

# New Light on **Adult Literacy and Numeracy** in Scotland

Summary Report

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## **(i) AN EXPLANATORY NOTE ON QUALIFICATIONS**

Throughout this summary report, we describe qualification levels by reference to the Scottish Credit and Qualifications Framework (SCQF).

Adult Literacies provision in Scotland works with learners up to and including SCQF level 4, which is equivalent to Intermediate 1, General Standard Grade and Scottish Vocational Qualification (SVQ)2.

The best way to check how these levels equate to qualifications awarded in England, Wales and Ireland is to refer to the leaflet *Qualifications Cross Boundaries*, jointly produced by the countries' qualifications agencies. It can be found on the internet at [http://www.scf.org.uk/downloads/QualsCrossBoundaries\\_Sco.pdf](http://www.scf.org.uk/downloads/QualsCrossBoundaries_Sco.pdf)<sup>1</sup>.

## **(ii) KEY MESSAGES**

- 39% of men and 36% of women in the survey had literacy abilities at a level likely to impact on their employment opportunities and life chances. In the case of numeracy, this is even more widespread with 65% of men and 77% of women experiencing difficulties.
- Few adults have an awareness of their own literacy and numeracy needs. (Reading, 4%; writing, 18%; number, 7%)
- In comparison to the high number of adults expressing a wish to improve their literacy and numeracy skills, there was a relatively small number who had actually participated in literacies programmes. This suggests a need to explore the reasons for non-take-up, to increase literacies learning opportunities and create innovative ways of engaging with potential learners.
- Adults with low levels of literacy and numeracy tend to come from relatively disadvantaged backgrounds, where cycles of low expectation and low skills acquisition tend to be prevalent across the generations. Family background, rather than school attended, appears to have a stronger impact on literacy and numeracy development.
- Adults with limited literacy and numeracy skills tend to have unstable working lives and therefore may be excluded from Scotland's economic success. They are also at risk of being digitally excluded.
- Generally, these adults are more likely to be living in overcrowded, rented housing and to feel disengaged from their local community; they are likely to be receiving state benefits and they are also the least likely to vote. Women with low levels of literacy and numeracy are the most likely to have been homeless at some stage.
- Low levels of numeracy and literacy are associated with poor health and mental well-being.

1 The leaflet was produced by the Scottish Credit and Qualifications Framework (SCQF), The Quality Assurance Agency for Higher Education, The National Framework of Qualifications, The Qualifications and Curriculum Authority (QCA), The Qualifications, Curriculum and Assessment Authority for Wales, CEA, and The National Qualifications Authority of Ireland

## Chapter ONE

### INTRODUCTION

One of the first-ever studies of adult literacy and numeracy difficulties in Scotland estimated that 800,000 adults had poor literacy and numeracy skills, with just 15,000 or 2% attending courses to help them improve<sup>2</sup>. These findings influenced the Adult Literacy and Numeracy in Scotland strategy, but still left large gaps in our knowledge of the lives of adults with low levels of literacy and numeracy.

The research summarised here fills some of those gaps. Commissioned by Learning Connections, it analyses Scottish data from the 1970 British Cohort Study (BCS70). This study has been collecting information at regular intervals on more than 16,500 individuals born in England, Scotland and Wales in one week in April 1970.

The latest BCS70 survey, carried out in 2004, provided a snapshot of the lives of 9,665 cohort members at the age of 34, focusing particularly on their literacy and numeracy skills. The initial report on this survey, *New Light on Literacy and Numeracy*<sup>3</sup> showed that those with poor skills experienced much higher levels of social and economic disadvantage than other adults. On the following pages we consider how far this was the case for the 891 survey participants living in Scotland in 2004.

Our analysis of the relationship between individuals' literacy and numeracy skills and other aspects of their lives contains important messages for a wide range of areas, notably education, employment, housing, regeneration, health and social inclusion.

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2 Scottish Executive (2001) *Adult Literacy and Numeracy in Scotland*. Edinburgh: Scottish Executive

3 Bynner, J. and Parsons, S. (2006). *New Light on Literacy and Numeracy*. London: National Research and Development Centre for Adult Literacy and Numeracy. Also see [http://www.nrdc.org.uk/publications\\_details.asp?ID=78](http://www.nrdc.org.uk/publications_details.asp?ID=78)

## Chapter TWO

# HOW HIGH ARE LITERACY AND NUMERACY LEVELS IN SCOTLAND?

The 2004 BCS70 survey was the first to use objective methods to assess the literacy and numeracy skills of participants living in Scotland. The assessment used multiple-choice items from the *Skills for Life* survey carried out in England in 2002-03<sup>4</sup>. Questions were set at four levels of difficulty, corresponding to Scottish Credit and Qualifications Framework (SCQF) Levels 2, 3, 4 and 5.

### SKILL LEVELS

Respondents' scores in literacy and numeracy assessments were used to place them in one of the following skills' categories:

- > Below SCQF Level 2
- > SCQF Level 2
- > SCQF Level 3
- > SCQF Level 4, or
- > SCQF Level 5 or higher

Using recent Census figures, the total population of Scotland is 5,062,011

Population under 16 = 1,012,402

Adult population over 16 = 4,049,609

(<http://www.scrol.gov.uk/scrol/common/home.jsp>)

### THE LITERACY ASSESSMENT

The literacy assessment consisted of 30 multiple-choice questions, with respondents' answers to an initial set of 10 questions used to determine whether they went on to answer questions at a higher or lower level of difficulty. Questions concentrated mainly on reading comprehension, but writing composition, grammar and punctuation, and spelling and handwriting were also covered.

### THE NUMERACY ASSESSMENT

Since number skills are more varied and dependent on practice than reading skills, people are often better at some numerical tasks than others, which may be equally difficult. Survey respondents therefore attempted all 17 multiple-choice questions in the numeracy assessment. These covered the following elements of the English national curriculum for numeracy:

- > Basic money
- > Whole numbers and time

4 The Skills for Life survey: A national needs and impact survey of literacy, numeracy and ICT skills. (2003) London: Department for Education and Skills

- > Measures and proportion
- > Weights and scales
- > Length and scaling
- > Charts and data
- > Money calculations

**39% of men and 36% of women – more than 1,500,000 adults – had literacy skills at a level to impact on their employment opportunities and life chances.**

**71% of adults – almost 2,900,000 – had numeracy skills that would have similar negative impacts on their lives**

## **ASSESSED LITERACY AND NUMERACY LEVELS IN SCOTLAND**

The initial *New Light* report found that literacy levels in England and Scotland were nearly identical, though slightly more cohort members north of the border had numeracy skills at or above SCQF Level 5. Overall, 8% of men and women in Scotland had literacy skills at SCQF Level 3 and below, while 31% of men and more than 28% of women (30% overall) had not progressed beyond SCQF Level 4. On the other hand, 61% of men and 64% of women (62% overall) had literacy skills at SCQF Level 5 or above.

The numeracy assessment revealed a significant gender divide, with 31% of men and 45% of women at SCQF Level 3 and below. A further 34% of men and 32% of women (33% overall) had numeracy skills at SCQF Level 4, compared with the 34% of men and 23% of women (29% overall) at SCQF Level 5 or higher.

Slightly more men and women living in Scotland's industrialised Central Belt performed at the higher end of the scale for both literacy and numeracy than those living in other parts of the country. Migration of highly skilled adults to the metropolitan areas of Scotland appears to account for much of this difference.

The overall performance of people who had moved to or from Scotland after birth – was much higher than that of those who had not moved. They were, for example, four times more likely than non-migrant men to have SCQF Levels 4 or higher literacy.

Men who had moved away from Scotland had the strongest skills of all, with more than 8 in 10 achieving SCQF Level 5 or above in literacy or numeracy. Among men born and still living in Scotland at the age of 34 and those who had moved to the country after birth, only 66% reached this level in literacy, and 33% in numeracy.

## Conclusions

The latest BCS70 survey shows that a high proportion of 34-year-olds living in Scotland in 2004 had literacy and numeracy difficulties.

Men in Scotland had stronger numeracy skills than women, while slightly more men and women living in the Central Belt were at the higher end of the performance scales for both literacy and numeracy. This may reflect the larger number of job opportunities available in industrialised areas, rather than the inherent abilities of the population. Men who had moved away from Scotland had the strongest skills of all.

Scotland continues to export her highest qualified people

## Chapter THREE

### WHY DON'T MORE ADULTS TRY TO IMPROVE THEIR SKILLS?

If people are going to aspire to improve their literacy and numeracy, they need to recognise that they have poor skills in the first place, and then see this as an area for self-improvement. However, previous research has shown that few adults are aware of their own literacy and numeracy skills needs, and we found that levels of self-awareness were lower in Scotland than in England and Wales. Just 4% of respondents in Scotland reported difficulties with reading, 19% with writing and 6% with number work (compared to 8%, 26% and 11% of cohort members overall).

#### GENDER DIFFERENCES

We found few differences between the proportions of men and women in Scotland reporting difficulties with reading. Gender differences were more noticeable in relation to writing, with 16% of men reporting difficulties with spelling, for example, compared to 11% of women. There were virtually no differences between the percentages of men and women reporting difficulties with number work.

These results contrast with the more gender-stereotypical findings of the initial *New Light* report, which showed that across the BCS70 cohort as a whole, more men than women realised they had difficulties with written communication, while more women reported difficulties with number work, especially multiplication and division.

#### REGIONAL DIFFERENCES

Respondents from the Central Belt were more than twice as likely to report difficulties with number skills as those living elsewhere in Scotland (10% to 4% for both men and women). We did not find the same regional differences when we looked at the proportion of respondents reporting difficulties with reading and writing.

#### SELF-AWARENESS AND TAKE-UP OF LITERACY AND NUMERACY PROVISION

While 4% of all men and women in the BCS70 survey had been on a course to help them improve their reading, writing or number skills, this fell to just 1% of men and 2% of women living in Scotland.

## Conclusions

Not many adults with low levels of literacy and numeracy recognise their own limited capabilities.

More than 1 in 3 of those who did acknowledge a difficulty with reading, writing or numbers expressed a desire to improve their skills.

By contrast, just 1 in 25 of those who did not acknowledge any problems wanted to improve their skills.

Even among respondents who did report skills difficulties, just 3% had been on a reading or writing course in the previous four years. Attendance on numeracy courses was lower still at 1%.

This suggests that further work is needed to explore the reasons why adults do not take up learning opportunities and to develop innovative and imaginative programmes to attract and engage new learners.

Cohort members living outside the Central Belt were slightly more likely to self-report difficulties with spelling, putting down in words what they wanted to say and the four mathematical calculations.

## Chapter FOUR

# HOW IMPORTANT ARE EARLY LIFE EXPERIENCES AND FAMILY BACKGROUND?

Children growing up in difficult, disadvantaged conditions, with parents whose own educational experiences have been poor, may not have the same crucial learning support as those raised in more comfortable circumstances. It then falls to teachers to make up for this lack of support – and so prevent poor skills from being passed from one generation to the next.

### SOCIAL CLASS

We found a strong association between family social class and literacy and numeracy levels. For example, just 17% of BCS70 cohort members living in Scotland with SCQF Level 2 or 3 literacy had fathers doing ‘white collar’ work back in 1970. However, this increased to 38% among those with SCQF Level 5 or higher literacy and 41% of those with SCQF Level 5 numeracy.

### HOUSING

Survey participants living in Scotland in 2004 were far more likely to have lived in rented, overcrowded accommodation as children than the BCS70 cohort as a whole. Those with the lowest skills levels were the most likely to have grown up in such conditions, and in inner city areas or council estates. We found, for example, that only 2 in 10 adults in Scotland with SCQF Level 2 or 3 literacy or SCQF Level 2 numeracy had grown up in owner-occupied homes, compared to around half of those with SCQF Level 5 or higher skills.

**Economic disadvantage is one of the factors which work against educational progress and inhibits literacy and numeracy skills acquisition.**

### FINANCIAL CIRCUMSTANCES

Adults with low levels of literacy and numeracy – especially the former - had often experienced relative poverty in childhood. Compared to survey participants with SCQF Level 5 or above literacy, the families of those with skills at SCQF Level 3 or below were far less likely to have had a phone, colour TV or car in 1975 when they were 5. In 1980, when they were 10, 35% were receiving free school meals, compared to 11% of those with Level 5 or above literacy. By 1986, their families were also more likely to have received state benefits.

### PARENTS' EDUCATION

Only 1 in 7 cohort members with the poorest literacy skills had mothers with any post-compulsory education, compared with more than 1 in 3 of those with SCQF Level 5 literacy or numeracy skills. Those with skills at or below SCQF Level 3 were also the least likely to have parents with any formal qualifications.

Completing the picture of skills difficulties being passed from one generation to the next, parents of those with the poorest grasp of literacy or numeracy were themselves the most likely to report difficulties with these skills.

**Cohort members with the poorest grasp of literacy and numeracy were the least likely to have been read to every day when they were age 5. Most likely to have been read to every day were cohort members with SCQF Level 5 or higher numeracy.**

### **PARENTAL SUPPORT**

Parents of cohort members with literacy or numeracy issues were the least likely to have read to their children when they were young or to have been seen by teachers as interested in their children's education. Reflecting their own poor educational experiences, few of these parents wanted their children to continue in education after the age of 16. Their low aspirations were shared by cohort members themselves. At 16, more than 8 in 10 of those later assessed as having SCQF Level 2 or 3 literacy wanted to leave education at the earliest opportunity, as did nearly 6 in 10 of those with SCQF Level 2 numeracy. This compared with 1 in 3 of those with SCQF Level 5 literacy and 1 in 4 with SCQF Level 5 numeracy.

### **Conclusions**

Survey participants with the poorest of literacy and numeracy skills came from relatively disadvantaged backgrounds. They were likely to have grown up in overcrowded, rented accommodation and to have poorly educated parents with little active interest in their children's education.

**Parental aspirations and attainment strongly influence their children's education**

## Chapter FIVE

### DO SCHOOLS MAKE A DIFFERENCE?

Previous research has shown that children's attainment in the early years of schooling is closely related to the literacy and numeracy levels they reach as adults. By comparing survey participants' test results at the ages of 5 and 10 with their adult literacy and numeracy assessments, we were able to determine the strength of this relationship in Scotland.

#### PERFORMANCE IN THE EARLY YEARS OF SCHOOLING

We found that adults with the poorest literacy and numeracy had struggled at the very first stage of their formal education. Those assessed as having SCQF Level 2 or 3 in literacy and numeracy at 34 had gained the lowest scores in tests measuring their language development and visual-motor co-ordination at the age of 5. Adults with skills at SCQF Level 5 or above had achieved the highest test scores as 5-year-olds.

The gap between the highest and lowest performers grew wider between the ages of 5 and 10. This indicates that the earlier difficulties are spotted and remedial action taken, the more likely it is that literacy and numeracy difficulties in adulthood can be prevented, or at least minimised.

#### IDENTIFYING DIFFICULTIES

At the age of 5, 33% of all BCS70 cohort members were reported by their mothers as not being able to read at all, but the figure for Scotland was a massive 73%. An even larger proportion – 83% – of those who grew up to have SCQF Level 2 or 3 literacy had been unable to read at age 5, according to their mothers.

However, parents' awareness of their children's difficulties appears to fall over time. By the time cohort members were 10, only around half of parents of those who grew up to have literacy and numeracy skills at or below SCQF Level 3 thought their children did not have any problems – which could hardly have been the case

Judging by the amount of learning support children received at school, teachers as well as parents do not always spot when pupils are experiencing difficulties with their learning. Just 28% of adults with SCQF Level 2 or 3 literacy and 21% of those with SCQF Level 2 numeracy had received any remedial help with their reading, while only around 10% had received help with their maths at the age of 10.

#### PRE-SCHOOL EDUCATION

Adults with the poorest literacy were the least likely to have attended a play group or nursery before starting school. Over 80% of BCS70 cohort members living in Scotland who went on to develop SCQF Level 5 or higher literacy skills had formal pre-school experiences, compared to less than half (47%) of those with SCQF Level 2 or 3 literacy.

Differences were less extreme but still apparent between adults in different numeracy skills groups.

### **SCHOOL CHARACTERISTICS**

In comparison to adults with SCQF Level 5 or higher literacy, those with SCQF Level 2 or 3 literacy were more likely to have gone to a school with a high proportion of children whose fathers worked in semi-skilled manual jobs (45% to 30%).

Differences in school intake were also reflected in the higher proportion of children from council estates or overcrowded accommodation in schools that adults with poor literacy and numeracy had attended (68% SCQF Level 2 or 3 literacy, compared to 57% of those with SCQF Level 5 or higher literacy)

### **Conclusions**

Adults with the weakest grasp of literacy were the least likely to have had any formal pre-school education. By the age of 5, they were already falling behind those who went on to develop SCQF Levels 4 and 5 skills. By the age of 10, the gap had widened.

When cohort members were age 10, their teachers had been more likely to identify pupils performing poorly as having limited general knowledge than having a specific reading, writing or number difficulty.

Adults with the lowest levels of literacy and numeracy skills tended to have gone to schools with children from relatively disadvantaged backgrounds.

## Chapter SIX

# WHAT IMPACT DO LOW SKILL LEVELS HAVE ON EMPLOYMENT AND LIFE CHANCES?

Low levels of literacy or numeracy have an impact on many aspects of people's lives, including their likelihood of being unemployed, the type of jobs they do and their finances.

**... men with SCQF Access Level literacy or numeracy were the least likely to be in full-time work at age 34, and the most likely to be unemployed or sick**

### SCHOOL LEAVERS

Some 44% of men and 37% of women living in Scotland had left full-time education by the time they were 16, compared to 50% of men and 43% of women living in England.

This early exit from education increased to:

- > more than 8 in 10 men with SCQF Level 2 or 3 literacy
- > 6 in 10 men with SCQF Level 2 or 3 numeracy.
- > more than 7 in 10 women with SCQF Level 2 or 3 literacy
- > around 1 in 2 with SCQF Access Level 2 (54%) or 3 (47%) numeracy.

Women with SCQF Level 5 numeracy were the most likely to have spent time in post-16 education – just 20% having left school at 16.

### QUALIFICATIONS

It was not surprising to find that whereas more than 1 in 3 men and women with SCQF Level 5 literacy had a degree, none of the men and just 1 in 25 women with SCQF Level 2 or 3 literacy were graduates.

People living in the Central Belt had the fewest qualifications. For example, as many as 54% of those with SCQF Level 2 or 3 literacy living in this area had no qualifications at all, compared with 31% of those with SCQF Level 2 or 3 literacy living in other areas of Scotland.

### EMPLOYMENT HISTORY

In line with their early exit from education, people with a poor grasp of literacy or numeracy were the most likely to enter the workforce at 16. 53% of men and 59% of women with SCQF Levels 2 or 3 literacy had their first job at age 16. This compared with 47% men and 44% women with SCQF Level 2 numeracy and just 25% of men and 20% of women with Level 5 or higher numeracy.

Those with the weakest literacy and numeracy skills went on to have less stable working lives. For example, men with SCQF Level 2 numeracy were unemployed, on average, for 19 months

between the ages of 16 and 34 - four times as long as those with SCQF Level 5 or higher numeracy skills, who were unemployed for just 5 months. Men with SCQF Level 2 numeracy also experienced more spells of unemployment.

When not in paid employment, women with SCQF Level 5 skills tended to be in full-time education, whereas women with SCQF Level 2 or 3 literacy were mostly looking after their children full-time. During their mid-late twenties only around half of women with SCQF Level 2 or 3 literacy were in paid employment, compared to more than 8 in 10 women with SCQF Level 5 or higher literacy skills.

**Investment by employers in women in terms of training was lower than for men overall, but women with SCQF Access Level 2 or 3 literacy or SCQF Access Level 2 numeracy were the least likely to have been on training courses and women with SCQF Level 5 numeracy the most likely**

### **EMPLOYMENT AT AGE 34 – MEN**

Men with literacy or numeracy skills at SCQF Level 3 or below were the least likely to be in full-time work and the most likely to be unemployed or off work for health reasons at the age of 34. Of those who were working, 4 in 10 had jobs as plant or machine operatives, while 2 in 10 worked in unskilled, insecure and often unregulated jobs.

The exclusion of men with low levels of literacy and numeracy from the service sector that provides many of today's job opportunities was clearly highlighted by the relatively small proportion using computers at work (38% with SCQF Level 2 or 3 literacy and 46% with Level 2 numeracy, compared with 75% of those with SCQF Level 5 skills).

Men with poor skills also fared badly in terms of employers' willingness to invest in them. Just 25% of men with SCQF Level 2 or 3 literacy and 33% with Level 2 numeracy had been promoted, compared to 55% of those with Level 5 or above skills. Similarly, only 19% of men with SCQF Level 2 or 3 in numeracy and literacy had received any work-related training, compared to 35% of men with Level 5 or above literacy and 43% with this level of numeracy.

### **EMPLOYMENT AT AGE 34 – WOMEN**

Women with poor literacy and numeracy skills were the least likely to be working full-time at the age of 34 (21% with SCQF Level 2 or 3 literacy and 35% SCQF Level 2 numeracy, compared to more than 50% of those with SCQF Level 5 literacy or numeracy). They were most likely to be working as unpaid carers (29% with SCQF Level 2 or 3 literacy, around 18% with SCQF Level 2 or 3 numeracy, but less than 10% of those with SCQF Level 5 or higher literacy and numeracy).

When they were in paid employment, women with SCQF Level 2 or 3 literacy were also far more likely to have unskilled, insecure jobs - as cleaners or checkout workers, for example - than more

secure office jobs in the service sector. Only 32% used a computer at work, compared with 60% of women with SCQF Level 2 numeracy and more than 80% of those with SCQF Level 5 or higher literacy and SCQF Level 4 or higher numeracy.

Employers were generally less willing to invest in women than men, but women with SCQF Level 2 or 3 literacy and SCQF Level 2 numeracy were the least likely to have been on a training course.

The number of women with SCQF Levels 2 and 3 literacy who were in paid employment was too small to enable us to compare their experience of promotion with that of women with higher levels of literacy. We did, however, find that whereas 29% of women with SCQF Level 2 numeracy had been promoted since taking up their current job, this increased to 50% of those with Level 5 skills.

### **EXCLUSION FROM THE DIGITAL REVOLUTION**

Among our 34-year-olds living in Scotland, those with literacy and numeracy difficulties were the least likely to have a home computer or their own email address. This 'digital divide' was most apparent across literacy groups, with 39% of men and 50% of women with SCQF Level 2 or 3 literacy not having a computer at home, compared to just 16% of men and 18% of women with SCQF Level 5 or higher literacy.

### **FINANCIAL CIRCUMSTANCES**

The economic disadvantage surrounding people with poor literacy and numeracy skills from an early age continued into their thirties. For example, men and women with SCQF Level 2 or 3 literacy or SCQF Level 2 numeracy were six times more likely than those with SCQF Level 5 skills to receive state benefits. They were the most likely to be part of a non-working household and the least likely to be able to save regularly.

Adults with poor skills living in the Central Belt tended to be financially worse off than those in other parts of Scotland.

### **Conclusions**

Adults with skills at or below SCQF Level 3 who were in work were likely to be in insecure jobs outside the thriving service sector. Excluded from the 'digital revolution', their disadvantages were often compounded by employers' unwillingness to train or promote them.

The relative economic deprivation that many of these men and women had known from childhood continued into their 30s. Few were able to save regularly and many were receiving state benefits.

## Chapter SEVEN

# WHERE DO PEOPLE WITH POOR SKILLS LIVE? – HOUSING, HOMELESSNESS AND COMMUNITY INVOLVEMENT

We investigated the relationship between survey participants' literacy and numeracy skills and their experience of the housing market, their likelihood of being homeless and engagement with their local community.

**Women with poor skills, and those living within the Central Belt, were more likely to have experienced a spell of homelessness (10% with SCQF Access Level 2 or 3 literacy, 3% with SCQF Level 5 literacy)**

### EARLY MOVES

By the age of 16 or 17, 8% of men and 9% of women in Scotland had left the family home. Women with SCQF Level 2 or 3 literacy were the most likely to have left home early.

But by the time cohort members were 34, men and women with SCQF Level 5 or higher skills were the most likely to have moved home several times – often because they wanted a bigger or better home, for reasons to do with work or as a result of a relationship breakdown. People with literacy and numeracy difficulties were the least likely to have moved for the first two reasons. For example, just 3% of men and women with SCQF Level 2 or 3 literacy had moved at least twice because of their work, but this increased to 16% for men and 14% for women with SCQF Level 5 or higher literacy.

### HOUSING AT AGE 34

As in their childhood, 34-year-olds with skills at or below SCQF Level 3 were more likely to live in poor housing conditions than those with greater competence. As many as 62% of women with SCQF Level 2 or 3 literacy rented their homes, compared to 17% of women with Level 5 literacy.

Within the Central Belt, with its relatively high house prices, men and women with SCQF Level 2 or 3 literacy were nearly four times more likely to live in overcrowded accommodation than those with Level 5 skills (34%, compared to 9%).

### HOMELESSNESS

4% of all men and 6% of all women surveyed had experienced at least one spell of homelessness. But women with SCQF Level 2 or 3 literacy or SCQF Level 2 numeracy were more than four times as likely to have experienced homelessness as those with SCQF Level 5 or higher skills (13% to 3% literacy, 8% to 1% numeracy). There were no differences in levels of homelessness for men in different skills groups.

Again, differences between groups were most noticeable in the Central Belt, where 10% of 34-year-olds with SCQF Level 2 or 3 literacy had been homeless at least once, compared to 3% of those with Level 5 or higher literacy.

## **LOCAL ENVIRONMENT**

Adults with low levels of literacy and numeracy were more conscious of graffiti, less likely to trust their neighbours or to feel safe living in their own area than people with higher level skills.

## **COMMUNITY INVOLVEMENT**

While more than 1 in 2 people with SCQF Level 5 literacy or numeracy skills belonged to some sort of community, charitable or other group, this fell to around 1 in 4 of those with SCQF Level 2 or 3 literacy. Community involvement was rarer still among adults with these skills levels living in the Central Belt.

## **POLITICAL ENGAGEMENT**

Around 1 in 3 adults living in Scotland did not vote in the 2001 General Election. But this proportion increased to more than 1 in 2 of men with SCQF Level 2 or 3 literacy or SCQF Level 2 numeracy (53%). There were no differences between women across skills groups.

We also found that both men and women with SCQF Level 2 or 3 literacy and SCQF Level 2 numeracy were at least twice as likely as those with SCQF Level 5 skills to say they were 'not at all' interested in politics.

## **Conclusions**

People with the poorest literacy and numeracy were the least likely to have taken advantage of the buoyant housing market of recent years. They were most likely to be living in overcrowded, rented housing and to have been homeless at some stage.

Men and women with skills at or below SCQF Level 3 were also likely to feel dissatisfied with their local environment and to distrust their neighbours. They were generally less engaged with their community and less interested in politics than those with better skills.

## Chapter EIGHT

# CAN LITERACY AND NUMERACY ABILITIES INFLUENCE HEALTH AND WELL-BEING?

In the final part of our analysis of BCS70 survey data we look at the relationship between literacy and numeracy skills and individuals' family situation, and physical and mental well-being.

### FAMILY SITUATION AT 34

At the age of 34 around 1 in 6 men with SCQF Level 2 or 3 literacy or Level 2 numeracy still lived with their parent(s) compared with around 1 in 10 men with SCQF Level 5 or higher literacy and 1 in 13 men with SCQF Level 5 or higher numeracy. However, only 1 in 25 women (4%) still lived with a parent at this age.

Just over half of our 34-year-olds lived with a partner and child(ren), while 1% of men and 13% of women were living as single parents. Women with numeracy at or below SCQF Level 3 were the most likely to be bringing up children on their own and to have been teenage mothers.

Nearly half of all men did not have any children at the age of 34, compared with around 1 in 3 women.

### HEALTH AND WELL-BEING

#### *Physical health*

Low levels of literacy and numeracy were associated with relatively poor physical health and mental well-being. For example, compared to women with SCQF Level 5 or higher skills, those with SCQF Level 2 or 3 literacy or SCQF Level 2 numeracy were most likely to have had a longstanding illness (44% to 25% literacy, 42% to 18% numeracy).

#### *Health-related practices*

Women with literacy or numeracy at or below SCQF Level 3 were more than twice as likely as those with Level 5 or higher skills to smoke (47% to 22% literacy, 42% SCQF Level 2, 34% SCQF Level 3, 15% Level 5 numeracy). There were similar but less pronounced differences between men. However, men with SCQF Level 2 or 3 literacy were the most likely to be heavy drinkers, with 36% consuming more than 40 units of alcohol in a week, compared to 17% of those with SCQF Level 5 or higher literacy.

**Men with poor skills, particularly SCQF Access Level 2 or 3 literacy, were more likely to consume more units of alcohol when they drank**

**Women with SCQF Access Level 2 or 3 literacy or SCQF Access Level 2 numeracy were most likely to report having a long standing illness and that their general health limited their everyday activities**

### ***Psychological well-being***

More than 1 in 4 men and women with SCQF Level 2 or 3 literacy or Level 2 numeracy had experienced symptoms of depression – around twice the number of those with SCQF Level 5 or higher skills. Cohort members with poor literacy and numeracy skills were also far more likely to feel that they ‘never got what they wanted from life’ than those with SCQF Level 5 or higher skills.

### **Conclusions**

Women with poor literacy and numeracy skills were the most likely to become mothers while still in their teens. Many of their male counterparts were childless and still living with their own parents at 34.

Poor physical and mental well-being, together with unhealthy habits such as smoking and heavy drinking, were also associated with low levels of literacy and numeracy.

**SCQF Access Level skills are associated with lack of qualifications, poor labour market experience and prospects, poor material and financial circumstances, poorer health practices and prospects, and a lack of social and political participation.**

## Chapter NINE

### MAIN CONCLUSIONS

Our analysis of literacy and numeracy levels in Scotland using data from the 1970 British Cohort Study was the first of its kind and paints a picture of disadvantage associated with poor literacy and numeracy skills and educational under-achievement that affect employment prospects, housing, family formation, income, social and political participation, and health and well-being.

We found that poverty and its consequences are re-cycling poor literacy and numeracy skills from one generation to the next, with parents who themselves have low literacy or numeracy levels unable to support their children's learning.

However, if adults with poor literacy and numeracy skills are to take advantage of opportunities to learn they have to recognise the need to improve their literacy or numeracy. Levels of self-reported difficulty with reading, writing or numbers were lower in Scotland than in England and Wales. Further awareness-raising efforts are needed together with the development of learning opportunities that better match the specific needs identified by potential learners.

If economists are right to argue that investment in young children gives the best returns, parents need to build their own literacy and numeracy capabilities in order to help their children learn. High quality community-based adult literacy and numeracy provision directed towards parents is therefore key to success.

But the issue runs even deeper. The impact of low literacy and numeracy levels on virtually every aspect of individuals' lives also needs to be considered if social exclusion and its consequences are to be avoided. Many adults with low literacy and numeracy do, of course, manage their lives very well. But 'just getting by' is a poor substitute for raising capability. Here the Scottish approach to identifying need and providing educational opportunities through local community partnerships has considerable potential to raise skill levels.







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