution of scores

6.4 The scores obtained in 2009 are quite different from those of 1996 (figure 6.1). The most striking single difference is the proportion of people at Level 1 in each scale. For example, the proportion at Level 1 in quantitative literacy has changed from 24% to 7%, clearly a very notable change. However, given the cautionary statements above it is critical to bear in mind that this does not necessarily represent such a major change in the literacy skills of the population. A large proportion of that change may derive from the changes in procedure to ensure high quality, reliable results for SSAL2009.

Figure 6.1: Proportion of the population at each level on each scale, 1996 vs. 2009



6.5 Figure 6.1 shows that the pattern has changed for each literacy scale. The proportion at Level 1 is quite different, and generally scores are considerably stronger. The redistribution appears to be mainly from Level 1 and, to a lesser extent Level 2, into Level 3 (see annex table A6.1.1). This is possibly a result of the emphasis on quality control during SSAL2009, and does not necessarily represent major changes in "real" skills.

6.6 Even if the distribution did represent a real change in skills in the population, it is not as dramatic as it might appear at first glance. By comparing the scores reported by other countries that implemented IALS in the mid-1990s[18] (the most comparable data) it shows that if Scotland had achieved these results in 1996 it would fall in the middle of the participating countries, close to Australia, the United States and Switzerland. This is a credible placement for a developed Northern European country. The SSAL2009 results do not, of themselves, raise any reason for concern about reliability despite the differences from the older data.

[18] OECD (2000) Literacy in the Information Age: Final Report of the International Adult Literacy Survey. Paris: Author.

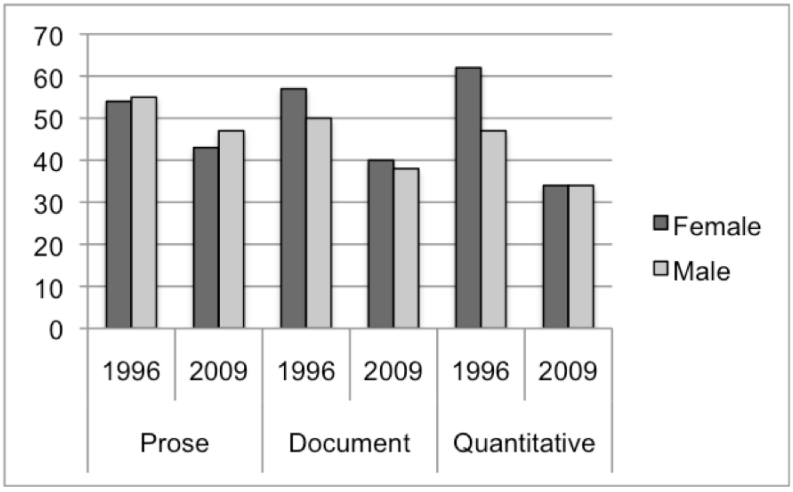
6.7 The most responsible use of the data from 2009 and 1996 is not to compare Levels, but to *compare the distribution of scores*. Because the measures are known to be different, it makes no sense to compare the absolute results across the surveys, such as the scores for women in 1996 and the scores for women in 2009.

6.8 However, the results of each survey are internally consistent, so it is possible to ask questions about the relationships between categories at a broad level. It is reasonable to consider questions such as "Women scored less strongly than men in 1996. Does this relationship hold in SSAL2009?"

6.9 In this chapter we examine this question for three factors: gender, age, and educational attendance. We have restricted discussion to these areas because they have the strongest relationship with literacy scores in both surveys, because the sample size in 1996 was large enough to provide reliable findings for these categories, and because they are linked to many other social factors in important ways.

6.10 In the case of gender, figure 6.2 shows the distribution of people scoring at Level 1 or 2 on the three literacy scales by gender. Because scores in 2009 are higher, all the columns for 2009 are shorter than those for 1996. The key point, however, is that the pattern is retained for prose and documentary literacy, with slightly more men at Level 1 or 2 for prose literacy and slightly more women at these levels for document literacy. The situation is quite different for quantitative literacy, however, where the imbalance found in 1996 was not repeated in 2009.

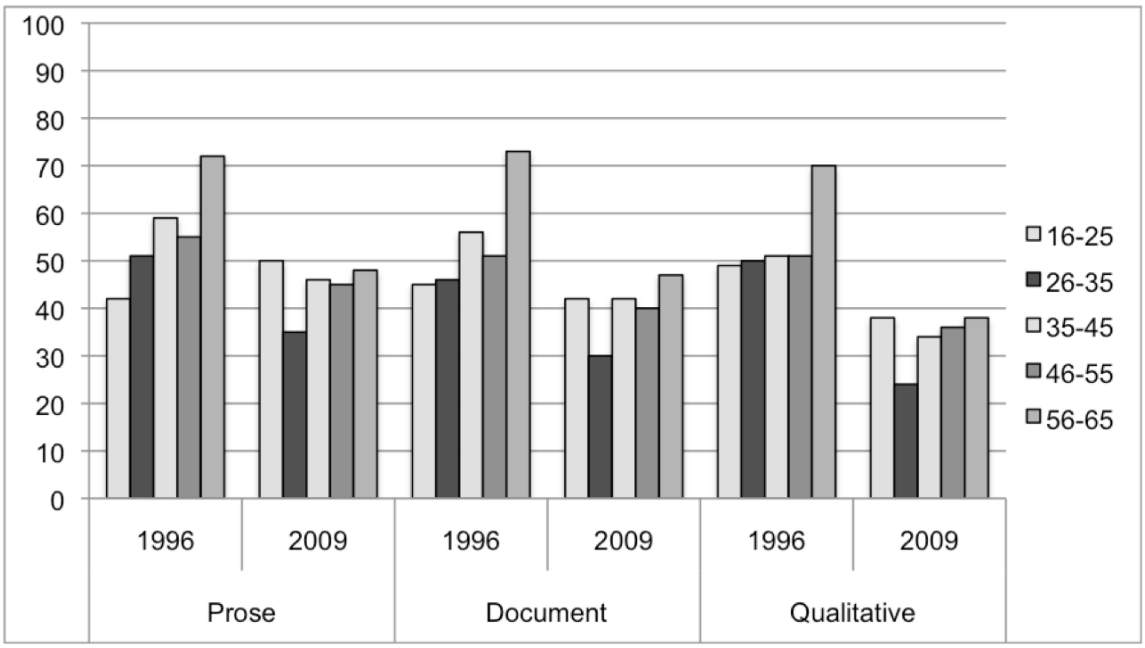
Figure 6.2: Proportion scoring at level 1 or 2 on the three literacy scales by gender, 1996 vs. 2009



6.11 The same type of discussion can be repeated for distribution by age (figure 6.3). In 1996 there were clear indications that the proportion of people scoring at Level 1 or 2 increased with age, especially for 56-65 year olds. In SSAL2009 the pattern shows a far more even distribution, with the exception of 26-35 year olds, who are much stronger than the other cohorts.

6.12 In considering the results for the oldest age group it is important to bear in mind that the people in the 56-65 year old group in 2009 would have been in the 36-45 or 46-55 age groups in 1996. At that time the scores of these two groups were consistent with younger cohorts, so it is not too surprising that the scores remain consistent with younger cohorts even though they are older. In addition, the group who were 56-65 years of age in 1996 were not included in 2009.

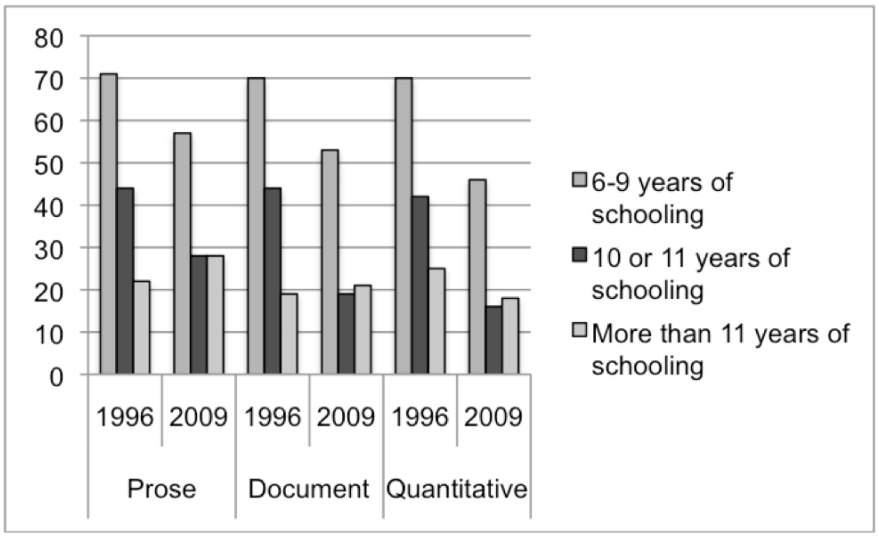
Figure 6.3: Proportion scoring at level 1 or 2 on the three literacy scales by age, 1996 vs. 2009



Literacy and educational attendance

6.13 One continuity between 1996 and 2009 is the association of lower literacy scores and shorter periods of educational attendance. Figure 6.4 shows the distribution of scores on all three literacy scales by educational attendance. The relationship of second level, 1st stage attendance (6-9 years of schooling) and having a score in level 1 or 2 emerges clearly. One change is that people with second level 2nd stage education (10-11 years schooling) scored in a similar way to those at level 3 (More than 11 years of schooling) in 2009.

Figure 6.4: Proportion scoring at level 1 or 2 on the three literacy scales by educational attendance, 1996 vs. 2009 (%)



Predictors of level 1 scores

6.14 In 1996 there were four factors that predicted a Level 1 score, as shown in table 6.1.

Table 6.1: Factors predicting level 1 scores in 1996 and 2009

Factors related to level 1 scores	
1996	**2009**
Occupational Classification	
Educational Attendance	3rd level educational attendance (Document Literacy only)
Income	
Country of birth (Prose & Document Literacy only)	

6.15 The 2009 findings produced very limited information on predictors of Level 1 scores, with only more than 11 years of schooling being statistically significant, and it only predicts not scoring at Level 1 on document literacy.

Chapter summary

6.16 As this chapter has shown, strategic decisions designed to enhance the quality of SSAL2009 make it invalid to compare the findings directly with IALS 1996, but many of the findings remain broadly consistent. Literacy skills still vary along with occupational classification, type of area a person lives in, income, and related factors. The overall message of both surveys is that literacy skills are related to social and economic factors in a number of powerful and important ways.

ANNEXES

Annex for Chapter 2: Tables on the distribution of literacy scores

A2.1 Gender distribution of literacy scores

Table A2.1.1 Prose literacy by gender

			Level 1		Level 2		Level 3		Level 4/5		
Gender	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**Unweighted base**
Male	280	2.97	9	2.02	38	2.94	40	3.14	14	2.26	727
Female	284	2.50	7	1.29	36	2.72	42	2.63	15	2.07	1200
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.1.2 Document literacy by gender

			Level 1		Level 2		Level 3		Level 4/5		
Gender	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**Unweighted base**
Male	291	3.11	7	1.78	31	3.73	39	4.14	23	2.84	727
Female	287	2.60	8	1.31	32	2.57	41	2.50	19	2.13	1200
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.1.3 Quantitative literacy by gender

			Level 1		Level 2		Level 3		Level 4/5		
Gender	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**Unweighted base**
Male	295	3.51	8	1.70	26	2.55	40	3.00	27	3.13	727
Female	293	2.82	7	1.56	27	2.50	41	2.48	24	2.35	1200
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.2 Age distribution of literacy scores

Table A2.2.1 Prose literacy by age group

			Level 1		Level 2		Level 3		Level 4/5		
Age group	Mean	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.	UW Base
16-25	274	3.68	10	2.94	40	4.84	41	4.36	9	2.77	353
26-35	292	3.86	4	1.68	31	4.16	44	4.57	21	3.82	415
36-45	282	4.21	8	2.20	38	4.39	38	4.05	16	3.81	368
46-55	281	3.17	8	2.13	37	3.82	42	3.94	13	2.78	440
56-65	279	4.28	10	3.03	38	4.11	39	4.92	13	3.34	350
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.2.2 Document literacy by age group

			Level 1		Level 2		Level 3		Level 4/5		
Age Group	Mean	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.	UW Base
16-25	286	4.02	7	2.59	35	4.39	41	4.24	18	3.41	353
26-35	300	4.59	5	2.06	25	3.80	43	4.89	28	4.46	415
36-45	288	4.31	8	2.24	34	4.14	37	4.19	21	3.75	368
46-55	288	3.95	7	2.01	33	4.16	40	4.43	20	3.31	440
56-65	281	4.49	12	3.07	35	4.42	37	5.84	17	3.58	350
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.2.3 Quantitative literacy by age group

			Level 1		Level 2		Level 3		Level 4/5		
Age Group	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
16-25	288	3.94	8	2.23	30	3.82	43	4.02	19	3.37	353
26-35	304	4.98	6	2.37	18	3.13	41	4.50	34	4.93	415
36-45	295	4.77	7	2.50	27	3.93	39	4.42	26	4.55	368
46-55	292	3.86	7	1.79	29	3.47	41	3.69	23	3.58	440
56-65	290	4.71	9	2.47	29	4.17	38	4.44	24	4.02	350
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

Table 2.2.4 Male prose literacy level by age

		Percent	s.e.	N
Male 16-35	**Level 1**	8	2.15	295
	Level 2	36	3.32	295
	Level 3	43	3.35	295
	Level 4/5	13	2.41	295
Male 36-55	**Level 1**	9	1.81	314
	Level 2	40	3.72	314
	Level 3	38	3.63	314
	Level 4/5	13	2.14	314
Male 56-65	**Level 1**	11	3.71	117
	Level 2	36	4.58	117
	Level 3	37	6.33	117
	Level 4/5	16	4.00	117

Table 2.2.5 Female prose literacy level by age

		Percent	s.e.	N
Female 16-35	**Level 1**	5	1.29	473
	Level 2	35	3.24	473
	Level 3	43	3.83	473
	Level 4/5	17	3.31	473
Female 36-55	**Level 1**	7	1.73	494
	Level 2	35	2.93	494
	Level 3	42	2.74	494
	Level 4/5	16	2.32	494
Female 56-65	**Level 1**	10	2.23	233
	Level 2	39	4.51	233
	Level 3	40	3.84	233
	Level 4/5	11	2.79	233

A2.3 Educational attendance and literacy scores

Table A2.3.1 Prose literacy by highest level of education attendance

			Level 1		Level 2		Level 3		Level 4/5		
	Mean	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.	UW Base
Second level 1st stage or lower	269	2.19	12	1.77	45	2.48	36	2.54	6	1.50	1196
Second level, 2nd stage	297	4.67	2	1.72	26	5.01	51	6.39	21	5.44	209
Third level	300	3.46	3	1.48	25	3.48	46	3.54	26	3.58	520
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

A2.3.2 Document literacy by highest level of education attendance

			Level 1		Level 2		Level 3		Level 4/5		
	Mean	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.	UW Base
Second level 1st stage or lower	273	2.49	11	1.84	42	2.85	36	2.63	10	1.55	1196
Second level, 2nd stage	308	4.68	2	1.25	17	4.35	50	6.17	32	6.15	209
Third level	311	3.37	2	.93	19	2.89	42	4.89	37	4.22	520
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

A2.3.3 Quantitative literacy by highest level of education attendance

			Level 1		Level 2		Level 3		Level 4/5		
	Mean	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.	UW Base
Second level 1st stage or lower	279	2.74	11	1.96	35	2.34	38	2.51	15	1.86	1196
Second level, 2nd stage	314	4.60	2	1.35	14	4.67	45	5.51	39	5.65	209
Third level	314	3.62	2	1.04	16	2.65	42	3.83	39	4.12	520
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.4 Highest qualification and literacy scores

Table A2.4.1 Prose literacy by highest qualification

			Level 1		Level 2		Level 3		Level 4/5		
Highest qualification level	Mean	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.	UW Base
1 Degree, professional qualification	309	5.07	2	1.93	20	4.41	42	5.22	36	5.30	202
2 HNC/HND or equivalent	295	4.13	3	1.82	28	4.45	49	4.40	20	4.21	318
3 Higher, A level or equivalent	297	4.67	2	1.72	26	5.01	51	6.39	21	5.44	209
4 Credit Standard Grade or equivalent	278	4.26	8	3.11	38	7.40	45	5.62	10	3.68	256
5 General Standard Grade or below	270	3.84	10	3.29	47	5.08	38	4.79	5	2.14	275
6 No qualifications	263	2.50	14	2.35	50	3.26	31	3.33	5	1.76	605
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table 2.4.2 Document literacy by highest qualification

			Level 1		Level 2		Level 3		Level 4/5		
Highest qualification level	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
1 Degree, professional qualification	322	5.70	1	.95	13	4.13	41	7.22	45	6.77	202
2 HNC/HND or equivalent	304	3.91	3	1.38	22	3.85	43	5.57	32	4.85	318
3 Higher, A level or equivalent	308	4.68	2	1.25	17	4.35	50	6.17	32	6.15	209
4 Credit Standard Grade or equivalent	282	4.32	8	2.93	34	4.88	44	4.67	14	3.72	256
5 General Standard Grade or below	278	4.43	8	3.35	42	6.03	39	5.47	11	3.49	275
6 No qualifications	265	2.96	15	2.53	47	3.61	31	3.46	7	1.63	605
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.4.3 Quantitative literacy by highest qualification

			Level 1		Level 2		Level 3		Level 4/5		
Highest qualification level	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
1 Degree, professional qualification	323	5.98	1	1.34	13	4.61	37	5.74	49	6.51	202
2 HNC/HND or equivalent	307	3.84	3	1.45	18	3.50	46	5.01	33	4.81	318
3 Higher, A level or equivalent	314	4.60	2	1.35	14	4.67	45	5.51	39	5.65	209
4 Credit Standard Grade or equivalent	289	4.60	9	3.12	26	4.56	43	5.23	22	4.06	256
5 General Standard Grade or below	282	4.80	10	3.29	35	5.33	39	4.86	16	3.52	275
6 No qualifications	272	3.42	13	2.56	40	3.27	36	3.14	11	2.36	605
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.5 Health, disability and literacy scores

Table A2.5.1 Prose literacy by health problems

			Level 1		Level 2		Level 3		Level 4/5		
Ever had problems with eyesight/hearing/speech /learning disability	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Yes	273	5.71	15	4.58	35	6.09	38	6.77	11	4.74	171
No	283	2.33	7	1.18	37	2.22	41	2.04	15	1.80	1755
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.5.2 Prose literacy by other disability or health problem

			Level 1		Level 2		Level 3		Level 4/5		
Other disability or health problem for 6 months or more	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**Base**
Yes	276	5.62	11	3.99	38	5.74	38	6.18	12	4.75	173
No	283	2.32	8	1.22	36	2.22	41	2.10	15	1.79	1752
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.5.3 Document literacy by health problems

			Level 1		Level 2		Level 3		Level 4/5		
Ever had problems with eyesight/hearing/speech /learning disability	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Yes	281	6.85	14	4.50	29	5.13	37	7.19	20	5.37	171
No	290	2.43	7	1.19	32	2.51	40	2.75	21	2.11	1755
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.5.4 Document literacy by other disability or health problem

			Level 1		Level 2		Level 3		Level 4/5		
Other disability or health problem for 6 months or more	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Yes	281	6.10	11	4.06	35	7.10	36	7.50	18	4.80	173
No	290	2.49	7	1.21	32	2.32	40	2.46	21	2.08	1752
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.5.5 Quantitative literacy by health problems

			Level 1		Level 2		Level 3		Level 4/5		
Ever had problems with eyesight/hearing/speech /learning disability	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Yes	286	7.18	13	4.11	26	4.55	36	6.32	25	5.71	171
No	295	2.68	7	1.23	27	1.93	41	2.04	26	2.42	1755
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

Table 2.5.6 Quantitative literacy by other disability or health problem

			Level 1		Level 2		Level 3		Level 4/5		
Other disability or health problem for 6 months or more	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Yes	285	6.12	10	3.19	31	5.76	37	6.40	21	5.79	173
No	295	2.79	7	1.31	26	2.00	41	2.09	26	2.48	1752
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.6 Literacy and social class

Table A2.6.1 Prose literacy by Social Class/Occupation

			Level 1		Level 2		Level 3		Level 4/5		
National Statistics Socio Economic Classification	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Managerial and professional	299	3.48	3	1.46	26	3.80	45	4.68	26	3.91	429
Intermediate	299	3.88	2	1.61	25	5.25	51	4.49	23	4.33	293
Small employers and own account workers	277	5.12	7	3.27	41	6.23	42	6.38	9	3.99	132
Lower supervisory and technical	273	5.91	12	4.65	43	8.88	36	6.89	8	4.82	107
Semi-routine and routine	272	2.55	10	2.09	44	3.21	37	3.01	8	1.90	682
Unclassified	266	4.48	15	3.99	43	5.01	35	6.14	6	2.91	284
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.6.2 Document literacy by Social Class/Occupation

			Level 1		Level 2		Level 3		Level 4/5		
National Statistics Socio Economic Classification	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Managerial and professional	309	3.80	3	1.28	19	3.28	43	5.19	35	4.48	429
Intermediate	307	4.19	1	1.01	21	3.70	45	4.30	33	4.80	293
Small employers and own account workers	281	4.99	7	3.15	39	5.66	40	6.45	14	4.74	132
Lower supervisory and technical	282	6.73	7	3.74	40	8.28	38	7.48	15	5.98	107
Semi-routine and routine	276	2.90	11	1.98	39	3.34	37	3.37	12	2.14	682
Unclassified	273	5.04	13	3.39	41	6.10	33	6.67	13	4.30	284
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.6.3 Quantitative literacy by Social Class/Occupation

			Level 1		Level 2		Level 3		Level 4/5		
National Statistics Socio Economic Classification	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Managerial and professional	312	3.86	4	1.50	17	3.18	39	4.14	40	4.14	429
Intermediate	312	4.36	2	1.40	17	3.74	44	5.52	37	5.23	293
Small employers and own account workers	290	5.39	7	3.46	30	6.09	42	7.63	21	5.95	132
Lower supervisory and technical	286	5.99	9	3.95	32	6.99	41	6.78	18	5.62	107
Semi-routine and routine	283	3.15	10	2.25	34	3.03	40	3.07	17	2.46	682
Unclassified	276	5.03	14	3.26	33	4.66	38	5.07	14	3.62	284
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.7 Income and literacy scores

Table A2.7.1 Prose literacy by gross personal income

			Level 1		Level 2		Level 3		Level 4/5		
Gross Personal Income	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Up to £9,500	270	3.11	14	2.71	42	4.85	35	4.84	9	2.54	392
£9,501-£15,000	279	4.28	7	2.49	40	4.84	42	4.84	12	3.71	297
£15,001-£20,000	289	4.47	5	2.53	34	6.00	45	6.89	16	4.23	221
£20,001-£29,500	291	4.93	3	2.28	30	6.36	50	6.25	17	4.56	172
£29,501 or more	299	6.62	5	3.06	25	7.25	45	8.16	25	6.90	118
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown. Informants who refused or did not know their income are not included in the table.

Table A2.7.2 Document literacy by gross personal income

			Level 1		Level 2		Level 3		Level 4/5		
Gross Personal Income	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Up to £9,500	276	3.63	14	2.74	37	4.34	34	4.72	15	3.17	392
£9,501-£15,000	284	4.79	7	2.44	35	5.05	42	6.21	17	5.11	297
£15,001-£20,000	298	4.75	4	2.09	26	4.78	45	6.87	25	5.34	221
£20,001-£29,500	302	4.99	3	2.06	22	6.46	48	7.27	27	5.94	172
£29,501 or more	313	7.38	3	2.69	16	6.44	41	6.91	40	7.27	118
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown. Informants who refused or did not know their income are not included in the table.

Table A2.7.3 Quantitative literacy by gross personal income

			Level 1		Level 2		Level 3		Level 4/5		
Gross Personal Income	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Up to £9,500	278	4.00	14	2.53	34	4.01	36	4.36	16	3.29	392
£9,501-£15,000	291	5.28	7	2.53	29	4.20	42	4.99	22	4.73	297
£15,001-£20,000	298	4.85	6	2.59	22	5.52	46	6.50	27	4.68	221
£20,001-£29,500	307	6.35	3	1.96	20	6.03	41	7.06	35	6.42	172
£29,501 or more	323	7.87	3	3.09	10	4.78	40	7.58	47	8.32	118
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown. Informants who refused or did not know their income are not included in the table.

A2.8 Literacy and economic activity

Table A2.8.1 Prose literacy by Economic Activity Status

			Level 1		Level 2		Level 3		Level 4/5		
Economic activity status	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW base**
Employed	289	2.57	5	1.23	33	2.57	44	2.58	18	2.25	1177
Unemployed	262	4.88	18	4.47	46	4.86	30	5.35	6	2.94	233
Economically inactive	277	3.80	9	2.50	40	4.43	39	3.88	11	2.86	437
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.8.2 Document literacy by Economic Activity Status

			Level 1		Level 2		Level 3		Level 4/5		
Economic activity status	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW base**
Employed	297	2.64	4	1.06	28	2.43	43	2.95	25	2.60	1177
Unemployed	268	5.27	17	4.24	41	5.60	30	5.58	11	4.12	233
Economically inactive	281	4.54	10	2.36	37	4.75	36	4.69	17	3.18	437
100 Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.8.3 Quantitative literacy by Economic Activity Status

			Level 1		Level 2		Level 3		Level 4/5		
Economic activity status	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW base**
Employed	302	3.05	5	1.15	23	2.32	42	2.46	31	2.77	1177
Unemployed	269	6.01	19	4.03	37	5.16	32	5.90	12	4.45	233
Economically inactive	288	4.13	8	2.45	31	4.29	41	3.99	20	3.65	437
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.9 Literacy and receipt of benefits

Table A2.9.1 Prose literacy by social security benefits

			Level 1		Level 2		Level 3		Level 4/5		
Income from Government/State sources?	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
No	286	2.52	6	1.26	35	2.39	43	2.42	16	1.93	1382
Yes	270	3.38	14	2.64	42	3.78	34	3.64	10	2.54	471
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.9.2 Document literacy by social security benefits

			Level 1		Level 2		Level 3		Level 4/5		
Income from Government/State sources?	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
No	294	2.56	5	1.17	30	2.52	42	3.07	23	2.33	1382
Yes	275	3.60	14	2.66	38	4.02	34	4.35	14	2.81	471
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.9.3 Quantitative literacy by social security benefits

			Level 1		Level 2		Level 3		Level 4/5		
Income from Government/State sources?	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
No	299	2.99	5	1.35	24	1.99	42	2.32	29	2.58	1382
Yes	278	4.14	14	2.75	34	3.89	37	4.02	15	3.55	471
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.10 Literacy and urban/rural living

Table A2.10.1 Prose literacy by area classification

			Level 1		Level 2		Level 3		Level 4/5		
Six Fold Urban Rural Classification 2008	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Large Urban Areas	278	3.61	9	1.68	40	4.01	38	3.18	12	2.82	788
Other Urban Areas	285	3.51	6	1.98	35	3.78	42	3.78	16	3.09	596
Accessible Small Towns	279	9.15	10	5.90	40	7.29	35	7.20	15	5.72	186
Remote Small Towns	287	19.19	12	12.45	27	9.89	40	10.64	21	13.57	60
Accessible Rural	283	5.98	5	3.24	36	5.96	47	5.78	12	4.97	192
Remote Rural	297	7.56	4	2.87	24	7.15	49	9.95	23	9.25	105
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.10.2 Document literacy by area classification

			Level 1		Level 2		Level 3		Level 4/5		
Six Fold Urban Rural Classification 2008	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Large Urban Areas	283	4.02	10	1.91	36	4.00	35	3.60	19	3.34	788
Other Urban Areas	292	3.72	6	1.66	30	3.70	43	4.31	22	3.45	596
Accessible Small Towns	287	9.32	8	4.66	33	8.67	37	8.00	21	6.99	186
Remote Small Towns	295	19.03	9	10.02	25	9.01	42	11.31	24	10.74	60
Accessible Rural	293	6.82	5	3.25	30	5.87	43	6.79	22	5.83	192
Remote Rural	304	7.20	4	2.38	21	5.81	46	9.59	29	8.55	105
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.10.3 Quantitative literacy by area classification

			Level 1		Level 2		Level 3		Level 4/5		
Six Fold Urban Rural Classification 2008	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
Large Urban Areas	287	4.42	10	2.14	31	3.09	36	3.10	23	3.80	788
Other Urban Areas	298	4.15	5	1.75	24	3.44	44	3.52	26	3.82	596
Accessible Small Towns	295	8.46	7	3.79	27	7.45	41	6.92	25	8.04	186
Remote Small Towns	303	22.91	11	13.31	14	7.64	38	15.66	36	13.98	60
Accessible Rural	299	7.78	5	3.42	25	5.76	43	6.76	27	7.01	192
Remote Rural	306	7.57	2	1.88	22	5.94	44	9.39	31	8.14	105
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.11 Literacy scores and the Scottish Index of Multiple Deprivation

Table A2.11.1 Prose literacy by Scottish Index of Multiple Deprivation

			Level 1		Level 2		Level 3		Level 4/5		
Lowest 15% SIMD?	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
No	284	2.50	7	1.19	36	2.43	41	2.24	16	1.99	1587
Yes	271	5.31	14	4.54	40	5.18	39	5.27	8	2.57	340
Total	282	2.20	8	1.20	37	2.08	41	1.97	15	1.70	1927

Note: Weighted percentages are shown.

Table A2.11.2 Document literacy by Scottish Index of Multiple Deprivation

			Level 1		Level 2		Level 3		Level 4/5		
Lowest 15% SIMD?	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
No	292	2.62	6	1.21	31	2.60	41	2.87	23	2.30	1587
Yes	275	5.31	13	3.98	38	4.98	35	5.25	14	3.47	340
Total	289	2.31	7	1.21	32	2.36	40	2.61	21	1.99	1927

Note: Weighted percentages are shown.

Table A2.11.3 Quantitative literacy by Scottish Index of Multiple Deprivation

			Level 1		Level 2		Level 3		Level 4/5		
Lowest 15% SIMD?	**Mean**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**%**	**s.e.**	**UW Base**
No	297	2.93	7	1.34	25	2.02	41	2.14	27	2.54	1587
Yes	280	5.79	12	3.71	33	5.15	38	5.26	17	4.03	340
Total	294	2.59	7	1.25	27	1.82	40	1.99	26	2.24	1927

Note: Weighted percentages are shown.

A2.12 Statistical significance of relationships between selected variables and mean scores on three literacy scores

Literacy	Prose		Document		Quantitative	
	coefficient	s.e.	coefficient	s.e.	coefficient	s.e.
Random effects						
L2 Variable	**207.55**	**44.33**	**257.83**	**50.90**	**380.31**	**68.23**
L1 Variable	**1,139.43**	**84.11**	**1,378.30**	**106.54**	**1,524.42**	**112.35**
Fixed effects						
Const	**277.67**	**4.26**	**288.49**	**4.59**	**290.21**	**4.92**
Education level						
2nd level first stage	0.00		0.00		0.00	
2nd level 2nd stage	**17.74**	**3.94**	**23.39**	**4.44**	**22.50**	**3.75**
Third level	**20.66**	**3.38**	**26.95**	**3.72**	**22.19**	**3.84**
Occupational classification						
Professional Managerial	0.00		0.00		0.00	
Intermediate occupation	2.61	4.37	1.80	4.83	1.43	3.62
Small employer, own account	-8.99	5.22	**-13.51**	**5.47**	-11.06	6.68
Lower supervisory, technical	-9.59	5.98	**-13.80**	**6.19**	**-13.19**	**5.93**
Semi-routine, routine	**-14.29**	**3.34**	**-17.28**	**3.52**	**-15.31**	**3.86**
Unclassified	**-18.85**	**4.08**	**-18.98**	**4.40**	**-24.30**	**4.89**
Age						
16-35	0.00		0.00		0.00	
36-55	-3.07	2.68	-3.58	3.38	-2.27	3.21
56-65	-6.76	4.36	**-11.78**	**3.91**	-6.99	4.80
Place of Birth						
Born in UK	0.00		0.00		0.00	
Elsewhere	18.16	9.32	1.28	11.52	9.49	11.09
Sex						
Male	0.00		0.00		0.00	
Female	1.25	2.94	**-6.37**	**2.87**	-3.88	3.15
Area type						
Large urban	0.00		0.00		0.00	
Other urban	**6.71**	**2.89**	**8.54**	**3.35**	**10.23**	**4.11**
Accessible small town	5.74	4.66	9.88	4.95	**13.42**	**4.89**
Remote small towns	9.29	7.36	9.60	7.57	15.13	9.73
Accessible rural	3.19	3.46	4.70	4.35	7.59	4.97
Remote rural	**17.46**	**5.11**	**18.83**	**6.19**	**15.06**	**5.37**

NOTE: Factors in **BOLD** are statistically significant (p= 0.05).

Annex for Chapter 3: Tables on literacies in everyday life

A3.1 Literacy practices in everyday life

Table A3.1.1: Frequency of newspaper reading by prose literacy level

Reading newspapers	Level 1 %	Level 2 %	Level 3/4/5 %	Total
At least weekly	78	88	92	89
Monthly or less often	6	5	4	5
Never	16	7	4	6
UW Base	160	723	1035	1918

Note: Weighted percentages are shown.

Table A3.1.2: Frequency of book reading by prose literacy level

Reading books	Level 1 %	Level 2 %	Level 3/4/5 %	Total
At least weekly	27	38	53	46
Monthly or less often	27	32	33	32
Never	46	30	14	22
UW Base	158	722	1031	1911

Note: Weighted percentages are shown.

Table A3.1.3: Frequency of letter writing by prose literacy level

Writing long letters	Level 1 %	Level 2 %	Level 3/4/5 %	Total
At least weekly	7	11	16	13
Monthly or less often	18	29	38	33
Never	74	60	46	54
UW Base	159	720	1027	1906

Note: Weighted percentages are shown.

Table A3.1.4: Materials in the home by prose literacy level

Materials in the home by prose literacy level	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Daily newspaper in the home	78	81	79	80
Dictionary in the home	53	64	76	70
More than 25 books in the home	43	59	76	68
Encyclopaedia in the home	17	28	38	33
None of the above	12	8	5	7
UW Base	161	728	1038	1927

Note: Weighted percentages are shown.

Table A3.1.5: Frequency of public library use by prose literacy level

Uses a public library	Level 1 %	Level 2 %	Level 3/4/5 %	Total
At least monthly	15	18	22	20
Several times a year	11	18	23	20
Never	74	64	54	59
UW Base	160	721	1029	1910

Note: Weighted percentages are shown.

Table A3.1.6: Frequency of computer use by prose literacy level

Uses a computer	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Weekly	51	68	85	76
Less often than weekly	7	5	4	5
Never	42	27	10	19
UW Base	159	721	1032	1912

Note: Weighted percentages are shown.

A3.2 Self assessment of literacy skills

Table A3.2.1 Self assessment of reading, writing and mathematical skills in daily life

	Excellent	Good	Moderate	Poor	UW Base
How would you rate your reading skills in English needed in daily life?	32	53	14	1	1921
How would you rate your writing skills in English needed in daily life?	28	54	16	2	1919
How would you rate your mathematical skills in English needed in daily life?	24	52	21	4	1918

Note: Weighted percentages are shown.

Table A3.2.2 Self assessment of reading skills in daily life by prose literacy level (%)

Self-assessment of reading skills	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Excellent	9	20	43	32
Good	50	60	50	53
Moderate or Poor	41	20	7	15
UW Base	159	727	1035	1921

Note: Weighted percentages are shown.

Table A3.2.3 Self assessment of writing skills in daily life by prose literacy level (%)

Self-assessment of writing skills	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Excellent	5	17	39	28
Good	46	59	52	54
Moderate or Poor	48	24	9	18
UW Base	159	727	1033	1919

Note: Weighted percentages are shown.

Table A3.2.4 Self assessment of mathematical skills in daily life by quantitative literacy level (%)

Self-assessment of mathematical skills	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Excellent	5	15	30	24
Good	37	51	55	52
Moderate or Poor	58	35	15	23
UW Base	137	563	1218	1918

Note: Weighted percentages are shown.

Table A3.2.5 Satisfaction with reading and writing skills in daily life by prose literacy level (%)

Satisfaction with reading and writing skills	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Very satisfied	21	40	65	53
Somewhat satisfied	62	53	32	42
Somewhat/very dissatisfied	17	7	3	5
UW Base	152	714	1030	1896

Note: Weighted percentages are shown.

Table A3.2.6 Self assessment of reading skills in daily life by gender (%)

Self-assessment of reading skills	Male	Female	Total
Excellent	29	34	32
Good	52	55	53
Moderate or Poor	19	11	15
UW Base	724	1197	1921

Note: Weighted percentages are shown.

Table A3.2.7 Self assessment of writing skills in daily life by gender (%)

Self-assessment of writing skills	Male	Female	Total
Excellent	26	31	28
Good	52	56	54
Moderate or Poor	22	13	18
UW Base	723	1196	1919

Note: Weighted percentages are shown.

Table A3.2.8 Self assessment of mathematical skills in daily life by gender (%)

Self-assessment of mathematical skills	Male	Female	Total
Excellent	24	24	24
Good	51	54	52
Moderate or Poor	25	22	23
UW Base	722	1196	1918

Note: Weighted percentages are shown.

Table A3.2.9 Satisfaction with reading and writing by frequency of reading books (%)

Satisfaction with reading and writing skills	At least weekly	Monthly or less often	Never	Total
Very satisfied	66	46	33	53
Somewhat satisfied	31	49	54	42
Somewhat/very dissatisfied	2	4	13	5
UW Base	873	612	399	1884

Note: Weighted percentages are shown.

Table A3.2.10 Satisfaction with reading and writing by frequency of writing long letters (%)

Satisfaction with reading and writing skills	At least weekly	Monthly or less often	Never	Total
Very satisfied	77	65	39	53
Somewhat satisfied	22	32	53	42
Somewhat/very dissatisfied	1	3	8	5
UW Base	225	628	1027	1880

Note: Weighted percentages are shown.

Table A3.2.11 Satisfaction with reading and writing by frequency of library use (%)

Satisfaction with reading and writing skills	At least once a month	Several times a year	Never	Total
Very satisfied	67	64	44	53
Somewhat satisfied	31	32	49	42
Somewhat/very dissatisfied	2	4	7	5
UW Base	383	381	1119	1883

Note: Weighted percentages are shown.

A3.3 Support or help with literacy practices

Table A3.3.1 Often or sometimes needs help with literacy practices by self assessment of skills

Often or sometimes needs help from others with:	Excellent	Good	Moderate/ Poor	Total
Reading newspaper articles?	3	3	7	3
Reading information from government departments, businesses or other institutions?	4	7	18	8
Filling out forms such as applications or bank deposit slips?	3	6	20	7
Reading instructions such as on medicine bottles?	3	3	7	3
Reading instructions on 'packaged' goods in shops/stores or supermarkets?	3	3	4	3
Doing basic arithmetic, that is, adding, subtracting, multiplying and dividing?	3	4	18	6
Writing notes and letters?	4	5	18	6
UW Base	550-552	1065-1067	294-296	1911-1914

Note: Weighted percentages are shown.

Table A3.3.2 Often or sometimes needs help with literacy practices by literacy levels

Often or sometimes needs help from others with:	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Reading newspaper articles?	10	4	2	3
Reading information from government departments, businesses or other institutions?	19	10	4	7
Filling out forms such as applications or bank deposit slips?	19	9	4	7
Reading instructions such as on medicine bottles?	10	4	1	3
Reading instructions on 'packaged' goods in shops/stores or supermarkets?	8	4	1	3
Doing basic arithmetic, that is, adding, subtracting, multiplying and dividing?	16	7	3	6
Writing notes and letters?	15	7	4	6
UW Base	158-159	724-726	1028-1030	1909-1914

Note: Weighted percentages are shown. All levels prose except “arithmetic” which is quantitative

Annex for Chapter 4: Tables on workplace literacies

A4.1 Relationships between literacy scores and work

Table A4.1.1: Relationship between prose scores and occupation

National Statistics Socio Economic Classification	Prose Mean	s.e.	UW Base
1.00 Managerial and professional occupations	299	3.48	429
2.00 Intermediate occupations	299	3.88	293
3.00 Small employers and own account workers	277	5.12	132
4.00 Lower supervisory and technical occupations	273	5.91	107
5.00 Semi-routine and routine occupations	272	2.55	682
6.00 Unclassified	266	4.48	284
Total	282	2.20	1927

Final significance p= 0.000

Table A4.1.2: Relationship between document scores and occupation

National Statistics Socio Economic Classification	Document Mean	s.e.	UW Base
1.00 Managerial and professional occupations	309	3.80	429
2.00 Intermediate occupations	307	4.19	293
3.00 Small employers and own account workers	281	4.99	132
4.00 Lower supervisory and technical occupations	282	6.73	107
5.00 Semi-routine and routine occupations	276	2.90	682
6.00 Unclassified	273	5.04	284
Total	289	2.31	1927

Final significance p= 0.000

Table A4.1.3: Relationship between quantitative scores and occupation

National Statistics Socio Economic Classification	Quantitative Mean	s.e.	UW Base
1.00 Managerial and professional occupations	312	3.86	429
2.00 Intermediate occupations	312	4.36	293
3.00 Small employers and own account workers	290	5.39	132
4.00 Lower supervisory and technical occupations	286	5.99	107
5.00 Semi-routine and routine occupations	283	3.15	682
6.00 Unclassified	276	5.03	284
Total	294	2.59	1927

Final significance p= 0.000

Table 4.1.4: Relationship between literacy scores and economic activity

Mean Score	UW Base	Employed	s.e.	Unemployed	s.e.	Economically Inactive	s.e.	sig (p)
Prose	1177	289	2.57	262	4.88	277	3.80	0.000
Document	1177	297	2.64	268	5.27	281	4.54	0.000
Quantitative	1177	302	3.05	269	6.01	288	4.13	0.000

A4.2 Workplace literacy practices

Table A4.2.1: Relationship between reading practices in main job and document literacy scores

At least once a week reads or uses information from: (document literacy)	Level 1%	Level 2%	Level 3/4/5%	Total
Letters or memos	21	34	62	52
Reports, articles, journals or magazines	19	27	51	43
Manuals or reference books, including catalogues	21	33	50	44
Diagrams or schematics	23	25	38	34
Bills, invoices, spreadsheets or budget tables	16	29	47	40
Directions or instructions for medicines, recipes or other products	28	25	27	26
Read or use information from computers	29	51	76	67
UW base	62-63	364-367	834-842	1264-1272

Note: Weighted percentages are shown

Table A4.2.2: Relationship between writing practices in main job and document literacy scores

At least once a week writes or fills out: (document literacy)	Level 1%	Level 2%	Level 3/4/5%	Total
Letters or memos	22	32	59	50
Forms or things such as bills, invoices, budgets	18	31	48	42
Reports or articles	18	28	46	40
Estimates or technical specifications	19	27	32	30
UW base	63	364-367	836-839	1264-1269

Note: Weighted percentages are shown

Table A4.2.3: Relationship between quantitative practices in main job and quantitative literacy scores

At least once a week use arithmetic or mathematics to: (quantitative literacy)	Level 1%	Level 2%	Level 3/4/5%	Total
Measure or estimate the size or weight of objects	40	36	36	36
Calculate prices, costs or budgets	33	36	44	41
UW base	57	304-305	910-911	1271-1273

Note: Weighted percentages are shown

Table A4.2.4: Relationship between reading practices in main job and occupational classification

At least once a week reads or uses information from:	Managerial and professional	Intermediate occupations	Small employers/ own account workers	Lower supervisory & technical	Semi-routine and routine	Unclassified	Total
Letters or memos	80	80	21	15	28	38	52
Reports, articles, journals or magazines	69	54	14	22	24	38	43
Manuals or reference books, including catalogues	64	55	25	44	23	38	44
Diagrams or schematics	50	32	32	50	15	22	34
Bills, invoices, spreadsheets or budget tables	57	54	30	22	23	64	40
Directions or instructions for medicines, recipes or other products	37	15	24	20	25	29	26
Read or use information from computers	94	96	35	41	39	73	67
UW base	370-374	249-251	105-106	79	448-452	10	1264-1272

Note: Weighted percentages are shown

Table A4.2.5 Relationship between writing practices in main job and occupational classification

At least once a week writes or fills out:	Managerial and professional	Intermediate occupations	Small employers/ own account workers	Lower supervisory & technical	Semi-routine and routine	Unclassified	Total
Letters or memos	77	80	18	14	24	38	50
Forms or things such as bills, invoices, budgets	60	52	32	26	24	57	42
Reports or articles	65	49	12	31	19	42	40
Estimates or technical specifications	41	27	34	56	12	36	30
UW base	371-372	249-251	104-105	79	449-452	10	1264-1269

Note: Weighted percentages are shown

Table A4.2.6 Relationship between quantitative practices in main job and occupational classification

At least once a week use arithmetic or mathematics to:	Managerial and professional	Intermediate occupations	Small employers/ own account workers	Lower supervisory & technical	Semi-routine and routine	Unclassified	Total
Measure or estimate the size or weight of objects	41	18	52	66	29	29	36
Calculate prices, costs or budgets	54	44	41	45	27	41	41
UW base	372-374	249	106	79	455	10	1271-1273

Note: Weighted percentages are shown

A4.3 Self assessment of literacy practices

Table A4.3.1 Self assessment of reading, writing and quantitative literacies in English for main job

	Excellent	Good	Moderate	Poor	No opinion	UW Base
How would you rate your reading skills in English for your main job?	37	54	9	0	0	1282
How would you rate your writing skills in English for your main job?	33	54	11	1	0	1280
How would you rate your mathematical skills for your main job?	27	54	16	2	0	1280

Note: Weighted percentages are shown.

Table A4.3.2: Self assessment of reading in English for main job by prose literacy level

How would you rate your reading skills in English for your main job?	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Excellent	15	25	45	37
Good	61	60	50	54
Moderate/poor	24	16	5	10
UW Base	73	448	761	1282

Note: Weighted percentages are shown.

Table A4.3.3 Self assessment of writing in English for main job by prose literacy level

How would you rate your writing skills in English for your main job?	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Excellent	11	22	41	33
Good	53	60	51	54
Moderate/poor	36	18	8	12
UW Base	73	448	759	1280

Note: Weighted percentages are shown.

Table A4.3.4 Self assessment of mathematical skills for main job by quantitative literacy level

How would you rate your mathematical skills for your main job?	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Excellent	7	16	32	27
Good	41	53	56	54
Moderate/poor	52	31	12	18
UW Base	57	308	912	1277

Note: Weighted percentages are shown.

Table A4.3.5 Self assessment of reading, writing and mathematical skills for main job by occupational classification

	Managerial and professional	Intermediate occupations	Small employers/ own account workers	Lower supervisory & technical	Semi-routine and routine
Self assessment of reading skills in English as moderate/poor	3	2	14	23	16
Self assessment of writing skills in English as moderate/poor	7	2	19	28	19
Self assessment of mathematical skills as moderate/poor	11	6	18	29	30
UW base	374-375	251	106	79	457-461

Note: Weighted percentages are shown. Unclassified category (n=10) not shown.

Table A4.3.6: Percentage of respondents assessing their reading skills in English as moderate or poor by workplace literacy practices

Self assesses reading skills as moderate or poor and reads or uses information from:	At least once per week (UW Base)	Less than once per week (UW Base)	Total	UW Base
Letters or memos	2 (643)	18 (627)	10	1270
Reports, articles, journals or magazines	2 (514)	15 (751)	9	1265
Manuals or reference books, including catalogues	3 (524)	15 (746)	10	1270
Diagrams or schematics	4 (374)	12 (891)	9	1265
Bills, invoices, spreadsheets or budget tables	2 (488)	14 (780)	9	1268
Directions or instructions for medicines, recipes or other products	5 (348)	11 (916)	10	1264
Read or use information from computers	4 (831)	22 (440)	9	1271

Note: Weighted percentages are shown

Table A4.3.7: Percentage of respondents assessing their writing skills in English as moderate or poor by workplace literacy practices

Self assesses writing skills as moderate or poor and writes or fills out:	At least once per week (UW Base)	Less than once per week (UW Base)	Total	UW Base
Letters or memos	3 (616)	22 (651)	12	1267
Forms or things such as bills, invoices, budgets	6 (513)	17 (752)	12	1265
Reports or articles	4 (483)	18 (779)	12	1262
Estimates or technical specifications	8 (332)	14 (930)	12	1262

Note: Weighted percentages are shown.

Table A4.3.8: Percentage of respondents assessing their mathematical skills as moderate or poor by workplace literacy practices

Self assesses writing skills as moderate or poor and uses arithmetic or mathematics to:	At least once per week (UW Base)	Less than once per week (UW Base)	Total	UW Base
Measure or estimate the size or weight of objects	13 (417)	21 (850)	18	1267
Calculate prices, costs or budgets	11 (499)	24 (770)	18	1269

Note: Weighted percentages are shown.

Table A4.3.9: Percentage of respondents with level 1 or 2 scores assessing their workplace literacy skills as moderate or poor by gender

	Male	Female	Total
How would you rate your reading skills in English for your main job? (Prose)	18	16	17
How would you rate your writing skills in English for your main job? (Prose)	22	18	20
How would you rate your mathematical skills for your main job? (Quantitative)	34	34	34

Note: Weighted percentages are shown.

Table A4.3.10: Percentage of respondents who scored at level 1 or 2 who assess their workplace literacy skills as moderate or poor by occupational classification

	Managerial and professional	Intermediate occupations	Small employers/ own account workers	Lower supervisory & technical	Semi-routine and routine
Self assessment of reading skills in English as moderate/poor	6	5	22	27	22
Self assessment of writing skills in English as moderate/poor	11	4	26	33	26
UW Base for above	110	85	51	46	226
Self assessment of mathematical skills as moderate/poor	23	14	36	41	44
UW base	71	55	38	167	167

Note: Weighted percentages are shown. Unclassified category (n=3) not shown.

Table A4.3.11: Self assessment that prose and quantitative literacy skills are limiting job opportunities by level

How would you rate your mathematical skills for your main job?	Level 1 %	Level 2 %	Level 3/4/5 %	Total
To what extent are your reading skills in English limiting your job opportunities? (Prose)	8	4	2	3
To what extent are your writing skills in English limiting your job opportunities? (Prose)	9	5	2	4
To what extent are your mathematical skills limiting your job opportunities? (Quantitative)	29	9	4	6
UW Base	57-73	306-447	759-913	1275-1279

Note: Weighted percentages are shown.

A4.4 Participation in education and training

Table A4.4.1: Actual and desired participation in adult education and training by prose literacy levels

	Level 1 %	Level 2 %	Level 3/4/5 %	Total
Participated in adult education courses or training in the last 12 months	11	17	27	22
Wanted to take a training course for career or job related reasons in the last 12 months but did not	15	7	7	7
Wanted to take any other training course in the last 12 months but did not	11	5	6	6
UW Base	161	721-727	1031-1037	1914-1925

Note: Weighted percentages are shown

Table A4.4.2: Actual and desired participation in adult education and training by occupational classification

	Managerial and professional	Intermediate occupations	Small employers/ own account workers	Lower supervisory & technical	Semi-routine and routine
Participated in adult education courses or training in the last 12 months	35	27	12	15	17
Wanted to take a training course for career or job related reasons in the last 12 months but did not	9	8	10	8	7
Wanted to take any other training course in the last 12 months but did not	12	4	8	2	5
UW base	425-429	291-293	131-132	107	678-682

Note: Weighted percentages are shown.

Annex for Chapter 5: Tables on factors associated with level 1 and level 2 scores

5.1 Characteristics associated with scoring at level 1 or 2 on literacy scales

Table A5.1.1 Relationship between the three literacy scales

Level 1 on all three scales	3.6%
Level 1 on one or two scales	8.7%
Total scoring at Level 1 on at least one scale	12.3%
Level 1/2 on all three scales	26.7%
Level 1/2 on at least one scale	50.4%
Level 2/3 on all three scales	55.9%
Level 4/5 on all three scales	9.9%
Level 4/5 on one or two scales	21.8%
UW Base	1927

NOTE: Weighted percentages. Those with one score at level 1/ 2, one at level 3 and one at level 4/5 have been placed in the highest category. Due to overlapping categories, does not sum to 100%.

Table A5.1.2 Occupational classification by prose literacy level

Prose literacy	Managerial and professional occupations	Intermediate occupations	Small employers and own account workers	Lower supervisory and technical occupations	Semi-routine and routine occupations	UC	UW Base
Level 1 %	10	3	7	10	42	27	161
Level 2 %	18	10	9	8	39	17	728
Level 3/4/5 %	31	19	7	5	26	10	1038

Note: Weighted percentages are shown

Table A5.1.3 Occupational classification by document literacy level

Document literacy	Managerial and professional occupations	Intermediate occupations	Small employers and own account workers	Lower supervisory and technical occupations	Semi-routine and routine occupations	UC	UW Base
Level 1 %	10	3	7	6	48	25	160
Level 2 %	15	9	10	8	40	18	636
Level 3/4/5 %	32	19	7	6	26	11	1131

Note: Weighted percentages are shown

Table A5.1.4 Occupational classification by quantitative literacy level

Quantitative literacy	Managerial and professional occupations	Intermediate occupations	Small employers and own account workers	Lower supervisory and technical occupations	Semi-routine and routine occupations	UC	UW Base
Level 1 %	12	4	8	8	41	27	138
Level 2 %	16	9	9	8	40	18	565
Level 3/4/5 %	30	18	8	6	28	11	1224

Note: Weighted percentages are shown

Table A5.1.5 Ever had problems with eyesight/hearing/speech/learning disability by prose literacy level

Prose literacy		Yes	No	UW Base
Level 1	**%**	17	83	161
Level 2	**%**	9	91	728
Level 3/4/5	**%**	8	92	1037

Note: Weighted percentages are shown

Table A5.1.6 Ever had problems with eyesight/hearing/speech/learning disability by document literacy level

Document literacy		Yes	No	UW Base
Level 1	**%**	17	83	160
Level 2	**%**	8	92	636
Level 3/4/5	**%**	8	92	1130

Note: Weighted percentages are shown

Table A5.1.7 Ever had problems with eyesight/hearing/speech/learning disability by quantitative literacy level

Quantitative literacy		Yes	No	UW Base
Level 1	**%**	16	84	138
Level 2	**%**	9	91	565
Level 3/4/5	**%**	8	92	1223

Note: Weighted percentages are shown

Table A5.1.8 ISCED2 educational achievement by prose literacy level

Prose literacy		Second level 1st stage or lower	Second level, 2nd stage	Third level	UW Base
Level 1	**%**	85	3	13	161
Level 2	**%**	70	7	23	728
Level 3/4/5	**%**	44	12	44	1036

Note: Weighted percentages are shown

Table A5.1.9 ISCED2 educational achievement by document literacy level

Document literacy		Second level 1st stage or lower	Second level, 2nd stage	Third level	UW Base
Level 1	**%**	88	2	9	160
Level 2	**%**	75	5	20	636
Level 3/4/5	**%**	43	13	44	1129

Note: Weighted percentages are shown

Table A5.1.10 ISCED2 educational achievement by quantitative literacy level

Quantitative literacy		Second level 1st stage or lower	Second level, 2nd stage	Third level	UW Base
Level 1	**%**	87	2	11	138
Level 2	**%**	75	5	20	563
Level 3/4/5	**%**	46	12	42	1224

Note: Weighted percentages are shown

Table A5.1.11 Gross income by prose literacy level

Prose literacy		Up to £15,000	£15,001-£20,000	£20,001 or more	UW Base
Level 1	**%**	76	11	13	107
Level 2	**%**	61	17	21	435
Level 3/4/5	**%**	46	20	34	658

Note: Weighted percentages are shown

Table A5.1.12 Gross income by document literacy level

Document literacy		Up to £15,000	£15,001-£20,000	£20,001 or more	UW Base
Level 1	**%**	79	10	11	103
Level 2	**%**	66	16	18	368
Level 3/4/5	**%**	45	20	34	729

Note: Weighted percentages are shown

Table A5.1.13 Gross income by quantitative literacy level

Quantitative literacy		Up to £15,000	£15,001-£20,000	£20,001 or more	UW Base
Level 1	**%**	76	13	11	96
Level 2	**%**	67	16	17	325
Level 3/4/5	**%**	46	20	34	779

Note: Weighted percentages are shown

Table A5.1.14 Gender by prose literacy level

Prose literacy		Male	Female	UW Base
Level 1	**%**	56	44	161
Level 2	**%**	50	50	728
Level 3/4/5	**%**	47	53	1038

Note: Weighted percentages are shown

Table A5.1.15 Economic activity by prose literacy level

Prose literacy		Employed	Unemployed	Economically inactive	UW Base
Level 1	**%**	45	31	25	147
Level 2	**%**	61	16	23	695
Level 3/4/5	**%**	73	8	19	1005

Note: Weighted percentages are shown

Table A5.1.16 Economic activity by document literacy level

Document literacy		Employed	Unemployed	Economically inactive	UW Base
Level 1	**%**	39	32	29	144
Level 2	**%**	59	17	24	608
Level 3/4/5	**%**	74	9	18	1095

Note: Weighted percentages are shown

Table A5.1.17 Economic activity by quantitative literacy level

Quantitative literacy		Employed	Unemployed	Economically inactive	UW Base
Level 1	**%**	42	34	24	128
Level 2	**%**	58	18	24	531
Level 3/4/5	**%**	73	8	19	1188

Note: Weighted percentages are shown

Table A5.1.18 Receipt of benefits (excluding pensions or child benefit) by prose literacy level

Prose literacy		No	Yes	UW Base
Level 1	**%**	56	44	157
Level 2	**%**	72	28	701
Level 3/4/5	**%**	81	19	995

Note: Weighted percentages are shown

Table A5.1.19 Receipt of benefits (excluding pensions or child benefit) by document literacy level

Document literacy		No	Yes	UW Base
Level 1	**%**	53	47	152
Level 2	**%**	71	29	617
Level 3/4/5	**%**	81	19	1084

Note: Weighted percentages are shown

Table A5.1.20 Receipt of benefits (excluding pensions or child benefit) by quantitative literacy level

Quantitative literacy		No	Yes	UW Base
Level 1	**%**	55	45	134
Level 2	**%**	69	31	545
Level 3/4/5	**%**	81	19	1174

Note: Weighted percentages are shown

Table A5.1.21 Proportion of people scoring at level 1 or 2 who view their skills as excellent or good by occupational category

	Managerial and professional occupations	Intermediate occupations	Small employers and own account workers	Lower supervisory and technical occupations	Semi-routine and routine occupations	UC	Total
Excellent or Good Reading Skills	94	95	78	73	78	100	83
Excellent or Good Writing Skills	89	96	74	67	74	100	80
UW Base	110	85	51	46	226	3	521
Excellent or Good Mathematics Skills	77	86	64	59	56	54	66
UW Base	71	55	36	32	167	2	365

Note: Weighted percentages are shown. UC= unclassified occupation.

5.2 Odds of scoring at level 1 by social factor

Table A5.2.1 Odds of scoring at level 1 in prose literacy by social factor
(**Bold** indicates significant at p=0.05)

Odds of being at level 1: logistic regression Prose reading					
Variable name	**Coefficient**	**S.E.**	**Odds**	**Lower Bound**	**Upper Bound**
L2Var	**0.83**	**0.38**	**2.29**	**1.08**	**4.87**
const	**-2.46**	**0.45**	**0.09**	**0.03**	**0.21**
Second level first stage	0.00		1.00		
Second level second stage	-1.43	0.86	0.24		
Third level	-1.06	0.61	0.34		
Professional etc	0.00		1.00		
Intermediate occupations	-0.92	1.52	0.40		
Small employers and own account workers	0.46	0.55	1.58		
Lower supervisory and technical	0.41	0.58	1.51		
Semi-routine and routine	0.69	0.44	1.99		
Unclassified	**1.06**	**0.47**	**2.90**	**1.14**	**7.38**
15-35	0.00		1.00		
36-55	0.28	0.29	1.33		
56-65	0.62	0.34	1.87		
Male	0.00		1.00		
Female	-0.18	0.31	0.84		
Large towns	0.00		1.00		
Other urban	-0.52	0.36	0.60		
Accessible small towns	-0.65	0.63	0.52		
Remote small towns	-0.06	1.62	0.94		
Accessible rural	-0.80	0.60	0.45		
Remote rural	-0.74	0.55	0.48		

A5.2.2 Odds of scoring at level 1 in document literacy by social factor (**Bold** indicates significant at p=0.05)

Odds of being at level 1: logistic regression Document reading					
Variable name	**Coefficient**	**S.E.**	**Odds**	**Lower Bound**	**Upper Bound**
L2Var	0.77	0.49	2.15		
const	**-2.46**	**0.60**	**0.09**	**0.03**	**0.28**
Second level first stage	0.00		1.00		
Second level second stage	**-1.79**	**0.69**	**0.17**	**0.04**	**0.67**
Third level	**-1.53**	**0.46**	**0.22**	**0.09**	**0.55**
Professional etc	0.00		1.00		
Intermediate occupations	-0.83	0.81	0.44		
Small employers, own account workers	0.42	0.60	1.52		
Lower supervisory and technical	-0.01	0.56	0.99		
Semi-routine and routine	0.66	0.45	1.93		
Unclassified	0.84	0.47	2.31		
15-35	0.00		1.00		
36-55	0.34	0.39	1.41		
56-65	**0.83**	**0.39**	**2.29**	**1.05**	**5.01**
Male	0.00		1.00		
Female	0.09	0.26	1.09		
Large towns	0.00		1.00		
Other urban	-0.61	0.35	0.54		
Accessible small towns	-0.73	0.74	0.48		
Remote small towns	-0.26	2.53	0.77		
Accessible rural	-1.12	0.72	0.33		
Remote rural	-0.89	0.47	0.41		

A5.2.3 Odds of scoring at level 1 in quantitative literacy by social factor (**Bold** indicates significant at p=0.05)

Odds of being at Level 1: logistic regression Quantitative literacy					
Variable name	**Coefficient**	**S.E.**	**Odds**	**Lower Bound**	**Upper Bound**
L2Var	**0.92**	**0.41**	**2.51**	**1.11**	**5.70**
const	**-2.00**	**0.52**	**0.14**	**0.05**	**0.38**
Second level first stage	0.00		1.00		
Second level second stage	**-1.68**	**0.76**	**0.19**	**0.04**	**0.85**
Third level	**-1.50**	**0.55**	**0.22**	**0.07**	**0.67**
Professional etc	0.00		1.00		
Intermediate occupations	-0.69	0.81	0.50		
Small employers, own account workers	0.27	0.73	1.31		
Lower supervisory and technical	0.26	0.53	1.30		
Semi-routine and routine	0.37	0.45	1.45		
Unclassified	0.81	0.45	2.24		
15-35	0.00		1.00		
36-55	0.06	0.29	1.07		
56-65	0.34	0.26	1.40		
Male	0.00		1.00		
Female	0.09	0.28	1.09		
Large towns	0.00		1.00		
Other urban	**-0.82**	**0.31**	**0.44**	**0.24**	**0.82**
Accessible small towns	-0.86	0.78	0.42		
Remote small towns	-0.19	2.20	0.83		
Accessible rural	**-1.24**	**0.57**	**0.29**	**0.09**	**0.91**
Remote rural	**-1.68**	**0.63**	**0.19**	**0.05**	**0.66**

A5.3 Characteristics of respondents attaining lower scores

Table A5.3.1 Characteristics of respondents scoring at level 1 on all three literacy scales

		Percent	SE	N
Age group	**15-35**	28	6.36	77
	36-55	46	6.26	77
	56-65	26	5.64	77
Highest qualification	**Degree, professional**	1	1.81	75
	HNC, HND	5	3.63	75
	Higher, A-level	2	1.63	75
	Credit Standard Grade	18	6.54	75
	General Standard Grade	14	5.12	75
	No qualifications	61	8.45	75
Income	**up to £15,000**	82	5.97	53
	£15,001-£25,000	9	5.06	53
	Over £25,000	9	4.83	53
ISCED2	**Second level first stage**	92	4.01	77
	Second level second stage	2	1.56	77
	Third level	6	3.39	77
Occupational Category	**Managerial, professional**	6	4.11	77
	Intermediate	1	2.56	77
	Small employers, own account	10	4.16	77
	Lower supervisory, technical	8	4.00	77
	Semi-routine, routine	44	6.59	77
	Unclassified	31	6.41	77
SIMD	**In most deprived 15%**	32	8.03	77
	Rest of Scotland	68	8.03	77

Table A5.3.2 Characteristics of respondents scoring below level 3 on all three literacy scales

		Percent	SE	N
Age group	**15-35**	38	2.85	552
	36-55	44	3.11	552
	56-65	19	1.84	552
Highest qualification	**Degree, professional**	4	1.14	533
	HNC, HND	11	2.16	533
	Higher, A-level	4	1.20	533
	Credit Standard Grade	13	1.66	533
	General Standard Grade	20	2.52	533
	No qualifications	48	2.64	533
Income	**up to £15,000**	73	3.52	333
	£15,001-£25,000	14	2.57	333
	Over £25,000	13	2.36	333
ISCED2	**Second level first stage**	82	2.28	552
	Second level second stage	4	1.16	552
	Third level	14	2.25	552
Occupational Category	**Managerial, professional**	12	1.78	552
	Intermediate	6	1.07	552
	Small employers, own account	8	1.37	552
	Lower supervisory, technical	8	1.71	552
	Semi-routine, routine	43	2.52	552
	Unclassified	22	2.40	552
SIMD	**In most deprived 15%**	22	3.96	552
	Rest of Scotland	78	3.96	552

Table A5.3.3 Characteristics of respondents scoring at level 1 on at least one literacy scale

		Percent	SE	N
Age group	**15-35**	37	4.13	256
	36-55	42	4.64	256
	56-65	21	2.87	256
Highest qualification	**Degree, professional**	4	1.78	246
	HNC, HND	10	3.03	246
	Higher, A-level	3	1.45	246
	Credit Standard Grade	14	2.47	246
	General Standard Grade	20	4.16	246
	No qualifications	49	4.16	246
Income	**up to £15,000**	74	4.71	158
	£15,001-£25,000	12	3.58	158
	Over £25,000	14	3.55	158
ISCED2	**Second level first stage**	84	3.80	256
	Second level second stage	3	1.39	256
	Third level	13	3.62	256
Occupational Category	**Managerial, professional**	13	2.88	256
	Intermediate	4	1.44	256
	Small employers, own account	6	2.24	256
	Lower supervisory, technical	8	2.06	256
	Semi-routine, routine	43	3.58	256
	Unclassified	25	3.34	256
SIMD	**In most deprived 15%**	24	5.41	256
	Rest of Scotland	76	5.41	256

Annex for Chapter 6: Tables on 1996 and 2009 findings

A6.1 Distribution of literacy scores

Table A6.1.1: Proportion of the population at each level on each scale, 1996 vs. 2009 (%)

	Prose		Document		Quantitative	
	1996	**2009**	**1996**	**2009**	**1996**	**2009**
Level 1	23	8	22	7	24	7
Level 2	32	37	31	32	30	27
Level 3	31	41	29	40	31	40
Level 4-5	14	15	17	21	16	26

Note: Weighted percentages are shown

Table A6.1.2: Proportion of the population at level 1 or 2 on each scale, 1996 vs. 2009 by gender (%)

	Prose		Document		Quantitative	
	1996	**2009**	**1996**	**2009**	**1996**	**2009**
Female	54	43	57	40	62	34
Male	55	47	50	38	47	34

Note: Weighted percentages are shown

Table A6.1.3: Proportion of the population at level 1 or 2 on each scale, 1996 vs. 2009 by age (%)

	Prose		Document		Quantitative	
	1996	**2009**	**1996**	**2009**	**1996**	**2009**
16-25	42	50	45	42	49	38
26-35	51	35	46	30	50	24
36-45	59	46	56	42	51	34
46-55	55	45	51	40	51	36
56-65	72	48	73	47	70	38

Note: Weighted percentages are shown

A6.2 Educational attendance and literacy

Table A6.2.1 Literacy scores on all three scales by educational attendance, 1996 vs. 2009 (%)

	Prose		Document		Quantitative	
	1996	**2009**	**1996**	**2009**	**1996**	**2009**
Second level 1st stage or lower	71	57	70	53	70	46
Second level 2nd stage	44	28	44	19	42	16
Third level	22	28	19	21	25	18

Note: Weighted percentages are shown

ISSN 0950 2254
ISBN 978-0-7559-9480-9

www.scotland.gov.uk/socialresearch

The text pages of this document are produced from 100% Elemental Chlorine-Free material.
The paper carries the Nordic Ecolabel for low emissions during production, and is 100% recyclable.

APS Group Scotland
DPPAS10360 (143549) (07/10)

GSR
GOVERNMENT SOCIAL RESEARCH
Social Science in Government

ISBN: 978-0-7559-9480-9
9 780755 994809