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St. Clair, Ralph, Maclachlan, Kathy and Tett, Lyn

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## Education and Lifelong Learning

### Scottish Survey of Adult Literacies 2009

Ralf St.Clair, University of Glasgow  
Kathy Maclachlan, University of Glasgow  
Lyn Tett, University of Edinburgh

In November 2008 the Scottish Government commissioned the University of Glasgow and partners to survey the literacies skills levels of the 16-65 year old population in Scotland. The survey assessed literacy skills on three scales: prose, document and quantitative literacy<sup>1</sup>. The last survey of literacy in Scotland took place in 1996.

#### 1. Main 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.

#### 2. Purpose of the Research Findings

The purpose of this brief document is to discuss the context for, and meaning of, the findings of the Scottish Survey of Adult Literacies 2009. Here the research team examine the findings of the survey and provide a coherent picture of adult literacies in Scotland in 2009 based on those results and the broader theoretical field.

Readers interested in the detailed findings are advised to consult the *SSAL2009*

*Report of Findings* [http://www.scotland.gov.uk/Publications/SSAL2009Report\\_Of\\_Findings](http://www.scotland.gov.uk/Publications/SSAL2009Report_Of_Findings). The *SSAL2009 Technical Report* can be found at the same location.

<sup>1</sup> 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. Background

This report presents data from the 2009 Scottish Survey of Adult Literacies (SSAL2009). The survey was conducted to:

1. provide a baseline estimate of adult literacies skills in Scotland
2. identify and explore patterns of social characteristics in literacies skills
3. allow some international comparison of these findings.

SSAL2009 is based on the International Adult Literacy Survey (IALS) carried out in the mid-1990s as part of an international programme of surveys. SSAL2009 involved a random sample of 1,927 16-65 year olds in Scottish households. The sampling strategy ensures a high degree of representativeness and allows in-depth discussion of issues such as gender, social class, urbanisation and work.

SSAL2009 used individuals' scores on a series of literacy tasks to generate information about the capabilities of the population. Literacy was measured on three scales: Prose, Document and Quantitative. Scores were grouped into five levels, with Level 1 the lowest ability range and Level 5 the highest. The instruments approach literacies skills within these scales as a single continuum, with people being at one point or another along a line running from low skills to high skills.

Contemporary theory supports a complex approach to literacy and numeracy, and tends to talk about *literacies*. Rather than a set of stand-alone skills, literacies are seen as

a range of practices that people use in their lives. People have spiky literacies skills profiles, with areas of strength and weakness according to where, when and how they need to use these skills (literacies practices). For example they may have a greater ability to use texts effectively in some circumstances than others. The paper and pen based SSAL2009 survey instruments collect data on literacies tasks seen as among the most valuable for economic and social life in contemporary society. Collecting data on three dimensions of literacies helps to make the SSAL2009 results more consistent with literacies theory.

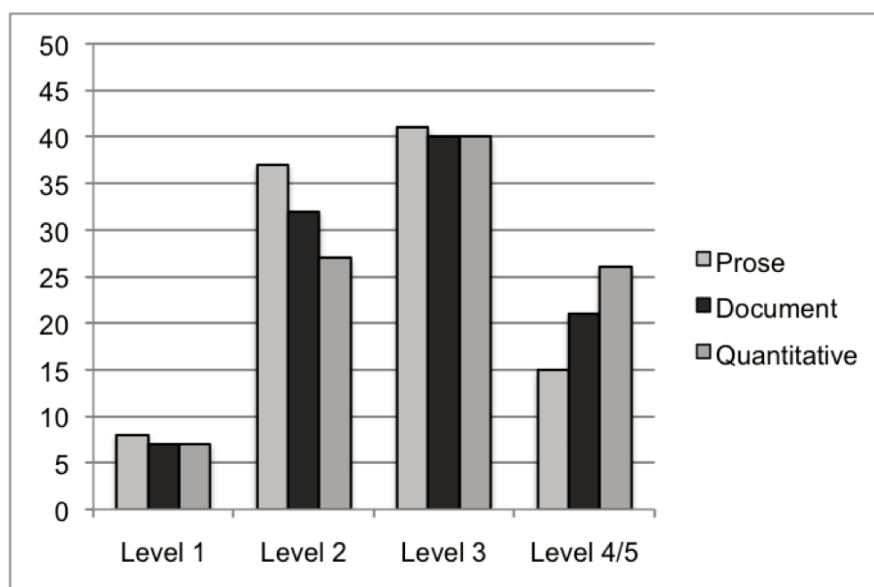
SSAL2009 was not intended to tell us everything about the literacies skills of the Scottish population. It serves to provide clear indications regarding certain types of literacies practices. Not everybody who scores at the lower levels will have difficulties understanding written language. SSAL2009 does demonstrate that valued forms of literacies are not evenly distributed across the population, and that limited or very limited skills are strongly related to several dimensions of disadvantage.

The survey instruments were designed to capture information about individuals with disabilities and about respondents' ethnicity. However, due to its size the sample does not contain sufficient diversity to allow statistically significant findings regarding these factors.

### 4. The distribution of literacies skills across the population

This section examines the overall distribution of literacies scores across the Scottish population in relation to issues such as age, social class, occupation and qualification

Figure 1: Distribution of literacies scores across the Scottish population (%)



levels. Figure 1 (previous page) shows the overall proportion of people scoring at each level for the three literacy scales.

These figures are consistent with international results from the 1996 International Adult Literacy Survey and indicate that, in respect of its literacies capabilities, Scotland does not have a skills deficit in relation to other participating countries. The majority of the population (73.3%) scored at a level that has been recognised internationally as appropriate for a contemporary society (level 3 or above) on at least one of the three scales.

Educational attainment in terms of highest qualification is strongly related to literacies scores, as shown in figure 2. One observation from figure 2 is the relatively high percentage of those with degree or HND qualifications who scored at Level 1 or 2.

Turning to employment, 29% of those in managerial and professional occupations scored at prose literacy Level 1 or 2, as did 30% of people earning £29,501 or more per annum. Conversely, 45% of those in routine and semi-routine occupations scored at Level 3 or above, with 8% of these at Level 4/5, and 44% of those earning up to £9,500 p.a. scored at 3 or above, with 9% of them at Level 4/5.

So while there is a tendency for skills to increase alongside education and occupational category there are still significant numbers of people with little education or in routine jobs who have high literacy skills, and people in highly paid jobs with less than Level 3 skills.

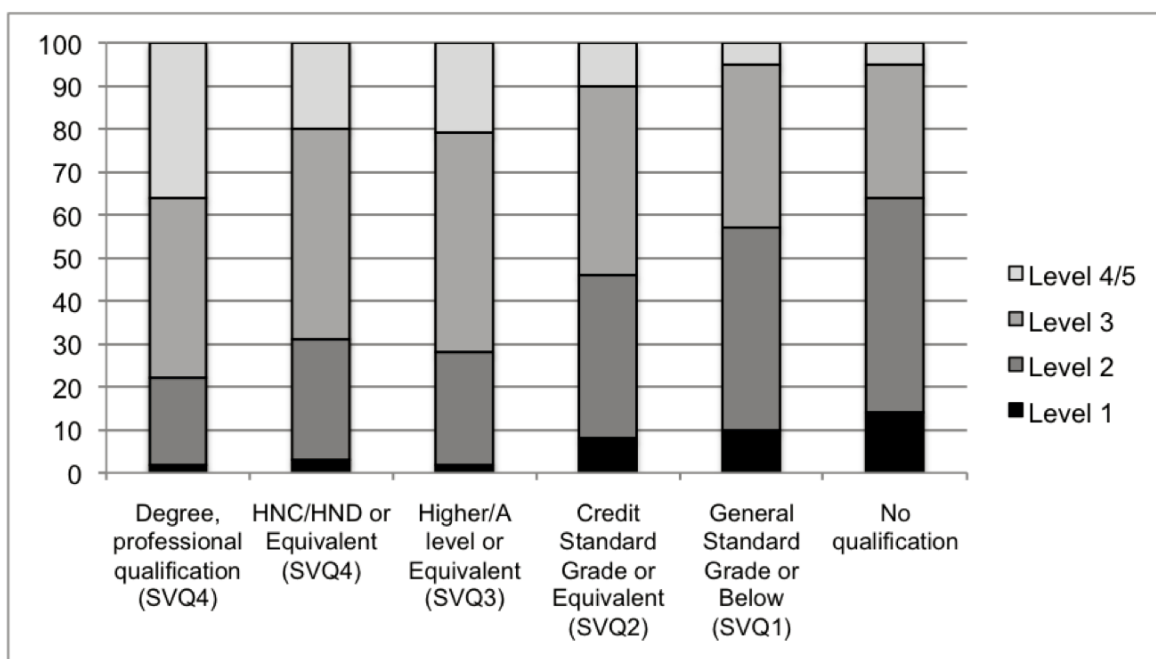
Skills are also related to age. This is shown in figure 3 (next page). The scores are strongest for the 26-35 age group and least strong for the 16-25 and 56-65 age ranges. International research has evidenced a similar decline in older cohorts, but the strength of results for the 26-35 age group is 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). The high scores of this group in SSAL2009 are therefore not surprising given the connection between literacies skills and education—the higher the qualification level the higher the literacy score.

Analysis shows that there is an interaction of age and gender. As can be seen in table 1 (next page), for people below 55 women have stronger literacy skills. Among 16-35 year olds, 5% of women are at Level 1 compared to 8% of men. Similarly, among 36-55 year olds 49% of men are below Level 3 compared to 42% of women. For all ages below 55, women are more likely to score at Level 4 or 5 than men.

However, the picture changes at age 55. For the 56-65 age group women are equally likely to be at Level 1, more likely to be below Level 3 and considerably less likely to be at Level 4 or 5. Older women have lower scores than average.

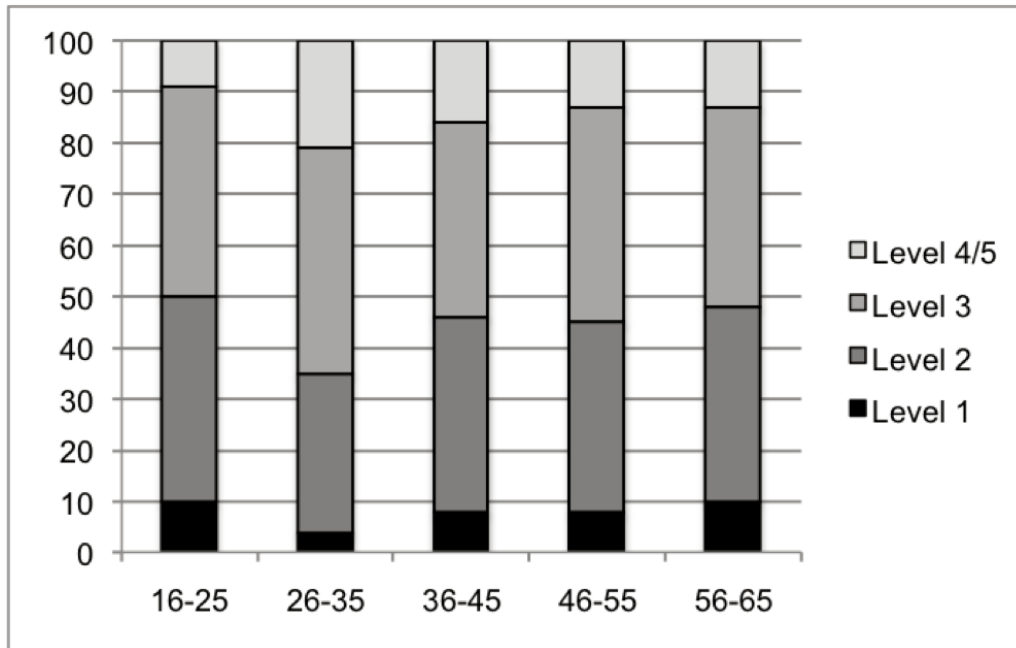
Overall, the Scottish population has a good level of literacies skills, in line with international expectations, but there are still some important issues concerning the distribution of those skills.

**Figure 2: Prose literacy score by highest qualification<sup>ii</sup> (%)**



<sup>ii</sup> 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.

**Figure 3: Prose literacy scores by age group (%)**



**Table 1: Distribution of prose literacy levels by age and gender (%)**

Age	Level 1		Level 2		Level 3		Level 4/5	
	Female	Male	Female	Male	Female	Male	Female	Male
16-35	5	8	35	36	43	43	17	13
36-55	7	9	35	40	42	38	16	13
56-65	10	11	39	36	40	37	11	16

## 5. Literacies in everyday life

This section is concerned with how people practise their literacies on a day-to-day basis. SSAL2009 is consistent with previous research in showing that literacy and numeracy scores are related to a wide range of everyday uses of literacy skills.

The activities captured in the survey were reading newspapers, magazines and books and writing long letters. People with lower literacies 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. Clearly literacies practices within the home and scores are related, with individuals with a wider range of literacies practices tending to have higher scores. However, the data does not indicate whether people with higher scores tend to use their practices more or whether having wider everyday practices leads to a higher score.

People with lower scores tend to watch more television but have less access to personal computers. This 'digital divide' was also highlighted in Parsons and Bynner's (2008) study.

Communication in everyday life is mediated by a range of media and when these are inaccessible then people can be at a disadvantage compared to their peers. This is borne out by the way higher scores are related to a higher likelihood of following current events.

Overall, the majority of people rate their own skills strongly. Additionally, people with higher scores tend to rate their own skills more strongly, indicating a degree of realism about capabilities. Satisfaction with skills is related to frequency and type of literacies practices. Finally, people with lower scores are more likely to identify that they need help with everyday literacies tasks, particularly business and government information and forms.

## 6. Literacies in working life

Literacies scores are related to occupations. The higher the occupation is on the Standard Occupational Classification scale, the more likely that a person will have strong literacies skills. It follows that stronger skills also have a relationship with higher income.

People with stronger literacies skills are less likely to be unemployed, and the jobs they have typically involve a greater range and frequency of literacies practices than those reported by people with lower scores. People with stronger literacies skills engage in more report reading and writing, letter writing, using manuals, working with bills or invoices and computers than those with lower skills.

These findings are similar to those reported by Parsons and Bynner (2008: 101) in their examination of the Scottish cohort of the British Cohort Study (BCS70) when they were aged 34. They found that those with limited literacy and numeracy skills were much more likely to be in 'labour intensive low skilled jobs, often in the less secure unregulated parts of the labour market'.

Generally people report themselves as having excellent or good skills for the workplace (81% for mathematical skills to 91% for reading skills) whatever their scores. However, when examined in terms of the jobs people do, those in more routine jobs tend to be less satisfied with their literacies skills.

People with lower literacies 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.

## 7. Characteristics associated with lower scores

SSAL2009 scores represent trends across the population rather than a description of the individuals who achieved them, so it is important to think about groups with shared characteristics rather than individuals.

The proportion of people who attained scores at consistent levels across all three scales is relatively small. For example, only 3.6% scored at Level 1 on all three scales – and can be seen to be facing serious challenges in their literacies practices – and just 9.9% scored at Level 4/5 on all three scales – a confirmation of the spiky profiles, or spectrum of strengths and weaknesses, that characterise most people's literacies skills in different contexts. There is no clear boundary between people at a particular point on the scales but rather a continuum of literacies practices.

Despite these cautionary notes, clear patterns emerge associating lower scores with a range of factors:

1. those scoring at Level 1 on the three literacy scales are twice as likely to live in the most deprived 15% of areas in Scotland

2. men are slightly more likely to score at Level 1 than women
3. people at either end of the age range (16-25 and 56-65) are slightly more likely to score at Level 1.

Other factors associated with lower scores are:

- health problems
- receipt of benefits
- lower education and qualification levels
- less skilled employment or unemployment
- fewer requirements to use literacies skills at work
- a low income
- less likely to have participated in adult education, but more likely to have wanted to
- less engagement with texts in the home and more TV watching
- fewer books in the home
- never having used a library
- more likely to recognise that help is needed with everyday literacies practices.

One finding from this survey worth noting is the similarity of many of these factors, such as income, physical environment, health and education, to the factors included in indices of deprivation and poverty indicators. Whilst there is no evidence that lower scores cause people to live in poverty, the consistency of links between the factors associated with poverty and lower skills should not be ignored.

Past research into adult literacies in Scotland indicates that these characteristics have remained essentially unchanged over the past two decades. The Scottish analysis of the 1996 IALS findings (Scottish Executive, 2001) showed clear associations between low levels of tested literacy and educational attainment, social class, income, health, receipt of benefits and residence in areas of multiple deprivation.

More recently, Parsons and Bynner (2008) showed similar patterns and associations. Because their study examined the literacies elements from the broader British Cohort studies, they were able to draw upon a very broad range of demographic information and trace patterns over time that this current survey could not. They concluded that:

The picture we get is one of trajectories of disadvantage, in which low literacy and to a lesser extent low numeracy...supply the foundations of the poor educational achievement... Poverty and its consequences ensure that the low-literacy and numeracy, poor-education problem is... re-cycled from one generation to the next. (p. 120)

## 8. Policy implications

### Overall framework

The key issue emerging from SSAL2009 is not the overall skill levels in the population, but their distribution. The association of lower scores in literacies skills with other indicators of social deprivation suggests that literacies remains a social justice issue in contemporary Scotland.

The findings support the notion of spiky profiles, with people giving evidence of strong skills in some areas of literacies practice and less strong skills in others. This challenges the idea that there is a single group of people with less developed skills. It is more accurate to think of people in Scotland having narrower or wider repertoires of skills, which will change according to when and how they use these skills in literacies events. Someone with a wide repertoire of practices will encounter situations where they do not have the requisite skills, though this will be a more common experience for people with narrower ranges of practices.

### Defining people in need of literacies support

SSAL2009 has provided a rich dataset permitting a range of approaches to defining groups of people likely to need support with literacies development. In 1996, people were defined as needing support purely based on their literacy

level, usually reported on the prose scale. On this measure, the 23% of the population in Level 1 in 1996 were considered to have very limited literacies capabilities and the 32% in Level 2 to have limited literacies capabilities. SSAL2009 allows more nuanced data to be used, reflecting all three literacy scales and the issues of spiky profiles.

In the international literature on the use of IALS measures it has been accepted 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).

After some consideration of alternative ways to understand the data, three groups have been defined.

### ***Very limited literacies capabilities (3.6% of the Scottish population)***

This represents people scoring at Level 1 on all three literacy scales. These people have very limited engagement with literacies at home or in work, and are likely to be living with considerable disadvantage in the workplace or in home life (Table 2).

**Table 2: Characteristics associated with scoring at Level 1 on all three literacy scales**

<b>Age</b>	People in this group are less likely to be below the age of 35 and considerably more likely to be 56-65.
<b>Educational Level</b>	This group are much less likely than average to have education beyond compulsory schooling. (8% vs. 38% average)
<b>Highest Qualification</b>	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).
<b>Occupation</b>	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).
<b>Income</b>	This group are more likely to have an income below £15,000 per year (82% vs. 58% average).
<b>Area</b>	People in this group are much more likely to live in an area in the 15% most deprived in Scotland (32% vs. 18% average)

### **Literacies challenges (26.7% of the Scottish population)**

This represents people who score at Level 1 or 2 on all three scales (Table 3).

These people may be facing some disadvantage and constrained opportunities in the workplace or in home life.

### **Limited literacies capabilities (12.3% of the Scottish population)**

This represents a different way to look at the data from the first two groups (Table 4). It includes people likely to score at Level 1 on at least one literacy scale. These people may have strong scores on one or two scales, but their scores are grounded at Level 1 for one scale. This analysis asks if there are specific characteristics of these people. While some areas of their skills may be strong, they will still be faced with challenges in at least one area. They may be living with certain disadvantages in the workplace or in home life.

**Table 3: Characteristics associated with scoring below Level 3 on all three literacy scales**

<b>Age</b>	The differences are very slight.
<b>Educational Level</b>	This group are much less likely than average to have education beyond compulsory schooling. (18% vs. 38% average)
<b>Highest Qualification</b>	This group are slightly more likely than average to have standard grade level qualifications. However, they are still more likely than average to have no qualifications (48% vs. 32% average) and less likely to have gone beyond standard grade.
<b>Occupation</b>	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%).
<b>Income</b>	This group are more likely to have an income below £15,000 per year (73% vs. 58% average).
<b>Area</b>	People in this group are more likely to live in an area in the 15% most deprived in Scotland (22% vs. 18% average)

**Table 4: Characteristics associated with scoring at Level 1 on at least one literacy scale**

<b>Age</b>	People in this group are a little less likely to be below 35 and somewhat more likely to be 55-65.
<b>Educational Level</b>	This group are much less likely than average to have education beyond compulsory schooling. (16% vs. 38% average)
<b>Highest Qualification</b>	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%) and less likely to have gone beyond standard grade.
<b>Occupation</b>	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).
<b>Income</b>	This group are more likely to have an income below £15,000 per year (74% vs. 58% average).
<b>Area</b>	People in this group are more likely to live in an area in the 15% most deprived in Scotland (24% vs. 18% average)



## Baseline and target measures

Mapping across from the Scottish Credit and Qualifications Framework to IALS levels suggests that tasks at IALS Level 2 are equivalent to some Communication and Numeracy tasks at SCQF Level 3 and 4, while tasks at IALS Level 3 are at SCQF Level 4 and 5. (McCullough, 2010). It is important to note that SCQF comprises a much broader range of skills. Therefore, people at SCQF Level 4 will score reasonably well at IALS Level 3, but it is not possible to state that people with scores at IALS Level 3 are equivalent to SCQF4. This means that SSAL2009 findings cannot map directly to SCQF-based measures and any comparisons between these two approaches must be treated with care.

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The Scottish Government  
EAS, Lifelong Learning Research,  
5<sup>th</sup> floor, 5 Atlantic Quay,  
150 Broomielaw, Glasgow G2 8LU  
Email: [recs.admin@scotland.gsi.gov.uk](mailto:recs.admin@scotland.gsi.gov.uk)  
Website: [www.scotland.gov.uk/socialresearch](http://www.scotland.gov.uk/socialresearch)

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