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National Survey of Adult Skills in Wales 2010



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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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Table of contents

Executive Summary	4
1. Background and Context	22
1.1 Introduction	22
1.2 Basic Skills Policy	23
1.3 Purpose of this Survey	26
2. Methodology.....	27
2.1 Introduction	27
2.2 Survey Design.....	27
2.3 Fieldwork.....	31
2.4 Data Processing and Analysis	32
3. Results of the English Medium Survey	33
3.1 Introduction	33
3.2 Literacy and Numeracy Skills and Demographic Characteristics.....	34
3.3 Household characteristics	47
3.4 Education	58
3.5 Employment Status	67
3.6 Literacy and Numeracy Skills in Everyday Life	85
3.7 Literacy and Numeracy Training	96
4. Results of the Welsh Medium Survey	105
4.1 Introduction	105
4.2 Literacy Skills and Demographic Characteristics among Welsh Speakers.....	107
4.3 Education	123
4.4 Employment Status.....	129
4.5 Welsh literacy skills in everyday life	140
4.6 Welsh Literacy Training	149
5. Summary.....	155
5.1 Overview	155
5.2 English Medium Survey Results	155
5.3 Welsh Medium Survey Results	158

Executive Summary

Introduction

In 2009, the Welsh Government commissioned a research consortium of Miller Research and TNS-BMRB to undertake the National Survey of Adult Skills in Wales. This report presents the results of this survey, covering assessments of English and Welsh literacy skills, along with the numeracy skills of working age adults in Wales. The report includes a brief contextual review of the skills agenda in Wales followed by a section on the approach to survey design, fieldwork and analysis. The results of the surveys and assessments are then presented and analysed in terms of respondent demographics, educational and employment characteristics, use of skills in everyday life and experiences of skills training and education.

Background & context

Literacy and numeracy are fundamental skills required to function and progress in society, both professionally and socially. The 1999 Moser Report identified the numerous impacts that poor basic skills can have upon personal earnings and families, upon communities and society, and for the economy¹. This led to the development of a coherent set of standards for literacy and numeracy². These standards specified the skills required for five defined levels of ability: Entry Level 1, Entry Level 2, Entry Level 3, Level 1 and Level 2. The standards for Level 1 and Level 2 were aligned to those required for a Level One and a Level Two qualification in the National Qualifications Framework³. Level 1 was therefore deemed to be the minimum standard necessary to achieve a formal qualification.

Since devolution, the Welsh Government⁴ has been committed to raising standards in literacy and numeracy amongst the Welsh population, in recognition that literacy and numeracy deficits impact on individuals as well as upon society as a whole⁵.

¹ The Moser Report *A Fresh Start - improving literacy and numeracy* DfEE 1999.

² The Moser Report *A Fresh Start - improving literacy and numeracy* DfEE 1999.

³ Level 1 and Level 2 now align to Level 1 and Level 2 (respectively) of the Curriculum and Qualifications Framework Wales.

⁴ In 2011, the Welsh Assembly Government became known as Welsh Government

⁵ By adopting an all-age approach, specifically through the first National Basic Skills Strategy published in 2001, and its successor "Words Talk, Numbers Count, which covered 2005 to 2010

The scale of the challenge was highlighted by the 2004 survey of English literacy and numeracy skills, which found that 25 per cent of people were below Level 1 for literacy and 53 per cent did not have Level 1 numeracy skills.

The Basic Skills Strategies of 2001⁶ and 2005⁷ set out ambitious programmes to address skills deficits in Wales, adopting an all-age approach and with an annual budget of up to £13m. Both the first and second strategies aimed to achieve a position where 80 per cent of working age adults had at least Level 1 literacy and 55 per cent at least Level 1 numeracy by 2010. The second strategy pointed out that: *“Before the Strategy there was little to support the delivery of Welsh literacy skills to adults.....There is a shortage of good quality materials for supporting the delivery of basic skills through the medium of Welsh, particularly for the post-16 sector.”* Hence it is acknowledged that support for Basic Skills has been very much focused on English language literacy and numeracy, with less attention paid to those needs in Welsh.

Since the 2004 survey, the basic skills agenda has been highlighted fairly consistently as one of the key challenges facing Wales, both in terms of education and lifelong learning and how the issue relates to wider policy concerns, such as economic development, social inclusion and poverty reduction. For example, the 2009 Community Cohesion Strategy for Wales identified a clear link between basic skills and cohesion and the need to break down the circle of inter-generational disadvantage of people with poor literacy and numeracy. More recently the Child Poverty Strategy⁸ emphasised the need for investment in the Employer Pledge programme, as a way of tackling child poverty in Wales and pursuing the social justice agenda. The current Programme for Government includes a new commitment to introduce a statutory literacy and numeracy framework into schools.

There has been a notable increase in emphasis upon basic skills in a working context, specifically in the publication of *“Skills that Work for Wales”* in July 2008 and

⁶ <http://wales.gov.uk/docrepos/40382/4038232/403829/4038293/403829/basicskills-e.pdf?lang=en>

⁷

<http://wales.gov.uk/dcells/publications/publications/circularsindex/2007/wordstalknumberscount/nafwc5295-e.pdf?lang=en>

⁸ Child Poverty Strategy for Wales, February 2011

in the first report⁹ of the Wales Employment and Skills Board (WESB)¹⁰. Both of these supported the commitment of the then Welsh Assembly Government to providing funding and support for Adult Basic Skills, including promoting the Employer Pledge¹¹. In July 2010, the correlation between literacy and numeracy levels amongst the working population and economic development was drawn in a new programme for economic renewal¹², which set out a commitment ensuring schools, colleges and universities equip young people with the basics of literacy and numeracy required for the workplace. The Plan also prioritised the Basic Skills Employer Pledge as a means to “help employers tackle the costs and wasted potential arising from low levels of literacy and numeracy in the workforce.”¹³ However, despite the aspiration of *One Wales*¹⁴ to promote Wales as a “bilingual and multicultural nation”¹⁵, there has been less of a strategic emphasis on the development of basic skills in the medium of Welsh. Welsh literacy was championed as a theme within *Words Talk, Numbers Count*, and in April 2010 a Welsh Medium Education Strategy¹⁶ was published, which acknowledged a need to enhance the understanding of, and the support for, addressing basic skills deficits in the medium of Welsh. Nevertheless basic skills were not given a high priority within this Strategy, with only six references to the basic skills agenda within the document¹⁷.

Survey Methodology

The National Survey of Adult Skills in Wales comprised two separate but linked components:

⁹ A Wales that Works First Annual Report of the Wales Employment and Skills Board April 2009.

¹⁰ A Ministerial Advisory body set up in 2008 and which, amongst other things, was charged with monitoring the implementation of “Skills that Work for Wales”.

¹¹ The Employer Pledge has been developed in Wales to address basic skills issues in the workplace. The scheme is in place to encourage employers to help their employees raise their skills, to support employers while they develop their Action Plans for developing the literacy and/or numeracy skills of their employees and to provide links between employers and local training providers.

¹² Economic Renewal: a new direction Welsh Assembly Government July 2010.

¹³ Economic Renewal: a new direction Welsh Assembly Government July 2010, p. 24.

¹⁴ *One Wales* was a four-year progressive agenda produced in June 2007 which focussed on improving quality of life and ensure universal wellbeing. It was the coalition agreement for the National Assembly for Wales between Labour and Plaid Cymru agreed to in June 2007 by Rhodri Morgan, First Minister of Wales and leader of Welsh Labour, and Ieuan Wyn Jones, leader of Plaid Cymru.

¹⁵ *One Wales*, p.5.

¹⁶ Welsh-medium Education Strategy Welsh Assembly Government, April 2010

¹⁷ Proposed actions included undertaking a survey of demand for Welsh-medium basic skills provision; continued expansion of Welsh medium basic skills provision in adult learning; support for Welsh medium basic skills learning in the workplace through the Employer Pledge; and increasing capacity to deliver Basic Skills learning through the medium of Welsh.

- A survey to assess literacy and numeracy skills of a nationally representative sample of 2134 adults (aged 16-65) in Wales through the medium of English, of whom 2009 completed the literacy assessment and 2012 completed the numeracy assessment and;
- A survey to assess the literacy skills¹⁸ of 1001 Welsh-speaking adults¹⁹ (aged 16-65) in Wales through the medium of Welsh.

The two surveys are referred to as the 'English survey' and the 'Welsh survey' throughout this report.

Within each survey, there were two separate elements to be undertaken by the respondent:

- A contextual questionnaire, including attitudinal and demographic questions posed to the respondent by an interviewer; and
- Either one or two self-completion assessments completed by the respondent with interviewer supervision, assessing basic skills levels.

Both surveys and respective assessments were designed to be comparable with predecessor research;

- A survey of English literacy and numeracy skills undertaken amongst the working age population in Wales undertaken in 2004²⁰. This survey adopted a comparable approach to that used in a survey of literacy and numeracy in England in 2002/03²¹.
- A separate survey assessing proficiency in reading and writing in Welsh, which was commissioned by the (then) Basic Skills Agency (BSA) Wales in 2004²².

Respondents undertaking the English survey in 2010 were required to complete two computer-based assessments; one of literacy and one of numeracy through the

¹⁸ Consideration was given to conducting a numeracy assessment through the medium of Welsh, but this was decided not to be practical or necessary due to a number of reasons, discussed in the Technical Report.

¹⁹ Respondents who claimed to speak Welsh 'fairly well' or 'fluently' were classified as Welsh speaking.

²⁰ The 2004 survey was undertaken by British Market Research Bureau on behalf of the Basic Skills Agency, and achieved a total of 2,554 complete interviews. For further details see: The National Survey of Adult Skills in Wales, 2004.

²¹ The Skills for Life Survey: A national needs and impact survey of literacy, numeracy and ICT skills, Department for Education and Skills, 2003.

²² Assessing Proficiency in Reading and Writing Welsh Basic Skills Agency, 2004.

medium of English. Welsh survey respondents completed one Welsh medium paper-based literacy assessment²³, assisted by listening to pre-recorded Welsh medium audio files which provided spoken instructions. Although the assessments were designed to be closely comparable to those used in the 2004 surveys, the Welsh and English literacy assessments bore no similarities to each other and therefore direct comparisons between literacy results through the medium of English and literacy results through the medium of Welsh should not be made.²⁴

The majority of the contextual questionnaire was the same for both the English survey and the Welsh survey²⁵; however the two surveys were conducted using differing sampling methodologies and different assessments. The English medium survey was conducted using a random probability methodology²⁶ and the Welsh medium survey was conducted using a hybrid probability/quota sample methodology²⁷. The overall response rate for the English medium survey was calculated to be 60 per cent²⁸, whilst specifying that for the Welsh medium survey is problematic due to the quota sampling methodology applied.

Fieldwork for both surveys was carried out using in-home, computer assisted personal interviewing (CAPI). The same screening question used in 2004 to ascertain Welsh-speaking ability (and thereby eligibility to participate in the survey), was used in 2010. All respondents claiming to speak Welsh “fluently” or “fairly well” were eligible for the survey.

²³ It was decided not to assess numeracy skills through the medium of Welsh as it was felt that the assessment would be strongly affected by literacy skills, which would distort results for numeracy.

²⁴ The differing sampling methodologies between the two surveys alone meant that this comparison would not be possible, but it was also felt that language technicalities in English and Welsh, and the way that both languages are structured and used are sufficiently different to prevent a meaningful comparison between the two.

²⁵ There were some differences between the two surveys. For example, respondents completing the Welsh medium survey were asked more questions about their Welsh language ability and fewer questions about their English language ability given that their literacy skills in the medium of Welsh were being assessed.

²⁶ This meant that inevitably a proportion of the sample would be Welsh-speakers; however, this did not determine ineligibility.

²⁷ The Welsh medium survey was conducted using quota sampling methods, firstly because this was the approach used in 2004, and secondly because a comprehensive list of Welsh speakers was not available and therefore an extensive screening exercise was necessary, making this sample method the most cost effective and efficient method.

²⁸ Taking account of the fact that households were screened and assuming that a proportion of the unscreened households would have been ineligible had they been approached.

The final levels of English literacy and numeracy and Welsh literacy were calculated differently. For the English literacy assessment, the final 'level' was linked to the difficulty of questions tackled at the final stage²⁹. The numeracy level however, was based on a weighted aggregate score of all individual items³⁰.

The Welsh medium assessment scripts were marked manually by independent examiners with experience of marking Welsh medium examination scripts on behalf of the Welsh Joint Education Committee. The examiners used the same scoring system as the one used in 2004; the original 2004 marking guidelines were updated slightly for the 2010 survey and included some marking clarifications and instructions about data entry.

Results of the English medium survey

Literacy and Numeracy Skills Overview

The survey results indicate that English literacy skills have improved significantly since 2004 and that in 2010, 88 per cent of those surveyed were assessed at Level 1 or above; exceeding the literacy target of 80 per cent set in the Basic Skills Strategy. This is broadly equivalent to 216,000 working age adults across Wales having literacy levels below Level 1 in 2010 compared with an estimated 450,000 in the 2004 survey. A further change in literacy was that almost 60 per cent of respondents were assessed at Level 2 or above in 2010, which was a substantial increase on the 38 per cent recorded in 2004.

Numeracy skills levels also increased over the period from 2004, but by a much smaller margin. In the 2010 survey, 50 per cent of respondents were assessed at Level 1 or above, three percentage points higher than in 2004, but some five percentage points below the Strategy target. The gap between literacy and numeracy assessment levels also widened, so that four times as many people were classified at Entry Level for numeracy than for literacy in 2010 and some 918,000 working age adults across Wales were estimated to have numeracy skills below Level 1.

²⁹ I.e. if the respondent tackled relatively difficult questions at the end, he/she was more likely to be classified at a higher level than someone who answered relatively easy questions at the end.

³⁰ E.g. successfully answering a Level 2 question scored 5 points, whereas successfully answering an Entry level 1 question scored 1 point.

Overall literacy and numeracy levels³¹

Key: Read down columns

	Literacy Level		Numeracy Level	
	2010 %	2004 %	2010 %	2004 %
Entry Level	12	25	51	53
Level 1 (L1)	29	37	29	25
Level 2 (L2) or above	59	38	21	22
Weighted base	2115	2555	2119	2555
Unweighted base	2116	2555	2117	2555

Base: English Survey: All who completed literacy and numeracy assessments.

Literacy, Numeracy and Demographics

Literacy results for men and women were similar, and each recorded similar increases over the results of the previous survey. However, there was a substantial gender gap in the numeracy assessments, with 60 per cent of women assessed at Entry Level, whilst the figure for men was 41 per cent. At the higher end of the scale, 29 per cent of men were assessed at Level 2 or above, against 13 per cent of women. This differential also existed in the previous survey and in the assessments in England in 2003³².

In terms of literacy assessment results analysed by age, there were improvements within all age bands between 2004 and 2010, and especially within the 35-44 age category. In the numeracy assessments, improvements were witnessed in all groups over the age of 35. As in 2004, there was a tendency for both the youngest (16-19 year olds)³³ and the oldest (55-65 year olds) to be assessed at a lower level than those in the other age groups, for both numeracy and literacy.

A regional analysis of results shows that respondents living in Mid Wales at the time of the survey were more likely to be assessed at Level 1 or above (92 percent of respondents) than either the Wales total (88 per cent) or any other Welsh region. The regional difference was similar for numeracy, with 61 per cent of respondents living in Mid Wales being assessed at Level 1 or above, against a Wales total of 50

³¹ It should be noted that the percentages in some columns do not total 100%. This is a result of rounding and may occur in all tables of the report, including the weighted bases. For example, 49.5% and 50.5% sum to 101% if rounded to the nearest whole number.

³² The Skills for Life Survey: A national needs and impact survey of literacy, numeracy and ICT skills. DfES, 2003

³³ Age bands were chosen to allow comparison with previous surveys.

per cent. The survey also looked at literacy and numeracy according to where respondents were born and the results here demonstrated that those born elsewhere in the UK were more likely to be assessed at Level 1 or above for literacy (94 per cent) than those born in Wales (87 per cent). The position was similar for numeracy, with 61 per cent of those born elsewhere in the UK being assessed at Level 1 or above as opposed to 46 per cent for those born in Wales.

English literacy amongst those who learned English as their first language was better (94 per cent at Level 1 or above) than for those who learned Welsh first (85 per cent at Level 1 or above). However, there was a greater disparity in terms of numeracy skills; 60 per cent of those respondents who learned English first had numeracy skills at Level 1 or above, whilst 44 per cent of those who learned Welsh first had numeracy skills at that level. However, the level of English language literacy among respondents whose main language used at home was Welsh, was higher in 2010 than in 2004 (84 per cent at Level 1 or above in 2010 compared with 73 per cent at that level in 2004).

Household characteristics, benefits and tax credits

Survey and assessment results showed that were links between literacy and numeracy levels and home ownership, with those who owned their own home the most likely to be assessed at Level 1 or above for literacy (93 per cent, against a total of 88 per cent), and less likely to be assessed at Entry Level (8 per cent against an overall total of 12 per cent). Expressing the data in another way, whilst 64 per cent of respondents overall owned their own home, this proportion fell to 42 per cent for those assessed at Entry Level for literacy; 45 per cent of those with Entry Level literacy were living in rented accommodation, as opposed to 26 per cent of respondents overall. Further, of those living in rented accommodation, those with lower literacy and numeracy skills levels were more likely to be in local authority or housing association stock, whilst those assessed at Level 1 or above were more likely to be renting from a private landlord. Respondents who had shared ownership or who owned their own home were most likely to be assessed at Level 1 or above for numeracy (57 per cent and 56 per cent respectively), whilst almost two thirds (65 per cent) of those in rented accommodation were assessed at Entry Level for numeracy, against a figure of 50 per cent for all respondents. In addition, those assessed at Entry Level for literacy or numeracy were more likely to claim housing

benefit or council tax support, sickness /disability benefit or unemployment benefit than the sample as a whole.

Health

There are extensive references in existing research to the links between low levels of literacy and numeracy and poor health or disability amongst individuals. The evaluation of Skills for Life in England³⁴, for example, noted that: “*There is, for example, a clear association between poor basic skills and learning disabilities, and poor basic skills and poor health*”. The Moser report³⁵ also noted that there is a link to both physical and mental illness from poor levels of literacy and numeracy.

In the 2010 survey, 10 per cent of those interviewees who considered that they were in good health were assessed at Entry Level for literacy, whilst the figure for those self-assessed as being in poor health was much higher, at 28 per cent. The position was similar for numeracy assessments, where 48 per cent of those who considered that they were in good health were assessed at Entry Level, whilst 61 per cent of those self-assessed as being in poor health were at that level.

Education

The survey results show that there is a relationship between respondents’ qualification levels and their assessment scores for literacy and numeracy. Ninety-eight per cent of those whose highest qualification was at degree level were assessed at Level 2 or above for literacy, whilst the proportion amongst those qualified to Level 1³⁶ was 82 per cent. The proportion of literacy assessments at Level 2 or above improved for all qualification levels between 2004 and 2010 and there was a substantial reduction in the proportion of assessments at Entry Level or below for literacy amongst those with no qualifications, from 55 per cent in 2004 to 33 per cent in 2010.

In terms of numeracy assessments, there was little improvement between 2004 and 2010 across all qualification levels except for non-degree HE level, where the results showed an increase in the percentage of respondents assessed at Level 1 from 60 per cent to 65 per cent. There was a difference between results for literacy and

³⁴ Evaluation of the Impact of Skills for Life Learning. NIESR / BMRB Social Research, 2009.

³⁵ *Op Cit*

³⁶ Where Level 1 is a GCSE or equivalent, Level 2 is GCSE at grades A*-C or equivalent and Level 3 is a GCE A-Level or equivalent.

numeracy however, as 73 per cent of those with a GCSE in English language at grade A* to C³⁷ were assessed at Level 2 or above for literacy, whereas only one-third of those with a grade A*-C in maths achieved a Level 2 in the numeracy assessment.

There is evidence of parents' record of education influencing the literacy and numeracy levels of their children; for example, where one or more parent stayed in education beyond the age of sixteen, an individual was half as likely to be assessed at below Level 1 for literacy (6 per cent at Entry Level, as opposed to 13 per cent for those whose parents did not stay on in education beyond age 16).

Employment and income

It is widely acknowledged that there is a link between low basic skills levels and poor employment outcomes and in turn with the overall competitiveness of the nation³⁸. The survey and assessment results demonstrated that those in work were half as likely to be assessed at Entry Level for literacy as respondents who were unemployed (18 per cent for the unemployed group as opposed to 9 per cent for those in employment). However, the proportion of literacy assessments at Entry Level for unemployed respondents halved between 2004 and 2010 from 36 per cent in 2004 to 18 per cent in 2010. Numeracy levels had not changed to the same extent, and 62 per cent of unemployed respondents were assessed at Entry Level in 2010, as opposed to 67 per cent in 2004.

For those respondents who were in work, there was no difference between the proportions of full and part-time workers assessed at Level 1 or above for literacy (91 per cent in each case), although those who worked full-time were more likely to be assessed at Level 2 or above than respondents who worked part-time (65 per cent of full-time workers compared with 60 per cent of part-time workers).

There are broad links between Standard Occupational Classification (SOC) categories³⁹ and literacy and numeracy skills. Ninety-six per cent or more of those

³⁷ Or equivalent, for example O Levels.

³⁸ For example, Moser (2009) points out that poor basic skills is "*one of the reasons for relatively low productivity in our economy*"

³⁹ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/index.html>

working in management, professional or associate professional roles were assessed at Level 1 or above for literacy, and this carried through to administrative and secretarial occupations. However, some occupations stand out as displaying low scores for literacy (such as skilled trades), and numeracy (personal services).

The relationship between the more socio-economically based NS-SEC (National Statistics Socio-Economic Classification)⁴⁰ and literacy and numeracy was more consistent in terms of the hierarchy of occupations, however, as shown in the table below.

Literacy by socio-economic classification (NS-SEC)

Key: Read across rows

SEC Category	Literacy Assessment		
	Entry Level %	Level 1 %	Level 2 %
Higher managerial and professional (210/191) ⁴¹	0	12	87
Lower managerial and professional (520/506)	4	25	71
Intermediate (190/187)	6	26	67
Small employers & own account workers (171/168)	12	33	55
Lower supervisory and technical (230/205)	14	41	45
Semi-routine occupations (340/366)	18	35	47
Routine occupations (240/253)	31	34	35
Never worked/ long term unemployed (71/86)	26	41	33
Full-time student (115/122)	9	25	67
Not classifiable (28/32)	[14] ⁴²	[23]	[63]
Weighted base	252	623	1240
Unweighted base	286	629	1201

Base: All respondents who completed the literacy assessment

Household income was closely related to assessment levels for both literacy and numeracy in the 2010 survey. Respondents assessed at Level 2 or above for literacy had an average household income of almost twice that of those assessed at Entry Level or below (£31,791 for those at Level 2 or above, £16,383 for those at Entry Level). Whilst there was a differential in household income by level in 2004 (£29,608 for Level 2 or above, £17,442 for Entry Level), the differential was not as great as in

⁴⁰ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html>

⁴¹ Bracketed values indicate weighted and unweighted bases respectively.

⁴² Square brackets indicate a sample size of less than 50.

2010. Only 1 per cent of respondents with a household income of £50,000 or more were assessed at Entry Level for literacy, whereas the figure was 22 per cent for those with an income of less than £15,000.

Literacy and numeracy skills in everyday life.

All those taking part in the survey were asked to self-assess their own literacy and numeracy skills. Individuals appear to have become more realistic in their self-assessments of their literacy skills since 2004, with 10 per cent of those who assessed their own reading skills as very good or fairly good being assessed at Entry Level in the 2010 literacy assessment, which was a clear decrease on the 23 per cent in this category in the previous survey.

Literacy and Self-assessment of reading ability

Key: Read down columns

Reading self-assessment	Good		Below Average	
	2010 %	2004 %	2010 %	2004 %
Assessed at Entry Level	10	23	67	58
Assessed at L1	30	38	20	24
Assessed at L2 or above	60	39	13	18
Weighted Base	2076	2471	58	65
Unweighted Base	2076	2471	58	65

Base: All respondents

Forty-eight per cent of those who rated their maths as very or fairly good were assessed at Entry Level, similar to the proportion of 51 per cent in 2004. The proportion of respondents self-assessing their numeracy as “very good” or “fairly good” in 2010 was 1 per cent higher than the 2004 survey figure, although the proportion who felt that their maths was “very good” increased from 49 per cent in 2004 to 62 per cent in 2010.

All respondents were asked how many books in English they had in their home, as evidence suggests that there is a clear relationship between people engaging in reading and the number of books available to them at home⁴³. Eighty-one per cent of respondents had 25 or more books in their home, although the proportion was

⁴³ For example the Scottish Adult Literacy Survey, 2009.

significantly lower (53 per cent) for those assessed at Entry Level for literacy. Book ownership was also related to assessment levels for numeracy, with 90 per cent of those assessed at Level 2 or above having 25 or more books in their home compared with 75 per cent of respondents at Entry Level. Overall book ownership had fallen since 2004, when 89 per cent of survey respondents reported having 25 or more books in their home.

Digital Inclusion and Exclusion

Those with Entry Level literacy were much less likely to have access to the Internet or to have use of a computer than the whole sample of respondents. Sixty-eight per cent of respondents assessed at Entry Level for literacy had access to the Internet, whereas the proportion was 94 per cent for those assessed at Level 2 or above. Results for the use of a computer in relation to literacy scores were similar, with 61 per cent of respondents who were assessed at Entry Level having use of one, compared with 94 per cent of those at Level 2. Respondents with Entry Level literacy skills were very much less likely than the whole sample to use a computer for word processing (38 per cent against a whole sample figure of 73 per cent), using spreadsheets or databases (21 per cent against 50 per cent for the whole sample), or for education and learning (26 per cent against 56 per cent for the whole sample).

Literacy and Numeracy Training

Only a very small proportion of respondents (4 per cent) had received any training in literacy or numeracy during the previous two years, although the figure was slightly higher (6 per cent) for those with Entry Level literacy or numeracy skills. Almost three-quarters of those who had engaged in training or education in literacy had achieved a qualification and 83 per cent felt that they had learned a great deal or a fair amount. For those accessing numeracy learning, the figures were very similar. Formal sites of education, such as a school, college or university, were seen by respondents as the most likely places to access learning and they were most likely to have received information on learning from either a college / university or from friends and family, although employers were also seen as promoting maths training by some respondents.

Results of the Welsh medium survey

Literacy and Numeracy Skills and Demographic Characteristics among Welsh Speakers⁴⁴

There was a slight fall in the assessed levels of Welsh literacy, from 67 per cent at Level 1 or above in 2004 to 63 per cent in 2010. In addition, the proportion of fluent Welsh speakers assessed at Entry Level almost doubled over the six years between the surveys, from 14 per cent in 2004 to 26 per cent in 2010. Women respondents achieved substantially better results in the literacy assessment than did men (69 per cent at Level 1 or above for women, 58 per cent at that level for men). Younger respondents, in the 16-19 age category, were least likely to be assessed at Level 1 or above (53 per cent of respondents), whilst those in the 35-44 bracket were the most likely (69 per cent of respondents).

At a regional level, literacy assessment scores were highest amongst respondents from SE Wales, (74 per cent assessed at Level 1 or above against a Wales total of 63 per cent) and this was also true in the 2004 survey. Those born in Wales were more likely to be scored at Level 1 or above than those born elsewhere.

Literacy and Welsh language use

Key: Read down columns

	Ability to speak Welsh (self-assessment)			
	Fluent	Fluent	Fairly Well	Fairly Well / Some
	2010 %	2004 %	2010 %	2004 %
Entry Level	26	14	70	64
L1	29	25	17	17
L2 or above	45	61	12	18
Weighted base	772	845	229	518
Unweighted base	784	772	216	591

Base: All who completed Welsh literacy assessment

Those respondents who spoke mainly Welsh at work or school generally scored better in the Welsh literacy assessment (78 per cent at Level 1 or above) than those who spoke mainly English in such situations (49 per cent), or who spoke both languages equally (65 per cent).

⁴⁴ Those interviewed who felt that they could speak Welsh either fluently or fairly well.

Household characteristics, health and benefits

As in the English medium survey, there were some links between higher levels of Literacy assessment and household characteristics. Overall, 67 per cent of respondents owned their own home but this fell to 25 per cent for those assessed at Entry Level for Welsh literacy. Those assessed at Level 1 or above were also less likely than the whole sample total to be claiming benefits⁴⁵, and especially those relating to sickness and disability benefit. This was reinforced by the result that those with self-reported good health were more likely to have scored higher in the literacy assessment: 66 per cent of those who assessed their health as very good were assessed at Level 1 or above for literacy, whilst the figure was 38 per cent amongst those who said that their health was very poor⁴⁶.

Education and qualifications

The links between highest qualification and Welsh literacy were less clear than was the case for English literacy results, although the general principle held that those respondents with higher level qualifications were more likely to be assessed at Level 1 or above for literacy than those with lower or no qualifications (for example 83 per cent of those with a degree or equivalent were at Level 1 or above, whilst the figure was 42 per cent for those with lower or no qualifications. Those educated all or mostly in Welsh (at secondary level) were very much more likely to be assessed at Level 1 or above (76 per cent of respondents) than those who received their secondary education in either English (56 per cent at Level 1 or above) or English and Welsh equally (57 per cent).

Thirty per cent of those interviewed had left school at age 16 or younger and these respondents were more likely to be assessed at Entry Level (57 per cent) than the sample as a whole (36 per cent). Welsh literacy levels amongst those who left school at age 16 were highest in the 45-54 age band (50 per cent at Level 1 or above, compared with 39 per cent amongst the 20-34 age group). However, they remained below the level of the overall sample of respondents at each age point (67 per cent at Level 1 or above in the 45-54 age range and 61 per cent amongst 20-34 year olds). Parental education was linked to literacy assessment results, as more than half of respondents whose parents both stayed in education beyond 16 were

⁴⁵ Other than child benefit, which is a universal entitlement.

⁴⁶ Note that this figure is based on a very small sample and so should be treated as indicative.

assessed at Level 2 or above, but this proportion fell to just a third for those whose parents did not.

Employment and income

The survey results demonstrate a link between the employment status of respondents and their Welsh literacy assessment results. Sixty-eight per cent of employed respondents were assessed at Level 1 or above, as opposed to 54 per cent of those who were unemployed at the time of the survey. There was, however, little difference between the assessment levels of full and part-time workers.

In occupational terms, as was the case for the English survey and assessment results, there was a link between higher skilled employment and higher levels of literacy, with 80 per cent of “managers and professionals”⁴⁷ assessed at Level 1 or above, but 50 per cent of those in low or unskilled “working occupations” being assessed at this level. However, the relationship between occupation and assessment results was less clear in the Welsh medium results, with relatively low levels of literacy amongst certain occupations, such as those in skilled trades, for example.

Higher rates of Welsh literacy were associated with higher household and individual incomes, with those respondents assessed at Level 2 having an average household income of £31,791, whereas the figure was £16,383 for respondents at Entry Level.

Welsh literacy skills in everyday life

There was a relationship between respondents’ literacy assessments and their own self-assessment of their ability to speak Welsh. For example, of those who were assessed at Level 2 or above for Welsh literacy, 88 per cent felt that their spoken Welsh was very good, whilst the proportion was very much lower, at 26 per cent, amongst those assessed at Entry Level. Whilst there was a similar link between self-perception and assessment results in terms of Welsh reading skills, it was rather weaker.

⁴⁷ As defined by SOC 2000

Survey respondents were asked about their confidence in reading Welsh in a variety of settings. Although 93 per cent of respondents were confident about their ability to read letters and e-mails from friends and family in Welsh, one third of these were assessed at Entry Level for literacy. Lower literacy assessment scores were linked to lower levels of book ownership, especially in relation to books in Welsh. 82 per cent of those assessed at Entry Level had fewer than 25 books in Welsh in their household, whilst the figure for those at Level 1 was 60 per cent and for Level 2 or above, 36 per cent of respondents had less than 25 books in Welsh. Respondents were very much more likely to have 25 or more English books in the house, and 23 per cent of respondents at Level 1 for Welsh literacy had fewer than 25 books in English in their house. In terms of writing skills, 21 per cent of those who felt that they were very good at writing Welsh were assessed at Entry Level for literacy.

Digital inclusion and exclusion

In terms of digital inclusion, there was a weak correlation between Welsh literacy assessment levels and access to the Internet or use of a computer. 96 per cent of those assessed at Level 2 for literacy had the use of a computer, whereas the figure was 80 per cent for those assessed at Entry Level. Respondents who were assessed at Entry Level for Welsh literacy were less likely than the whole sample to use a computer for word processing (63 per cent, compared with 75 per cent for the whole sample), spreadsheet or database work (38 per cent compared with 45 per cent) or e-mailing (84 per cent compared with 91 per cent). There was no difference, however, in their respective use of a computer for accessing the Internet (97 per cent of respondents at either level).

Welsh Literacy Training

Nine per cent of respondents had undertaken some kind of training in Welsh literacy during the two years prior to the survey, although the figure was slightly higher (12 per cent) for those assessed at Entry Level for literacy. Of those respondents who had assessed their own literacy skills as fair or poor, 12 per cent had considered taking up learning / training in Welsh literacy. The main reasons for not taking up training opportunities were lack of time (49 per cent), work commitments (34 per cent), childcare commitments (16 per cent), fees (11 per cent) and no suitable courses (11 per cent). Seventy-eight per cent of respondents who had accessed training said that they had learned a great deal or a fair amount from the experience.

Summary

This report has presented the results of the National Survey of Adult Skills in Wales 2010, covering assessments of English and Welsh literacy skills, along with numeracy skills in Wales. The survey has built upon the intelligence gathered in the 2004 survey of English literacy and numeracy skills and has provided some broad comparators with the 2004 survey of Welsh literacy. The need for the survey came partially in response to the target set in the 2001 Basic Skills Strategy, subsequently carried over into the second Strategy in 2005, that 80 per cent of working adults should have at least Level 1 literacy and 55 per cent at least Level 1 numeracy by 2010.

The results show that the target for English literacy has been exceeded, with 88 per cent of respondents assessed at Level 1 or above for literacy, which represents an increase of 13 percentage points since 2004. Progress on numeracy has been slower, with the overall result that 50 per cent of respondents were assessed at Level 1 or above, three percentage points higher than in 2004, but some five percentage points below the Strategy target. Assessment results for Welsh literacy declined between 2004 and 2010, from 67 per cent at Level 1 or above in 2004 to 63 per cent in 2010.

1. Background and Context

1.1 Introduction

Literacy and numeracy are fundamental skills required to function and progress in society, both professionally and socially. The 1999 Moser Report identified the numerous impacts that poor basic skills can have upon personal earnings and families, upon communities and society, and for the economy⁴⁸. In 2009, the UK Commission for Employment and Skills highlighted the link between basic skills, individual employability and wider economic development: “The lack of basic skills and/or any work-related qualifications can provide a substantial barrier to individual engagement and success...to develop a world class workforce; we must transform individual aspiration, confidence and capability for learning⁴⁹.”

Standardisation of levels in literacy and numeracy was introduced in 1999, when the work of Sir Claus Moser led to the development of a coherent set of standards for literacy and numeracy⁵⁰. These standards specified the skills required for five defined levels of ability: Entry Level 1, Entry Level 2, Entry Level 3, Level 1 and Level 2. The standards for Level 1 and Level 2 were aligned to those required for a Level One and a Level Two qualification in the National Qualifications Framework⁵¹. Level 1 was therefore deemed to be the minimum standard necessary to achieve a formal qualification.

Since devolution, the Welsh Government⁵² has been committed to raising standards in literacy and numeracy amongst the Welsh population, in recognition that literacy and numeracy deficits impact on individuals as well as upon society as a whole⁵³.

⁴⁸ The Moser Report *A Fresh Start - improving literacy and numeracy* DfEE 1999.

⁴⁹ *Towards Ambition 2020: skills, jobs, growth*. UK Commission for Employment and Skills October 2009, Page 16.

⁵⁰ The Moser Report *A Fresh Start - improving literacy and numeracy* DfEE 1999.

⁵¹ Level 1 and Level 2 now align to Level 1 and Level 2 (respectively) of the Curriculum and Qualifications Framework Wales.

⁵² In 2011, the Welsh Assembly Government became known as Welsh Government

⁵³ By adopting an all-age approach, specifically through the first National Basic Skills Strategy published in 2001, and its successor “Words Talk, Numbers Count, which covered 2005 to 2010

In 2004 a survey of English literacy and numeracy skills was undertaken amongst the working age population in Wales⁵⁴. The survey adopted a comparable approach to that used in a survey of literacy and numeracy in England in 2002/03⁵⁵. The following year, a separate survey which assessed proficiency in reading and writing in Welsh was commissioned by the (then) Basic Skills Agency (BSA) Wales⁵⁶.

The results from the 2004 survey of English literacy and numeracy skills in Wales found that 25 per cent of people aged between 16 and 65 were below Level 1 in literacy and 53 per cent did not have Level 1 numeracy skills. It was these headline statistics which have been used to raise awareness of the literacy and numeracy deficit amongst the Welsh population and to maintain momentum for basic skills policy for Wales.

1.2 Basic Skills Policy

Wales' first Basic Skills Strategy was published in 2001 and was distinctive in its all-age approach, setting out a vision for a fully literate and numerate Wales. It was succeeded in 2005 by a second five-year strategy⁵⁷ which pursued the same fundamental aims as the first Strategy, albeit with a number of new or extended elements. Within the second strategy, the findings from the 2004 survey were used to highlight the severity of poor basic skills in Wales in comparison with England, and to a greater extent with other nations in Europe. Like its predecessor, *Words Talk, Numbers Count* had an all-age target audience, spanning Early Years, Young People and post 16 provision. Just under £13 million was allocated annually to the strategy Delivery Plan. The aims of the strategy were supported by a range of quantified targets in relation to basic skills including that;

- By 2010, 80 per cent of working adults should have at least Level 1 literacy skills and 55 per cent should have at least Level 1 numeracy skills:

⁵⁴ The 2004 survey was undertaken by British Market Research Bureau on behalf of the Basic Skills Agency, and achieved a total of 2,554 complete interviews. For further details see: The National Survey of Adult Skills in Wales, 2004.

⁵⁵ The Skills for Life Survey: A national needs and impact survey of literacy, numeracy and ICT skills, Department for Education and Skills, 2003.

⁵⁶ Assessing Proficiency in Reading and Writing Welsh Basic Skills Agency, 2004.

⁵⁷ Words Talk - Numbers Count: The Welsh Assembly Government's Strategy to Improve Basic Literacy and Numeracy in Wales, Welsh Assembly Government, 2005.

- All schools should maintain the Basic Skills Quality Mark standards:
- All post-16 learning providers should hold the Quality Mark by 2006, and:
- By 2010 50 per cent of employees should be working for employers who have signed the Employer Pledge.

However, at the time of the first basic Skills Strategy for Wales⁵⁸ little was known about basic skills needs in Welsh and it was highlighted within the strategy that “*We need innovation and research ... and the answers to unanswered questions, including the scale of the problem in literacy in Welsh.*” The second Basic Skills Strategy for Wales, Words Talk, Numbers Count, pointed out that: “*Before the Strategy there was little to support the delivery of Welsh literacy skills to adults.....There is a shortage of good quality materials for supporting the delivery of basic skills through the medium of Welsh, particularly for the post-16 sector.*” Hence it is acknowledged that support for Basic Skills has been very much focused on English language literacy and numeracy, with less attention paid to those needs in Welsh.

A three-year evaluation of the Strategy has been undertaken, which seeks to assess its impact upon literacy and numeracy levels in Wales and, in turn, any economic and social benefits attributable to programmes or interventions aligned to the Strategy⁵⁹.

Since the 2004 survey, the basic skills agenda has been highlighted fairly consistently as one of the key challenges facing Wales, both in terms of education and lifelong learning and how the issue relates to wider policy concerns, such as economic development, social inclusion and poverty reduction. For example, the 2009 Community Cohesion Strategy for Wales identified a clear link between basic skills and cohesion and the need to break down the circle of inter-generational disadvantage of people with poor literacy and numeracy. More recently the Child Poverty Strategy⁶⁰ emphasised the need for investment in the Employer Pledge programme, as a way of tackling child poverty in Wales and pursuing the social justice agenda.

⁵⁸ April 2001.

⁵⁹ This report is due to be published in early 2012.

⁶⁰ Child Poverty Strategy for Wales, February 2011

There has been a notable increase in emphasis upon basic skills in a working context, specifically in the publication of *“Skills that Work for Wales”* in July 2008 and in the first report⁶¹ of the Wales Employment and Skills Board (WESB)⁶². Both of these supported the commitment of the then Welsh Assembly Government to providing funding and support for Adult Basic Skills, including promoting the Employer Pledge⁶³. The first of six recommendations put forward in the WESB report was that that the Welsh Assembly Government should redouble its efforts to eliminate the basic skills deficit within the adult population and ensure that all education and skills providers give far stronger emphasis to basic skills and employability⁶⁴.

In July 2010, the correlation between literacy and numeracy levels amongst the working population and economic development was drawn in a new programme for economic renewal⁶⁵, which set out a commitment ensuring schools, colleges and universities equip young people with the basics of literacy and numeracy required for the workplace. The Plan also prioritised the Basic Skills Employer Pledge as a means to “help employers tackle the costs and wasted potential arising from low levels of literacy and numeracy in the workforce.”⁶⁶

Despite the aspiration of *One Wales*⁶⁷ to promote Wales as a “bilingual and multicultural nation”⁶⁸, there has been less of a strategic emphasis on the development of basic skills in the medium of Welsh. Welsh literacy was championed as a theme within *Words Talk, Numbers Count*, and in April 2010 a Welsh Medium

⁶¹ A Wales that Works First Annual Report of the Wales Employment and Skills Board April 2009.

⁶² A Ministerial Advisory body set up in 2008 and which, amongst other things, was charged with monitoring the implementation of “Skills that Work for Wales”.

⁶³ The Employer Pledge has been developed in Wales to address basic skills issues in the workplace. The scheme is in place to encourage employers to help their employees raise their skills, to support employers while they develop their Action Plans for developing the literacy and/or numeracy skills of their employees and to provide links between employers and local training providers.

⁶⁴ A Wales that Works First Annual Report of the Wales Employment and Skills Board April 2009, p.20.

⁶⁵ Economic Renewal: a new direction Welsh Assembly Government July 2010.

⁶⁶ Economic Renewal: a new direction Welsh Assembly Government July 2010, p. 24.

⁶⁷ One Wales was a four-year progressive agenda produced in June 2007 which focussed on improving quality of life and ensure universal wellbeing. It was the coalition agreement for the National Assembly for Wales between Labour and Plaid Cymru agreed to in June 2007 by Rhodri Morgan, First Minister of Wales and leader of Welsh Labour, and Ieuan Wyn Jones, leader of Plaid Cymru.

⁶⁸ One Wales, p.5.

Education Strategy⁶⁹ was published, which acknowledged a need to enhance the understanding of, and the support for, addressing basic skills deficits in the medium of Welsh.

In 2007, approximately half way through the second basic skills strategy period, the former Basic Skills Agency Wales became a part of the Department for Children, Lifelong Learning and Skills (DCELLS) of the then Welsh Assembly Government, and became Basic Skills Cymru (BSC). This merger has largely supported a move towards greater integration with mainstream provision, and over the period of the following three years, various delivery elements of *Words Talk, Numbers Count* have either been discontinued or have become embedded within relevant divisions within DfES. This represents a significant divergence from the original all age approach through *Words Talk, Number Count*.

The Welsh Government's National Literacy Plan was announced in February 2011 when the Education Minister, Leighton Andrews outlined a five-year plan to improve standards of literacy in Welsh schools, to be implemented from September 2011. A similar strategy for tackling numeracy within schools in Wales is in development.

1.3 Purpose of this Survey

The object of this research has been twofold; firstly it has been to conduct an attitudinal survey of working age people in Wales to gather views on their development of literacy and numeracy skills. The second aim of the research has been to assess the numeracy, and English and Welsh literacy skills of survey respondents, in order to calculate the extent of basic skills need amongst this cohort of the population in Wales.

A further aim of the work has been to gauge, as far as possible, how skill levels have changed since 2004 and to understand how far this varies between geographic, age and skill-level sub-groups.

⁶⁹ Welsh-medium Education Strategy Welsh Assembly Government, April 2010

2. Methodology

2.1 Introduction

The National Survey of Adult Skills in Wales 2010 was designed as far as was practically possible to replicate the two surveys carried out in 2004⁷⁰. The survey was designed by the consortium of Miller Research and TNS-BMRB, in consultation with the Survey Steering Group⁷¹. TNS-BMRB was responsible for data collection and data processing, and Miller Research was responsible for analysis and reporting.

The survey involved two separate but linked components:

- A survey to assess literacy and numeracy skills of a nationally representative sample of 2,134 adults (aged 16-65) in Wales, through the medium of English of whom 2,009 completed the literacy assessment and 2,012 completed the numeracy assessment; and
- A survey to assess literacy skills⁷² of 1001 Welsh-speaking adults⁷³ (aged 16-65) in Wales through the medium of Welsh.

The two surveys are referred to as the 'English survey' and the 'Welsh survey' in both the main report, and in the Technical Report.

2.2 Survey Design

Within both surveys, there were two separate elements to be undertaken by the respondent:

- A contextual questionnaire, including attitudinal and demographic questions posed to the respondent by an interviewer; and

⁷⁰ There were a number of reasons why the survey was not able to completely replicate the 2004 surveys, which are discussed in more detail below and in the Technical Report.

⁷¹ This included representation from both the Welsh Government and the Welsh Language Board.

⁷² Consideration was given to conducting a numeracy assessment through the medium of Welsh, but this was decided not to be practical or necessary due to a number of reasons, discussed in the Technical Report.

⁷³ Respondents who claimed to speak Welsh 'fairly well' or 'fluently' were classified as Welsh speaking.

- Either one or two self-completion assessments completed by the respondent with interviewer supervision, assessing basic skills levels.

The majority of the contextual questionnaire was the same for both the English survey and the Welsh survey⁷⁴; however the two surveys were conducted using differing sampling methodologies and different assessments. The English medium survey was conducted using a random probability methodology⁷⁵ and the Welsh medium survey was conducted using a hybrid probability/quota sample methodology⁷⁶. The overall response rate for the English medium survey was calculated to be 60 per cent⁷⁷. A total of 1,001 complete interviews were achieved on the Welsh medium survey, exceeding the target of 1,000. In a small number of cases the respondent refused to continue the interview part way through the assessment, or task booklets were lost in the post, and therefore the data from these interviews was not used and respondents were replaced by another interview within the same quota cell wherever possible.

Within the overall sample that was included in the final dataset, seven individuals failed to start the assessment (because they were unable to read or write Welsh at all) and 30 had left some questions blank. In the case of the former, respondents were given a default level in the data of Entry Level 1 or below, and in the latter case, because there was no way of knowing whether or not the respondent had attempted each task within the booklet to the best of their ability, any tasks left blank were marked as incorrect. Further details on the sample design can be found in Section 3 of the Technical Report.

⁷⁴ There were some differences between the two surveys. For example, respondents completing the Welsh medium survey were asked more questions about their Welsh language ability and fewer questions about their English language ability given that their literacy skills in the medium of Welsh were being assessed.

⁷⁵ This meant that inevitably a proportion of the sample would be Welsh-speakers; however, this did not determine ineligibility.

⁷⁶ The Welsh medium survey was conducted using quota sampling methods, firstly because this was the approach used in 2004, and secondly because a comprehensive list of Welsh speakers was not available and therefore an extensive screening exercise was necessary, making this sample method the most cost effective and efficient method.

⁷⁷ Taking account of the fact that households were screened and assuming that a proportion of the unscreened households would have been ineligible had they been approached.

2.2.1 Contextual Questionnaire

The contextual questionnaire was designed by the consortium in consultation with the Survey Steering Group, and was based upon the contextual questionnaires from the two 2004 surveys as well as the contextual questionnaire being used for the survey of adult skills being conducted concurrently in England.

The content of the survey included the following: language classification; household structure; languages and ethnicity (including confidence and ability in any language spoken); country of birth, national identity and ethnicity; ICT skills, computer use and ability; education history and qualifications (including parental education); self-assessment of skills in speaking, reading and writing English and/or Welsh; frequency of using English/Welsh reading and writing skills; training undertaken to improve basic skills and value of any training undertaken; self-assessment of maths and number skills, training undertaken to improve these skills and value of any training undertaken; current/ most recent employment; current/ most recent employment of Household Reference Person⁷⁸ (if not the respondent); health; and housing tenure, benefits and income⁷⁹.

Respondents to both surveys were given the option of completing the contextual questionnaire in either English or Welsh⁸⁰. The contextual questionnaire took an average 22 minutes to complete for the English medium survey amongst main respondents (15 minutes amongst youth boost respondents) and 25 minutes to complete for the Welsh medium survey⁸¹.

2.2.2 Literacy and Numeracy Assessments

Respondents undertaking the English survey were required to complete two computer-based assessments; one of literacy and one of numeracy through the medium of English. Welsh survey respondents completed one Welsh medium paper-

⁷⁸ The Household reference person was defined in the Household structure section as the person in the household who owns or rents the home, the person with the highest income (if joint tenancy/ownerships), or the eldest person (if identical incomes).

⁷⁹ The full contextual questionnaire can be found in appendix A of the Technical Report.

⁸⁰ This was to comply with the legal obligation of the Welsh Government to allow Welsh citizens to participate in any Government survey in either English or Welsh.

⁸¹ All average timings mentioned in the report exclude a few very long interview lengths.

based assessment, assisted by listening to pre-recorded Welsh medium audio files which provided spoken instructions.

The assessments used for the two surveys were the same assessments that had been used in the 2004 surveys⁸²; however the Welsh and English literacy assessments bore no similarities with each other and therefore direct comparisons between literacy results through the medium of English and literacy results through the medium of Welsh should not be taken⁸³.

The assessments were not translated, and respondents were required to complete them in the relevant language (depending on which survey they were selected for) on the grounds that the assessments were examining specific skills in one language or the other.

The literacy and numeracy assessments used in the English survey were copies of the assessments used in the 2004 survey⁸⁴. The assessments themselves were entirely interviewer administered, i.e. all answers were entered by the interviewer; they would navigate through the assessments for the respondent and be in control of the laptop and computer mouse at all times. Respondents would read the task from the computer screen and then indicate to the interviewer which response they would like to give.

The Welsh literacy assessment used in 2010 was taken from the tasks booklet that was used in the 2004 survey of proficiency in reading and writing Welsh. Before fieldwork, the task booklet was reviewed and slight amendments were made. The Welsh assessment was redesigned for this survey to allow it to be administered by non-Welsh speaking interviewers⁸⁵, by using pre-recorded audio files of all questions that needed to be asked verbally.

⁸² Minor amendments and corrections were made to the Welsh paper-based assessment described in section 4.3.2

⁸³ The differing sampling methodologies between the two surveys alone meant that this comparison would not be possible, but it was also felt that language technicalities in English and Welsh, and the way that both languages are structured and used are sufficiently different to prevent a meaningful comparison between the two.

⁸⁴ For more information on the Assessment Development and Structure, please see Section 4.3 of the Technical Report.

⁸⁵ In 2004 any questions that needed to be asked verbally were asked by the interviewer (in Welsh).

2.3 Fieldwork

Fieldwork for both surveys was carried out using in-home computer assisted personal interviewing (CAPI). A pilot of both surveys was conducted between 7th December and 13th December 2009⁸⁶. Fieldwork for the English survey took place between 29th March 2010 and 14th November 2010. The English survey involved a boost of young people aged 16-19⁸⁷.

Fieldwork for the Welsh survey took place between the 29th March 2010 and 25th October 2010. The same screening question used in 2004 to ascertain Welsh-speaking ability (and thereby eligibility to participate in the survey), was used in 2010. All respondents claiming to speak Welsh “fluently” or “fairly well” were eligible for the survey. Please see section 5.4.1 of the Technical Report for more details on language classification and screening.

The English literacy and numeracy assessments were randomised within the script so that 50 per cent of the sample received the literacy assessment first and 50 per cent received the numeracy assessment first⁸⁸, as was the approach taken in 2004. For both surveys, an option to skip both assessments was programmed into the script⁸⁹.

For both surveys where a respondent was aged under 18 and lived in the same household as their parents or guardians, interviewers were required to get written parental permission for their son/daughter to take part in the interview. All respondents to both surveys were offered a £10 high street gift voucher as an incentive for taking part.

⁸⁶ For details of the outcomes and key findings from the pilots, please see Section 4.5 of the Technical Report.

⁸⁷ Please see the Technical Report for more details of the youth boost.

⁸⁸ Respondent fatigue was expected to be an unavoidable factor but this design equalised the effects between the two assessments.

⁸⁹ Respondents who had said they could not read English/Welsh when asked in the contextual questionnaire, respondents who said their reading of English/Welsh was poor and had required a full spoken translation to get through the contextual questionnaire, and respondents who required help with the contextual questionnaire due to poor eyesight, were all given the option of continuing with the assessments or not.

2.4 Data Processing and Analysis

The final levels of English literacy and numeracy and Welsh literacy were calculated differently. For the English literacy assessment, the final 'level' was linked to the difficulty of questions tackled at the final stage⁹⁰. The numeracy level however, was based on a weighted aggregate score of all individual items⁹¹.

The Welsh medium assessment scripts were marked manually by independent examiners with experience of marking Welsh medium examination scripts on behalf of the Welsh Joint Education Committee. The examiners used the same scoring system as the one used in 2004; the original 2004 marking guidelines were updated slightly for the 2010 survey and included some marking clarifications and instructions about data entry.

Data from both surveys were combined into one SPSS dataset and the following two sets of weighted data tables were produced:

- Set A: All data from the English medium survey, including scores from the English assessments, to be used for national estimates;
- Set B: All data from the Welsh medium survey (including scores from the Welsh assessment) combined with contextual questionnaire data from the Welsh speaking sample members from the English medium survey, to be used for more in-depth analysis amongst Welsh speakers.

The cross-breaks that were included on tables for both surveys in 2004 were used as a basis for consideration for the 2010 survey. Please see section 6.5.2 of the Technical Report for a full list of the variables used as cross-breaks in 2010. For further technical details of the survey design, questionnaire and assessments, piloting, data collection, sampling, weighting and data processing, please refer to the Technical Report.

⁹⁰ I.e. if the respondent tackled relatively difficult questions at the end, he/she was more likely to be classified at a higher level than someone who answered relatively easy questions at the end.

⁹¹ E.g. successfully answering a Level 2 question scored 5 points, whereas successfully answering an Entry level 1 question scored 1 point.

3. Results of the English Medium Survey

3.1 Introduction

This chapter discusses the findings of the English medium survey and related literacy and numeracy assessments. Beginning with a discussion about the headline literacy and numeracy results in 2010 compared with those from the 2004 survey, the chapter goes on to look at skills in relation to demographic factors, such as age, gender and where people live within Wales. The survey results are also analysed in terms of where respondents were born, their qualifications or their employment characteristics, and to consider whether these are linked to their literacy and numeracy levels.

Literacy and numeracy assessment results are then looked at in the context of household characteristics, to explore any potential links between the results and the size of respondents' households, their marital status or their household tenure. The 2010 survey looked at assessment results in terms of respondents' perceptions of their own health and whether they were claiming any state benefits or tax credits and these, too, are discussed.

The second section of the chapter examines assessment results by educational background, the link to formal qualifications and the effects of school leaving age and parental education history. This is followed in the next section by a review of results relating to employment and unemployment, full and part-time working amongst those with different levels of literacy and numeracy. The analysis then goes on to look at the links between basic skills and occupational profiles and finally the issue of earnings in relation to literacy and numeracy.

Section four of this chapter goes through the survey and assessment results in the context of respondents' own perceptions of their literacy and numeracy skills and the effects of these on their engagement with employment and communicating in different everyday situations. Respondents' attitudes to ownership of books and issues around digital inclusion are also examined in the context of assessment results. The final section of the chapter looks at experiences of literacy and numeracy training and sources of advice and support.

3.2 Literacy and Numeracy Skills and Demographic Characteristics

This section of the report looks at the headline results for literacy and numeracy and compares these results with those from the previous survey, carried out in 2004. It goes on to look in more detail at assessment results in relation to demographic characteristics, such as age, gender, where respondents live and the characteristics of the households in which they live.

Key Findings

- Literacy levels have improved substantially since 2004: 88 per cent of people in the survey were assessed at Level 1 or above. (Compared with 75 per cent in 2004).
- This represents an estimated reduction of 234,000 in the number of individuals with a basic literacy deficiency in Wales (from 450,000 in 2004 to 216,000 in 2010).
- Numeracy levels also increased, with 50 per cent of respondents assessed at Level 1 or above (compared to 47 per cent in 2004).
- However, the gap between literacy and numeracy has widened. Four times as many people were classified at Entry Level for numeracy than for literacy in the 2010 survey – representing an estimated 918,000 people across Wales.
- Women were slightly more likely than men to be assessed at Level 1 or above for literacy, although the gap was not statistically significant.
- However, the gender gap in numeracy was quite pronounced, with 60 per cent of women assessed at Entry Level, whilst the figure for men was 41 per cent
- Housing tenure is also linked to skills level. Those with lower levels of literacy and numeracy were less likely to own their own home and more likely to be in local authority or housing association accommodation compared to all respondents.
- Those with higher levels of literacy and numeracy were less likely than respondents overall to be claiming some kind of state benefit or tax credit. Overall 40 per cent of the sample was claiming benefits of some kind.

3.2.1 *Overall English literacy and numeracy levels*

Those taking part in the survey were assessed for both their English literacy and their numeracy skills and the results were classified by Level⁹². The results, displayed in Table 1 below, show that 88 per cent of people taking part in the English

⁹² See section 1.2 of this report for a discussion on Levels.

assessments were classified at Level 1 or above for literacy. Level 1 is seen as the minimum level of skills that individuals need in everyday life, for example enabling an individual to cope with the daily demands of reading and writing⁹³. The result is a significant improvement on the 75 per cent recorded in the 2004 survey results at Level 1 or above. This is broadly equivalent to 216,000 working age adults across Wales having literacy levels below Level 1 in 2010, compared with an estimated 450,000 in the 2004 survey.

Table 1 Overall literacy and numeracy levels⁹⁴

Key: Read down columns

	Literacy Level		Numeracy Level	
	2010 %	2004 %	2010 %	2004 %
Entry Level 1 (EL1) or Below	3	4	5	7
Entry Level 2 (EL2)	2	3	17	20
Entry Level 3 (EL3)	7	18	29	26
Total Entry Level	12	25	51	53
Level 1 (L1)	29	37	29	25
Level 2 (L2) or above	59	38	21	22
Weighted base	2115	2555	2119	2555
Unweighted base	2116	2555	2117	2555

Base: All who completed literacy and numeracy assessments

Looking at the results in Table 1 in more detail, 59 per cent of respondents were assessed at Level 2 or above in literacy and this accounted for the largest change in assessment levels since the 2004 survey, with an increase of 21 percentage points in the proportion of individuals achieving this level. This shift was complemented by a reduction in the proportion of individuals at each of the levels below Level 2, including a reduction of 11 percentage points in the proportion of assessments at Entry Level 3, the highest level below Level 1.

Table 1 shows that the assessment results for numeracy were better in the 2010 survey than in 2004, with 50 per cent being assessed at Level 1 or above, an increase from the 47 per cent figure recorded in 2004, although this margin may not

⁹³ For example Bynner and Parsons, quoted in the Moser Report, 1999.

⁹⁴ It should be noted that the percentages in some columns do not total 100%. This is a result of rounding and may occur in all tables of the report, including the weighted bases. For example, 49.5% and 50.5% sum to 101% if rounded to the nearest whole number.

be sufficient to be considered statistically significant. The shift in results was seen at Level 1, with an increase from 25 to 29 per cent and with the proportion at Level 2 or above falling very slightly (from 22 to 21 per cent). There was also a slight upward shift in results within Entry Level numeracy, with an increase in the proportion of individuals being classified at Entry Level 3 and a corresponding fall in the lower Entry Levels. However, the difference in results for literacy and numeracy are stark, with more than four times as many respondents classified at Entry Level for numeracy as for literacy. This gap has doubled since the previous survey and implies that some 918,000 individuals across Wales have a numeracy level below Level 1, although this is still 72,000 fewer than in the previous survey. Of these, an estimated 396,000 would be classified in the lowest two levels, Entry Levels 1 and 2.

Not only are numeracy levels lower than those for literacy overall, but it appears from Table 2 that individuals are likely to be assessed at a lower level for numeracy, even where their literacy skills are relatively good. Hence, whilst 90 per cent of those with Entry Level literacy also had Entry Level numeracy, 70 per cent of those with Level 1 literacy and 33 per cent with Level 2 literacy were found to have Entry Level numeracy skills. Only 30 per cent of those assessed at Level 2 for literacy were also assessed at that level for numeracy and just 2 per cent of respondents who were assessed at Entry Level for literacy were assessed at Level 2 for numeracy.

Table 2 Numeracy levels within literacy

Key: Read down columns

Numeracy Level	Literacy Level		
	Entry Level	Level 1	Level 2 or Above
	%	%	%
Entry Level	90	70	33
L1	8	21	37
L2 or above	2	9	30
Weighted base 2104	248	622	1234
Unweighted base 2102	282	626	1194

Base: All who completed both literacy and numeracy assessments

These results can be looked at slightly differently, by expressing the data in each cell as a proportion of total respondents (Table 3). This shows the proportion of respondents with each combination of literacy and numeracy assessment scores. For example, Table 3 shows that 18 per cent of respondents overall were assessed at Level 2 or above in both literacy and numeracy – which was an increase of 3

percentage points over the 2004 result. At the other end of the scale, 11 per cent were assessed at Entry Level for both. Whilst this is still a substantial number (equivalent to around 198,000 working age adults), it represents less than half the proportion of those assessed in 2004 at this level for both literacy and numeracy.

Table 3 Overall literacy levels vs. numeracy levels

Key: Read across whole table

Numeracy Level	Literacy Level		
	Entry Level %	Level 1 %	Level 2 or Above %
Entry Level	11	21	19
L1	1	6	22
L2 or above	<1	3	18
Weighted base 2104	248	622	1234
Unweighted base 2102	282	626	1194

Base: All who completed both literacy and numeracy assessments

In terms of the relationship between literacy and numeracy scores, there is a stark contrast between the less than 1 per cent who were assessed at Level 2 or above for numeracy but at Entry Level for literacy, and the 19 per cent who were assessed at Level 2 in literacy, but at Entry Level for numeracy.

3.2.2 Gender

The assessment results can be broken down to show the difference in results for men and women, for both literacy and numeracy. The results in Table 4 show that there was little difference between the proportion of males and females assessed at Level 1 or above for literacy in 2010 (89 per cent of females and 87 per cent of males). Although women were slightly more likely overall to achieve Level 1 or above in the literacy assessments, men were marginally more likely to be assessed at either Level 2 or above (60 per cent, as opposed to 57 per cent for women) or at Entry Level (13 per cent for men, 11 per cent for women). However, none of these gender differences is statistically significant.

Scores for men and women increased by similar amounts between 2004 and 2010, with a 12 percentage points increase in the proportion of men assessed at Level 1 or above (from 75 per cent in 2004 to 87 per cent in 2010) and a 13 percentage point

increase in the proportion of women assessed at Level 1 or above (from 76 per cent in 2004 to 89 per cent in 2010). See Table 4.

Table 4 Gender and literacy

Key: Read down columns

	Gender					
	Total %		Male %		Female %	
	2010	2004	2010	2004	2010	2004
Entry Level	12	25	13	25	11	24
L1	29	37	27	35	32	39
L2 or above	59	38	60	40	57	37
Weighted base	2115	2555	1041	1257	1075	1298
Unweighted base	2116	2555	882	1092	1234	1463

Base: All who completed literacy assessment

There was, however, a much greater difference between the performance of men and women in the numeracy assessment, as shown in Table 5. In the 2010 survey, 60 per cent of men were assessed at Level 1 or above for numeracy, whilst 40 per cent of women were assessed at that level. Within these figures, 29 per cent of men were assessed at Level 2 or above, against 13 per cent of women. This differential also existed in the previous survey and in the assessments in England in 2003⁹⁵, which suggests that this is not due to survey error, but an observable phenomenon.

Table 5 Gender and numeracy

Key: Read down columns

	Gender					
	Total %		Male %		Female %	
	2010	2004	2010	2004	2010	2004
Entry Level	51	53	41	46	60	61
L1	29	25	31	24	27	25
L2 or above	21	22	29	30	13	14
Weighted base	2119	2555	1043	1257	1075	1298
Unweighted base	2117	2555	884	1092	1233	1463

Base: All who completed numeracy assessment

This continuing divide is particularly important as earlier research in England concluded that “*women with poor numeracy skills are more disadvantaged than men*”

⁹⁵ The Skills for Life Survey: A national needs and impact survey of literacy, numeracy and ICT skills. DfES, 2003

(with the same numeracy skills)”⁹⁶ and that poor numeracy skills posed particular problems for employability; “Women with poor numeracy skills are less likely to be in full-time work, more likely to be in semi-skilled or unskilled jobs if employed, more likely to be engaged in home care and more likely to be in a non-working household”.⁹⁷

3.2.3 Age

The survey collected data on those aged 16-65 and analysis of the results by age group shows that there was a tendency for both the youngest (16-19 year olds)⁹⁸ and the oldest (55-65 year olds) to be assessed at a lower level than those in the other age groups, for both numeracy and literacy. This was also the case in both the 2004 survey in Wales and the 2003 Skills for Life Survey in England⁹⁹.

Table 6 shows that there were improvements in literacy assessment scores within all age bands between 2004 and 2010, although the most substantial improvements in percentage terms were in the middle age bands, which also had the highest assessed literacy levels. For example, the proportion of 35-44 year olds assessed at below Level 1 fell to 8 per cent in 2010 from 21 per cent in 2004, a fall of more than 60 per cent of the 2004 value.

Table 6 Literacy by age

Key: Read down columns

Literacy Level	Age											
	16-19		20-24		25-34		35-44		45-54		55-65	
	2010	2004	2010	2004	2010	2004	2010	2004	2010	2004	2010	2004
Entry Level	20	26	9	19	12	19	8	21	11	30	15	32
L1	29	44	30	42	24	35	28	40	31	34	34	33
L2 or above	51	30	61	44	64	46	64	39	58	36	52	35

Weighted base 2115/2555

Unweighted base 2116/2555

Base: All who completed literacy assessment

⁹⁶ Does Numeracy Matter More? Samantha Parsons and John Bynner, NRDC, 1998.

⁹⁷ New Light on Numeracy. J.Bynner and S.Parsons, NRDC 2006.

⁹⁸ Age bands were chosen to allow comparison with previous surveys.

⁹⁹ Op cit

In the literacy assessments, (Table 6), 20 per cent of 16-19 year olds were assessed at Entry Level, against an all-age figure of 12 per cent. This was an improvement on the results of the 2004 survey, when 26 per cent of the 16-19 group were assessed at Entry Level. However, literacy assessment levels amongst the 16-19 age group in 2004 were below the all-age figure in the same way that they were in the 2010 survey.

Hence the survey results suggest that individuals continue to develop their literacy skills after leaving school – a point which was made in the 2003 Skills for Life Survey in England¹⁰⁰, which said that “*there is some evidence to suggest that younger respondents could be expected to perform at a lower level than older age groups, because their skills continue developing after the end of full-time education, especially if the work demands it*”.

There was a similar picture in terms of the numeracy assessments, with lower levels of assessed skills amongst the youngest and oldest age groups: Table 7 shows that respondents from age 25 up to 55 were likely to be assessed at similar levels in the numeracy assessment, whilst those at either end of the age range were again more likely than respondents overall to be assessed at Entry Level. Assessments amongst the 16-19 age group again showed the lowest proportion of individuals at Level 1 or above (40 per cent), whilst those in the 35-44 and 45-54 categories had the highest proportion (54 per cent). Respondents again appear to build on their skills levels after the age of 19, albeit to a lesser degree than was the case for literacy.

Table 7 Numeracy by age

Key: Read down columns

	Age												
	16-19		20-24		25-34		35-44		45-54		55-65		
	2010 %	2004 %	2010 %	2004 %	2010 %	2004 %	2010 %	2004 %	2010 %	2004 %	2010 %	2004 %	
Literacy Level													
Entry Level	60	60	56	53	47	45	46	53	47	53	54	61	
L1	25	25	27	23	30	29	31	24	31	24	28	23	
L2 or above	15	14	17	24	23	26	23	23	23	23	18	17	

Weighted base 2115/2555

Unweighted base 2116/2555

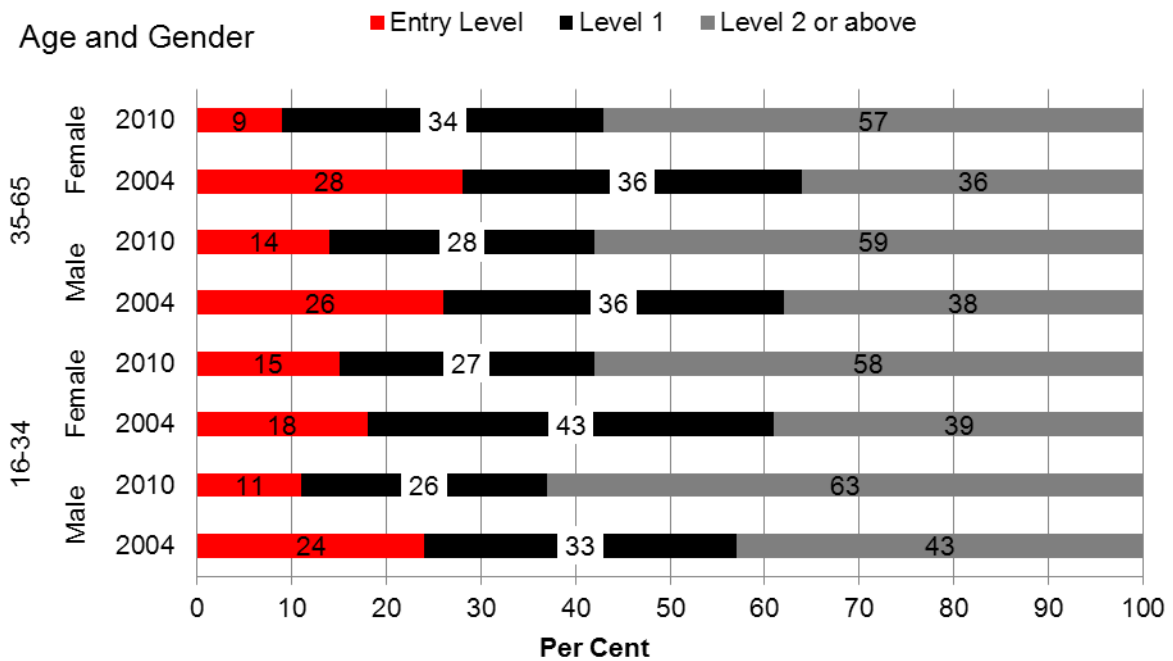
Base: All who completed literacy assessment

¹⁰⁰ Op cit

3.2.4 Age and gender

Results from the survey can be further analysed to identify any differences in age effects between men and women. Figure 1 shows the change in literacy assessment results between 2004 and 2010 by broad age group and gender, and the results show that there were improvements in literacy scores in both the age groups 16-34 and 35-65 and both genders between 2004 and 2010.

Figure 1 - Gender, age and literacy



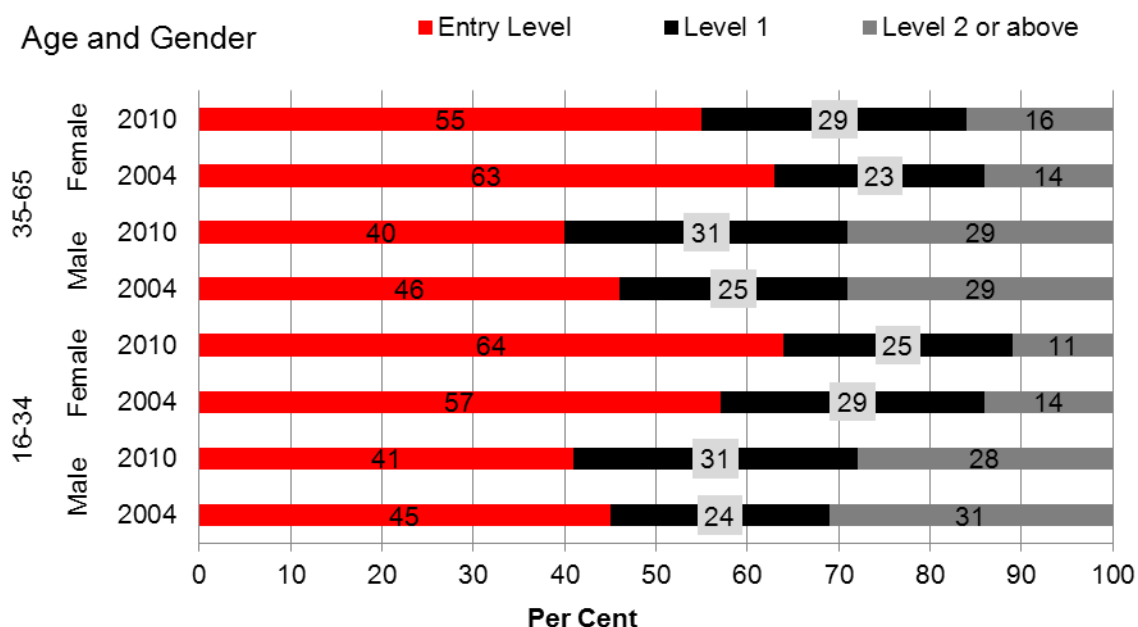
Base: All who completed the literacy assessment

There was however a sharp difference in the relative performance of men and women. Men's assessment rates increased at Level 1 or above by a similar amount across both age bands (13 percentage points for age 16-34 and 12 percentage points for age 35-65), but there was a disparity in women's performance, with assessments at Level 1 or above in the older age band increasing by 19 percentage points, whilst there was only a 3 percentage point increase for the 16-34 years old group.

Figure 2 looks at a similar comparison in relation to numeracy assessments analysed by age and gender. The graph shows that men's performance in the numeracy assessments varied very little with age, but again, women in the younger age group performed less well than their older counterparts. Those aged between

16 and 34 scored lower in 2010 (36 per cent at Level 1 or above) than women of that age group had in 2004 (43 per cent at Level 1 or above), whilst there was an improvement in scores for the older female group (35-65) over that period, from 37 per cent at Level 1 or above in 2004 to 45 per cent in 2010.

Figure 2 - Gender, age and numeracy



Base: All who completed the numeracy assessment

3.2.5 Literacy, numeracy and region

This section of the report discusses literacy and numeracy by region of Wales. By location the report refers to where people taking part were living at the time of the survey and does not necessarily mean that they were born there. The regions used are the standard DfES regions of Wales (Mid, North, South East and South West).¹⁰¹ Analysis by the 22 local authority areas that make up the regions is not possible as there was insufficient survey sample to provide a robust dataset for each of these areas.

Table 8 shows that there was a noticeable difference in respondents' performance in the literacy assessment according to the region where they lived, although location itself may not be the primary factor affecting this. The results show that respondents in Mid Wales were more likely than respondents overall to be assessed at Level 1 or

¹⁰¹ These regions were formed in 2010 within Wales, replacing the former areas of North Wales, South West and Mid Wales, South Wales and South East Wales.

above, (92 per cent against a Wales total of 88 per cent), whilst respondents living in North Wales were the most likely to be assessed at Entry Level (14 per cent against a Wales total of 12 per cent). Within these figures, respondents in Mid Wales were also more likely to perform at the highest level in literacy: 68 per cent achieved Level 2 or above, compared to a Wales-wide figure of 59 per cent.

Overall, assessment levels for respondents living in North Wales were very similar to those living in South West Wales, whilst results from South East Wales, which dominates in terms of population, were very close to the all-Wales total.

Table 8 - Literacy and region

Key: Read across rows

		Assessed literacy level		
		Entry Level	Level 1	Level 2 or Above
		%	%	%
Wales		12	29	59
North Wales		14	31	55
Mid Wales		8	24	68
South West Wales		12	32	56
South East Wales		12	29	60
Weighted base	2115			
Unweighted base	2116			

Base: All who completed literacy assessment

Assessment results for numeracy by region (Table 9) displayed a similar profile (albeit at a much lower level overall), in that respondents living in Mid Wales were more likely to be assessed at Level 1 or above (61 per cent) than the Wales total (50 per cent), whilst those in South West Wales had the lowest numeracy scores (55 per cent at Entry Level against a Wales total of 50 per cent). As with the literacy assessments, the profiles for North Wales and South West Wales were similar, whilst the South East Wales profile was close to the all-Wales figure.

Table 9 - Numeracy and region**Key: Read across rows**

	Assessed numeracy level		
	Entry Level	Level 1	Level 2 or Above
	%	%	%
Wales	50	29	21
North Wales	53	27	19
Mid Wales	39	34	27
South West Wales	55	29	17
South East Wales	49	29	22
Weighted base	2119		
Unweighted base	2117		

Base: All who completed numeracy assessment

3.2.6 Literacy, numeracy and where respondent was born

Those taking part in the survey and assessments were asked whether they were born in Wales, outside Wales but within the UK, or outside of the UK and the results were then related to their English literacy and numeracy scores. Table 10 shows that people who were born in the UK, but outside Wales, were assessed as having higher levels of literacy (94 per cent Level 1 or above) than those born in Wales (87 per cent Level 1 or above), and were much more likely to be assessed at Level 2 or above (72 per cent against 55 per cent for Wales).

Table 10 Literacy and where respondent was born**Key: Read down columns**

	Where respondent was born		
	Wales	Other UK	Outside UK
	%	%	%
Entry Level	13	7	18
L1	32	22	31
L2 or above	55	72	51
Weighted base 2134	1486	526	121
Unweighted base 2134	1493	524	116

Base: All respondents

Conversely, those respondents born outside the UK were assessed as having slightly lower English literacy levels than those born in Wales (82 per cent Level 1 or above), which is understandable, given that three-quarters of this group reported that English was not their first language.

3.2.7 Numeracy and where respondent was born

The data in Table 11 shows that respondents born in the UK but outside Wales were also more likely to achieve a Level 1 or above in numeracy (61 per cent) than those born in Wales (46 per cent).

Table 11 Numeracy and where respondent was born
Key: Read down columns

	Where respondent was born		
	Wales %	Other UK %	Outside UK %
Entry Level	54	40	54
L1	28	31	29
L2 or above	18	30	17
Weighted base	1475	522	120
Unweighted base	1482	519	115

Base: All respondents

Respondents born outside of the UK displayed a similar numeracy profile to those born in Wales (54 per cent Below Level 1 in each case).

There did not appear to be a clear relationship between literacy and numeracy assessment scores and the age at which those born elsewhere in the UK moved to Wales.

3.2.8 Use of languages other than English

Respondents were asked which languages they spoke well enough to have a conversation. The entire sample said that they spoke English, and this was followed by Welsh (19 per cent), French (9 per cent), German (4 per cent) and Spanish (3 per cent). Other languages spoken included Polish, Russian, and Italian amongst many others, each spoken by a small proportion of the sample.

Those who could speak more than one language were asked what the first language they learned was. For the majority it was English (65 per cent), followed by Welsh (25 per cent), and by smaller proportions of a wide range of others. English literacy performance amongst those who learned English first was better (94 per cent at Level 1 or above) than for those who learned Welsh first (85 per cent at Level 1 or above). However, there was a greater disparity in terms of numeracy skills; 60 per cent of those respondents who learned English first had numeracy skills at Level 1 or

above, whilst 44 per cent of those who learned Welsh first had numeracy skills at that level.

3.2.9 Literacy and Welsh language use

The level of English language literacy among respondents whose main language used at home was Welsh, was higher in 2010 than in 2004. Table compares respondents who stated that Welsh was their main language used at home in the 2010 and 2004 surveys.

Table 12 English Literacy and Welsh language use

Key: Read down columns

	Welsh main language at home			
	English Literacy 2010	English Literacy 2004	Numeracy 2010	Numeracy 2004
	%	%	%	%
Entry Level	17	28	59	58
L1	31	31	23	21
L2 or above	53	42	19	20
Weighted base	576	165	577	166
Unweighted base	562	340	561	340

Base: All whose main language at home was Welsh

The proportion that was assessed at Level 1 or above in literacy was 84 per cent in 2010, increasing from 73 per cent in 2004 and broadly in line with the change amongst the whole sample assessed. Levels of numeracy were relatively unchanged amongst this group over the period.

Table 13 English literacy and Welsh language use

Key: Read down columns

	Welsh main language at home		
	Welsh main language at home	Welsh main language at work/school	Welsh language most comfortable using
	%	%	%
Entry Level	17	18	15
L1	31	24	32
L2 or above	53	57	53
Weighted base	127	134	68
Unweighted base	122	117	64

Base: All whose main language at home was Welsh

Respondents were asked about their use of Welsh in different situations, for example at home and at work/school, and whether Welsh was the language they felt most

comfortable using (Table 13). There was little difference in English literacy assessment results across the three categories; although the highest proportion of results at Level 2 was amongst those whose main language at work or school was Welsh.

3.3 Household characteristics

In this section of the report, the results of the literacy and numeracy assessments are examined in the context of headline household characteristics, such as those living in single adult households (with or without children), marital status, tenure and access to state benefits. Table 14 illustrates that there was a higher proportion of assessments at Entry Level for both literacy and numeracy amongst those living in a single adult household.

Table 14 Single adult household occupancy and assessment levels

Key: Read down columns

Assessment Levels	All Households		Single Adult Household Occupancy (16+)	
	Literacy assessment	Numeracy assessment	Literacy assessment	Numeracy assessment
	%	%	%	%
Entry Level	12	50	18	57
L1	29	29	29	26
L2 or above	59	21	53	17
Weighted base	2134	2119	304	304
Unweighted base	2134	2117	558	558

Base: All who completed English literacy assessment

Respondents assessed at Entry Level were also more likely than respondents overall to be single and never married, separated / divorced, or to be widowed. (Table 15). Age effects will come into play here, however, in that those in the youngest age groups were most likely to be assessed at Entry Level and these were also the most likely to be single: 98 per cent of 16-19 years olds and 93 per cent of 20-24 years olds in the sample were single and never married, against an all age total of 35 per cent. At the other end of the age scale, 77 per cent of those describing themselves as widowed were in the 55-65 age band, which again has an impact on their probable assessment level. Those who were separated or divorced, however, were most likely to fall into the 35-54 age group, which were more likely to be

assessed at Level 1 or above in their literacy assessments than were those from other age groups.

Table 15 Marital status and literacy assessment levels

Key: Read down columns

Assessment Levels	Marital Status				
	Single and never married %	Married and living with spouse %	Separated, divorced %	Widowed %	Refused / don't know %
Entry Level	14	9	15	24	0
L1	26	31	31	43	[20] ¹⁰²
L2 or above	59	60	54	34	[80]
Weighted base	749	1070	226	41	25
Unweighted base	796	914	313	66	21

Base: All who completed English literacy assessment

Results for the numeracy assessments (Table 16) were similar, in that those assessed at Entry Level were more likely than respondents across all numeracy levels to be single, separated/divorced or widowed.

Table 16 Marital status and numeracy assessment levels

Key: Read down columns

Assessment Levels	Marital Status				
	Single and never married %	Married and living with spouse %	Separated, divorced %	Widowed %	Refused / don't know %
Entry Level	53	48	54	74	[27] ¹⁰³
L1	28	29	29	21	[61]
L2 or above	19	23	17	5	[12]
Weighted base	747	1077	226	41	25
Unweighted base	794	918	313	66	21

Base: All who completed numeracy assessment

3.3.1 Tenure

There are also links between literacy and numeracy levels and home ownership: The Skills for Life Survey in England¹⁰⁴, for example, pointed out that home owners “tended to perform at a higher level in the literacy test than those who rented”, whilst

¹⁰² Square brackets indicate a sample size of less than 50.

¹⁰³ Square brackets indicate a sample size of less than 50.

¹⁰⁴ Op cit.

research in England on numeracy¹⁰⁵ reported that: “Men with poor basic skills were less likely to be home owners and more likely to be part of a non-working household.” Table 17 shows the results for the 2010 survey in Wales, which confirm this first point. Respondents who owned their own home were the most likely to be assessed at Level 1 or above for literacy (93 per cent, against a total of 88 per cent), and less likely to be assessed at Entry Level (8 per cent against an overall total of 12 per cent). Expressing the data in another way, whilst 64 per cent of respondents overall owned their own home, this proportion fell to 42 per cent for those assessed at Entry Level for literacy, and 45 per cent of those with Entry Level literacy were living in rented accommodation, as opposed to 26 per cent of respondents overall.

Table 17 Household tenure and literacy assessment levels

Key: Read down columns

Assessment Levels	Tenure					All %
	Own Home outright or with Mortgage %	Shared Ownership %	Rented %	Live Rent Free %	Refused / Don't Know %	
Entry Level	8	18	20	17	[12] ¹⁰⁶	12
L1	29	26	34	24	[18]	29
L2 or above	64	46	45	59	[70]	59
Weighted base	1352	55	550	138	20	2115
Unweighted base	1301	46	618	131	20	2116

Base: All who completed English literacy assessment

Further, of those living in rented accommodation, those with lower skills levels were more likely to be in local authority or housing association stock, whilst those assessed at Level 1 or above were more likely to be renting from a private landlord. Table 18 shows the results for the numeracy assessments in the context of tenure. Respondents who had shared ownership or who owned their own home were most likely to be assessed at Level 1 or above (57 per cent and 56 per cent respectively), whilst almost two thirds (65 per cent) of those in rented accommodation were assessed at Entry Level for numeracy, against a figure of 50 per cent for all respondents.

¹⁰⁵ Does Numeracy Matter More? Samantha Parsons and John Bynner, NRDC, 1998.

¹⁰⁶ Square brackets indicate a sample size of less than 50.

Table 18 Household tenure and numeracy assessment levels**Key: Read down columns**

Assessment Levels	Tenure					All %
	Own Home outright or with Mortgage %	Shared Ownership %	Rented %	Live Rent Free %	Refused / Don't Know %	
Entry Level	44	44	65	54	[60] ¹⁰⁷	50
L1	32	27	22	27	[30]	29
L2 or above	24	30	13	19	[10]	21
Weighted base	1353	55	555	135	20	2119
Unweighted base	1300	47	622	128	20	2117

Base: All who completed numeracy assessment

3.3.2 Benefits and tax credits

Respondents were asked whether they were claiming any kind of state benefit or tax credit.

Table 19 Benefits claimants by type of benefit and literacy assessment levels**Key: Read down columns**

Benefit Type	Literacy Assessment Levels			Total %
	Entry Level %	Level 1 %	Level 2 %	
Educational Maintenance Allowance (EMA)	[0]	[1]	[1]	[1] ¹⁰⁸
Family related benefits (excluding Child Benefit and tax credits)	3	6	7	6
Housing, or Council Tax benefit	27	18	10	15
Income Support (not as an unemployed person)	17	14	7	11
Pension Credit	[<1]	[1]	[<1]	[<1]
Sickness or Disability Benefits	30	20	11	17
State Pension	17	16	9	12
Tax Credits	28	33	41	36
Unemployment-related benefits, or National Insurance Credits	13	10	7	8
Other, Don't Know, Refused	3	3	3	3
Weighted base	147	322	553	1022
Unweighted base	181	352	563	1096

Base: All those claiming state benefits or tax credits

¹⁰⁷ Square brackets indicate a sample size of less than 50.¹⁰⁸ Square brackets indicate a sample size of less than 50.

Leaving aside child benefit, which is a universal entitlement, the most commonly claimed benefits were tax credits (36 per cent of respondents), sickness / disability benefit (17 per cent) and housing benefit / council tax relief (15 per cent)¹⁰⁹.

Those assessed at lower levels of literacy and numeracy were more likely to be claiming benefits than were the whole sample. For example, Table 19 shows that those assessed at Entry Level for literacy were more likely to claim housing benefit or council tax support (27 per cent against 15 per cent for all respondents), sickness /disability benefit (30 per cent against 17 per cent for all respondents) or unemployment benefit (13 per cent against 8 per cent for all respondents).

Table 20 Benefits claimants by type of benefit and numeracy assessment levels

Key: Read down columns

Benefit Type	Numeracy Assessment Levels			Total %
	Entry Level %	Level 1 %	Level 2 %	
Educational Maintenance Allowance (EMA)	[1]	[1]	[1]	[1] ¹¹⁰
Family related benefits (excluding Child Benefit and tax credits)	8	4	4	6
Housing, or Council Tax benefit	19	9	9	15
Income Support (not as an unemployed person)	14	9	2	11
Pension Credit	[1]	[<1]	[0]	[1]
Sickness or Disability Benefits	20	14	10	17
State Pension	14	9	10	12
Tax Credits	37	36	36	36
Unemployment-related benefits, or National Insurance Credits	10	9	4	9
Other, Don't Know, Refused	2	3	5	3
Weighted base	589	269	165	1023
Unweighted base	655	283	157	1095

Base: All those claiming state benefits or tax credits

Table 20 shows that a similar situation occurs in relation to benefits and numeracy. Those assessed at Entry Level for numeracy were more likely than the whole sample to have claimed housing / council tax benefit (19 per cent against 15 per cent for the

¹⁰⁹ Note that respondents could be claiming more than one type of benefit.

¹¹⁰ Square brackets indicate a sample size of less than 50.

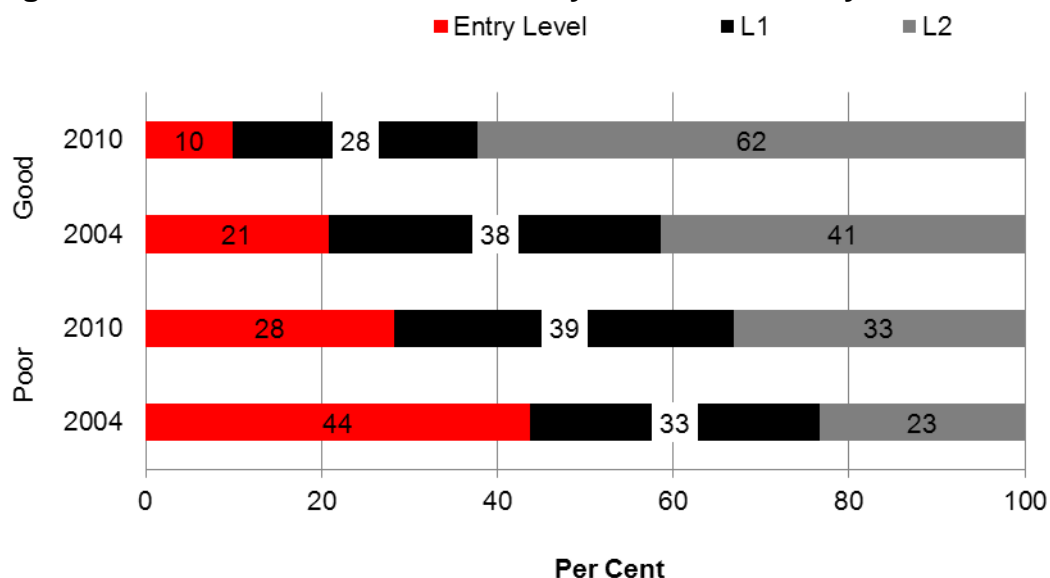
whole sample), income support (14 per cent against 11 per cent for the whole sample) or sickness/disability benefit (20 per cent against 17 per cent).

3.3.3 Health

There are extensive references in existing research to the links between low levels of literacy and numeracy and poor health or disability amongst individuals. The evaluation of Skills for Life in England¹¹¹, for example, noted that: “*There is, for example, a clear association between poor basic skills and learning disabilities, and poor basic skills and poor health*”. The Moser report¹¹² also noted that there is a link to both physical and mental illness from poor levels of literacy and numeracy.

In the 2010 survey, respondents were asked to self-assess their state of health, and were subsequently asked if they had any particular form of long-term illness or disability. They were also asked about learning difficulties, which might affect their ability to develop their literacy and numeracy skills. The results showed that 83 per cent of those interviewed considered that they were in good health and that the proportion of self-assessments of good health had not changed since the 2004 survey.

Figure 3 - Self-assessment of health by assessed literacy levels



Base: All respondents

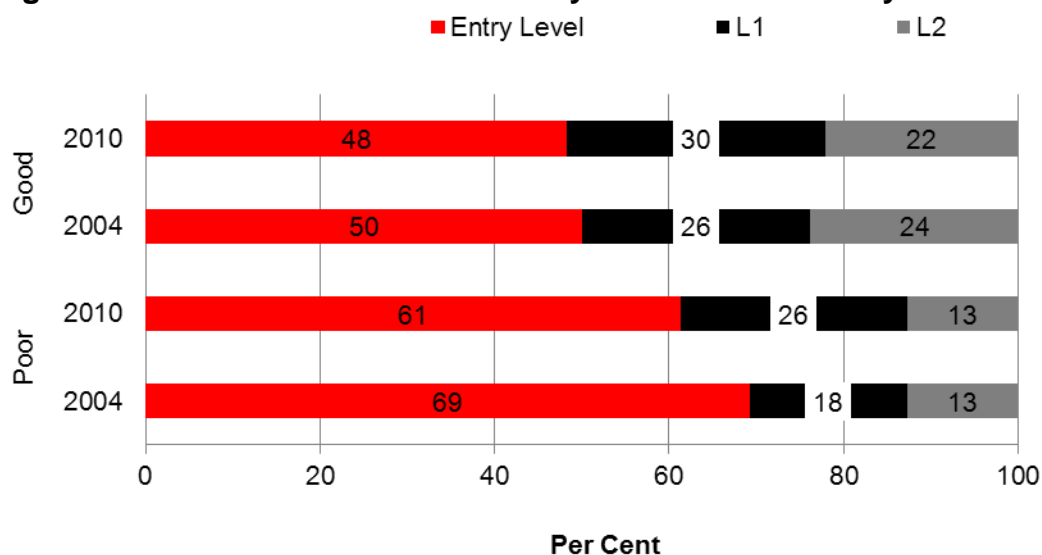
¹¹¹ Evaluation of the Impact of Skills for Life Learning. NIESR / BMRB Social Research, 2009.

¹¹² *Op Cit*

The survey results in Figure 3 show that there is a link between self-assessments for health and assessment results for literacy and numeracy. Of those interviewees who considered that they were in good health, 10 per cent were assessed at Entry Level for literacy, whilst the figure for those self-assessed as being in poor health was much higher in 2010, at 28 per cent. In earlier research, Bynner and Parsons¹¹³ looked at the link between those in good or poor health from the other dimension, stating that “*people with literacy skills below Level 1 are twice as likely to be in poor or very poor health as people with skills at Level 2*”.

The position was similar for numeracy assessments, (Figure 4), with almost two thirds of those who felt that they were in poor health being assessed at Entry Level, whilst less than half of those who felt that they were in good health were at this level. Again the proportion of respondents achieving Level 1 or above increased more between 2004 and 2010 amongst those who felt that they were in poor health than amongst those with good health.

Figure 4 - Self-assessment of health by assessed numeracy levels



Base: All respondents

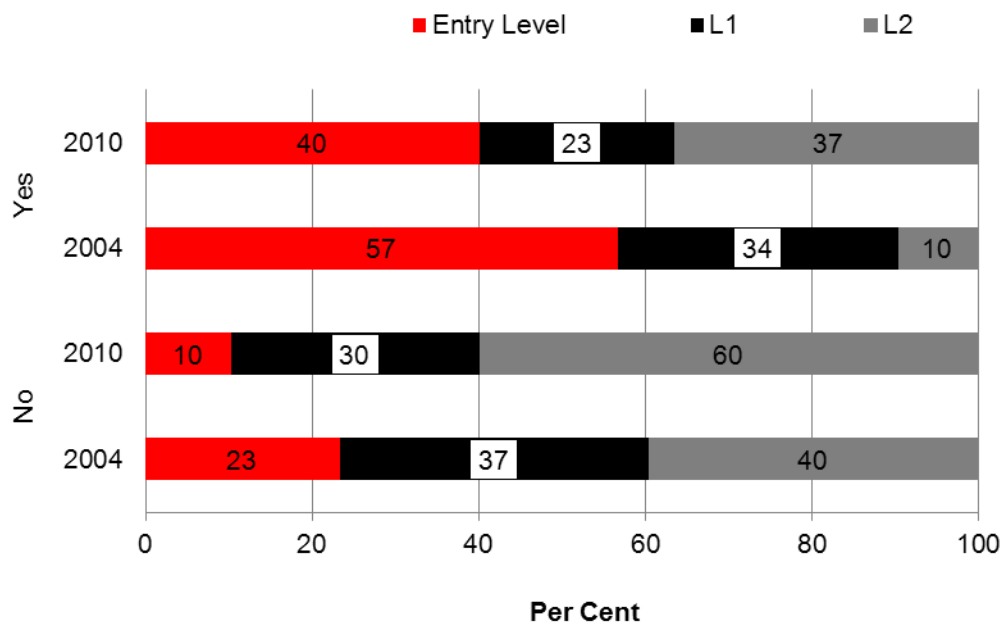
The link between health and literacy / numeracy assessment levels will be influenced by an age effect. For example, self-assessments of health grew worse as a function of age, with 36 per cent of the 55-65 age group stating that their health was poor, compared with a whole sample figure of 17 per cent. In addition, Table 7 of this report showed that respondents in this age group were more likely than the whole

¹¹³ Op cit

sample to be assessed at Entry Level for both literacy and numeracy. It is not, however, possible to state to what extent this higher rating for poor health contributed to lower assessment levels for literacy and numeracy amongst the 55-65 age group.

In addition to an overall health assessment, respondents were asked if they had any learning difficulties of any kind. Five per cent of respondents to the 2010 survey said that they did, predominately dyslexia (70 per cent of those with a difficulty). Learning difficulties were associated with lower performance in the literacy assessment (Figure 5), although those in this group performed better in 2010 than in the 2004 survey.

Figure 5 – Reported learning difficulty by literacy assessment levels



Base: All respondents

Of those who had a learning difficulty, 40 per cent felt that it limited their activities in some way. Whilst the 2010 survey did not explore this further, evidence from the Skills for Life evaluation in England¹¹⁴ suggests that the effect on employment prospects is strong, stating that “*Learning difficulties are likely to be a particularly important influence on employment outcomes. Employers in both the public and private sectors admit that they are reluctant to hire people with learning difficulties, and many of those with more severe difficulties are not expected to find paid work.*”

¹¹⁴ Op cit

Learning difficulties were also associated with poorer assessment results for numeracy, in that 74 per cent of those who said that they had some form of learning difficulty were assessed at Entry Level for numeracy (Table 21) against a figure of 51 per cent for all respondents. Put another way, 8 per cent of respondents who were assessed at Entry Level for numeracy also had a learning difficulty, whereas the proportion of those with a Level 2 assessment in numeracy was 2 per cent.

Table 21 Learning difficulty and numeracy

Key: Read down columns

Assessment Levels	Learning difficulty		Total %
	Yes %	No %	
Entry Level	74	49	51
L1	17	30	29
L2 or above	9	21	21
Weighted base	108	2006	2119
Unweighted base	105	2007	2117

Base: All who completed numeracy assessment (Excludes "Don't knows" = 5 respondents)

Overall, 24 per cent of respondents reported having a long-standing illness, disability or infirmity, mainly related to problems with their arms, legs, hands or feet, followed by problems with their back or neck, chest or heart. This was very close to the level of illness reported in 2004 (23 per cent).

Table 22 Long-term illness / disability and literacy

Key: Read down columns

Assessment Levels	Long-standing illness, disability or infirmity		
	Yes %	No %	Total %
Entry Level	15	11	12
L1	33	28	30
L2 or above	52	61	59
Weighted base	506	1608	2115
Unweighted base	546	1568	2116

Base: All who completed English literacy assessment

Table 22 shows that those with a long-standing illness or disability were more likely than the whole respondent sample to be assessed at Entry Level for literacy (15 per cent against 12 per cent for the whole sample), although not to the same degree as were those with a learning difficulty. Two-thirds of those with a long standing illness

said that it limited their activities in some way, which was again similar in proportion to the 2004 result (70 per cent).

Table 23 Long-term illness / disability and numeracy

Key: Read down columns

Assessment Levels	Long-standing illness, disability or infirmity		
	Yes %	No %	Total %
Entry Level	54	49	51
L1	31	28	29
L2 or above	15	22	21
Weighted base	510	1607	2119
Unweighted base	550	1565	2117

Base: All who completed numeracy assessment

Analysis of the assessment results for those reporting a long-term illness or disability (Table 23) shows that 54 per cent of those who said that they had a long-term illness or disability were assessed at Entry Level for numeracy, against 49 per cent for those who did not report having an illness or disability, and 51 per cent across the whole sample. 15 per cent of those reporting an illness or disability were assessed at Level 2 for numeracy, whilst the figure was 22 per cent for those without an illness or disability and 21 per cent for the whole sample.

3.3.4 Summary

The survey results show that there has been a substantial improvement in literacy levels since the 2004 survey, with 88 per cent of respondents being assessed at Level 1 or above in 2010 and with an estimated almost one quarter of a million fewer working age people being assessed at Entry Level. There was little change in numeracy levels, and the results imply that half of all working age adults in Wales are at Entry Level or below.

One of the most striking features of the results is that the gap between assessment levels for literacy and those for numeracy have widened since the previous survey, with more than four times as many respondents classified at Entry Level for numeracy as for literacy.

There was no significant gap in literacy assessment levels between men and women, but this was not the case for numeracy; men were one and a half times as likely to be assessed at Level 1 or above as were women. In terms of age, the youngest (16-19) and oldest (55-65) age groups were the least likely to be assessed at Level 1 or above for literacy. The position was similar for numeracy, although results for the 20-24 age group were also amongst the lowest of any age group.

The assessment of survey results by region showed that there were differences in assessment levels, with respondents from Mid Wales being less likely than those from other regions to be assessed at Entry Level for either literacy or numeracy. In terms of household characteristics, assessment results showed that respondents assessed at Entry Level for literacy or numeracy were more likely to be separated or divorced than the whole sample total and that those living in single adult households were more likely to be assessed at Entry Level for both literacy and numeracy.

In terms of housing tenure, respondents who were assessed at Entry Level for either literacy or numeracy were more likely to be in rented accommodation and less likely to own their own home. With regard to claiming state benefits, there was no relationship between the incidence of claiming child benefit and assessment levels, but there was in terms of other benefits, such as sickness / disability benefits or housing benefit.

Finally, analysis of the literacy and numeracy assessment suggests that there is an association between lower assessment results for literacy and numeracy and poor health / learning difficulties.

3.4 Education

This section of the report presents the results of the survey in relation to respondents' educational achievements and the links between these and their assessments results for literacy and numeracy. It begins by presenting the headline results for literacy and numeracy by highest qualification level and looks at literacy and numeracy assessment results amongst those with GCSEs at grades A*-C in English and maths respectively¹¹⁵. The section then goes on to look at the assessment results for those respondents who left school before the current statutory leaving age of sixteen and considers whether there are any conclusions to be drawn from this. Finally in this section, respondents' literacy and numeracy results are examined in the context of whether or not their parents stayed on in education beyond the age of sixteen.

Key Findings

- The proportion of literacy assessments at Level 2 or above improved for all qualification levels between 2004 and 2010.
- Levels of basic skills need are greatest amongst those with no qualifications (17 per cent of the overall sample).
- Only 69 per cent of respondents qualified to Level 2 or above achieved that level in the literacy assessments, although the figure was 73 per cent for those with a GCSE at A*-C or equivalent in English.
- From the results, individuals appear to develop their skills after leaving school and enter the world of work.
- Individual's assessment scores are influenced by their parents' education record.

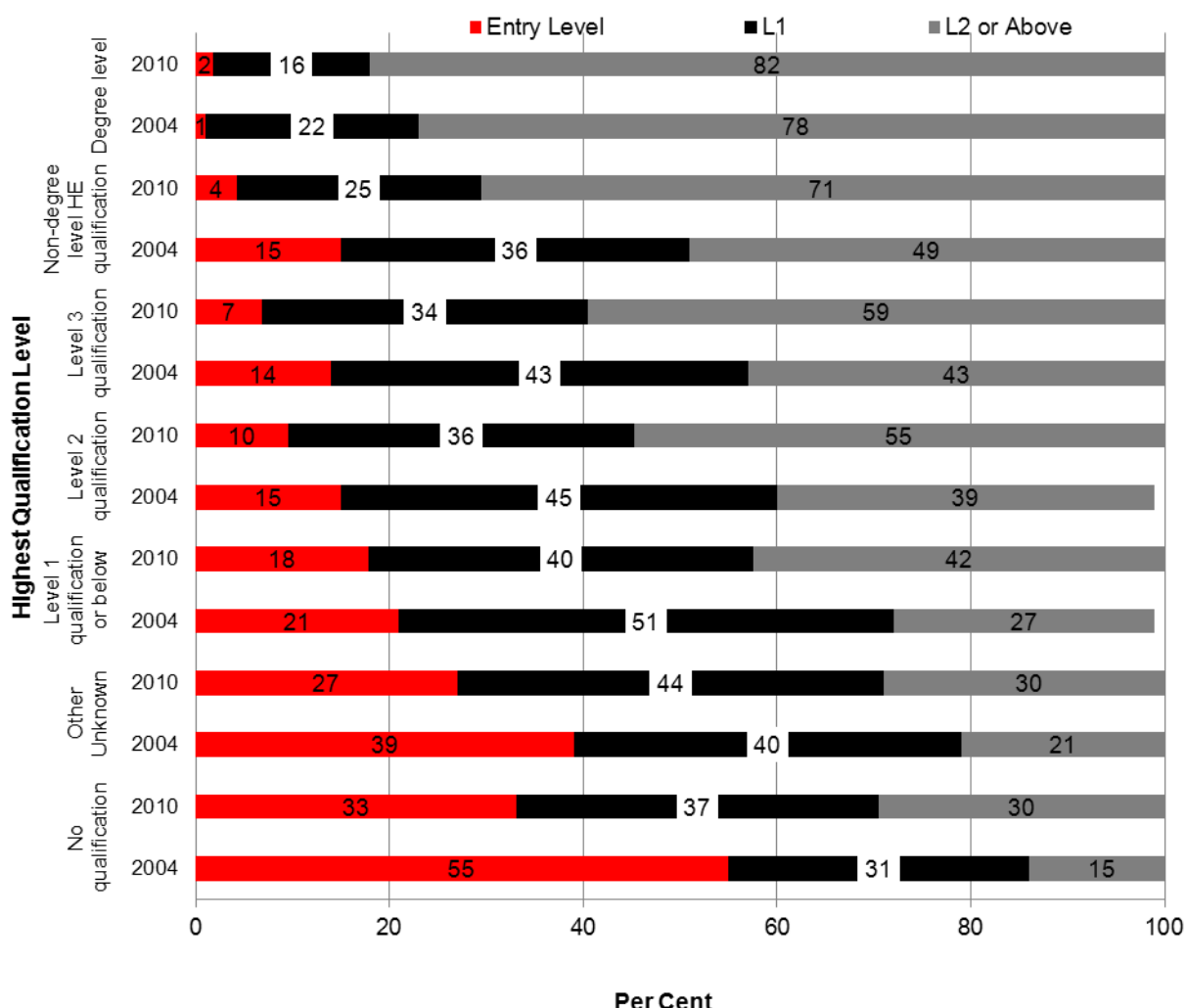
3.4.1 Qualifications and literacy assessment performance

The following paragraphs look at the relationship between respondents' results in the literacy assessment and their highest qualifications. Figure 6 below shows that there was a greater proportion of respondents assessed at Level 1 or above for literacy amongst those with higher level qualifications than across the sample overall and that assessed literacy levels were to some extent proportional to qualification levels. For example, 82 per cent of those whose highest qualification was at degree level were assessed at Level 2 or above, whilst the proportion amongst those qualified to Level 1 was 42 per cent. Those respondents with no qualifications were

¹¹⁵ or equivalent

characterised by being more likely than other groups to be assessed at Entry Level for literacy (33 per cent compared with a whole sample result of 12 per cent).

Figure 6 Qualification level and literacy



Base: All who completed literacy assessment (excluding those still in education)

There was a reduction in the proportion of respondents with literacy assessments at Entry Level amongst those with formal qualifications. This was true at all levels except for those with a degree level award, where there was a slight increase from 1 per cent to 2 per cent. However, even amongst those with no qualifications, there was a sharp reduction in the proportion of respondents assessed at below Level 1 between 2004 and 2010 (from 55 per cent in 2004 to 33 per cent in 2010). Within this, the largest change was the reduction in assessments at Entry Level 3, from 33 per cent in 2004 to 15 per cent in 2010.

Figure 6 also demonstrates the relationship between those assessed at Level 2 or above for literacy and the proportion of the sample with a qualification at Level 2 or above which is equivalent to an A*-C grade at GCSE or equivalent. Across all respondents, 71 per cent were qualified to that level in one or more subject (excluding those still in education). However, only 55 per cent of these achieved Level 2 or above in the literacy assessment.

There has nevertheless been a noticeable improvement in the performance levels of those whose highest qualification was at Level 2 since 2004. For example, in 2010, 55 per cent of this group achieved Level 2 in the literacy assessment, whereas in 2004, the equivalent figure was just 39 per cent.

Taking this analysis a little further, 73 per cent of those with a GCSE in English language at grade A* to C were assessed at Level 2 or above for literacy and 3 per cent were assessed at Entry Level (falling from 9 per cent in 2004). Whilst GCSE English is about a wider range of subject matter than delivering basic literacy, it might be reasonable to expect that those achieving the qualification would have Level 2 literacy in order to achieve this level in other areas of the English language curriculum.

If this result is then examined in terms of age and qualifications, what stands out is that those in the 16-19 age group (who had most recently achieved a grade A*-C GCSE) were considerably less likely to be assessed at Level 1 or above than those in older age groups, (Table 24). With the exception of the 35-44 age group, who scored particularly well in the assessments, there was relative consistency of results amongst the 20+ age groups.

This was also the case in the 2004 survey, when 16 per cent of 16-19 year olds were assessed at Entry Level. Respondents who were in this age range at the time of the 2004 survey would now be most likely to fall into the 20-24 age band if they were to be surveyed again. Assuming that the results of the earlier survey were representative of the whole age group, then the current 20-24 age band could be expected to yield similar results in the 2010 survey to the 16-19 age band in the 2004 survey. In fact, the proportion assessed at Entry Level amongst this age group

was only 3 per cent, which suggests that individuals continue to develop their literacy skills beyond leaving school, either through further learning or in everyday life.

Table 24 Literacy assessments amongst those with GCSE English language at A*-C, by age

Key: Read down columns

Assessment Levels	Age						Total
	16-19	20-24	25-34	35-44	45-54	55-65	
	%	%	%	%	%	%	%
Entry Level	12	3	4	2	3	2	3
L1	27	23	22	21	27	25	24
L2 or above	61	74	74	78	71	73	73
Weighted base	105	134	224	282	258	222	1,228
Unweighted base	126	86	220	280	247	246	1,206

Base: All with GCSE English language at A*-C

3.4.2 Qualifications and numeracy assessment performance

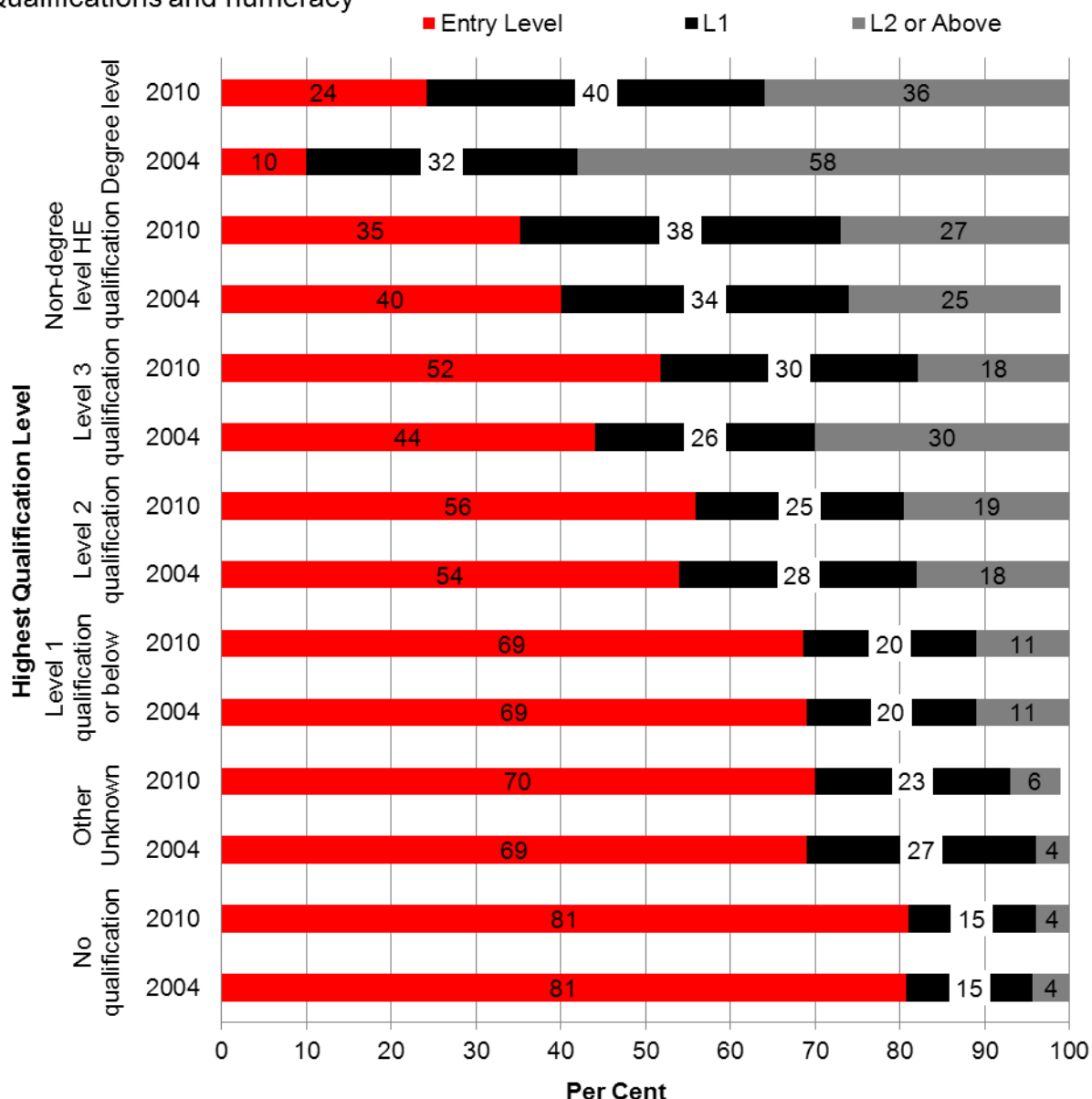
Numeracy skills might be expected to be less closely linked to qualification levels, in that it is possible to achieve higher level qualifications in non-numerate disciplines without the need for numeracy skills, whereas in contrast, almost all subjects require a reasonable level of literacy in order for candidates to be successful.

Figure 7 illustrates that there was little improvement in numeracy skills levels between 2004 and 2010 across all qualification levels except for non-degree HE level, where the results show an increase in the percentage of respondents assessed at Level 1 or above as well as an increase for those in the miscellaneous “other unknown” qualification category.

Contrastingly, respondents with a degree level qualification fared especially poorly in comparison with the 2004 results, with 24 per cent assessed at Entry Level in 2010, whereas the figure was 10 per cent in 2004. 81 per cent of those with no qualifications were assessed at Entry Level in numeracy in 2010, the same as in 2004.

Figure 7 Qualification level and numeracy

Qualifications and numeracy



Base: All who completed numeracy assessment (except those still in education)

Amongst all respondents with a qualification at Level 2 or higher, only 28 per cent achieved Level 2 in the numeracy assessment. Of greater concern might be the fact that 30 per cent of those with a GCSE in maths at grade A* to C were assessed at Entry Level for numeracy and only one third was assessed at Level 2. Whilst GCSE maths is not limited to building numeracy skills, it might be reasonable to expect that those achieving the qualification would have reached Level 2 in this area of maths, given that Moser¹¹⁶ states that “The standards for Level 1 and Level 2 are equivalent to those demanded for a Level One or Level Two qualification in the National

¹¹⁶ Op Cit.

Qualifications Framework” and that, as suggested in the 2004 survey report:¹¹⁷ “*If somebody is classified at Entry Level it suggests that he/she lacks the necessary literacy or numeracy skills to achieve a formal qualification*”.

As with the literacy assessments, it is interesting that those aged 25 and older with a grade A*-C GCSE in maths were considerably more likely to be assessed at Level 2 or above than those in lower age groups, (Table 25). The fact that the group who had most recently achieved their GCSE’s had the lowest numeracy assessment scores may be surprising, but in fact this was also the case in the 2004 survey¹¹⁸ when it was noted that individuals continued to build on their numeracy skills through their twenties and thirties. In the 2010 survey, this trend continues throughout respondents’ working lives.

Table 25 Numeracy assessments amongst those with GCSE maths at A*-C, by age

Key: Read down columns

Assessment Levels	Age					
	16-19	20-24	25-35	35-44	45-54	55-65
	%	%	%	%	%	%
Entry Level	47	32	30	29	27	25
L1	32	41	35	36	36	37
L2 or above	21	27	34	35	36	38
Weighted base	101	124	199	249	222	181
Unweighted base	120	73	191	248	200	192

Base: All with GCSE maths at A*-C

3.4.3 Literacy among those leaving school at age 16 or younger

Literacy assessment levels amongst those who left school at the age of sixteen or younger were lower than across the sample as a whole, although assessment results for this group were better than for the equivalent group in 2004, as shown in Table 26. To some extent, this is linked to age, as older respondents were much more likely to have left school at 16 or younger. The school leaving age was raised to the present level of 16 in 1972, although the proportion of people staying on in full-time education or training beyond the age of sixteen has increased steadily over the

¹¹⁷ “The National Survey of Adult Skills in Wales”, BMRB for the Welsh National Assembly, 2004.

¹¹⁸ Op Cit

intervening period, to the point where 80 per cent of 16-18 year olds and 39 per cent of 19-24 year olds remained in some form of education or training in Wales in 2010¹¹⁹. The proportion of the overall sample in 2010 who had left school at 16 or younger was quite substantially lower than in 2004.

Table 26 Literacy among those leaving school at age 16 or younger

Key: Read down columns

	Total	Those Leaving School at 16 or younger	
	2010 %	2010 %	2004 %
Entry Level	12	19	36
L1	29	38	38
L2 or above	59	43	27
Weighted base	2115	991	1496
Unweighted base	2116	991	1496

Base: All those leaving school at age 16 or younger¹²⁰

The literacy levels of those who terminated their education at age 16 are shown by their current age at the time of the survey in Table 27. As with the whole sample, literacy levels were higher amongst those who had been out of school for some time than for those who had recently left.

Table 27 Literacy among those leaving school at age 16 or younger, by age group.

Key: Read down columns

Assessment Levels	Age						Total
	16-19 %	20-24 %	25-34 %	35-44 %	45-54 %	55-65 %	
Entry Level	[44] ¹²¹	11	13	13	18	19	18
L1	[33]	40	41	41	36	41	38
L2 or above	[23]	49	46	46	46	40	44
Weighted base	45	74	122	199	223	195	997
Unweighted base	53	63	120	198	215	223	1017

Base: All those terminating education at age 16

¹¹⁹ Participation of Young People in Education and the Labour Market, 2009 and 2010 (provisional). Welsh Government, 2011.

¹²⁰ Sample size for those leaving at age 10-14 was insufficient to present these results separately.

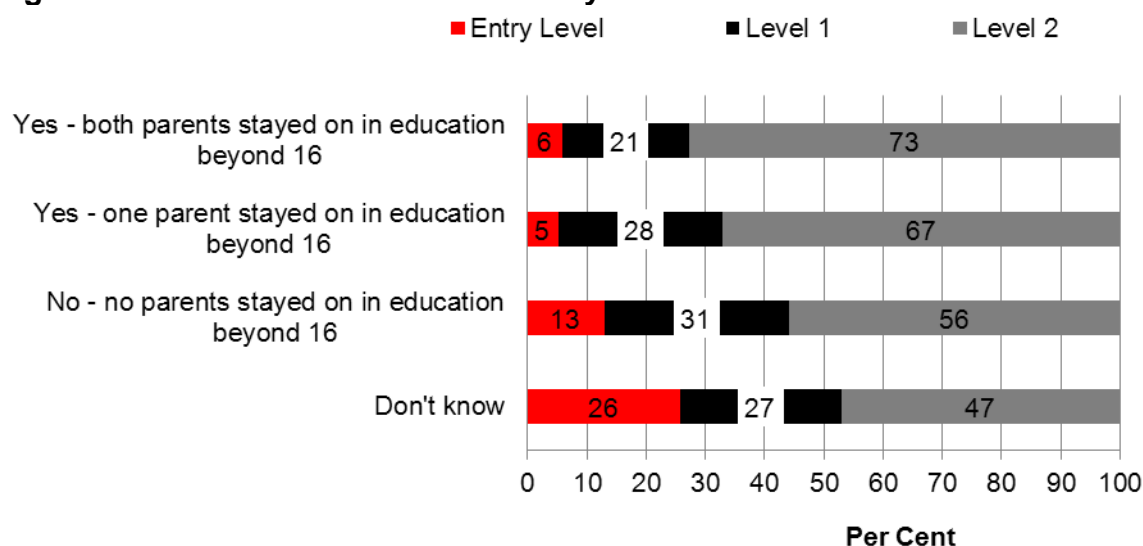
¹²¹ Square brackets indicate a sample size of less than 50.

However, although those who had left school at an earlier age improved their skills after leaving school, the rate of improvement was insufficient to bring them up to the standard of the sample as a whole.

3.4.4 Parental education

The survey results in Figures 8 and 9 show that there is an intergenerational relationship between the results of individuals' assessments for literacy and numeracy and the educational history of their parents. Where both parents stayed in education beyond the age of sixteen, an individual was half as likely as those whose parents did not stay in education to be assessed at below Level 1 for literacy.

Figure 8 Parents' education and literacy



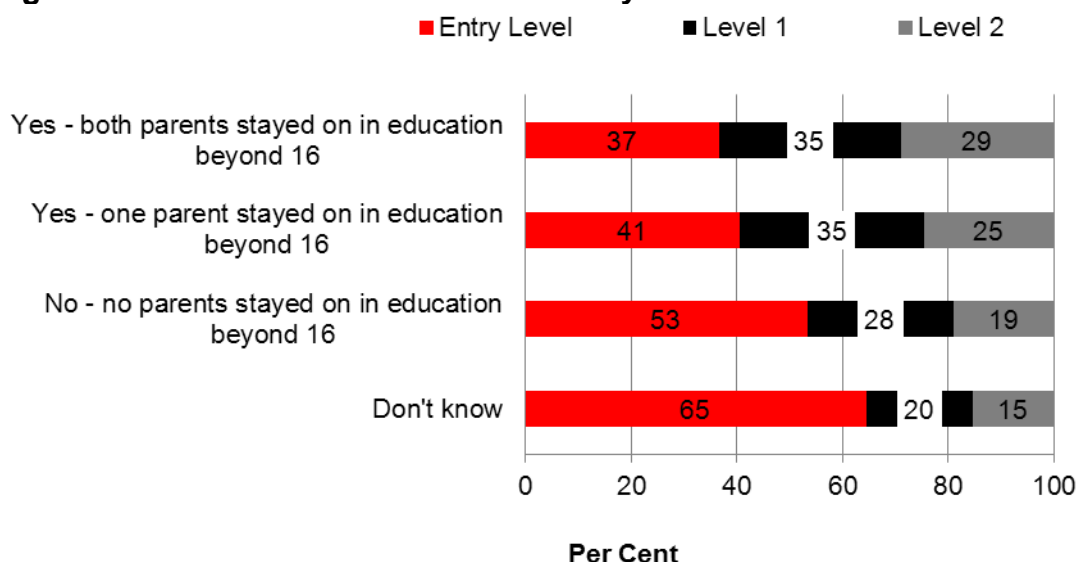
Base: All who completed literacy assessment

Whilst the cause of this relationship may relate to social circumstances or other factors rather than the fact that parents stayed on in education as such, previous studies have reported similar links. For example a 2008 study¹²² reported that: *“The literature agrees that economic status and education are positively correlated across generations; it repeatedly shows as well that parents with higher educational levels have children with higher educational levels. In general children growing up in more highly educated families tend to have better educational and labour market outcomes as adults than children who grow up in less educated families.”*

¹²² Parents' Basic Skills and Children Cognitive Outcomes: de Coulon, Meschi and Vignoles. Centre for the Economics of Education. December 2008.

It should be noted that the likelihood of one or more parents having stayed on in education decreases with the age of the respondent, with older individuals being very much less likely to have had parents who continued their education beyond the age of sixteen.

Figure 9 Parents' education and numeracy



Base: All who completed numeracy assessment

Those who did not know whether or not their parents stayed on in education (7 per cent of the overall sample) were especially likely to be assessed at below Level 1 for both literacy and numeracy, as illustrated in Figure 9.

3.4.5 Summary

This section of the report has shown that there is a relationship between respondents' qualification levels and their assessment scores for literacy and numeracy.

The proportion of literacy assessments at Level 2 or above improved for all qualification levels between 2004 and 2010 and there was a substantial reduction in the proportion of assessments at Entry Level or below amongst those with no qualifications.

73 per cent of those with a GCSE in English language at grade A* to C were assessed at Level 2 or above for literacy, whereas only one-third of those with a grade A*-C in maths achieved a Level 2 in the numeracy assessment.

Those who left school at age 16 or younger continue to develop their skills through their working lives, but at a lower level than those who stay on in education. There is also evidence of parents' record of education influencing the literacy and numeracy levels of their children.

3.5 Employment Status

3.5.1 Introduction

It is widely acknowledged that there is a link between low basic skills levels and poor employment outcomes and in turn with the overall competitiveness of the country. In 1999, the Moser Report¹²³, which underpinned the first Basic Skills Strategies in both England and Wales, pointed out the social disadvantage that can arise from poor skills, saying that a poor standard of functional literacy and numeracy is *“one of the reasons for relatively low productivity in our economy, and it cramps the lives of millions of people”*. Skills that Work for Wales¹²⁴ highlighted the scale of the problem: *“the skills of the Welsh workforce still compare poorly with many other parts of the UK. Wales has a higher proportion of low-qualified adults than Scotland and most of the English regions, though we rank above Northern Ireland. Arguably, the greatest challenge is to address the basic skills deficit: Basic skills in Wales are poorer than in any English region”*.

On an individual level, poor basic skills can adversely affect employment prospects and earnings potential. The Leitch Report¹²⁵ made the point that literacy and numeracy are increasingly important in an employment context, not just to carry out work-related tasks, but also to enable individuals to adapt to change and to fully contribute in a global economy. A 2009 report for the Department of Business, Innovation and Skills in England pointed out the advantages of having a reasonable standard of basic skills, stating that: *“Comparing those who have basic skills as an adult with those who do not, there is conclusive evidence of the positive effect, even*

¹²³ DfES, 1999.

¹²⁴ Welsh Assembly Government 2008.

¹²⁵ Prosperity for all in the global economy – world class skills, HM Treasury, 2006.

*after controlling for background, prior ability and other characteristics that influence earnings and employment.*¹²⁶

This section of the report examines the links between the results of the basic skills assessments and respondents' employment and earnings status. It begins by looking at employment and unemployment, full and part-time working amongst those with different levels of literacy and numeracy. The analysis then goes on to look at the links between basic skills and occupational profiles and finally the issue of earnings in relation to literacy and numeracy.

Key Findings

- There was strong progress in literacy assessments amongst the unemployed, between 2004 and 2010.
- However, more than 60 per cent of the unemployed were assessed for numeracy at below Level 1.
- The proportions of full and part-time workers assessed at Entry Level for literacy have converged since 2004.
- Literacy levels are closely linked to occupational category, with for example, 87 per cent of higher managerial and professional staff assessed at Level 2 or above.
- Industry types are also linked to literacy levels, with those working in public and professional services, information and finance scoring at the highest levels for literacy.
- Income is also affected by skills levels. Just 1 per cent of those earning £50,000 p.a. or more had literacy skills below Level 1, but the figure was 70 per cent for those earning less than £15,000 p.a.

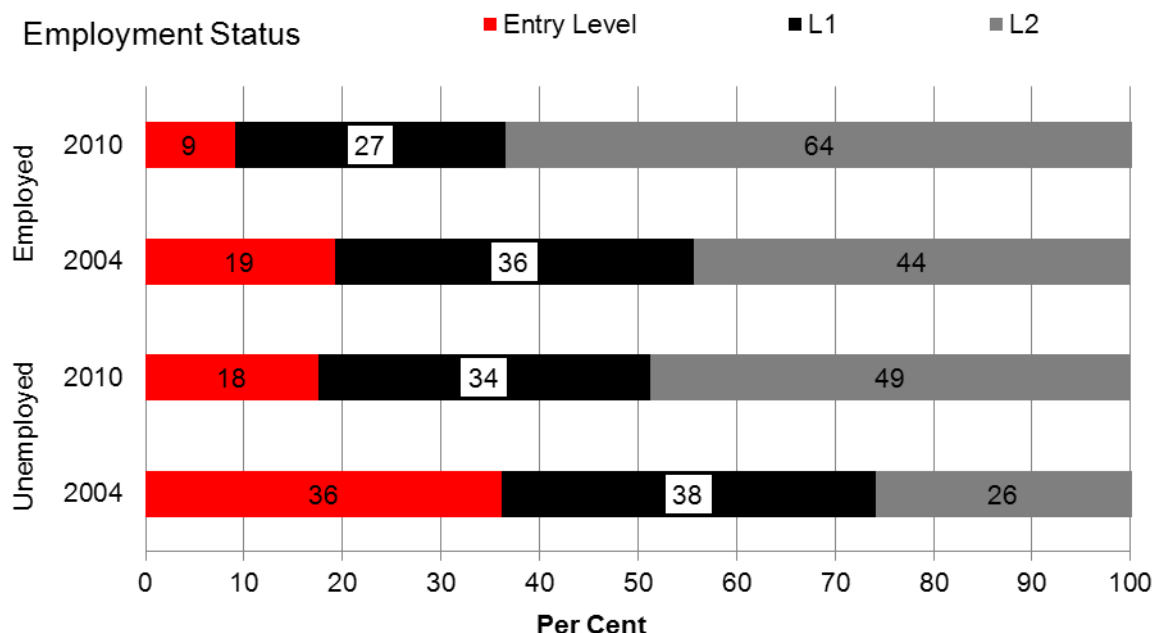
3.5.2 Employed and unemployed

It was suggested in the earlier chapters that individuals continue to build their basic skills once they enter employment, through applying their literacy and numeracy in live situations. This conclusion was supported to some extent in the assessment results, (Figure 10) which showed that respondents who were not working at the time of the survey were twice as likely to be assessed at Entry Level or below as were their employed counterparts (18 per cent for the unemployed group as opposed to 9 per cent for those in employment). Although 32 per cent of respondents were not

¹²⁶ Economic Impact of Training and Education in Basic Skills: Summary of Evidence. NRDC. 2009.

working at the time of the survey, only 4 per cent of these were actively looking for work. The remainder mainly comprised a mix of students, carers, those with a long-term illness or disability and the retired.

Figure 10 Employment status and literacy



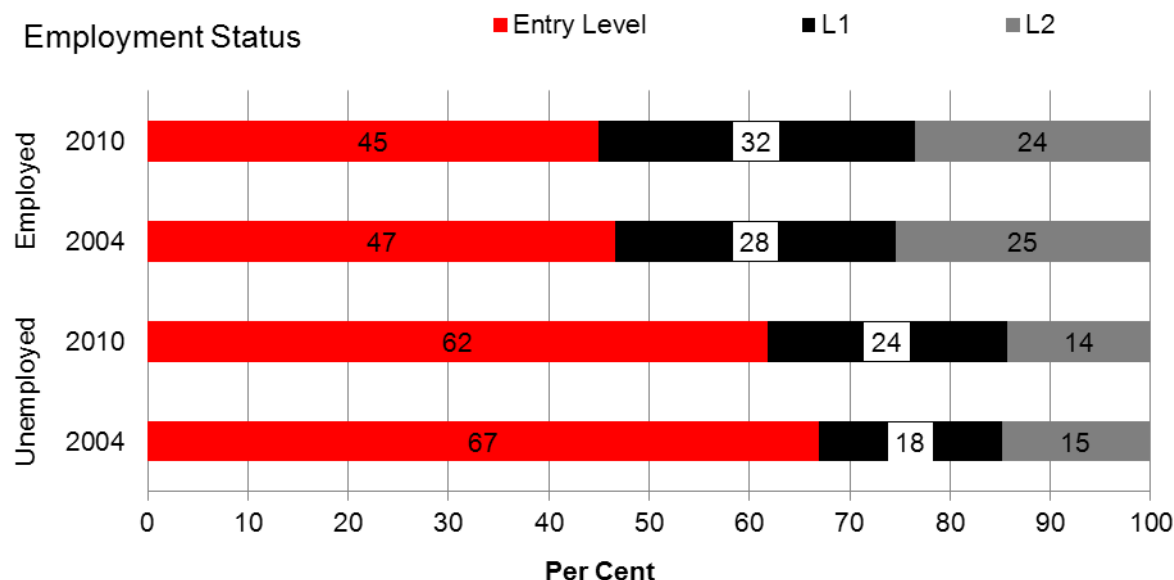
Base: All who completed literacy assessment

The long-term sick or disabled stood out particularly as having low levels of literacy, with 28 per cent of this group assessed at Entry Level. Despite this, there has been an 18 percentage points increase in the overall proportion of unemployed respondents assessed at Level 1 or above since 2004 (from 64 per cent to 82 per cent). As a comparison, employed respondents assessed at Level 1 or above increased by a smaller proportion over the period (from 81 per cent to 91 per cent).

A less profound change took place in the assessed numeracy levels of respondents, with for example a 5 percentage points increase in the proportion of assessments at Level 1 or above amongst unemployed respondents since 2004, (Figure 11). The issue remains that in 2010, 62 per cent of the unemployed group were assessed at below Level 1 for numeracy. This reinforces a broad range of research evidence on the links between low levels of numeracy and poor employment outcomes¹²⁷.

¹²⁷ For example, McIntosh and Vignoles (2001) found that; “Having Level 1 or above numeracy skills is associated with having a 4-8 percentage point higher probability of being employed.”

Figure 11 Employment status and numeracy

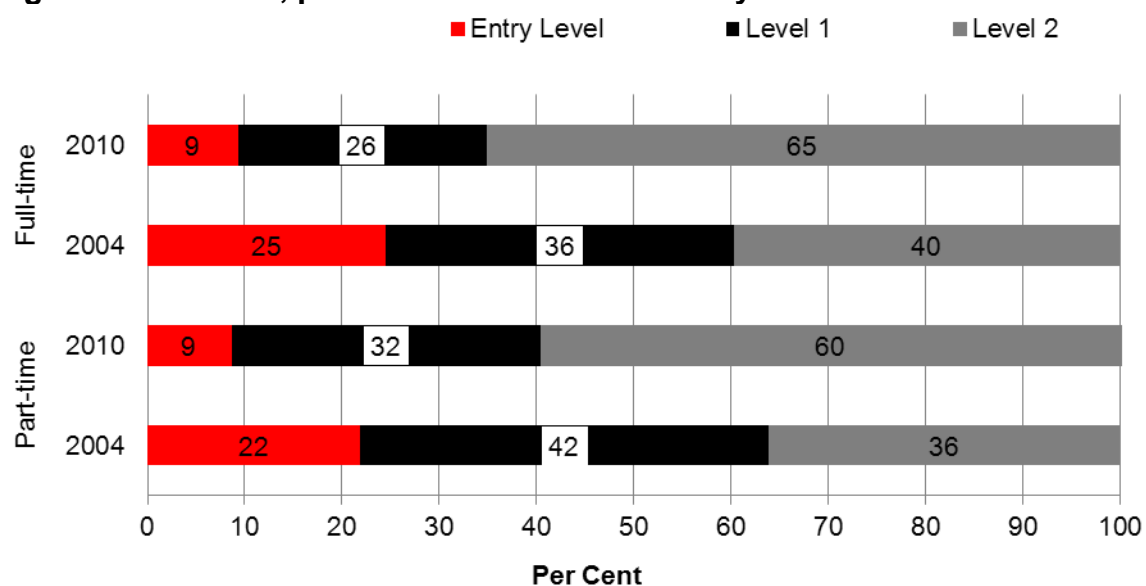


Base: All who completed numeracy assessment

3.5.3 Full time and part time workers

Figure 12 shows that for those in employment in 2010, there was no difference between the proportions of full and part-time workers assessed at Level 1 or above for literacy (91 per cent in each case). In 2004, however, full-time workers were slightly less likely to be assessed at Level 1 or above – at 75 per cent against 78 per cent for part-time workers.

Figure 12 Full-time, part-time workers and literacy



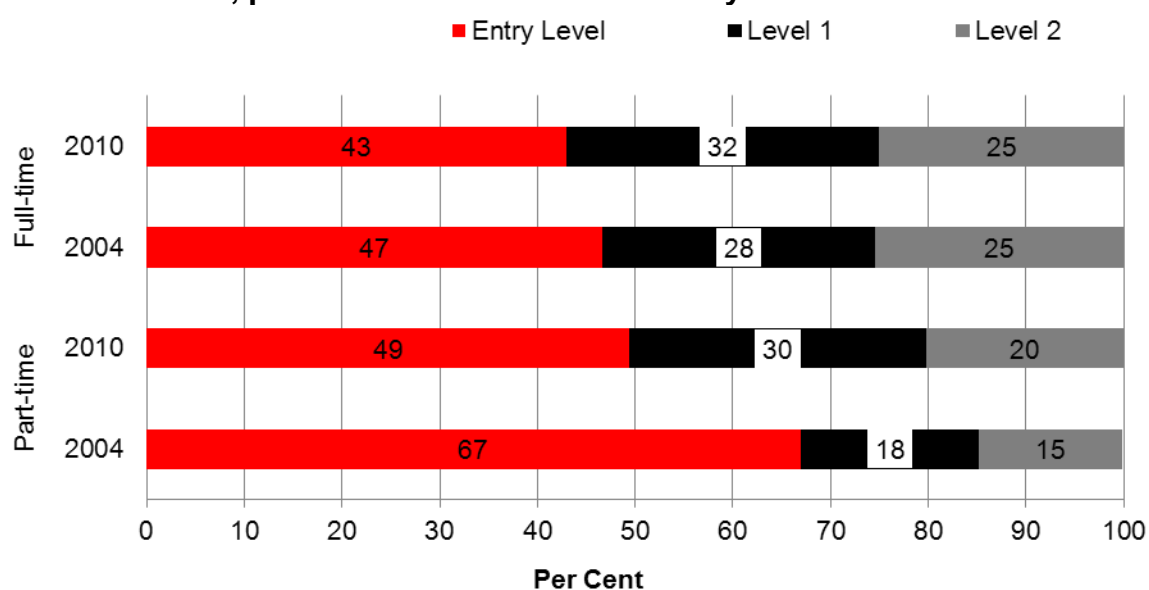
Base: All employed who completed the literacy assessment

All 'student and employed' respondents from the 2010 survey have been categorised as 'part-time' for this comparison.

In both 2010 and 2004 respondents who worked full-time were more likely to be assessed at Level 2 or above than respondents who worked part-time.

The chart in Figure 13 illustrates a closing of the gap between numeracy assessment results for full and part-time workers. In 2010, 57 per cent of full-time and 50 per cent of part-time workers were assessed at Level 1 or above for numeracy. In 2004, however, the gap had been very much wider, with 53 per cent of full-time workers assessed at Level 1 or above, as opposed to just 33 per cent of part-time workers at that level.

Figure 13 Full-time, part-time workers and numeracy



Base: All employed who completed the numeracy assessment

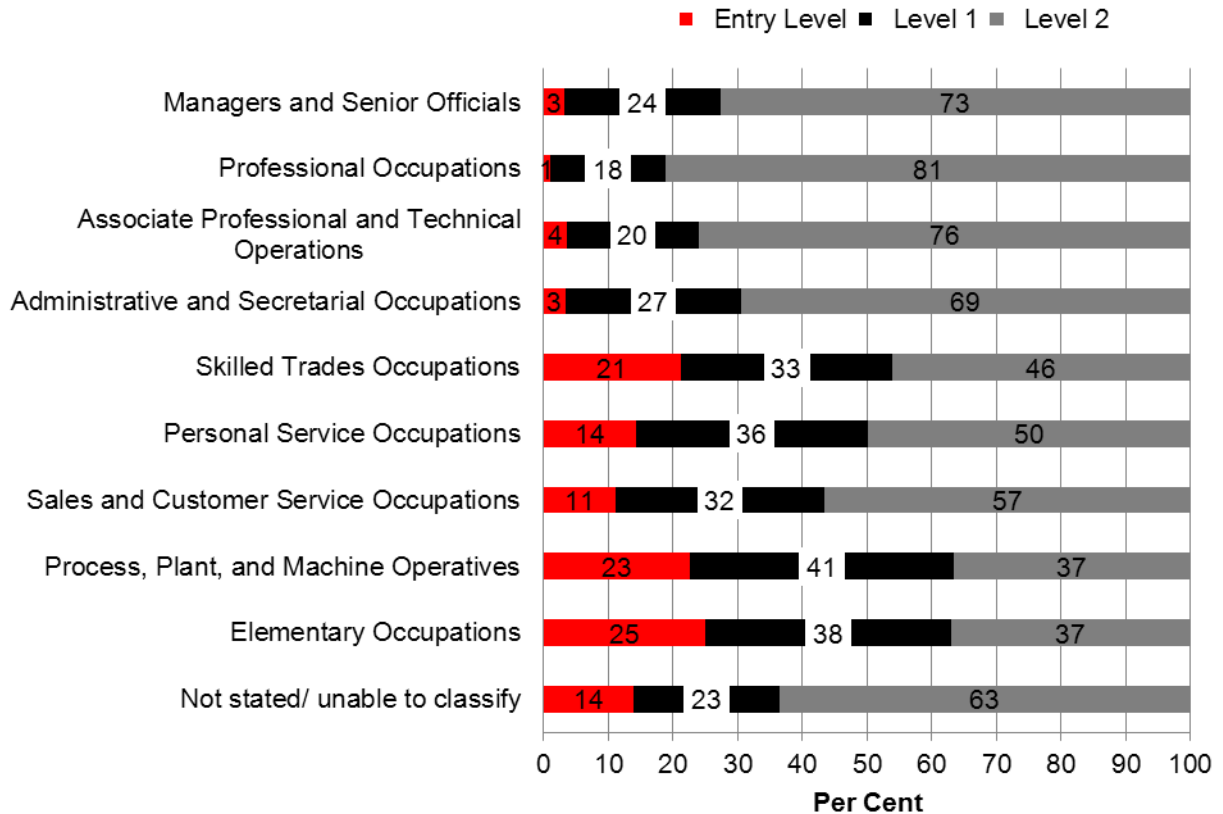
(a) All 'student and employed' respondents from the 2010 survey have been categorised as 'part-time' for this comparison.

The proportion of part-time worker respondents assessed at Level 2 or above increased by 5 percentage points between 2004 and 2010 (from 15 per cent to 20 per cent), whilst the proportion remained the same amongst those working full-time (25 per cent in each case).

3.5.4 Literacy/numeracy and occupational status

The survey results can be analysed by respondents' broad occupational category based on Standard Occupational Classification (SOC) categories¹²⁸. These provide a means of differentiating between occupations according to the type of work carried out, from senior managers to unskilled elementary occupations.

Figure 14 Respondents' Occupational status and literacy



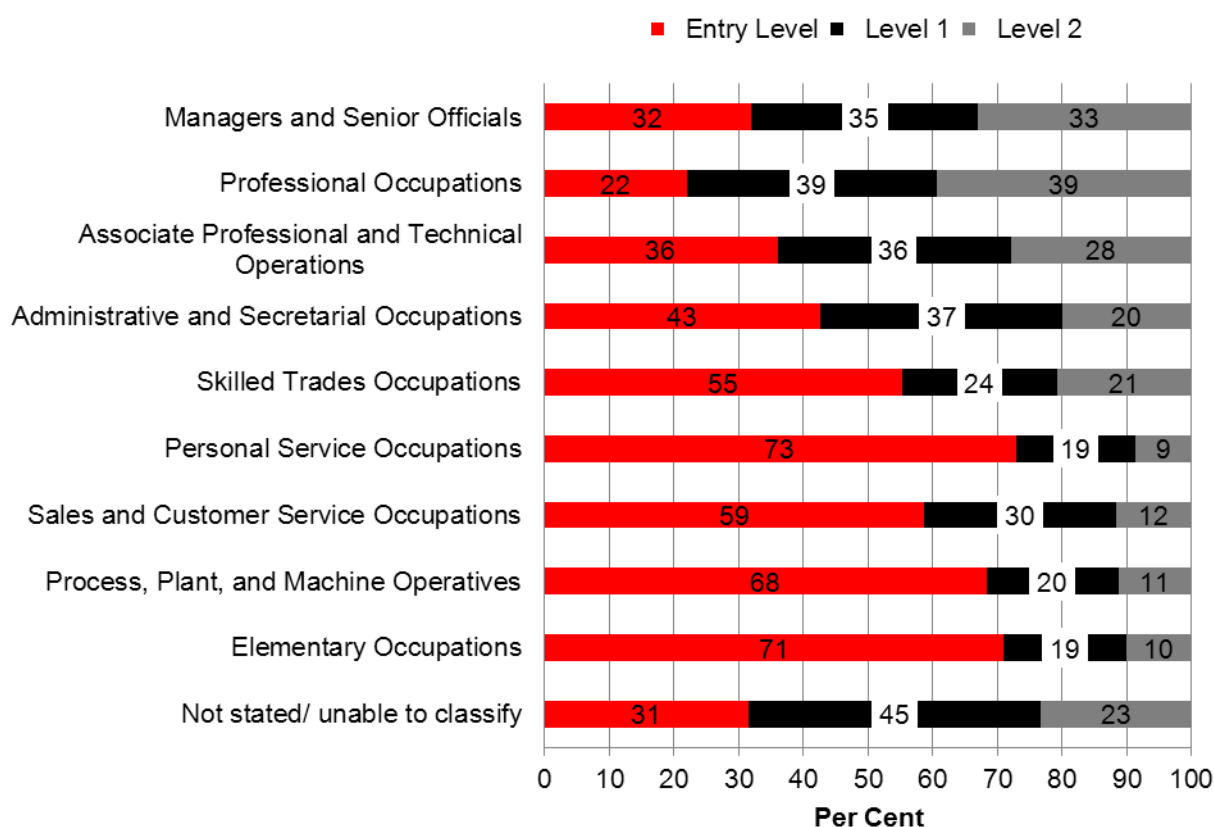
Base: All those who were working and who completed literacy assessment

As might be expected, there was a close relationship between higher-skilled roles and higher literacy scores. Figure 14 shows that 96 per cent or more of those working in management, professional or associate professional roles were assessed at Level 1 or above, and this carried through to administrative and secretarial occupations.

¹²⁸ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/index.html>

Respondents working in customer facing, service sector occupations in sales, customer service and personal services occupied the middle rankings in the literacy assessments, whereas those in elementary occupations and working as process, plant and machine operatives were the least likely to be assessed at Level 1 or above (75 per cent and 78 per cent respectively). Respondents working in skilled trades (such as carpenters, plumbers and bricklayers) had relatively poor literacy skills, with 79 per cent assessed at Level 1 or above.

Figure 15 Occupational status and Numeracy



Base: All those who were working and who completed numeracy assessment

Figure 15 shows that there is also a relationship between occupational status and numeracy, with higher assessment results again being broadly associated with higher skilled occupations. For example, 68 per cent of respondents working as managers and senior officials and 78 per cent of professionals were assessed at Level 1 or above for numeracy, compared with only 29 per cent of those working in elementary occupations. Respondents working in personal service occupations (such as hairdressers, beauticians and childcare) had relatively poor numeracy skills, with 28 per cent assessed at Level 1 or above.

To provide further detail on respondents' socio-economic profiles, survey and assessment results were also broken down by NS-SEC (National Statistics Socio-Economic Classification)¹²⁹. This is an alternative classification, which aims to create a more descriptive and flexible way of describing what people do in their day to day work and which allows more insight into the different characteristics of different job types, as well as including those not in work. The results in Table 28 reinforce those from the SOC-Based analysis above, emphasising the link between the skills hierarchy and results for the literacy assessments. For example, between 93 per cent and 99 per cent of respondents in the managerial, professional and intermediate SEC categories were assessed at Level 1 or above for literacy, whilst for those in routine occupations, the proportion was 69 per cent.

Table 28 Literacy by socio-economic classification (NS-SEC)

Key: Read across rows

SEC Category	Literacy Assessment		
	Entry Level %	Level 1 %	Level 2 %
Higher managerial and professional (210/191) ¹³⁰	0	12	87
Lower managerial and professional (520/506)	4	25	71
Intermediate (190/187)	6	26	67
Small employers & own account workers (171/168)	12	33	55
Lower supervisory and technical (230/205)	14	41	45
Semi-routine occupations (340/366)	18	35	47
Routine occupations (240/253)	31	34	35
Never worked/ long term unemployed (71/86)	26	41	33
Full-time student (115/122)	9	25	67
Not classifiable (28/32)	[14] ¹³¹	[23]	[63]
Weighted base	252	623	1240
Unweighted base	286	629	1201

Base: All respondents who completed the literacy assessment

Respondents who had never worked or who were long-term unemployed were slightly less likely to be assessed at Entry Level or below than those in routine occupations (26 per cent and 31 per cent respectively). The unemployed group is difficult to analyse as it will encompass people with a wide range of skills and abilities

¹²⁹ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html>

¹³⁰ Bracketed values indicate weighted and unweighted bases respectively.

¹³¹ Square brackets indicate a sample size of less than 50.

but with different personal circumstances which may have more bearing in this context than their skills levels; including those with caring responsibilities, people with long-term illness or disability and those looking for work, for example.

Looking at the assessment results for numeracy by NS-SEC in Table 29, it can be seen that they follow a similar pattern to those for literacy, although with both a lower proportion of assessments at Level 1 or above and with a wider range of results, from 81 per cent of higher managers and professionals assessed at Level 1 or above to just 15 per cent of the long-term unemployed and those who have never worked.

Table 29 Numeracy by occupation (NS-SEC)

Key: Read across rows

SEC Category	Numeracy Assessment		
	Entry Level	Level 1	Level 2
	%	%	%
Higher managerial and professional (211/191) ¹³²	19	37	44
Lower managerial and professional (519/505)	35	37	28
Intermediate (191/188)	44	38	18
Small employers & own account workers (172/170)	51	28	21
Lower supervisory and technical (229/205)	60	25	15
Semi-routine occupations (342/367)	69	21	11
Routine occupations (241/252)	77	15	8
Never worked/ long term unemployed (71/86)	85	14	1
Full-time student (115/121)	43	32	25
Not classifiable (28/32)	[31] ¹³³	[45]	[23]
Weighted base	1069	615	434
Unweighted base	1112	595	410

Base: All respondents

Literacy and numeracy assessment scores varied across the industry of employment of the respondents, as shown in Table 30. Activities where more than 75 per cent of respondents had literacy scores at Level 2 or above¹³⁴ were:

- information and communication;
- professional, scientific and technical activities;
- education, and;
- public administration and defence

¹³² Bracketed values indicate weighted and unweighted bases respectively.

¹³³ Square brackets indicate a sample size of less than 50.

¹³⁴ Where there was sufficient sample to quote results.

Table 30 Literacy by industry sector (SIC)**Key: Read across rows**

Respondent SIC group	Literacy Assessment		
	Entry Level	Level 1	Level 2
	%	%	%
Accommodation and Food Service Activities (143/151) ¹³⁵	15	39	47
Activities of Extra-territorial Organisation and Bodies (2/2)	[*] ¹³⁶	[*]	[*] ¹³⁷
Administrative and Support Services Activities (80/76)	27	25	48
Agriculture, Forestry and Fishing (16/15)	[24]	[35]	[40]
Arts, Entertainment and Recreation (37/35)	[10]	[35]	[56]
Construction (116/104)	17	28	56
Education (206/210)	3	20	77
Electricity, Gas, Steam and Air Conditioning Supply (9/7)	[40]	[31]	[29]
Financial and Insurance Activities (42/43)	[1]	[24]	[75]
Human Health and Social Work Activities (298/312)	10	36	54
Information and Communication (54/40)	4	12	84
Manufacturing (235/224)	20	31	49
Mining and Quarrying (9/10)	[20]	[42]	[39]
Other Service Activities (39/41)	[25]	[28]	[47]
Professional, Scientific and Technical Activities (78/74)	0	22	78
Public Administration and Defence (180/174)	4	20	75
Real Estate Activities (11/13)	[0]	[27]	[73]
Transport and Storage (64/62)	13	38	49
Water Supply (17/15)	[15]	[37]	[47]
Wholesale and Retail Trade (264/261)	12	32	56
Weighted base 1962			
Unweighted base 1936			

The highest proportions of respondents with assessments at Entry Level or below for literacy were in administrative and support services, manufacturing and construction. It should be noted that there were also low assessment scores in other, mainly primary, industries, but there was an insufficient sample of respondents to provide robust data for these sectors.

The highest proportions of respondents at Level 2 for numeracy were in the same four sectors as for literacy, albeit at a much lower level. However, those respondents

¹³⁵ Bracketed values indicate weighted and unweighted bases respectively.

¹³⁶ Square brackets indicate a sample size of less than 50.

¹³⁷ The data item is disclosive or not sufficiently robust for publication

working in construction and manufacturing moved up the rankings for numeracy compared with literacy, possibly reflecting the increased need for numeracy in their respective sectors (Table 31).

Table 31 Numeracy by industry sector (SIC)

Key: Read across rows

Respondent SIC group	Numeracy Assessment		
	Entry Level	Level 1	Level 2
	%	%	%
Accommodation and Food Service Activities (145/151) ¹³⁸	67	14	19
Activities of Extra-territorial Organisation and Bodies (2/2)	[*] ¹³⁹	[* ¹⁴⁰]	[0]
Administrative and Support Services Activities (80/76)	56	25	19
Agriculture, Forestry and Fishing (17/16)	[51]	[36]	[13]
Arts, Entertainment and Recreation (36/34)	[40]	[43]	[17]
Construction (115/103)	47	29	24
Education (204/208)	38	34	28
Electricity, Gas, Steam and Air Conditioning Supply (9/7)	[71]	[29]	[0]
Financial and Insurance Activities (42/43)	[32]	[46]	[22]
Human Health and Social Work Activities (304/316)	58	28	13
Information and Communication (55/41)	22	35	43
Manufacturing (235/224)	54	24	22
Mining and Quarrying (9/10)	[77]	[4]	[19]
Other Service Activities (38/40)	[76]	[13]	[12]
Professional, Scientific and Technical Activities (78/74)	37	34	30
Public Administration and Defence (179/173)	32	37	32
Real Estate Activities (11/13)	[29]	[51]	[20]
Transport and Storage (64/62)	60	22	18
Water Supply (17/15)	[63]	[24]	[13]
Wholesale and Retail Trade (264/202)	55	32	13
Weighted base 1966			
Unweighted base 1937			

3.5.5 Occupation and gender

Earlier in this report, it was shown that there was a sharp gender divide in the numeracy assessments in particular. This section considers whether this has an impact on occupational skill levels. The Office for National Statistics states that it is

¹³⁸ Bracketed values indicate weighted and unweighted bases respectively.

¹³⁹ Square brackets indicate a sample size of less than 50.

¹⁴⁰ The data item is disclosive or not sufficiently robust for publication

still the case that the majority of management and senior officer posts are held by men (15 per cent of employed men against 11 per cent of employed women in Wales¹⁴¹, see Table 32), whilst at the same time, there is an over-representation of women in administrative and secretarial occupations and personal service occupations and of men in skilled trades and amongst process, plant and machine operatives.

Table 32 Occupation by gender (SOC)

Key: Read down columns

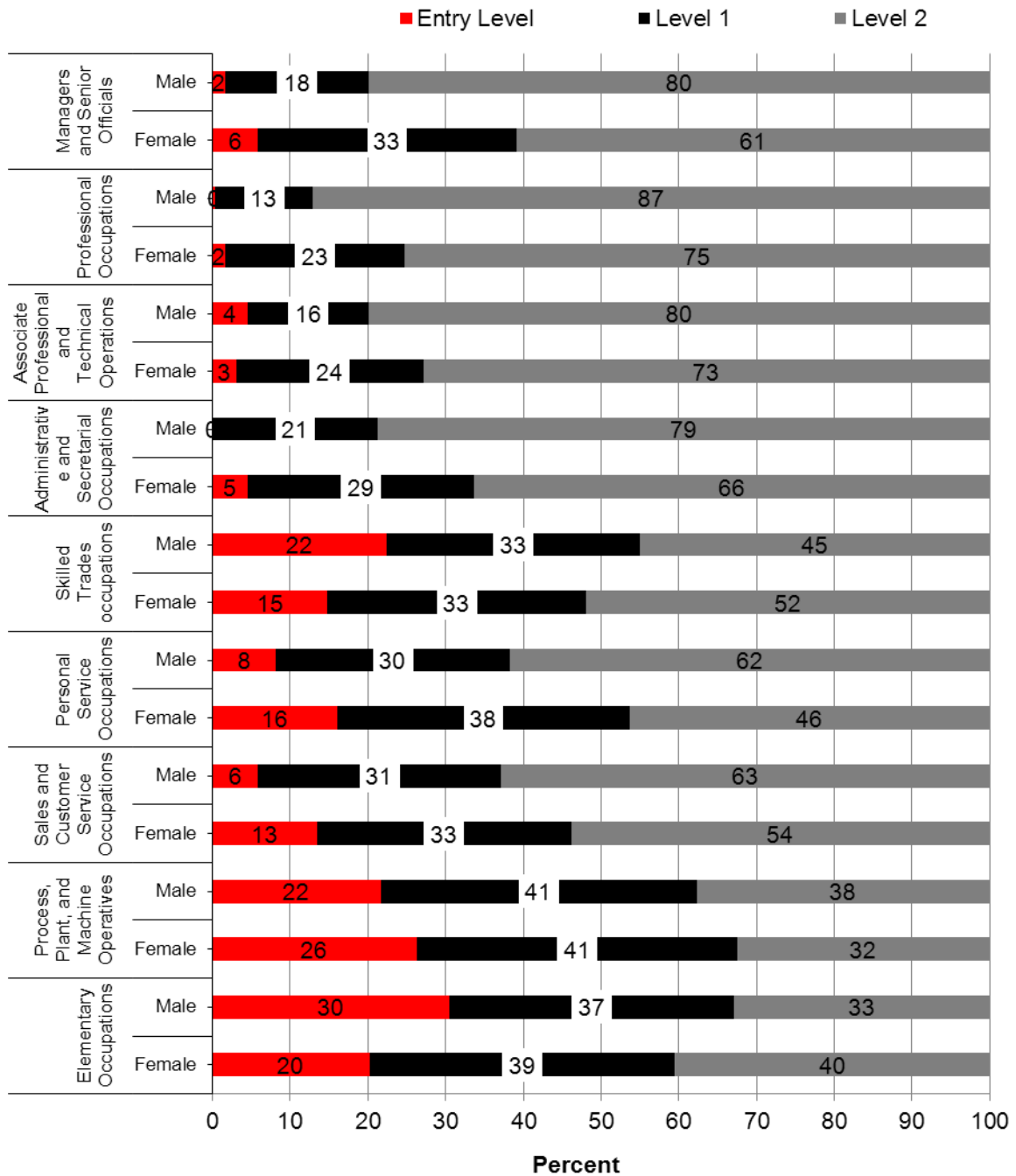
SOC Category	Gender		Total %
	Male %	Female %	
Managers and Senior Officials	15	11	13
Professional Occupations	13	13	13
Associate Professional and Technical Operations	13	16	15
Administrative and Secretarial Occupations	5	17	11
Skilled Trades Occupations	20	2	12
Personal Service Occupations	4	18	10
Sales and Customer Service Occupations	4	11	8
Process, Plant, and Machine Operatives	13	2	8
Elementary Occupations	12	11	11

Annual Population Survey 2010, ONS.

Figure 16 sets out the results for literacy assessments by occupation and gender, showing that there is a literacy divide within the majority of occupations. Specifically, men are more likely than women to be assessed at Level 1 or above in all occupations except for associate professional / technical, skilled trades (ironically an occupational category dominated by males) and in unskilled, elementary occupations.

¹⁴¹ Annual Population Survey 2010, ONS.

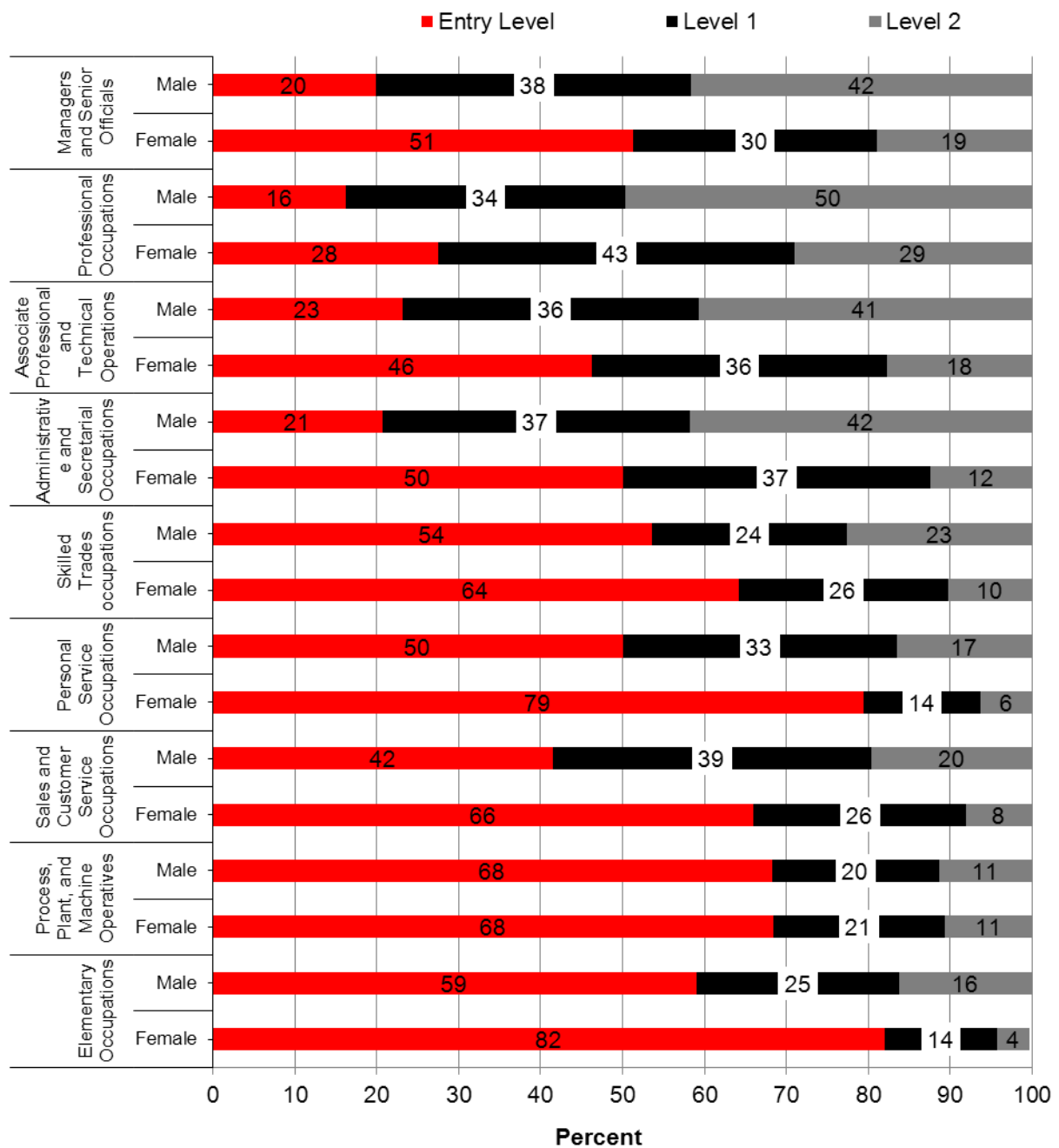
Figure 16 – Occupation (SOC), gender and literacy



Base: All who completed literacy assessment

In Figure 17, results for the numeracy assessments are shown by gender and occupation. In this case there is a much more distinct divide between the proportion of men and women assessed at Level 1 or above, in all occupational categories, with the exception of plant and process machine operatives, where the results were equal.

Figure 17 – Occupation (SOC), gender and numeracy



Base: All who completed numeracy assessment

The survey also looked at literacy and numeracy in relation to the occupational role of the head of household, as a broad measure of social class where the head of household had not been interviewed themselves. However, there was very little difference between these results and those for the overall sample of respondents, as shown in Table 33, indicating that the profile of the whole sample was closely linked to that of their individual households.

Table 33 Literacy: Respondent occupation vs. head of household occupation
Key: Read down columns

	Managerial and professional		Intermediate occupations		Working occupations		No substantial work	
	Resp.	Head	Resp.	Head	Resp.	Head	Resp.	Head
Entry Level	3	2	9	10	21	20	15	17
L1	22	23	29	27	37	36	30	32
L2 or above	76	74	62	63	43	43	55	51
Weighted base	697	747	355	370	824	745	240	135
Unweighted base	730	773	362	368	809	715	215	132

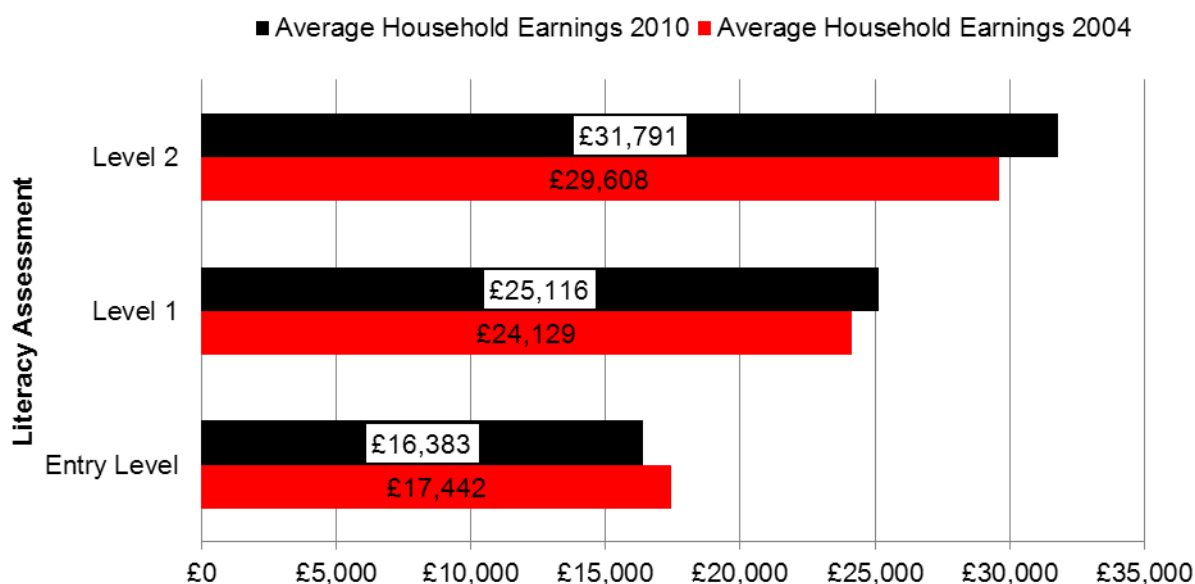
Resp.= Respondent occupation 2010. Head = Head of household occupation 2010

Base: All who completely literacy assessment

3.5.6 Literacy/numeracy and household income

Earlier in this section, it was noted that higher skilled occupations were more likely to be associated with higher literacy and numeracy assessment scores. It can be seen that higher average household earnings relate to assessed skills levels in a similar way. Figure 18 shows that those assessed at Level 2 for literacy had an average household income of almost £32,000 in 2010 – an increase of some £2,500 since the 2004 survey.

Figure 18 Literacy and household income¹⁴²



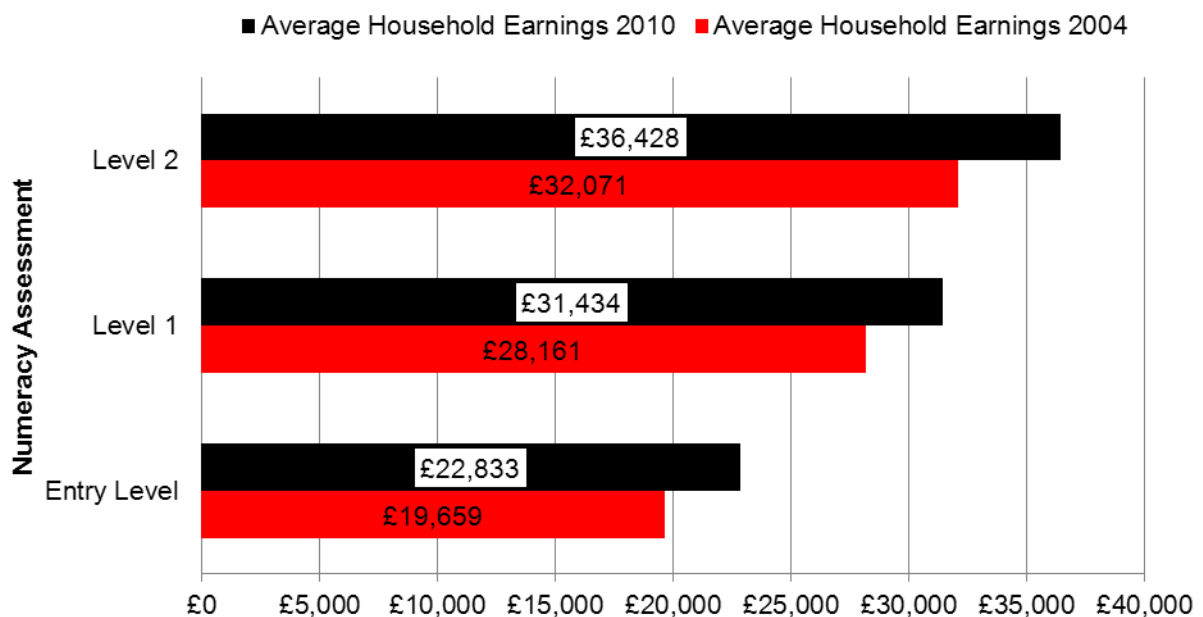
Base: All who completed literacy assessment

¹⁴² Total household income before tax or deductions

However, the average household income of those assessed at below Level 1 for literacy was only slightly more than half of that figure, at £16,400. Further, the average household income for respondents in this group had fallen since 2004. Hence the earnings gap between those with the highest and lowest scores in the literacy assessments has grown over the period 2004-2010.

There was a clear relationship between respondents' numeracy assessment scores and their average household earnings (Figure 19). However, household earnings had increased for all groups since 2004. The fact that relatively fewer individuals were assessed at Level 2 in numeracy (21 per cent) than were in literacy (59 per cent), may explain the result that average earnings were higher for this group, at almost £36,500. The household incomes disparity between respondents assessed at Entry Level and below and those at Level 1 was substantially larger than that between those assessed at Levels 1 and 2 respectively.

Figure 19 Numeracy and household income



Base: All who completed numeracy assessment

Table 34 shows how the relationship between individual income and assessed levels of literacy and numeracy followed a similar pattern to that of household income. Those assessed at higher levels of either had a higher average income. However, although respondents at all skill levels had higher average incomes than their counterparts in 2004, the upward trend was more marked in terms of numeracy and at the higher skills levels. For example, amongst those assessed at Level 1

numeracy average income rose by over £4,500 between 2004 and 2010 whilst for Level 2 respondents there was an increase of over £5,600 in average income in the same period. This compares to an increase amongst those assessed at Level 1 in literacy of less than £1,800 and amongst those assessed at Level 2 literacy an increase of just over £3,450.

Table 34 Average individual income, literacy and numeracy

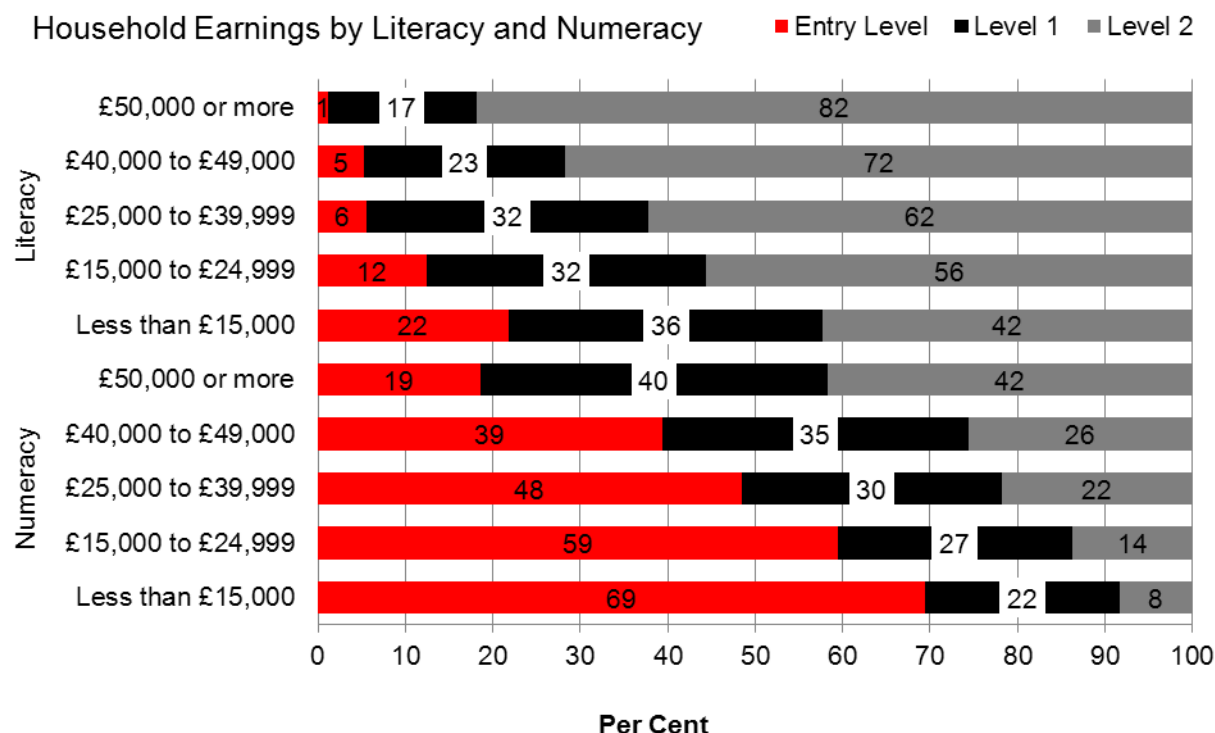
	Literacy		Numeracy	
	2010	2004	2010	2004
Entry Level	£14,494	£12,153	£16,751	£12,541
L1	£17,624	£15,825	£22,576	£18,004
L2 or above	£23,296	£19,845	£28,852	£23,189
Weighted base	2134	2555	2134	2555
Unweighted base	2134	2555	2134	2555

Base: All who completed literacy and numeracy assessments

As well as higher skills levels being associated with higher average earnings or household income, Figure 20 illustrates that there is also an association between assessment scores for both literacy and numeracy at every level of household income. Hence, whilst only 1 per cent of respondents from households with an annual income of £50,000 or more were assessed at Entry Level or below for literacy, the proportion was 22 per cent for respondents from households with an income of less than £15,000. In terms of numeracy, 19 per cent of respondents from households at the highest earnings band were assessed at Entry Level or below, but 69 per cent of those in the lowest income band were assessed at the lowest skills level.

It is symptomatic of the divide between respondents' relative performances in literacy and numeracy that the literacy assessment profile of those in the lowest household income band was very close to that of the numeracy profile of those in the highest income band, with 42 per cent being assessed at Level 2 in each case.

Figure 20 Literacy, numeracy and range of household income



Base: All who completed literacy and numeracy assessments

3.5.7 Summary

This section of the report has shown that the proportion of literacy assessments at Entry Level for unemployed respondents has halved since 2004. However, those in work were still half as likely to be assessed at Entry Level for literacy as respondents who were unemployed. Numeracy levels have not changed to the same extent, and 62 per cent of unemployed respondents were assessed at Entry Level in 2010. There was no difference in the proportion of assessments at Entry Level for literacy between full and part-time workers and little difference in terms of their respective numeracy levels.

There are broad links between SOC occupational level and literacy and numeracy skills, although some occupations stand out as displaying low scores for literacy (such as skilled trades), and numeracy (personal services). The relationship between the more socio-economically based SEC and literacy and numeracy was more consistent, however.

Household income is closely related to assessment levels for both literacy and numeracy. For example, respondents assessed at Level 2 or above for literacy had

an average household income of almost twice that of those assessed at Entry Level or below. Only 1 per cent of respondents with a household income of £50,000 or more were assessed at Entry Level for literacy, whereas the figure was 22 per cent for those with an income of less than £15,000.

3.6 Literacy and Numeracy Skills in Everyday Life

3.6.1 Introduction

The Welsh Government's strategy on Community Cohesion¹⁴³ states that "The ability to read, write and use numbers is an essential skill in modern society. It underpins nearly all the other skills that people need to engage in family, work and community life". This policy encapsulates the far-reaching consequences of poor literacy and numeracy skills on an individual's ability to play a full and active part in their community. The other side of this is that individuals themselves can experience a lower quality of life and face difficulties in undertaking everyday tasks if they lack the basic skills to carry out such activities.

This section of the report goes through the survey and assessment results in the context of respondents' own perceptions of their literacy and numeracy skills and the effects of these on their engagement with employment and communicating in different everyday situations. Respondents' attitudes to ownership of books and issues around digital inclusion are also examined in the context of assessment results.

Key Findings

- Individuals appear to have become more realistic in their self-assessments of skills: 86 per cent of respondents rated their reading ability as very good – closely mirroring the results of the literacy assessments.
- 81 per cent of respondents had 25 or more books, although the proportion was significantly lower (53 per cent) for those assessed at Entry Level for literacy.
- More than half of those who rated their literacy or maths abilities as below average or poor felt that this had limited their job prospects

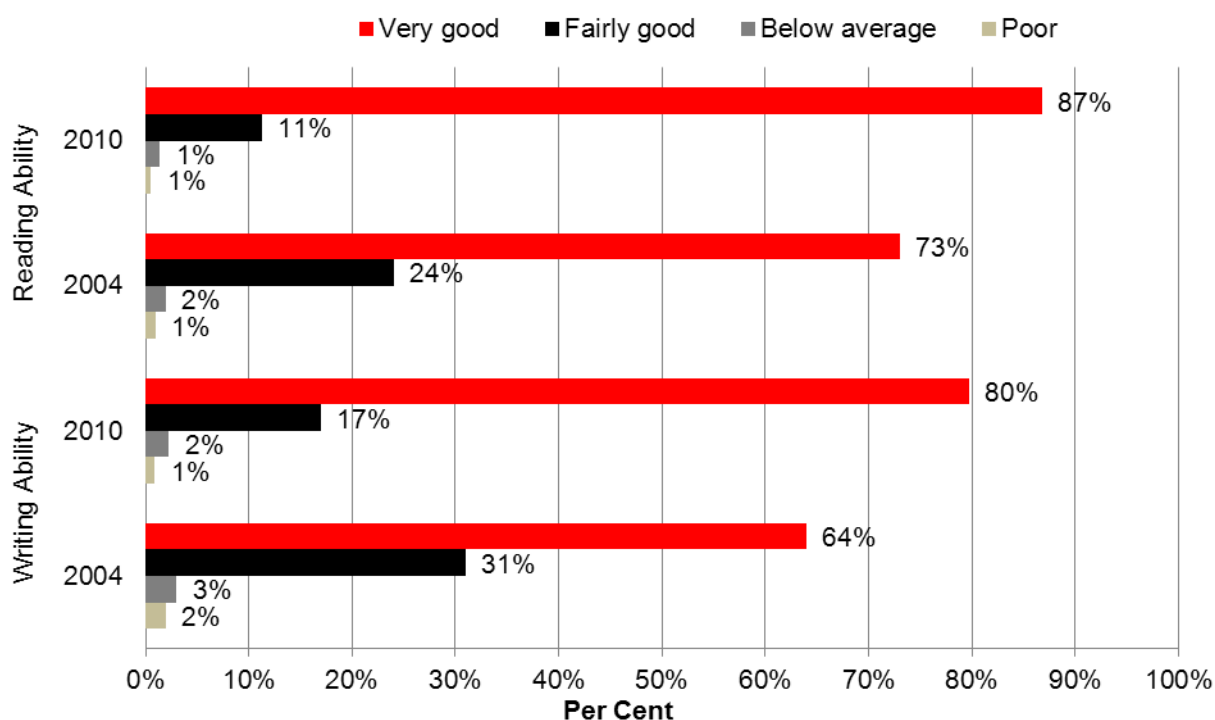
Those with Entry Level literacy were much less likely to have access to the Internet or to have use of a computer than respondents across the whole sample.

¹⁴³ Getting on Together – A Community Cohesion Strategy for Wales. Welsh Assembly Government, 2009.

3.6.2 Self-assessment of literacy skills

All those taking part in the survey were asked to self-assess their own literacy and numeracy skills (Figure 21). In terms of literacy, 87 per cent of respondents rated their reading ability as very good and 80 per cent rated their writing ability at this level. In each case, this represents an increase on the 2004 results. More interestingly the proportion rating their reading ability as very good corresponds closely to the proportion assessed at Level 1 or above (88 per cent) for literacy. In addition, the increase in self-assessed skill levels since 2004 mirrors the increase in proportion of assessments at Level 1 or above almost exactly (73-87 per cent for self-assessment, 75-88 per cent for assessments).

Figure 21 Self-assessment of literacy skills



Base: All respondents

Individuals appear to have become more realistic in their self-assessments of their literacy skills (Table 35): Of those who assessed their own reading skills as very good or fairly good, 90 per cent were assessed at Level 1 or above in the 2010 literacy assessment and this was 13 percentage points higher than the 2004 survey result.

Table 35 Literacy: Self-assessment of reading ability

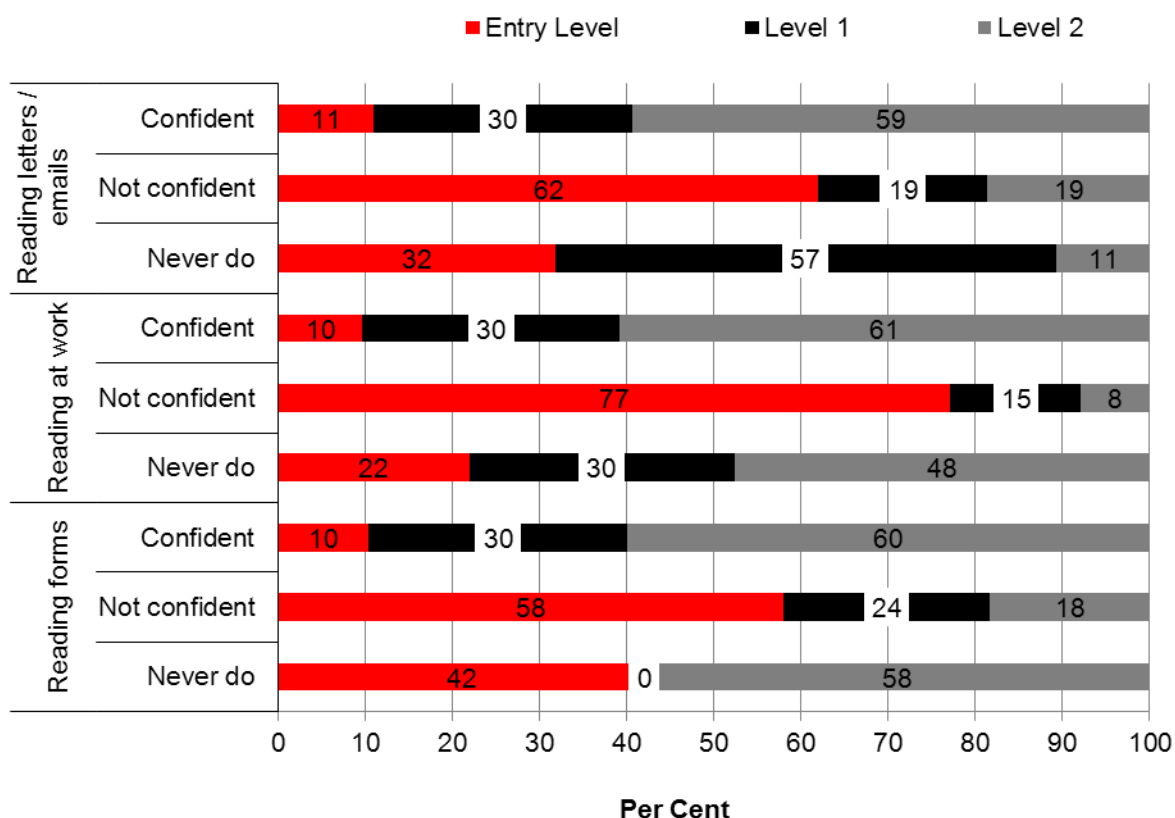
Key: Read down columns

Reading self-assessment	Good		Below Average	
	2010 %	2004 %	2010 %	2004 %
Assessed at Entry Level	10	23	67	58
Assessed at L1	30	38	20	24
Assessed at L2 or above	60	39	13	18
Weighted Base	2076	2471	58	65
Unweighted Base	2076	2471	58	65

Base: All respondents

Similarly, 67 per cent of those who felt that their reading skills were below average or poor were assessed at below Level 1. Again, this was an increase on the 2004 result of 58 per cent.

Figure 22 Literacy and confidence in reading English



Base: All respondents

In terms of respondents' confidence in their ability to read English in different circumstances, 98 per cent were confident about reading letters and e-mails from friends and family (of which 92 per cent were very confident). The proportion was

similar across their ability to read English at work (99 per cent of those in work), and in reading forms (97 per cent of the sample).

The only groups with a noticeably lower self-assessment on these measures were those assessed at Entry Level 1 and those who had received training in English outside of a school setting (predominately ESOL support), of whom 86 per cent were confident of their reading ability in English. More than half of those who rated their reading ability as below average felt that this had limited their job prospects and this was more pronounced amongst those assessed at lower levels of literacy.

3.6.3 Confidence in Speaking English

Those taking part in the survey were asked to self-assess their English speaking skills. 99 per cent felt that their spoken English was at least good and 89 per cent felt that it was very good. Those with Entry Level literacy results were understandably less likely to assess their spoken English skills as very good than those assessed at Level 1 or above, as shown in Table 36.

In spatial terms, respondents in Mid Wales were least likely to rate their spoken English skills highly, despite the fact that this group scored highest in the literacy assessments. There was also a link to qualification levels, with lower qualified respondents being less likely to assess their spoken English skills as very good, as were those who had received non-school training in English.

Table 36 Literacy: Self-assessment of speaking ability

Key: Read down columns

Literacy level	Self-assessed reading ability	
	Good %	Below average %
Entry Level	12	36
Level 1	30	15
Level 2	59	49
Weighted base	2091	15
Unweighted base	2092	15

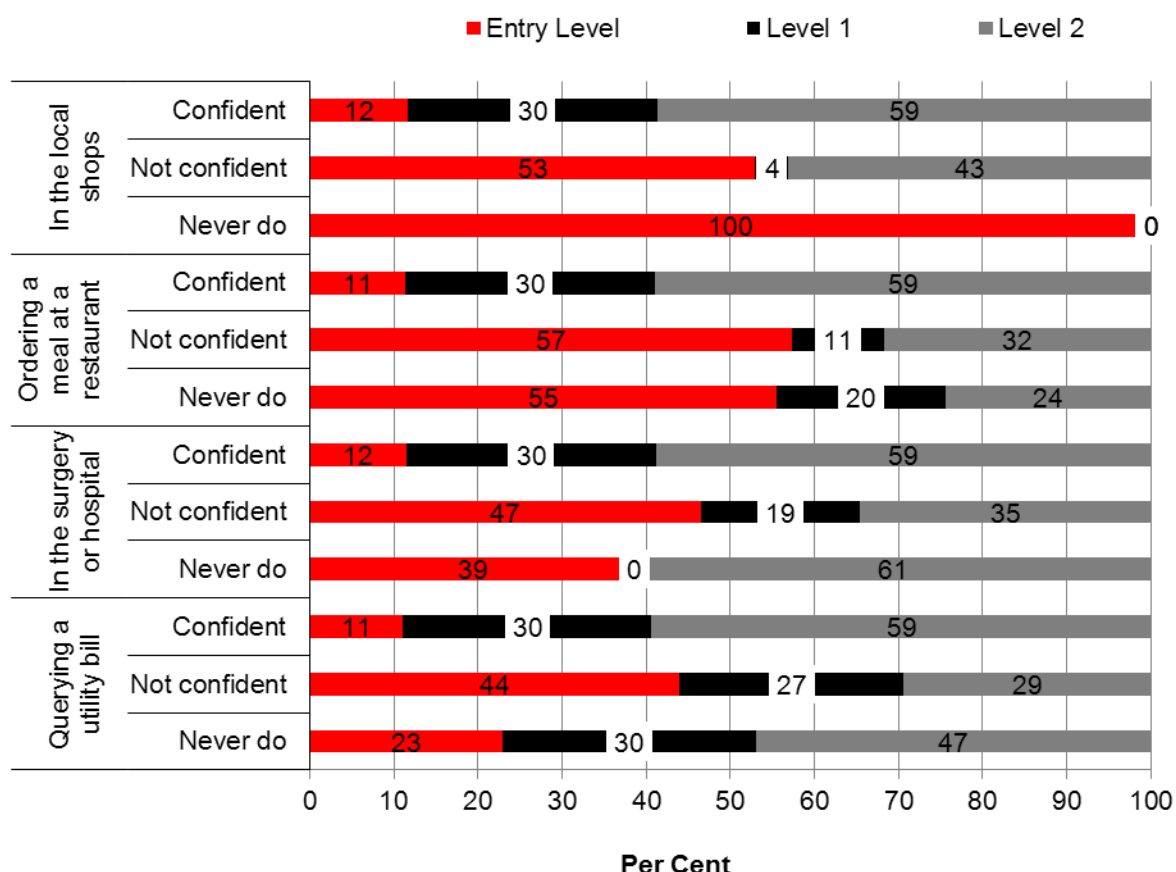
Base: All respondents

Almost all of those interviewed were confident about their ability to speak English in local shops (Figure 23). 95 per cent said that they were very confident and 4 per cent said that they were fairly confident in their ability. Of the very small proportion who

were not confident in this area, all were assessed at Entry Level for literacy and all were aged under 45.

The situation was similar in terms of confidence to order a meal in a restaurant and speaking English in the surgery or local hospital. Confidence levels in querying a utility bill were slightly lower, with 91 per cent saying that they were very confident and 5 per cent that they were fairly confident. 2 per cent said that they were not confident in this area.

Figure 23 Literacy and confidence in speaking English



Those respondents who grew up in households where parents always spoke Welsh performed less well in the literacy and numeracy assessments than those whose parents always spoke English.

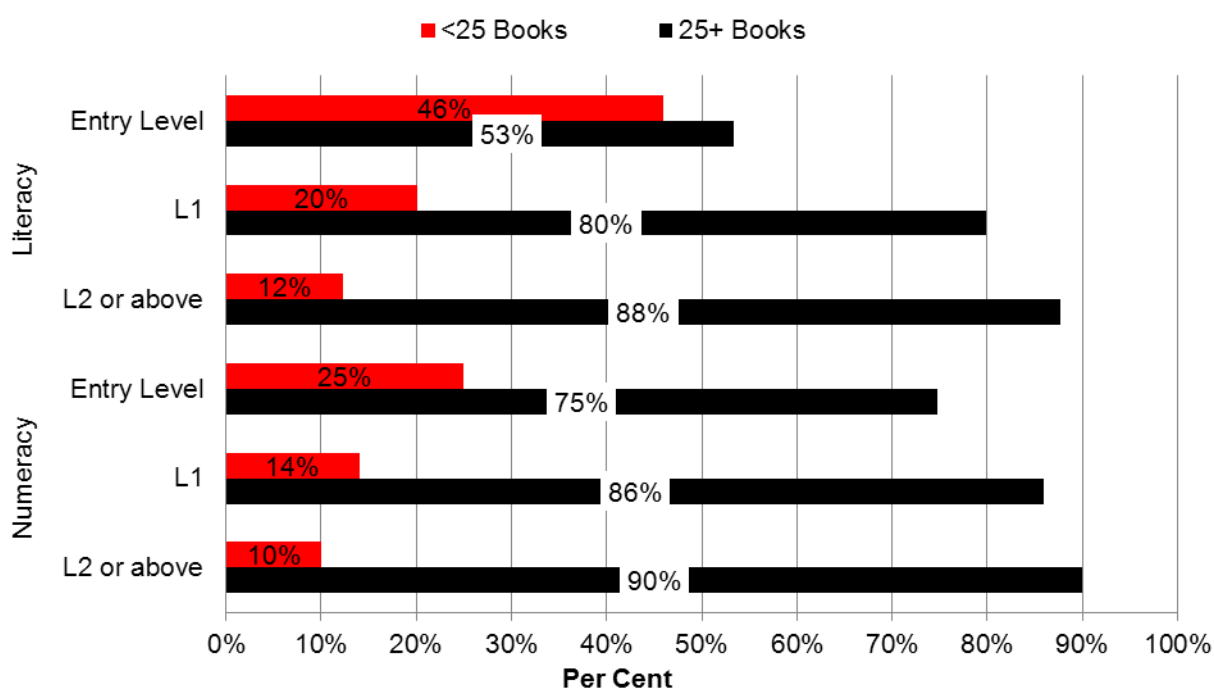
3.6.4 Reading and ownership of books

All respondents were asked how many books in English they had in their home, as evidence suggests that there is a clear relationship between people engaging in reading and the number of books available to them at home. A recent Scottish

study¹⁴⁴ noted that “*Satisfaction with skills is also related to frequency and type of literacy practices, such as reading books or newspapers.*” In the 2010 survey, 81 per cent of respondents had 25 or more books, although the proportion was significantly lower (53 per cent) for those assessed at Entry Level for literacy. (Figure 24).

Book ownership was also related to assessment levels for numeracy, with 90 per cent of those assessed at Level 2 or above and 75 per cent of respondents at Entry Level having 25 or more books in their home.

Figure 24 Ownership of books, literacy and numeracy



Base: All respondents

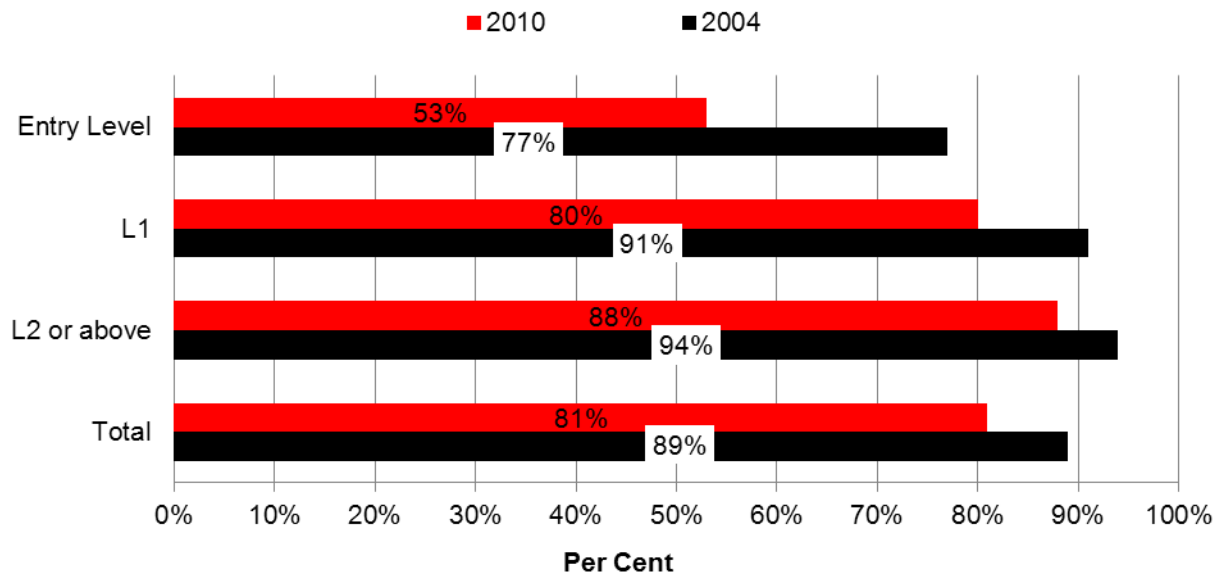
Book ownership amongst those with a grade A*-C in GCSE English language was slightly higher than across the whole sample of respondents (88 per cent with 25+ books in the house), but there was no difference in book ownership between those with a lower grade GCSE and those with no GCSE or equivalent in English (73 per cent with 25+ books in the house).

Book ownership had fallen since 2004, when 89 per cent of survey respondents reported having 25 or more books in their home (Figure 25). The change was most acute amongst those assessed at Entry Level for literacy, amongst whom ownership

¹⁴⁴ Scottish Adult Literacy Survey, 2009.

fell from 77 per cent of respondents to 53 per cent in 2010. Book ownership was lowest amongst 20-24 year olds, of whom 62 per cent had 25 or more books in their home, compared with 85 per cent or more for all those aged 35 or older.

Figure 25 Respondents with 25 or more books in the home; 2010 vs. 2004



Base: All respondents

There was a relationship between ownership of books and respondents' self-assessment of reading ability (Table 37). 85 per cent of those who said that they were "very good at reading" had 25 or more books in their house, whilst the proportion fell to 43 per cent for those who felt that their reading skills were below average or poor.

Table 37 Ownership of books and self-assessment of reading ability

Key: Read down columns

Reading Self- Assessment	Very Good	Good	Below Average / Poor
	%	%	%
Ownership of Books			
Less than 25 books	15	36	56
25 or more books	85	63	43
Don't know	0	1	1
Weighted Base	2719	352	60
Unweighted Base	2692	377	62

Base: All respondents

3.6.5 Self-assessment of numeracy skills

Respondents appeared to be less confident about their maths skills than was the case for reading, although, as shown in Table 38, there had been an increase in respondents' average self-assessment level since 2004, with 62 per cent rating their ability as very good in 2010, against 49 per cent in 2004.

Table 38 Self-assessment of maths ability

Key: Read across rows

Maths Ability	Very Good	Fairly Good	Below Average	Poor
	%	%	%	%
2010	62	32	5	1
2004	49	44	5	2
Weighted base (2010) 2134				
Weighted base (2004) 2555				

Base: All respondents

Some of their increased confidence was misplaced, however, as 48 per cent of those who rated their maths as good were assessed at Entry Level, similar to the proportion in 2004. On the other hand, 14 per cent of those who self-assessed their maths skills as below average were assessed at Level 1 or above (similar to the 15 per cent in 2004.)

As was the case for literacy, more than half of those who rated their maths abilities as below average or poor felt that this had limited their job prospects and this was especially true for male respondents.

Table 39 Numeracy: Self-assessment of maths ability**Key: Read down columns**

Numeracy self- assessment	Good		Below Average	
	2010 %	2004 %	2010 %	2004 %
Assessed at Entry Level	48	51	85	85
Assessed at L1	30	26	14	13
Assessed at L2 or above	22	23	0	2
Weighted Base	1992	2471	124	65
Unweighted Base	1963	2471	152	65

Base: All respondents

3.6.6 Digital Inclusion and Exclusion

Digital exclusion can arise from a number of factors, including technology, social circumstances and skills. A recent enquiry into digital inclusion in Wales¹⁴⁵ stated that: “People may be excluded from the digital age because they lack the skills and understanding to gain access to the Internet or to use electronic communications and may not understand what would be opened up by having that access.” However, the importance of securing access to digital technology is put forward in Delivering a Digital Wales¹⁴⁶: “International evidence now suggests that social exclusion and digital exclusion mutually reinforce one another.”

Table 40 Digital Inclusion**Key: Read across rows**

Literacy Assessment Levels	Access to Internet	Use of Computer	Ever Used a Computer*	Self-Assessed ICT Skills
	%	%	%	Very / Fairly Good %
Entry Level	68	61	36	73
L1	81	82	29	86
L2 or above	94	94	53	91
Weighted base	2115	2115	289	1963
Unweighted base	2116	2116	330	1939

Base: All who completed English literacy assessment

*Of those who did not have access to a computer at the time of the survey.

¹⁴⁵ Digital Inclusion in Wales: House of Commons Welsh Affairs Committee, 2008-9¹⁴⁶ Welsh Assembly Government, December 2010.

This link is supported by the survey results (Table 40), which show that those with Entry Level literacy were much less likely to have access to the Internet or to have use of a computer than the whole sample of respondents. 68 per cent of respondents assessed at Entry Level for literacy had access to the Internet, whereas the proportion was 94 per cent for those assessed at Level 2 or above. Results for the use of a computer in relation to literacy scores were similar, with 61 per cent of respondents who were assessed at Entry Level having use of one. However, almost two thirds of those who did not have use of a computer had never used one.

There was also a less pronounced link between respondents' self-perceptions of their ICT skills and their literacy performance, with 73 per cent of those assessed at Entry Level for literacy rating their ICT skills as very or fairly good, where the proportion was 91 per cent for those scored at Level 2 for literacy.

Table 41 Use of Computer

Key: Respondents could choose more than one response

Literacy Level	Entry Level	Level 1	Level 2	Total
Activity	%	%	%	%
Accessing the Internet (World Wide Web)	88	93	98	96
E-mail	71	86	95	91
Word processing - writing letters or documents	38	65	81	73
Using spreadsheets/databases	21	39	58	50
Education and learning	26	50	63	56
Games	48	46	45	45
Programming	11	12	17	15
Work (unspecified)	2	0	1	1
Banking/finance/account management	0	0	1	1
Accounting	0	0	0	0
Design/drawing/computer aided design	0	0	1	1
Playing/copying music/burning CDs	0	0	1	1
Photography (any mention)	0	0	1	0
Shopping	1	3	2	2
Social networking	0	3	2	2
Watching TV/films (including references to doing this online and offline)	0	0	1	1
Other	1	1	2	2
Weighted base	153	509	1165	1827
Unweighted base	160	506	1120	1786

Base: All who currently use a computer

Those taking part in the survey were asked what they mainly used a computer for. (Table 41). Overall, respondents were most likely to use computers for accessing the Internet (96 per cent of responses), followed by sending and receiving e-mail (91 per cent) and word processing (71 per cent). Respondents assessed at Level 2 or above for literacy were more likely to make use of a computer than those at other levels for all activities except gaming, shopping and social media.

Respondents with Entry Level literacy skills were very much less likely than average to use a computer for word processing (38 per cent), using spreadsheets or databases (21 per cent), or for education and learning (26 per cent). However, they were the most likely to use a computer for gaming (48 per cent) and were only 8 percentage points less likely than the whole sample to use a computer for accessing the Internet (88 per cent).

A slightly surprising result was a low level of reported social networking usage, with only 2 per cent of respondents overall stating that they used a computer for this purpose. The result may reflect respondents including this in accessing the Internet, or it may be that individuals are increasingly using other technology, especially mobile phones, to conduct social networking.

3.6.7 *Summary*

This section has shown that individuals have become more realistic in their self-assessments of their literacy skills, with 90 per cent of those who felt that their reading skills were good being assessed at Level 2 or above.

Although a large majority of respondents were confident about their spoken English in a variety of settings, those assessed at Entry Level for literacy were least likely to be so.

Ownership of books was related to both literacy and numeracy assessment scores, with those assessed as having higher levels of literacy or numeracy being more likely to have 25 or more books in the house. There was also a link between ownership of books and self-assessment of reading ability.

On digital inclusion, respondents with Entry Level literacy were less likely to have access to the Internet or to a computer than the sample of respondents as a whole.

3.7 Literacy and Numeracy Training

3.7.1 Introduction

It is important that those individuals with a skills deficit are both aware of it (as seems to be becoming more widespread) and prepared to address it, if Wales is to take its place amongst developed nations. Engagement with learning depends on a wide range of factors, but these will include having access to suitable training in a convenient location, the right kind of provision, support with childcare and securing time off work. However, it is also important that those who go through the process of developing their skills feel that the experience was worthwhile and that they have gained from it. In this section of the report, respondents' experiences of learning are investigated.

Key Findings

- 4 per cent of respondents had received training in reading, writing or speaking over the last 2 years, although the figure was 6 per cent for those at Entry Level 1.
- Completion rates for learning were almost 80 per cent and 70 per cent of those completing achieved a qualification.
- 83 per cent of those undertaking literacy training said that they had learned a great deal or a fair amount from their course.
- Schools, colleges and universities were the main venues for accessing literacy learning.
- Colleges and universities were seen as the first point of advice for those with low self-assessed literacy skills who were not currently accessing learning.

3.7.2 Literacy training and education

Those taking part in the survey were asked whether they had received any training or education in English in the last two years (Table 42). In total, 4 per cent had received training in reading, writing or speaking or a combination of these, with reading and writing being more common. There was understandably a higher proportion of 16-19 years olds than other age groups who had received training or education during that time.

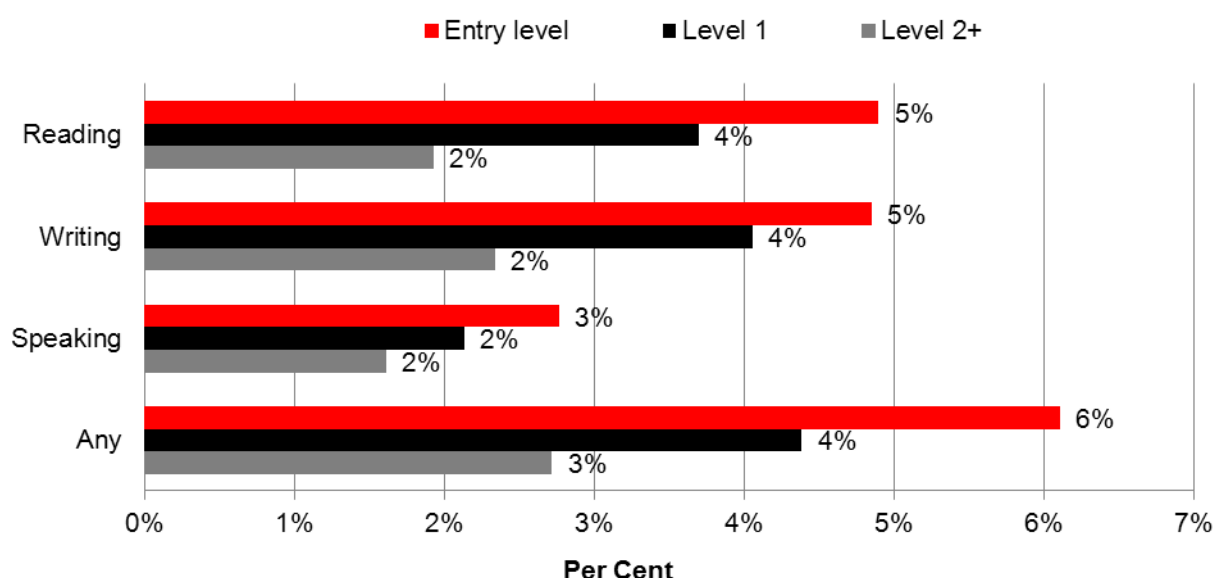
Table 12 Training or education in literacy over the last two years: 2010 and 2004

Received training in literacy	2010 %	2004 %
Reading	3	4
Writing	3	4
Speaking	2	3
Any of the above	4	4
Weighted Base	2134	2555
Unweighted Base	2134	2555

Base: All respondents

The incidence of having received training or education in English was related to individuals' assessed levels of literacy, as shown in Figure 26, with those assessed at Entry Level being more likely to have received support and within this, those at Entry Level 1 or below being proportionately most likely to have accessed learning. Overall, approximately 6 per cent of those assessed at Entry Level had received some form of education or training in English over the last two years, which equates to around 12,500 working age adults across Wales against a total cohort of 216,000 at this level. The proportion of respondents at Level 1 was not much lower than this, at more than 4.5 per cent.

Figure 26 Training or education in literacy over the last two years

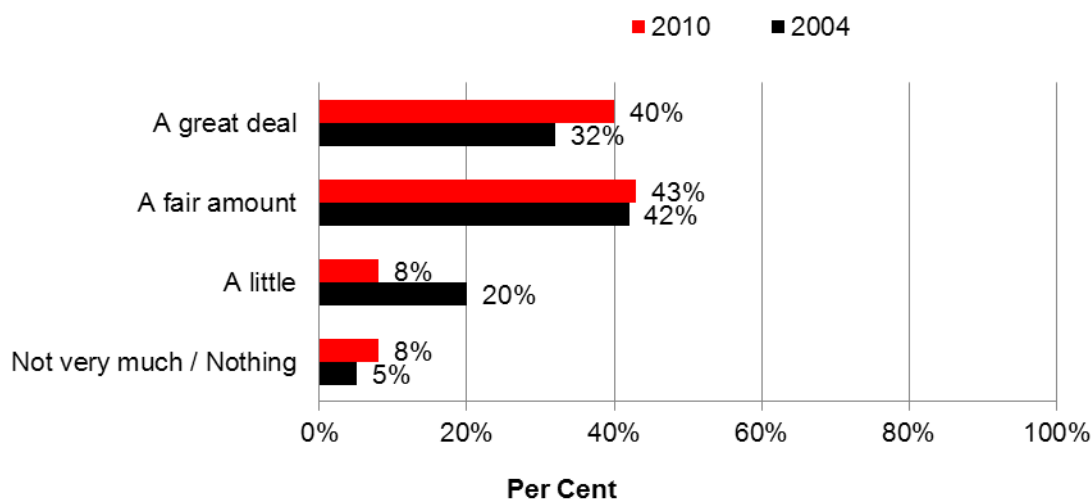


Base: All respondents

Of those who had received training or education in English over the last two years, 36 per cent were still engaged in training. Amongst those who were not, 79 per cent had completed their course, 19 per cent left before the end and 3 per cent did not know whether they had completed or not. Of those who completed their course, 70 per cent had gained a qualification as a result.

Respondents who had undertaken training or education in English during the past two years were asked how much they felt they had learned from their course(s) (Figure 27). Overall, 83 per cent felt that they had learned either a great deal or a fair amount, whilst 16 per cent felt that they had only learned a little or nothing at all. These figures were slightly more positive than the comparable ones for 2004 and suggest that the majority of learners have a positive experience, once they have engaged with the system – although the sample sizes here are small and data should be treated as indicative only.

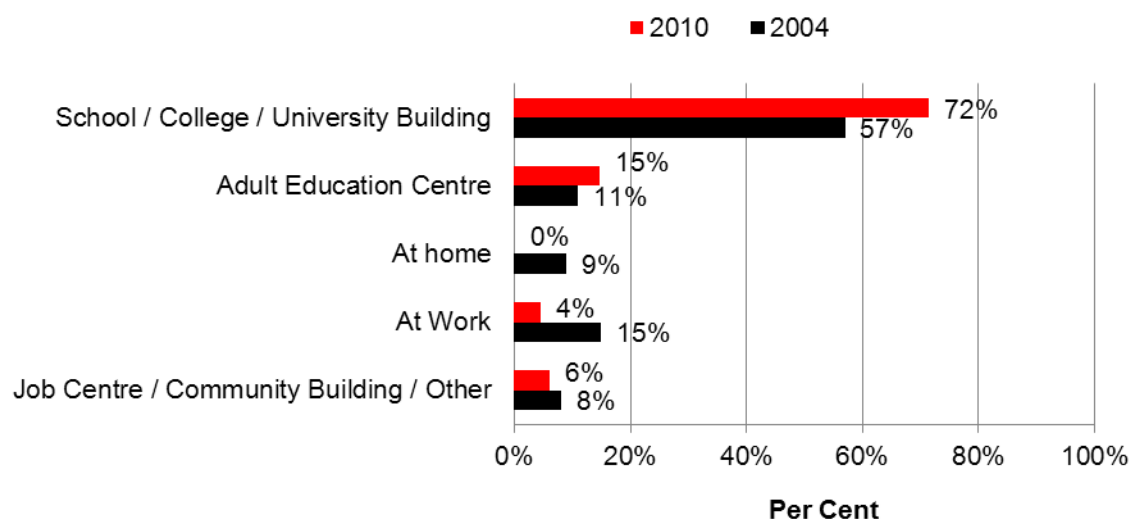
Figure 27 How much did you get from your training or education in literacy?



Base: All those undertaking training in reading, writing or speaking English
 Note: 2010 data based on those accessing training currently or within the last two years, 2004 data relates to those accessing training in the past three years.

Learners were most likely to have accessed learning in a school, college or university building, as shown in Figure 28. Although this includes current students, respondents in full time work were still most likely to have accessed learning in this setting. Adult education centres were the most commonly accessed venues amongst unemployed respondents, but the results for other venues need to be treated with caution due to small sample size.

Figure 28 Main teaching place for those undertaking literacy training



Base: All those undertaking training in reading, writing or speaking English

Note: 2010 data based on those accessing training currently or within the last two years, 2004 data relates to those accessing training in the past three years.

Respondents were asked where they first heard about training or education in literacy and college or university was the main source referred to, cited by 31 per cent of those who accessed provision (Table 43). Friends and family was the next most popular (21 per cent of responses), showing the importance of informal communication in referring individuals into learning.

Table 43 Sources of information about training and education in literacy

Source of information	2010 %
College / University	31
Friends / Family	21
Job Centre / Job Club	8
Careers Office	7
From Employer / Colleagues	7
Council / LEA	5
From the Internet	3
Library	2
Newspapers / Magazines	2
Other	12
Weighted base	87
Unweighted base	76

Base: All those undertaking training in reading, writing or speaking English

Only 5 per cent of those who assessed themselves as being less than very good at literacy had considered taking up training opportunities in English. There was some

indication that those assessed as having lower levels of literacy were more likely than average to have considered accessing learning. The main reasons for not taking up learning were caring commitments (35 per cent of respondents) and work commitment (20 per cent of respondents), along with other factors such as cost, lack of time and lack of transport.

3.7.3 Numeracy training and education

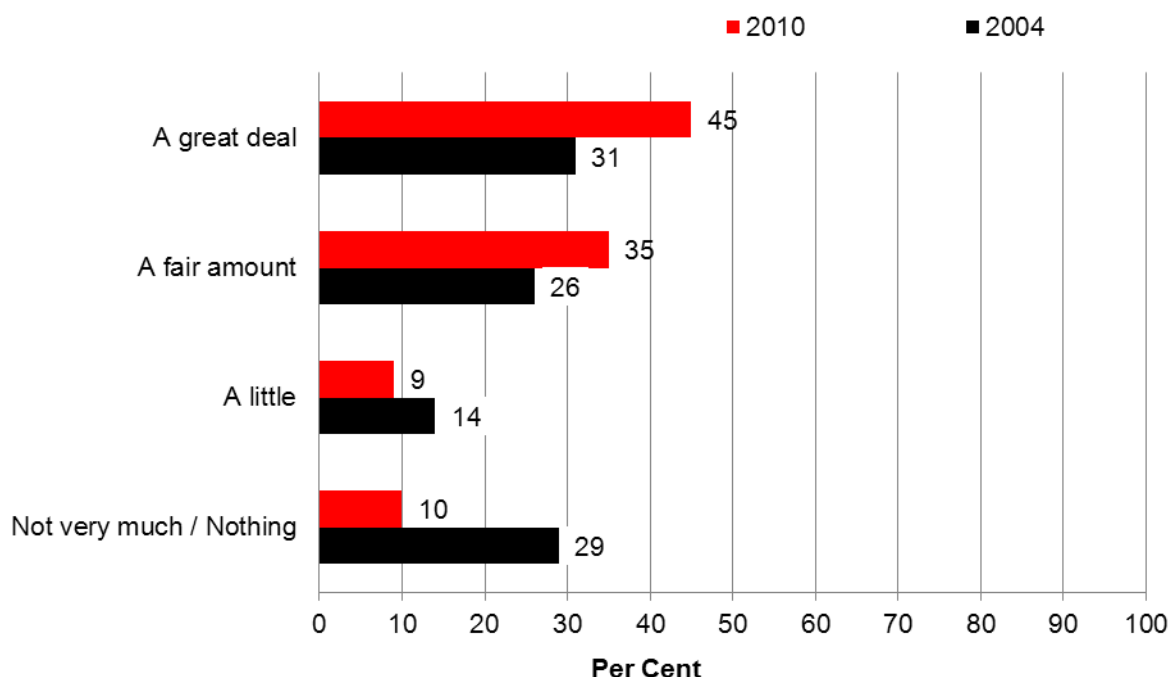
As with reading and writing, only 4 per cent of respondents had received any training or education in basic maths or number skills in the previous two years and more than half of these were students at the time of the survey. This was a similar proportion to the results of the 2004 survey.

Of those who had received training or education in maths over the last two years, 32 per cent were currently accessing training in that area. Amongst the rest of those who had engaged with training during the last two years, 87 per cent had completed their course, 9 per cent left before the end and 4 per cent did not know whether they had completed or not. Of those who completed their course, 79 per cent gained a qualification as a result; a higher proportion than for literacy courses.

Those who had taken part in training or education in maths either currently or in the past two years were asked how much they felt they had learned from their course(s) (Figure 29). Overall 80 per cent felt that they had learned either a great deal or a fair amount from their course, whilst 19 per cent felt that they had only learned a little or nothing at all. These figures were very much more positive than the nearest comparable ones for 2004, when 43 per cent felt that they had learned little or not very much¹⁴⁷.

¹⁴⁷ It is not possible to do a direct comparison, however, as the question in 2010 referred to those who undertook training “in the last two years”, whilst the 2004 question referred to those who had “in the past or currently.”

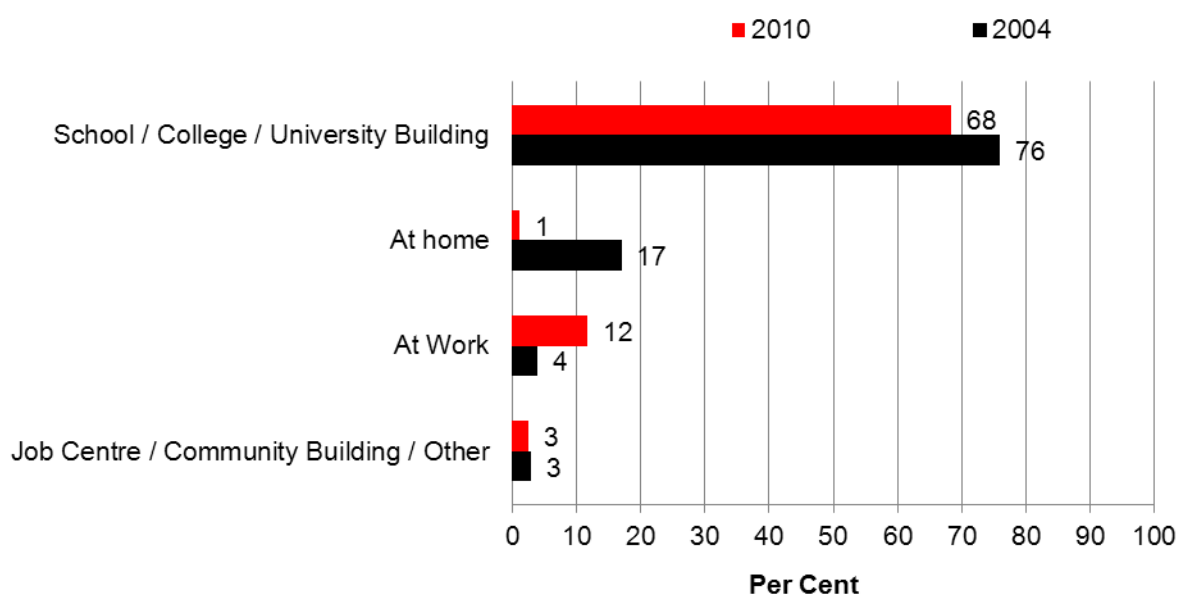
Figure 29 How much did you get from your training or education in basic maths or number skills?



Base: All those undertaking training in basic maths or number skills courses

Learners were most likely to access learning in a school, college or university building (Figure 30). Although this includes current students, respondents in full time work were still most likely to have accessed learning in this setting, despite learning at work being another important means of accessing provision.

Figure 30 Main teaching place for those taking maths training



Base: All those undertaking training in maths or number skills courses

This finding is somewhat surprising, given the widespread literature on basic skills learners' reluctance to attend formal learning in settings such as schools and colleges. It may, however, reflect where provision is located, rather than the preferences of learners and potential learners.

Respondents were asked where they first heard about training or education in maths, as shown in Table 44. As was the case for literacy learning, college or university was clearly the main source referred to – cited by 41 per cent of those who accessed provision. Respondents' employers and colleagues were the next most common sources of information (16 per cent of responses), followed by friends and family (13 per cent).

Only 6 per cent of those who assessed themselves as being less than very good at numeracy had considered taking up training opportunities in maths. The main reasons for not taking up learning were a lack of time (38 per cent of respondents), work commitments (29 per cent of respondents) and childcare commitment (26 per cent of respondents), along with other factors such as lack of transport or cost of transport.

Table 44 How first heard about maths training

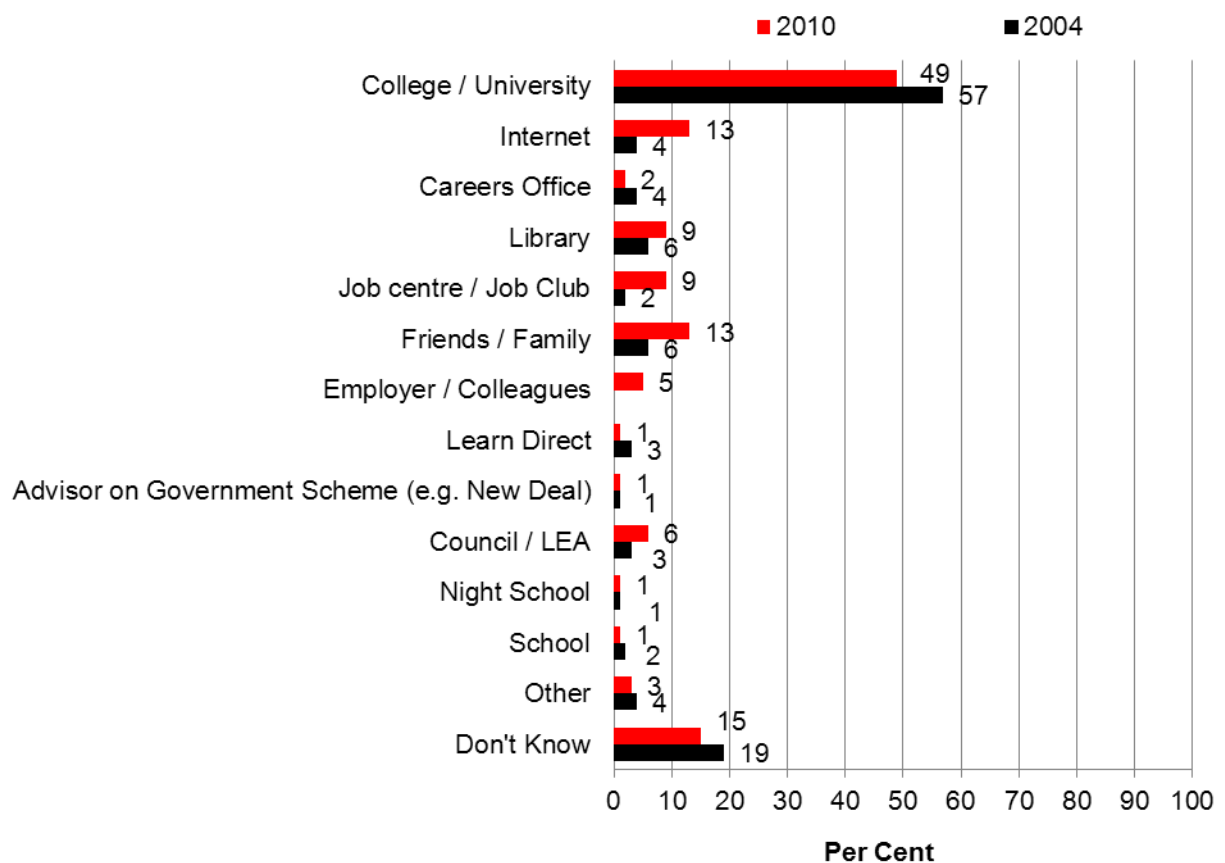
Main source	2010 %
College / University	41
From the Internet	5
Careers Office	8
Library	2
Newspapers / Magazines	0
Jobcentre / Job Club	6
Friends / Family	13
From Employer / Colleagues	16
Council / LEA	4
Government Scheme (e.g. New Deal)	1
Other	8
Weighted Base	83
Unweighted Base	78

Base: All those undertaking training in maths or number skills courses

3.7.4 Advice on training

All respondents who had assessed their own skills as poor or below average and who had not accessed training were asked where they would go for advice or information about such training (Figure 31). Overall, college or university was the most popular choice (49 per cent of responses), although this was biased towards younger age groups, followed by the Internet, or asking friends and family (13 per cent each). Older people, especially those in the 55-65 age band, would be twice as likely as average to go to their library to find information on learning.

Figure 31 Where to go for advice / info about basic skills training



Base: All with a basic skills deficiency but who have not received training for it

3.7.5 Summary

Only a very small proportion of respondents (4 per cent) had received any training in English or numeracy during the previous two years, although the figure was slightly higher (6 per cent) for those with Entry Level literacy or numeracy skills. Almost three-quarters of those who had engaged in training or education in English had achieved a qualification and 83 per cent felt that they had learned a great deal or a fair amount. For those accessing numeracy learning, the figures were very similar.

Formal sites of education, such as a school, college or university, were seen by respondents as the most likely places to access learning and they were most likely to have received information on learning from either a college / university or from friends and family, although employers were also seen as promoting maths training by some respondents.

4. Results of the Welsh Medium Survey

4.1 Introduction

This chapter presents the results of the Welsh medium survey and related literacy assessment, following a similar format to the reporting of the English medium survey in Chapter 3. The first section begins by presenting the headline literacy results from the 2010 survey, with some limited comparisons to the results of the earlier survey carried out in 2004, which are discussed further below. As with coverage of the English medium survey results, skills are presented in the context of demographic factors, such as age, gender, region of residence and where respondents were born. Survey results in relation to language are also analysed in some depth; looking, for example, at which language respondents mainly used at home, work or school and how this related to their literacy assessment, along with whether Welsh or English was their first language and at what age they began to learn either of these as a second language. Survey and assessment data is reported in relation to respondents' household characteristics, such as size and tenure and the first section of the chapter concludes with a look at literacy assessments in relation to respondents' self-perceptions of health, incidence of long-term illness or learning difficulties and any state benefits or tax credits claimed.

The following section of this chapter looks at respondents' Welsh literacy assessments with reference to their educational characteristics, such as their highest qualifications, the language of their primary and secondary education and finally the medium of their parents' education. The section presents the evidence for linkages between different aspects of respondents' education and their subsequent literacy assessments in Welsh. This leads onto the third section, which reports on survey results in relation to respondents' employment, occupational status and earnings.

The fourth section of this chapter discusses the survey and assessment results in light of how respondents perceive their own literacy skills and their confidence levels in speaking, writing and reading Welsh in different everyday situations. This is followed by a look at results relating to digital access, via home computer and the internet. Finally in this chapter, the survey results are explored with reference to

respondents' recent experiences of Welsh literacy training or education in the last two years and where they would go for advice or support in relation to such learning.

4.1.1 *Comparing results from the 2010 survey with those from 2004*

The 2010 survey was designed to provide a robust methodology, maintaining consistency with both the 2004 Welsh medium survey and the 2010 English medium survey where possible. However, there was no robust or consistent way of comparing all Welsh literacy levels from 2004 with literacy levels in 2010, for a number of reasons:

- The 2004 survey asked respondents to classify their Welsh language ability in terms of either “fluent” or (being able to speak) “fairly well / some”. In the 2010 survey, the categories were “fluent” or “fairly well”.
- The assessment was the same as that used for the 2004 survey of Welsh reading and writing proficiency, although some amendments were made – primarily that the final section, which focused on extended writing tasks, was excluded from the 2010 assessment. This was on the basis that without this section, the assessment more closely reflected that used in the English medium survey and assessment.
- A lack of clarity regarding the exact methodology that was used in the 2004 survey analysis to convert assessment scores into literacy levels.
- Literacy assessment scores for the 2004 dataset were only available in the form of banded sets of data and there was no robust way of matching literacy levels calculated from these to the figures presented in the 2004 report. However, the 2004 report contained percentage breakdowns for four variables that could be used as comparators against the 2010 equivalent, as they referred to the results of the Welsh medium assessments, excluding the written tasks. These were:
 - Region;
 - Age;
 - Ability to speak Welsh, and;
 - Ability to write Welsh.

- The 2004 report used slightly different age categories – 16-64 years, whereas the 2010 report used 16-65 years.

Hence, although the results of the 2010 survey allow us to compare headline results with those of 2004, they do not support a detailed comparison. However, it is hoped that the 2010 results provide a solid baseline for comparison with future results.

4.2 Literacy Skills and Demographic Characteristics among Welsh Speakers

This section of the report presents the headline findings of the survey and Welsh literacy assessments, with comparisons where possible to the 2004 survey. These are then examined in the context of respondents' own perceptions of their ability to speak Welsh and in terms of age and gender. The analysis then goes on to look at literacy in relation to where respondents were living at the time of the survey and whether or not they were born in Wales. It then shifts to language use, looking at the main language respondents used at home, work or school, the first language they learned and the age at which they learned either English or Welsh as a second language. As with the chapter on the English medium survey, there is then a section exploring the results in terms of household characteristics such as size of respondents' households and their marital status. The final part of the section looks at literacy with reference to whether respondents owned or rented their own home, whether they were in receipt of benefits (and if so, which ones) and their self-ratings of their own health.

Key Findings

- The 2010 survey and assessment of Welsh medium literacy covered 1,001 individuals of working age in Wales who assessed themselves as either fluent in Welsh, or able to speak the language "fairly well".
- The results allow for some broad comparisons to be made with the results for 2004, although there were key differences in the approach.
- Overall, 63 per cent of respondents were classified at Level 1 or above in 2010 – a fall of 4 percentage points since 2004.
- Amongst those who assessed themselves as fluent Welsh speakers, 74 per cent were assessed at Level 1 or above, down from 86 per cent in 2004.
- Women scored better than men in the assessments, with 69 per cent achieving Level 1 or above, compared with 58 per cent for men.
- The most significant change was in the younger age groups: the proportion of respondents aged 16-24 assessed at Entry Level was 45 per cent in 2010. In 2004 it was 22 per cent.

- Respondents from South East Wales performed best of any region in the assessment, despite having the lowest proportion of Welsh speakers.
- Those born in Wales scored better in the literacy assessment (66 per cent at Level 1 or above) than those born elsewhere in the UK (50 per cent).

4.2.1 *Headline results – overall literacy levels among Welsh Speakers*

Overall, 63 per cent of those undertaking the Welsh literacy assessment in 2010 were classified at Level 1 or above (Table 45), which represents a fall of 4 percentage points over the 2004 result. Within individual levels of literacy, there was a fall in the proportion of respondents who were assessed at Level 2 or above (from 45 per cent in 2004 to 37 per cent in 2010), but this was complemented by an increase in the proportion of learners assessed at Level 1 (from 22 per cent to 26 per cent).

Table 45 Overall literacy levels among Welsh Speakers

Key: Read down columns

Literacy Level	2010 %	2004 %
Entry Level 1 (EL1) or Below	3	2
Entry Level 2 (EL2)	12	15
Entry Level 3 (EL3)	21	17
Total Entry Level	36	34
Level 1 (L1)	26	22
Level 2 (L2) or above	37	45
Weighted base	1000	1363
Unweighted base	1001	1363

Base: All who completed Welsh literacy assessment

More detail can be obtained by breaking the results down into the separate categories for respondents' self-assessed ability to speak Welsh, as in Table 46. What this shows is that amongst those respondents who defined themselves as fluent Welsh speakers, the proportion of literacy assessments at Level 1 or above fell from 86 per cent in 2004 to 74 per cent in the 2010 survey. Further, the proportion of fluent Welsh speakers assessed at Entry Level almost doubled over the six years between the surveys, from 14 per cent in 2004 to 26 per cent in 2010). The "fluent" group provides a more robust comparison of assessments across the two surveys than the overall cohort, as the definition of fluency was the same for each survey.

Table 13 Literacy and Welsh language use**Key: Read down columns**

Ability to speak Welsh (self-assessment)				
	Fluent	Fluent	Fairly Well	Fairly Well / Some
	2010	2004	2010	2004
	%	%	%	%
Entry Level	26	14	70	64
L1	29	25	17	17
L2 or above	45	61	12	18
Weighted base	772	845	229	518
Unweighted base	784	772	216	591

Base: All who completed Welsh literacy assessment

Amongst the group who defined themselves as able to speak Welsh fairly well, the proportion of respondents assessed at Level 1 or above was 29 per cent - 6 percentage points lower than for the nearest corresponding group in 2004.

In reviewing these results, it is worth noting that they may reflect a broadening of the base of Welsh speakers, possibly drawing less able learners into the “fluent / fairly well” categories

4.2.2 *Welsh Literacy and Gender*

There was a gender imbalance in assessed levels of Welsh literacy (Table 47), with male respondents substantially less likely to have been assessed at Level 1 or above than their female counterparts. There was a higher proportion of men assessed at Entry Level than any other level (43 per cent), whereas the largest category for women was Level 2 and above (43 per cent).

Table 47 Gender and Welsh Literacy**Key: Read down columns**

	Total	Male	Female
	%	%	%
Entry Level	36	43	31
L1	26	27	26
L2 or above	37	31	43
Weighted base	1001	453	547
Unweighted base	1000	415	585

Base: All who completed Welsh literacy assessment

4.2.3 Welsh Literacy and Age

Table 48 illustrated that younger people taking part in the Welsh literacy assessments scored substantially lower than the result for the whole sample of respondents, with 53 per cent of 16-19 year olds being assessed at Level 1 or above in the 2010 survey, against a whole sample total of 63%.

Table 48 Age and Welsh Literacy

Key: Read down columns

Literacy Level	Age					
	16-19	20-24	25-34	35-44	45-54	55-65
	%	%	%	%	%	%
Entry Level	46	42	38	30	33	33
L1	28	22	25	25	30	27
L2 or above	25	36	37	44	37	41
Weighted base	150	104	163	198	164	220
Unweighted base	108	83	156	182	148	320

Base: All who completed Welsh literacy assessment

Assessment results were generally both higher and more consistent amongst the 35-44 age band and older groups. The table shows that literacy levels gradually rise from the age of 16 to the age of 44, suggesting that individuals continue to develop their literacy skills after leaving full-time education. Table 49 shows that this is especially the case where respondents are primarily using the Welsh language skills on a day to day basis at work or school.

Table 49 - Age and Literacy amongst those using mainly Welsh at school or work

Key: Read down columns

Literacy Level	Age					
	16-19	20-24	25-34	35-44	45-54	55-65
	%	%	%	%	%	%
Entry Level	27	[28] ¹⁴⁸	26	21	29	26
L1	34	[26]	32	25	26	24
L2 or above	38	[47]	41	54	45	50
Weighted base	62	45	90	115	91	113
Unweighted base	49	35	87	102	82	141

Base: All who completed Welsh literacy assessment

¹⁴⁸ Square brackets indicate a sample size of less than 50.

The change in Welsh language literacy levels between 2004 and 2010 is shown by age group in Table 50. Literacy levels amongst 16-24 year old respondents in 2010 were substantially lower than for the corresponding age group in 2004, with 56 per cent assessed at Level 1 or above in 2010, compared with 78 per cent in 2004.

Table 50 - Age and Literacy: Comparison between 2004 and 2010

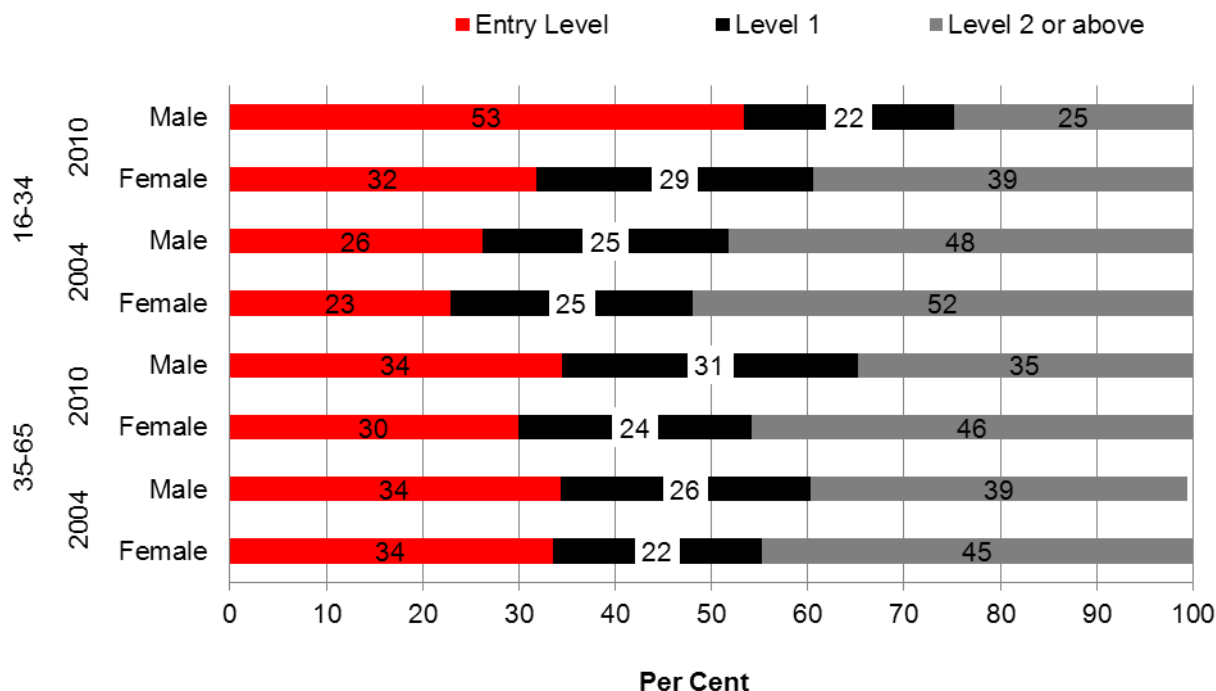
Key: Read down columns

	Age									
	16-24		25-34		35-44		45-54		55-65	
	2010	2004	2010	2004	2010	2004	2010	2004	2010	2004
	%	%	%	%	%	%	%	%	%	%
Entry Level	45	22	38	32	30	41	33	46	33	34
Level 1	26	29	25	20	25	20	30	19	27	19
Level 2	30	49	37	48	44	39	37	34	41	47
Weighted base	253	300	163	273	198	231	164	426	220	116
Unweighted base	191	247	156	210	182	225	148	419	320	245

Base: All who completed Welsh literacy assessment

Conversely, the Welsh literacy levels of the 35-44 age group improved from 59 per cent at Level 1 or above in 2004 to 69 per cent in 2010. Above the age group of 35-44 the two surveys used different age group boundaries; however this can be countered by using broader age bands, as illustrated in Figure 32 below.

Figure 32 - Gender, age and literacy



Base: All who completed Welsh literacy assessment

In terms of gender and these broader age bands, male respondents in the 16-34 age group saw the greatest change in their literacy assessment results between 2004 and 2010, with a sharp fall at Level 1 or above, to 47 per cent in 2010 from 73 per cent in 2004. In the 35-65 age band, literacy assessment results for female respondents improved slightly (from 67 per cent at Level 1 or above in 2004 to 70 per cent in 2010). Male literacy assessments at Level 1 or above in the same age bracket were relatively constant between 2004 and 2010, at 65 per cent of respondents in 2004 and 66 per cent in 2010.

4.2.4 Literacy and Welsh Region of residence

The region where people were living at the time of the survey was found to be linked to their performance in the Welsh literacy assessments. Results are presented in Table 51 for the four standard DfES regions of Wales.

Table 51 – Region and literacy

Key: Read down columns

	Region				Wales %
	North Wales %	Mid Wales %	South West Wales %	South East Wales %	
Entry Level	36	34	46	27	34
L1	28	24	26	27	27
L2 or above	37	42	28	47	39
Weighted base	407	171	235	187	902
Unweighted base	404	155	298	143	930

Base: All who completed Welsh literacy assessment

The table demonstrates that literacy assessment scores were highest amongst respondents from South East Wales, with 74 per cent of these being assessed at Level 1 or above, whilst respondents from South West Wales had the lowest proportion of respondents at that level (54 per cent).

4.2.5 Literacy and where respondent was born

As might be expected for Welsh speaking respondents, the majority (90 per cent) were born in Wales, with 8 per cent originating from elsewhere in the UK and 2 per cent coming from outside the UK (Table 52). Those born in Wales were more likely than average to be assessed at Level 1 or above for Welsh literacy, with two-thirds achieving this level. For respondents born elsewhere in the UK, the equivalent

proportion was 50 per cent and for those born outside the UK, the proportion was 44 per cent (although the latter was a very small sample and is indicative only).

Table 52 Welsh literacy and where respondent was born

Key: Read down columns

Where respondent was born		Wales		Other UK		Outside UK	
			%		%		%
Entry Level			34		50		[56]
L1			27		26		[19]
L2 or above			39		24		[25]
Weighted base	1001		902		84		14
Unweighted base	1000		930		60		10

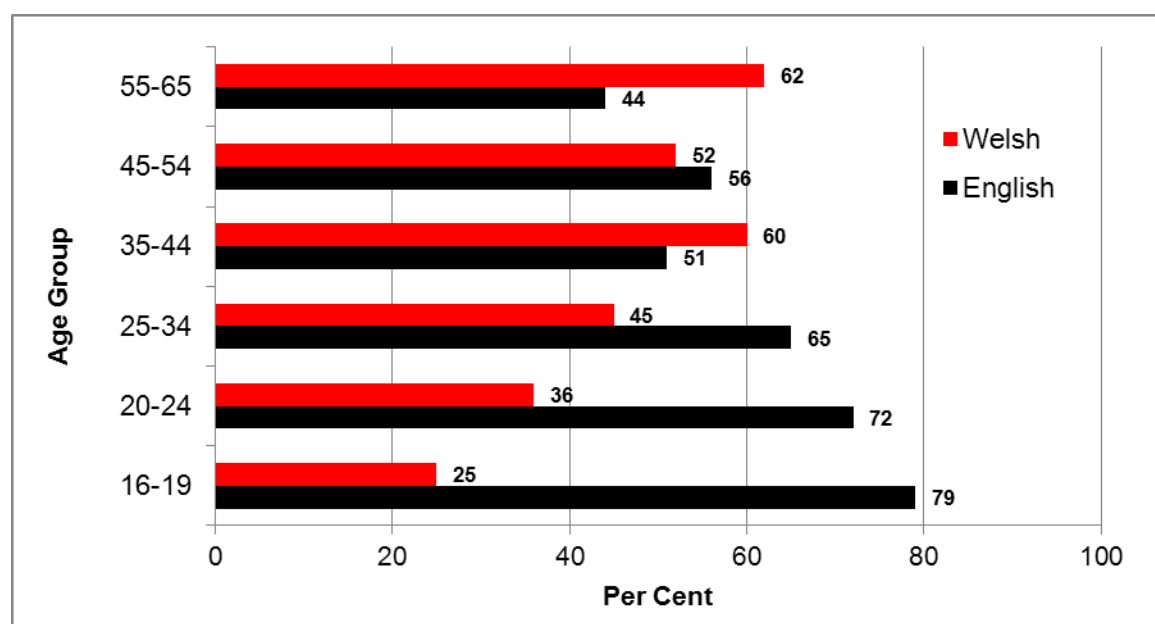
Cells containing parenthesis [] contain data from a relatively small sample.

Base: All who completed Welsh literacy assessment

4.2.6 Main language used at home

Welsh was the main language used at home by 62 per cent of those who said that they were fluent and 6 per cent of those who said that they spoke Welsh fairly well. Figure 33 illustrates that those using Welsh as the main language in the home were more likely than the whole sample total to be from older age groups. For example, 25 per cent of respondents aged 16-19 used Welsh as their main language at home but the proportion increased to 62 per cent for those aged 55-65.

Figure 33 Main language used at home by age



Base: All who speak more than one language

Note: Percentages add up to more than 100 because respondents could answer English and Welsh equally.

Overall, 99 per cent of the sample of Welsh speakers said that they spoke both English and Welsh well enough to hold a conversation. The main other languages which Welsh-speaking respondents spoke to that level were French (10 per cent of the sample), Spanish (5 per cent) and German (3 per cent).

Those who said that they were fluent in Welsh were equally likely to feel most comfortable using either English or Welsh, or both equally (71 per cent each for English or Welsh). Those respondents who said that they spoke English well enough to have a conversation were asked to assess their spoken English skills. 89 per cent overall felt that their English skills were very good and 10 per cent felt that they were good.

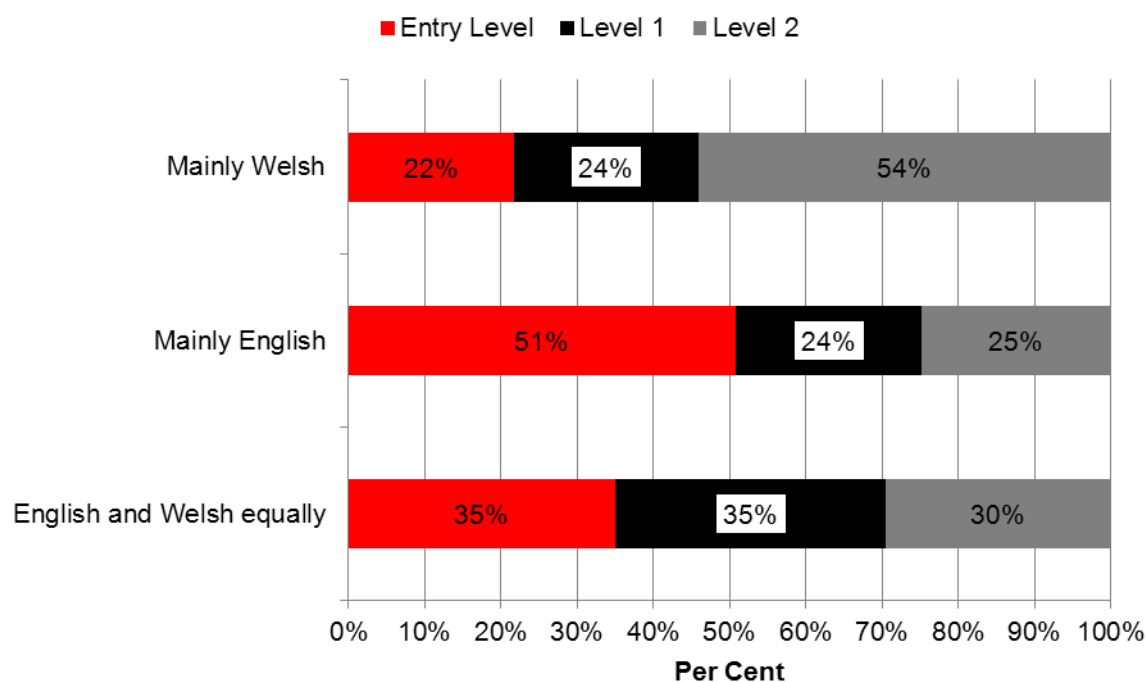
Respondents who could speak more than one language were asked which language(s) they learned first. 78 per cent of those who said that they were fluent in Welsh learned Welsh first, whereas 27 per cent learned English first¹⁴⁹. A very small number had learned other languages first, including Italian, Portuguese and Czech.

4.2.7 Main language used at work / school

All respondents who could speak more than one language were asked which language they used at work or school. Figure 34 shows that those who spoke mainly Welsh in these situations were more likely to score higher in the Welsh literacy assessments than those who spoke mainly English, or English and Welsh equally. 49 per cent of respondents who spoke mainly English at work or school were assessed at Level 1 or above, compared to 78 per cent of those who spoke mainly Welsh.

Respondents could answer either, or in some cases, both languages equally.

Figure 34 Main language used at work / school



Base: All who speak more than one language

4.2.8 First languages learned and main language at home

93 per cent of those respondents whose main language at home was Welsh had learned Welsh as their first language (Table 53), compared to just 11 per cent who had learned English as their first language¹⁵⁰. Conversely, 44 per cent of those whose main language at home was English had learned Welsh as their first language.

Table 53 First languages learned and main language at home

Key: Read down columns

First languages learned	Main language at home		
	Welsh %	English %	English and Welsh equally %
English	10	62	31
Welsh	93	44	78
Weighted base	526	652	102
Unweighted base	563	604	102

Base: All who speak more than one language

Note: Columns can add to more than 100 per cent as some respondents cited both languages equally.

¹⁵⁰ Although as above, this includes some who learned Welsh and English equally.

Table 54 shows that of those who spoke English, but not as their first language, 42 per cent started to speak it as a small child at home, with a further 54 per cent starting to speak it in a nursery or primary school and 3 per cent at secondary school.

Table 54 Age started to speak English or Welsh as a second language

Key: Read down columns

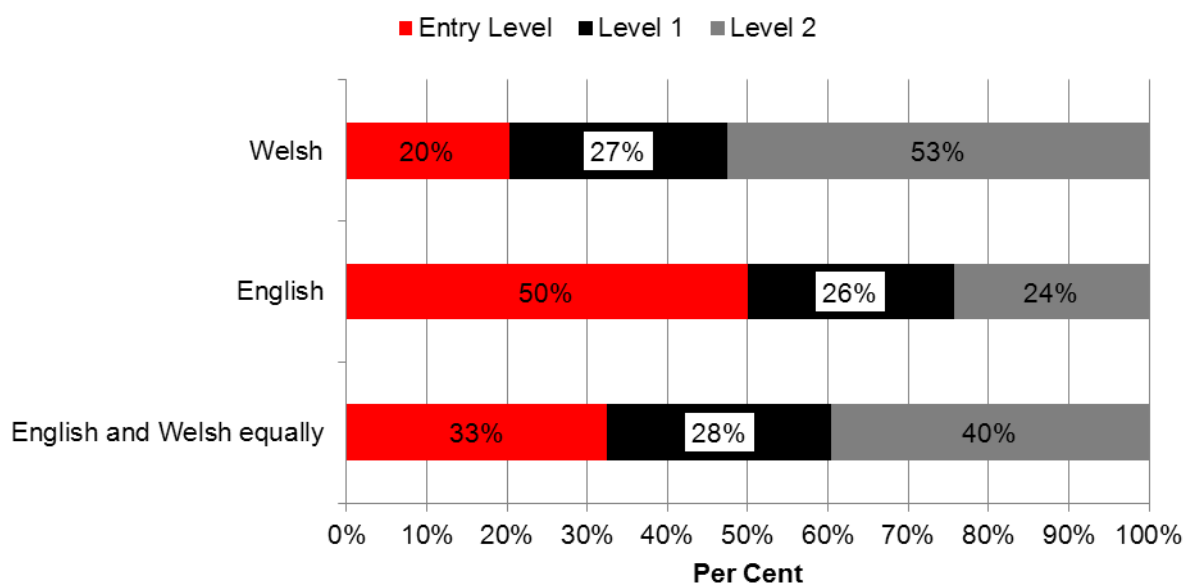
	First started to speak	
	Welsh %	English %
As a small child at home	20	42
In nursery or primary school (age 4-10)	62	54
In secondary school (age 11+)	6	3
In college or university	1	0
After leaving full-time education	11	<1
Don't know / refused	0	<1
Weighted base	427	791
Unweighted base	385	824

Base: All who speak English / Welsh but not as a first language

Of those who spoke Welsh, but not as a first language, a smaller proportion (20 per cent) started to speak it as a small child, whilst the majority (62 per cent) started in nursery or primary school. 11 per cent started to learn Welsh as adults, after leaving full-time education. This last figure perhaps reflects the investment in delivery of Welsh for Adults courses in Wales in recent years. In terms of language used at work, school or college, 82 per cent of those working or learning in a predominantly Welsh language environment had learned Welsh as one of their first languages.

Figure 35 shows that results for Welsh literacy assessments were closely related to whether respondents spoke Welsh at home or not. 80 per cent of those speaking Welsh at home were assessed at Level 1 or above, compared to half of those who spoke English at home – and who would consequently have less chance to maintain their language and literacy skills through constant use.

Figure 35 Main language at home



Base: All who completed Welsh literacy assessment

4.2.9 Household Characteristics

The proportion of respondents at Entry Level was slightly higher for those living alone, or as a single parent, than for the sample overall. However, this is unlikely to be significant and there appears to be no correlation between household size and literacy level for those scoring Level 2 or above, as shown in Table 55.

Table 55 Single Adult Household Occupancy and Assessment Levels

Key: Read down columns

	All	Single Household Occupancy (16+)	
		%	%
Entry Level		36	40
L1		26	23
L2 or above		37	37
Weighted base		1000	125
Unweighted base		1001	161

Base: All who completed Welsh literacy assessment

Respondents were asked to provide their marital status and Table 56 below shows that, as with the English medium assessments, those assessed at a higher level for literacy were more likely to be married and living with their spouse than those assessed at below Level 1. Conversely, those who were single, separated or divorced were more likely to be assessed at Entry Level.

Table 56 - Marital Status and Literacy Levels

Key: Read down columns

Assessment Levels	Marital Status				
	Single and never married %	Married and Living with Spouse %	Separated, Divorced %	Widowed %	Refused / Don't Know %
Entry Level	40	31	43	[29]	[63]
L1	25	28	29	[37]	[8]
L2 or above	35	42	28	[35]	[29]
Weighted base	416	478	67	18	19
Unweighted base	360	498	83	38	19

Base: All who completed Welsh literacy assessment

Related to household characteristics, respondents were slightly more likely to be scored at Entry Level if they had children aged 0-16 living in the household (39 per cent as opposed to 34 per cent for all respondents) and slightly less likely to be assessed at Level 2 or above (34 per cent compared with 40 per cent for all respondents).

4.2.10 Tenure

There were links between Welsh literacy levels and tenure status, as illustrated in Table 57. Respondents who were assessed at Entry Level were less likely to own their own home or live in their home rent free than were the whole sample. Overall, 66 per cent of respondents owned their own home but this fell to 58 per cent for those assessed at Entry Level for Welsh literacy. 30 per cent of those with Entry Level literacy were living in rented accommodation, as opposed to 20 per cent of respondents overall.

Table 57 Tenure Status

Key: Read across rows

	Tenure				
	Own your home outright or with mortgage %	Shared Ownership %	Rented %	Live Rent free %	Don't know / Refused %
Entry Level	58	[0]	30	11	[1]
Level 1	68	[1]	16	14	[2]
Level 2+	72	[1]	12	12	[3]
Total	66	[1]	20	12	[2]
Weighted base	657	9	196	119	8
Unweighted base	668	9	220	88	7

Base: All who completed Welsh literacy assessment

Tenure status is largely linked to local socio-economic factors such as income, work status and deprivation, so literacy levels are likely to be indirectly linked to home ownership, rather than intrinsically linked.

4.2.11 Benefits

Approximately 37 per cent of all respondents to the survey were claiming state benefits or tax credits of some kind, but this proportion increased to 40 per cent for those assessed at Entry Level, demonstrating a slight correlation between literacy levels and claiming of benefits (Table 58).

Table 58 - Benefit Claimants and Assessment Levels

Key: Read down columns

	Whether personally claiming State Benefits or Tax Credits			
	Yes %	No %	Don't know %	Refused %
Entry Level	40	35	[0]	[12]
Level 1	27	27	[17]	[8]
Level 2 or above	33	39	[83]	[81]
Weighted base	364	615	6	16
Unweighted base	479	502	5	14

Base: All who completed Welsh literacy assessment

As was the case for the English medium survey results, respondents who were claiming benefits of any kind were most likely to be claiming child benefit as there is universal eligibility for all those with children of qualifying age. However, those assessed at Entry Level for Welsh literacy were more likely than the whole sample to be claiming unemployment-related benefits (8 per cent of respondents), income support (10 per cent), housing / council tax benefit (12 per cent) or sickness / disability benefits (15 per cent). This is shown in Table 59.

Table 59 - Benefit Claimants by Type of Benefit

Key: Read down columns

Benefits Claimed	Literacy Level		
	Entry Level %	Level 1 %	Level 2 %
Unemployment-related benefits, or National Insurance Credits	8	5	1
Income Support (not as an unemployed person)	10	3	2

Sickness or Disability Benefits	15	12	6
State Pension	10	14	12
Family related benefits (excluding Child Benefit and tax credits)	9	2	5
Child Benefit	62	65	69
Housing, or Council Tax benefit	12	8	4
Tax Credits	36	41	28
Pension Credit	1	0	0
Educational Maintenance Allowance (EMA)	0	0	0
Other, don't know, refused	1	4	3
Weighted Base	146	98	125
Unweighted Base	205	133	146

Base: All who completed Welsh literacy assessment.

4.2.12 Health

Table 60 below identifies that there is a correlation between self-assessment of health and Welsh literacy levels. Respondents assessing their general level of health as good or very good were more likely than the whole sample to be assessed at Level 1 or above in the Welsh Literacy Assessments. A third of interviewees who considered that they were in very good health were assessed at Entry Level, whilst this figure rose to nearly two thirds for those in poor health, although the latter figure should be taken as indicative, due to small sample size.

Respondents' self-rating of their health was also a function of age. More than half the respondents interviewed who stated that they were in poor health were in the 55-65 age bracket, compared with just 3 per cent of the 25-34 group.

Table 60 – Rating of Health in General

Key: Read down columns

	Rating of health in general				
	Very good %	Good %	Fair %	Poor %	Very poor %
Entry Level	34	36	44	[55]	[63]
Level 1	25	32	26	[25]	[18]
Level 2 or above	41	33	30	[20]	[20]
Weighted base	662	226	85	19	6
Unweighted base	601	236	118	31	11

Base: All who completed Welsh literacy assessment

Respondents were also asked whether they had a learning difficulty or long standing illness of any kind (Table 61). 4 per cent of the sample said that they had some kind of learning difficulty, primarily dyslexia. Of those with a learning difficulty, almost three-quarters were assessed at Entry Level for Welsh literacy, compared to the whole sample total of 36 per cent, although the sample size was too small to provide a robust result. The correlation between disability and literacy performance was less pronounced for respondents with long standing illnesses, disabilities or infirmities.

Table 61 Whether respondent has a learning difficulty/long-standing illness of any kind

Key: Read down columns

	Learning Difficulty of Any Kind		Long-standing illnesses, disabilities or infirmities	
	Yes %	No %	Yes %	No %
Entry Level	[71]	34	38	36
Level 1	[13]	27	33	25
Level 2 or above	[15]	39	29	39
Weighted base	45	955	165	834
Unweighted base	42	957	217	781

Base: All who completed Welsh literacy assessment

In addition, respondents were asked whether their learning disability / illness affected or limited their activities in any way. Approximately one quarter of those with a learning disability felt that it had (although the sample size was too small to be statistically robust), but the level was much higher amongst those with a physical illness or disability, at 60 per cent.

Table 62 shows that respondents assessed at Level 1 or above were more likely to feel that their illness or disability did not limit their daily activities in any way (75% of respondents against 53% for those with a limiting illness or disability). However, there was only a very slight difference at Level 2 or above between those who did or did not feel that they were limited by their illness or disability.

Table 62 Whether illness / disability limits activities in any way**Key: Read down columns**

	Whether illness / disability limits activities in any way	
	Yes %	No %
Entry Level	47	25
Level 1	24	47
Level 2 or above	29	28
Weighted base	98	67
Unweighted base	142	75

Base: All with an illness / disability

4.2.13 Summary

This section of the report has shown that there was a slight fall in the assessed levels of Welsh literacy, from 67 percent at Level 1 or above in 2004 to 63 per cent in 2010. In addition, the proportion of fluent Welsh speakers assessed at Entry Level almost doubled over the six years between the surveys. Women respondents achieved substantially better results in the literacy assessment than did men (69 per cent at Level 1 or above for women, 58 per cent at that level for men). Younger respondents, in the 16-19 age category, were least likely to be assessed at Level 1 or above, whilst those in the 35-44 bracket were the most likely.

At a regional level, literacy assessment scores were highest amongst respondents from SE Wales, (74 per cent assessed at Level 1 or above against a Wales total of 63 per cent). Those born in Wales were more likely to be scored at Level 1 or above than those born elsewhere. Those respondents who spoke mainly Welsh at work or school generally scored better in the Welsh literacy assessment (78 per cent at Level 1 or above) than those who spoke English in such situations (49 per cent), or who spoke both languages equally (65 per cent).

As in the English medium survey, there were some links between higher levels of Literacy assessment and home ownership. Those assessed at Level 1 or above were also less likely than the whole sample total to be claiming benefits¹⁵¹, and especially those relating to sickness and disability benefit. This was reinforced by the

¹⁵¹ Other than child benefit, which is a universal entitlement.

result that those with self-reported good health were more likely to have scored higher in the literacy assessment.

4.3 Education

4.3.1 Introduction

Results discussed earlier in this report suggested that those leaving school most recently were likely to have the poorest levels of Welsh literacy. This section of the report explores the link between education, qualifications and Welsh literacy more closely. It begins by looking at Welsh literacy assessment results in the context of the highest qualification held by respondents and also amongst those with a specific qualification in the Welsh language. The survey and assessment results are then laid out by the medium of education received by respondents at both primary and secondary levels. As in the English medium survey analysis, the issues of literacy amongst those leaving school at age 16 or younger and parental education are examined in relation to assessment results.

Key Findings

- There was a general trend that those with higher level qualifications were more likely to be assessed at Level 1 or above for Welsh literacy, although the relationship was not as clear as in the English medium survey.
- Almost half of those with a A*-C Grade GCSE in Welsh first language¹⁵² were assessed at below Level 2 for Welsh literacy and almost one quarter were below Level 1.
- Those educated wholly or mostly in Welsh performed very much better in the Welsh literacy assessment (50 per cent at Level 2 or above) than those who learned in English, or through a mixture of English and Welsh (30 per cent).
- As with the English medium assessments, those whose parents stayed in education beyond 16 were likely to perform better in the Welsh literacy assessments.

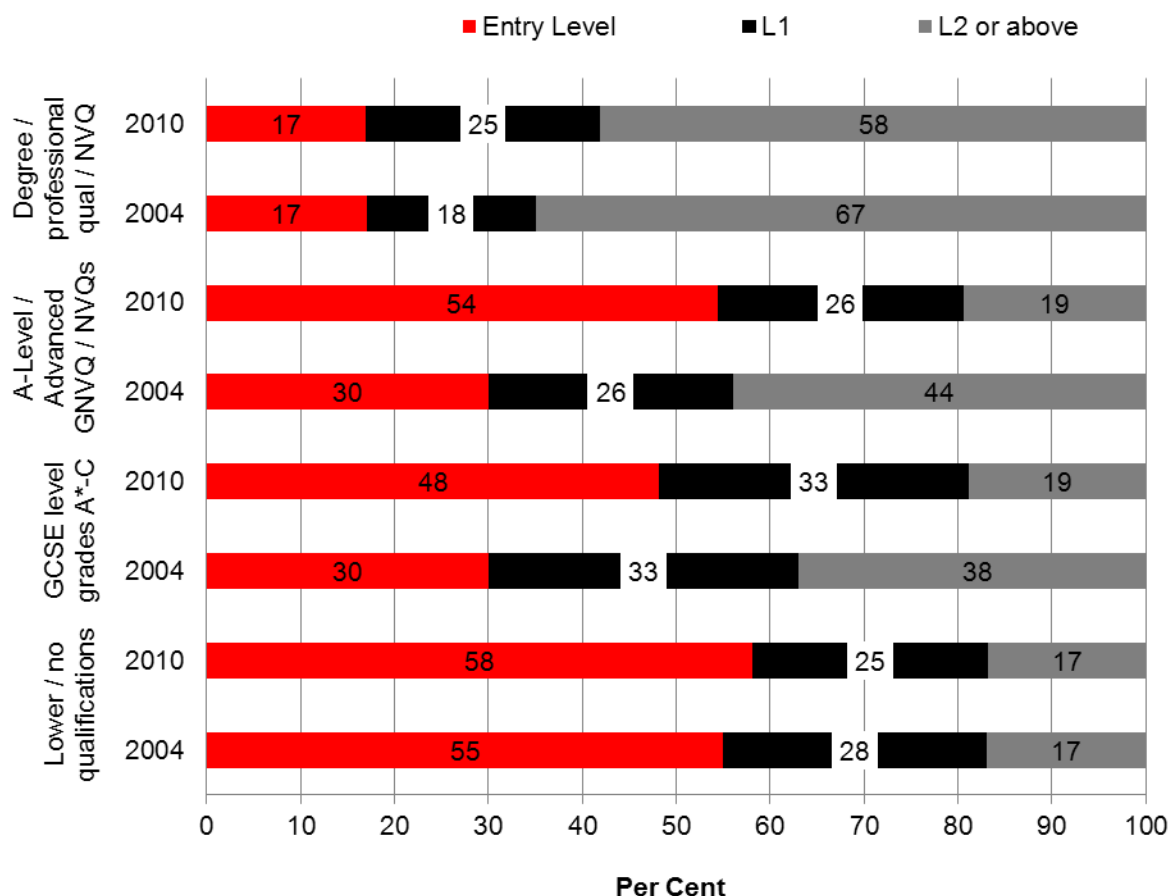
4.3.2 Qualifications and Welsh literacy assessment

88 per cent of the Welsh-speaking sample had formal academic or vocational qualifications at some level. Whilst there was an apparent direct correlation between respondents' qualification levels and their assessed levels of English literacy, the

¹⁵² That is, a GCSE in Welsh as a first language.

situation for Welsh literacy assessment was rather different. Figure 36 illustrates that the general principle stood that those with higher level qualifications (a degree or higher) were the most likely to have achieved a Welsh literacy assessment at Level 1 or above and those with lower or no qualifications were the least likely to achieve this level.

Figure 36 Qualification level and Welsh literacy



Base: All who completed Welsh literacy assessment

However, the assessment levels achieved by those with intermediate qualifications were less clearly related to respondents' qualification levels. For example, 45 per cent of those with a Level 3 qualification (A Level / Advanced GNVQ or NVQ 3) were assessed at Level 1 or above for Welsh literacy, whereas the figure was 52 per cent for those with a Level 2 qualification (for example GCSE at Grades A*-C).

24 per cent of those with a GCSE in Welsh as a first language at grade A* to C were assessed at Entry Level for Welsh literacy and 51 per cent were assessed at Level 2 or above. Whilst it might be reasonable to expect that those achieving GCSE Welsh

first language would have Level 2 literacy in order to achieve this, this is not universally the case, (Table 63). When examining the results by age, there appears to be a step change in assessment results between the 25-34 age group and the 35-44 age group.

Table 63 Literacy assessments amongst those with GCSE Welsh first language at A*-C, by age

Key: Read down columns

Assessment Levels	Age						Total
	16-19	20-24	25-34	35-44	45-54	55-65	
	%	%	%	%	%	%	%
Entry Level	33	39	32	19	15	11	24
L1	35	20	22	21	31	19	25
L2 or above	32	41	46	60	54	70	51
Weighted base	89	75	109	127	95	90	586
Unweighted base	65	60	105	109	78	127	545

Base: All with GCSE Welsh first language at A*-C

There was a substantial difference between the assessment results for this age profile and that of respondents in the English medium survey who held a GCSE English language qualification at grade A*-C. In the latter case there was a step change between those aged 16-19 and older age bands, which was attributed to the needs of literacy use imposed by everyday life or day to day work. In the Welsh medium survey, this does not appear to be the case; perhaps reflecting the fact that not all respondents in that age bracket were using their Welsh in their everyday lives.

4.3.3 Language of education

62 per cent of Welsh-speaking respondents were educated either mostly or all in Welsh up to the age of eleven, but the proportion was very much lower (37 per cent) in terms of those who continued to be educated in Welsh at secondary school, up to the age of 16. In some cases this might reflect a lack of opportunity to continue in Welsh medium education in the area where respondents were brought up.

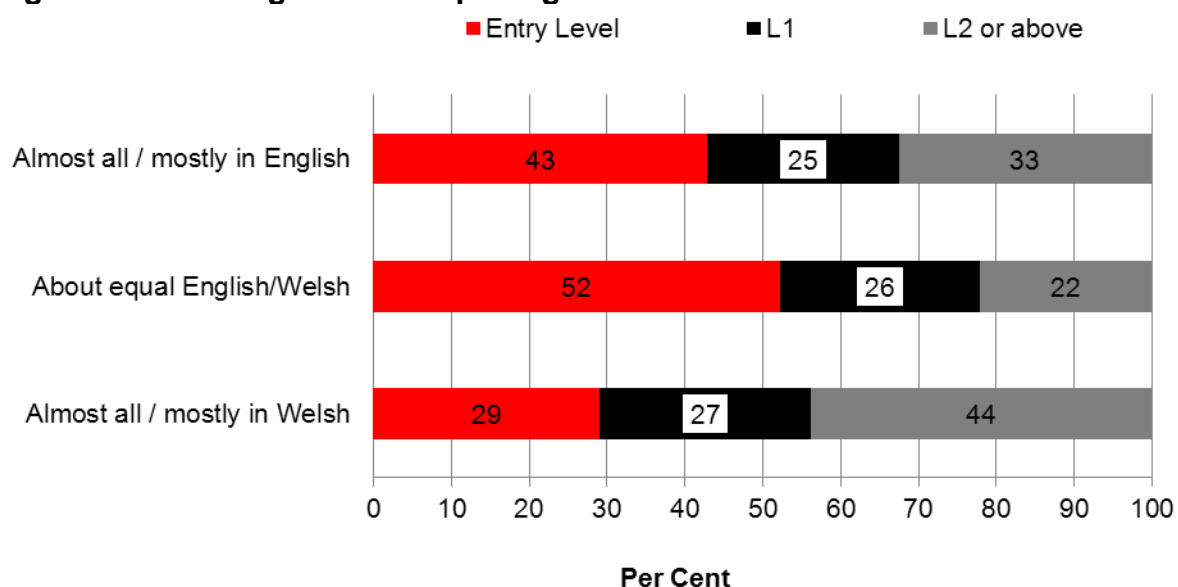
As might be expected, those educated all or mostly in Welsh were more likely to be assessed at a higher level for Welsh literacy (Figures 37, 38). For example, half of

those educated all or mostly in Welsh up to the age of 16 were assessed at Level 2 or above, whilst the figure was 31 per cent for those educated all or mostly in English up to the same age.

4.3.4 Teaching in Welsh up to age 11

Welsh literacy levels were higher for respondents who were taught almost all or mostly in Welsh up to the age of eleven, as shown in Figure 37. 44 per cent of this group were assessed at Level 2 or above, compared to 33 per cent of respondents who were taught almost all or mostly in English. Respondents who were taught about equally in the two languages had lower literacy levels than those who were taught in just one – either English or Welsh.

Figure 37 Teaching in Welsh up to age 11

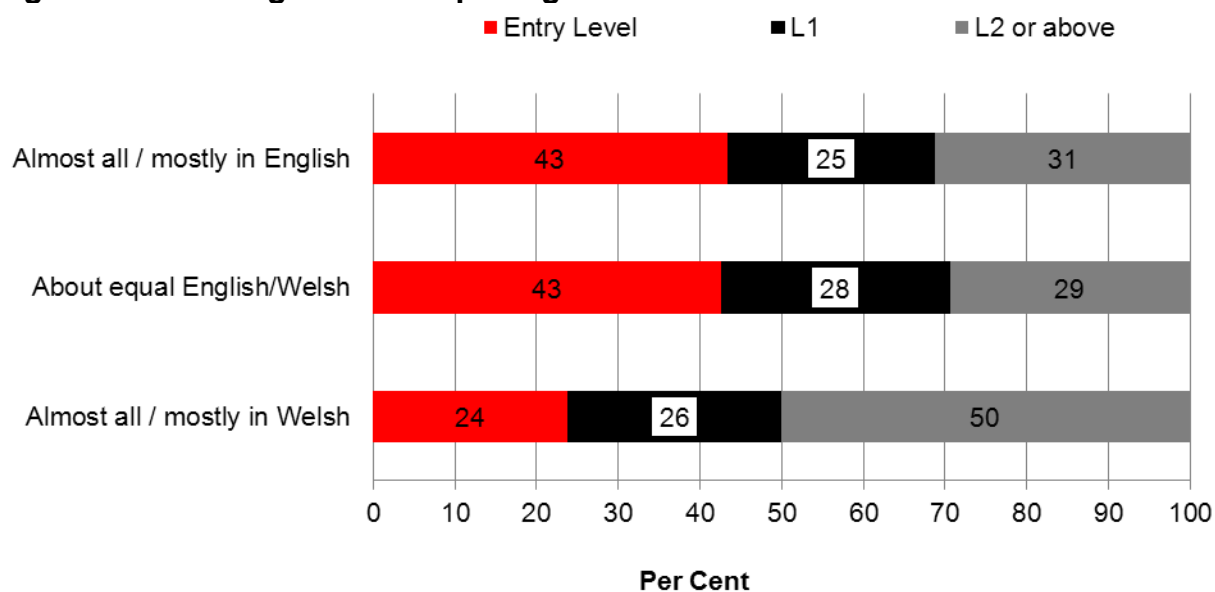


Base: All people educated in Wales up to the age of eleven

4.3.5 Teaching in Welsh up to age 16

Similar trends were observable in secondary education (Figure 38). Half of those who were taught primarily in Welsh up to the age of sixteen were assessed at Level 2 or above for literacy, but the proportion fell to less than one-third of those educated primarily in English. A key difference here, however, was that those taught equally in English and Welsh performed at a very similar level to those taught almost all or mostly in English, in the assessments.

Figure 38 Teaching in Welsh up to age 16



Base: All people educated in Wales up to the age of sixteen

4.3.6 Literacy among those leaving school at age 16 or younger

Table 64 shows the literacy profile of the 30 per cent of Welsh speaking respondents who left school at age 16 or younger. As with the English language literacy assessments in the English medium survey, Welsh literacy assessment levels amongst this group were lower than the level recorded for the population as a whole.

Table 64 Literacy among those leaving school at age 16 or younger

Key: Read down columns

	All	Those leaving school at 16 or younger	
	2010 %	2010 %	2004 %
Entry Level	36	57	54
L1	26	26	29
L2 or above	37	16	17
Weighted base	1000	301	475
Unweighted base	1001	364	523

Base: All Welsh speakers with a terminal education age of 16 or less

Table 65 extends this analysis to look at the literacy levels of those who terminated their education at age 16 as they progress through life. As with the whole sample, literacy levels increased after leaving school (for example from 39% of respondents at Level 1 or above at age 20-34, up to 50% at age 45-54), but the levels achieved

never reached the whole sample total. However, amongst those aged 55 and above, there was a step change in the proportion of respondents who had left school at 16 or younger and this group were the least likely to have been assessed at Level 2 or above for literacy.

Table 65 Welsh literacy among those terminating education at age 16
Key: Read down columns

	Age of respondent				Total
	20-34	35-44	45-54	55-65	
	%	%	%	%	%
Entry Level	61	55	51	54	57
L1	23	23	30	33	26
L2 or above	16	23	20	13	16
Weighted base	61	66	61	96	301
Unweighted base	66	69	61	156	364

Base: All those terminating education at age 16

4.3.7 Parental education

The results in Table 66 show that there is some intergenerational effect on the results of individuals' assessments for literacy from the educational history of their parents. More than half of respondents whose parents both stayed in education beyond 16 were assessed at Level 2 or above, but this proportion fell to just a third for those whose parents did not. Note that as discussed in section 3.4.4 of this report, this may be related to the social circumstances or other factors.

It should be noted that the likelihood of one or more parents having stayed on in education decreases as a function of the age of the respondent, with older individuals being very much less likely to have had parents who continued their education beyond the age of sixteen.

Table 66 Whether either parent stayed in education beyond 16**Key: Read down columns**

Whether either parent stayed in education beyond 16				
	Yes – both stayed in education beyond 16 %	Yes – one parent stayed in education beyond 16 %	No – neither parent stayed in education beyond 16 %	Don't know %
Entry Level	25	32	39	[48]
L1	19	26	28	[26]
L2 or above	56	42	33	[26]
Weighted base	160	166	625	46
Unweighted base	130	149	669	47

Base: All who completed Welsh literacy assessment

4.3.8 *Summary*

The links between highest qualification and Welsh literacy were less clear than was the case for English literacy results, although in both mediums those respondents with higher level qualifications were more likely to be assessed at Level 1 or above for literacy than those with lower or no qualifications. Those educated all or mostly in Welsh were very much more likely to be assessed at Level 1 or above (76 per cent of respondents) than those who received their secondary education in either English (56 per cent at Level 1 or above) or English and Welsh equally (57 per cent).

Amongst those who left school at age 16 or younger, Welsh literacy levels increased with age up to the 45-54 age band. However, they remained below the level of the overall sample of respondents at each age point. Parental education was linked to literacy assessment results, as more than half of respondents whose parents both stayed in education beyond 16 were assessed at Level 2 or above, but this proportion fell to just a third for those whose parents did not.

4.4 Employment Status

4.4.1 *Introduction*

This section of the report looks at the employment status of respondents and whether these were linked in any way to their Welsh literacy assessment results. It begins by looking at assessment results by employment and unemployment, full and

part-time work, before moving on to examine the relationship between literacy and occupational status – in terms of both SOC¹⁵³ (Standard Occupational Classification) and NS-SEC (National Statistics Socio-Economic Classification)¹⁵⁴. Results are also examined by the industrial sector that employed respondents were working in at the time of the survey. Finally in this section, the links between literacy assessment results and both household and personal incomes are looked at.

Key Findings

- Respondents who were unemployed at the time of the survey were substantially less likely to be assessed at Level 1 or above than those in employment.
- Those engaged in customer facing activities in their day to day work were more likely to perform well in the Welsh literacy assessment than their position in the skills hierarchy would suggest.
- However, women were more literate in Welsh than men at all occupational levels.
- Respondents from households with an income of £50K + were three times as likely to be assessed at Level 2 or above than those with a household income of less than £10K.

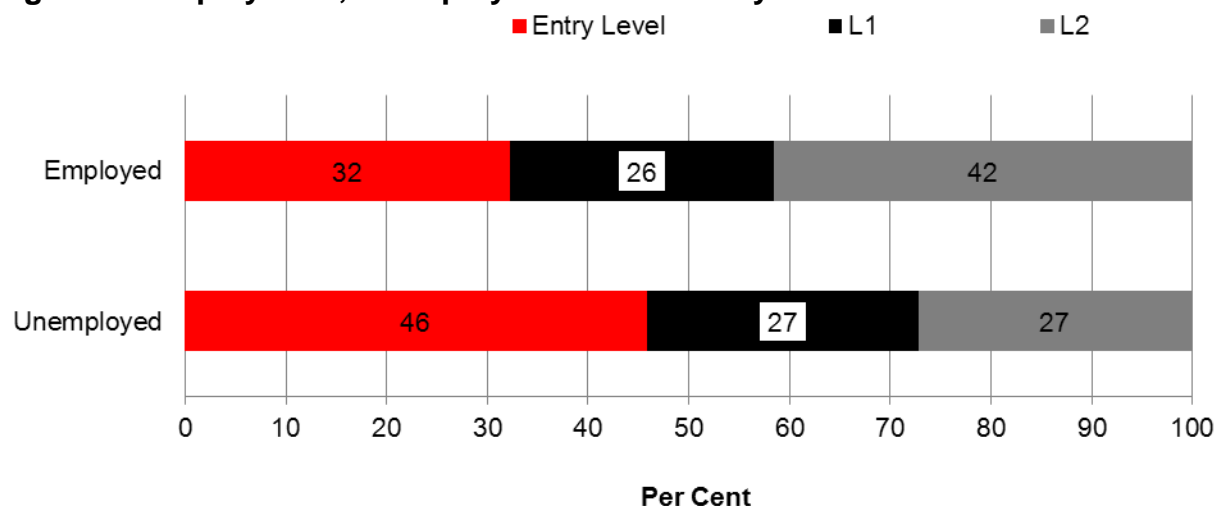
4.4.2 Employed and unemployed

In the English medium section of this report, it was pointed out that there is a link between low basic skills levels and poor employment outcomes and the same links can be seen in the results of the Welsh medium assessment. Table in the first section of this chapter showed that individuals continue to develop their Welsh literacy levels after completing education, as they apply their skills in employment. This section takes a closer look at employment and unemployment and the associated correlations with Welsh literacy levels. Those who were unemployed at the time of the survey (Figure 39) were substantially less likely to be assessed at Level 1 or above for Welsh literacy than their employed counterparts (54 per cent for unemployed respondents, as opposed to 68 per cent for employed respondents).

¹⁵³ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-1-structure-and-descriptions-of-unit-groups/index.html>

¹⁵⁴ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html>

Figure 39 Employment, unemployment and literacy



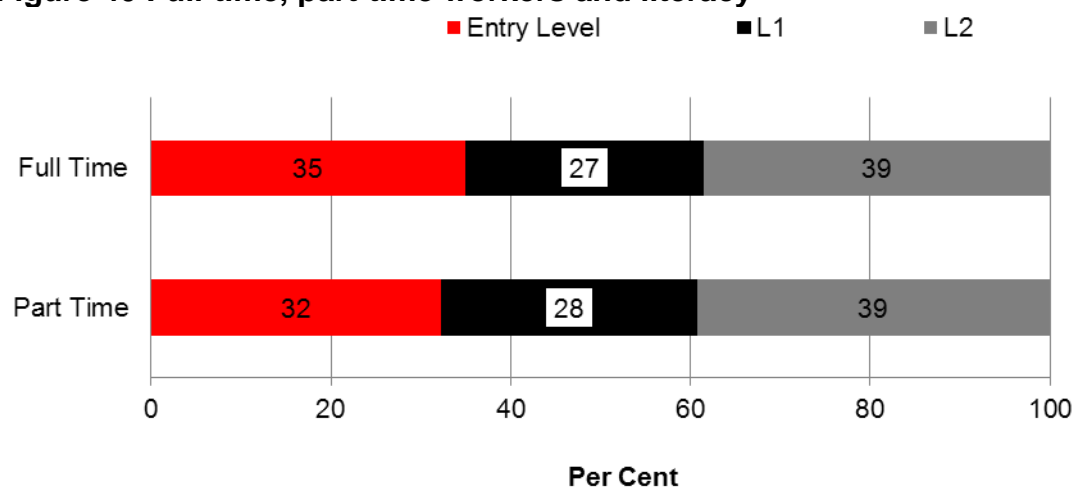
Base: All who completed Welsh literacy assessment

Of the respondents who were classified as unemployed at the time of the survey, only 15 per cent were actually looking for work. The remainder mainly comprised a mix of the retired, those with a long-term illness or disability, carers and students.

4.4.3 Full-time, part-time workers and literacy

As in the English literacy assessments, there was little difference in Welsh literacy assessment levels between respondents who were working full or part-time, with 66 per cent of full-time workers being assessed at Level 1 or above and 67 per cent of part-time workers achieving this level (Figure 40).

Figure 40 Full-time, part-time workers and literacy



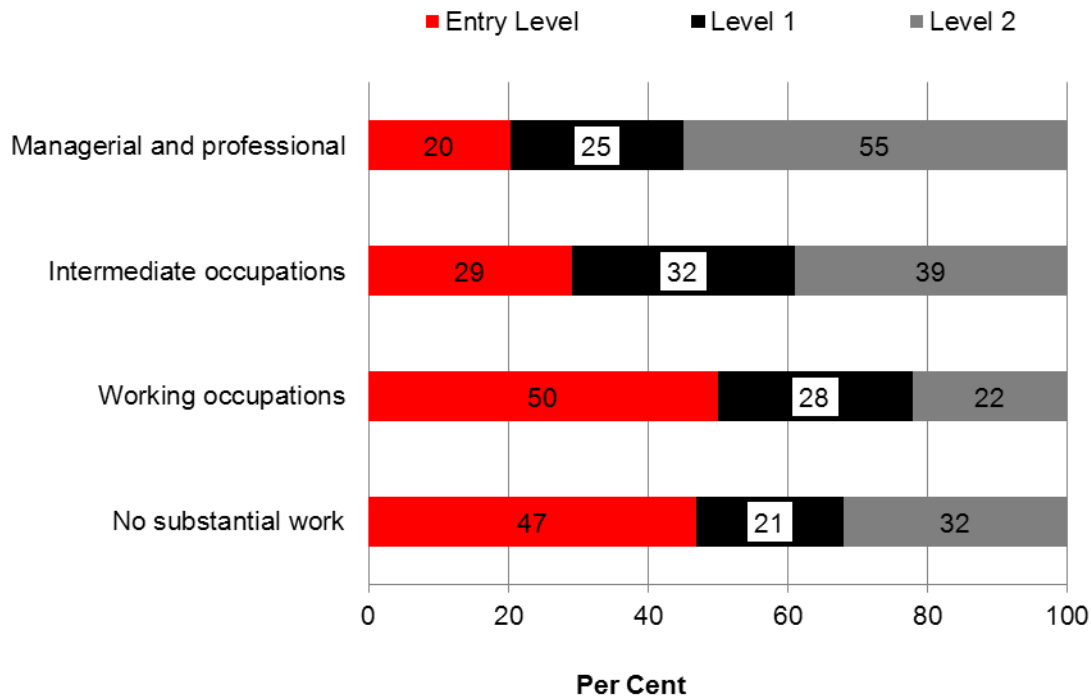
Base: All employed who completed Welsh literacy assessment

All 'student and employed' respondents have been categorised as 'part-time' for this comparison.

4.4.4 Occupational status and literacy

Respondents were also asked about their broad occupational category and there was a clear correlation between higher levels of Welsh literacy and higher-skilled roles (Figure 41).

Figure 41 - Occupational status and Welsh literacy



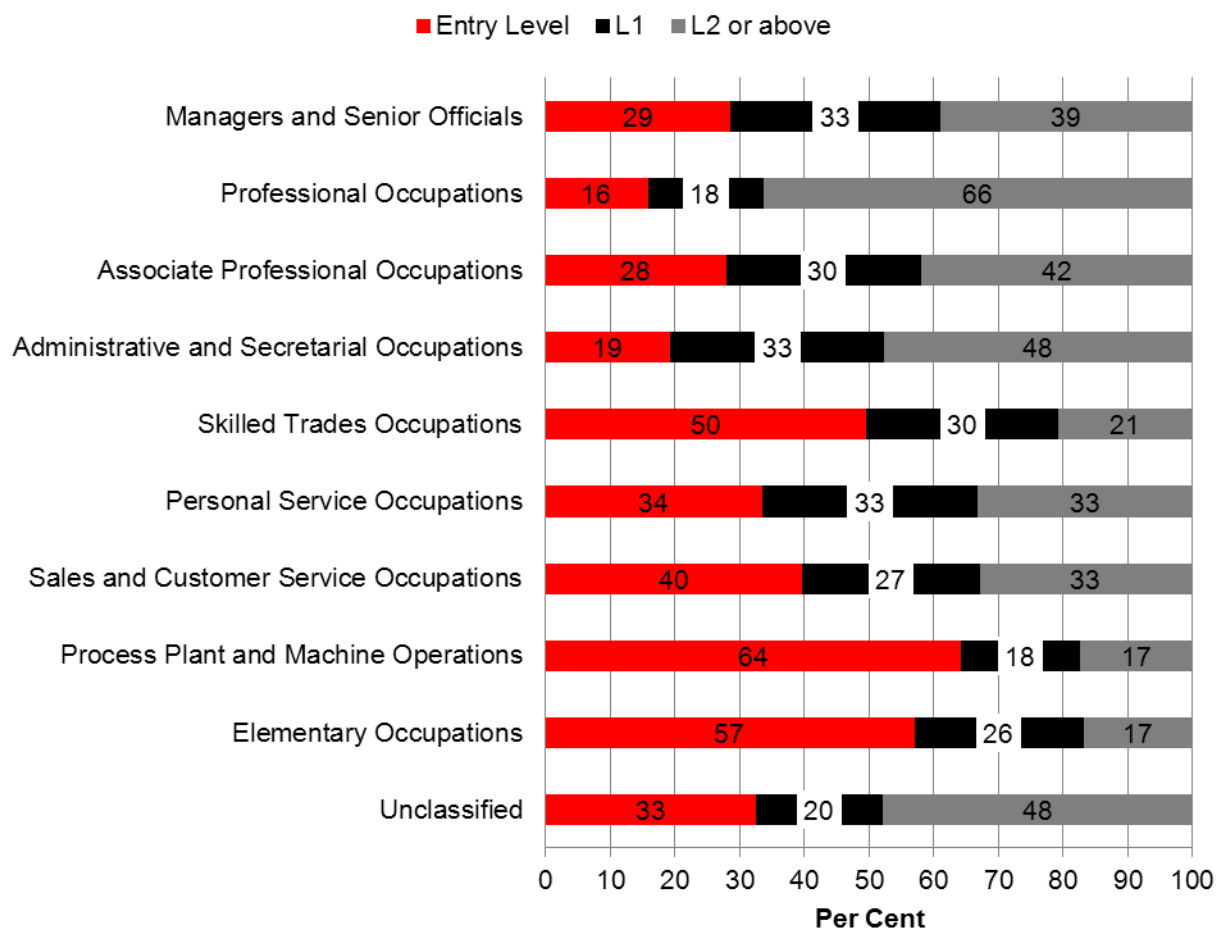
Base: All who completed Welsh literacy assessment

Whereas four in five respondents in managerial and professional roles were assessed at Level 1 or above for Welsh literacy, half of respondents in working occupations would be assessed at this level.

Those with no substantial work scored slightly higher than respondents in working occupations, but this can be explained by the fact that this group will encompass people with a wide range of skills and abilities including students and those with caring responsibilities, for example.

Looking at the occupational profile of respondents in more detail (Figure 42), the relationship between Welsh literacy assessment results and the occupational skills hierarchy was less clear than for the similar analysis of the English literacy assessments. For example, managers and senior officials were less likely to have been assessed at Level 1 or above than professionals, associate professionals, or administrative and secretarial occupations, for example.

Figure 42 Occupation status and literacy



Base: All who completed Welsh literacy assessment

It may be, however, that there is a close link between occupation and Welsh literacy, in that assessment results were better in customer facing areas, such as personal services and sales where respondents were having to use their language skills in their everyday lives at work, than in associate profession occupations, for example. The Welsh medium survey looked at literacy in relation to the occupational role of both the respondent and the head of household (Table 67). As with the English medium survey, there was little difference between the two samples, which reflects that a large proportion of respondents were themselves heads of household.

Table 67 Respondent occupation vs. head of household occupation**Key: Read down columns**

	Managerial and professional		Intermediate occupations		Working occupations		No substantial work	
	%		%		%		%	
	Resp.	Head	Resp.	Head	Resp.	Head	Resp.	Head
Entry Level	20	21	29	36	50	54	47	23
L1	25	28	32	30	28	24	21	29
L2 or above	55	52	39	34	22	21	32	48
Weighted base	343	384	150	166	359	278	148	59
Unweighted base	327	353	168	173	378	308	127	58

Resp. = Respondent occupation. Head= Head of household occupation.

Base: All who completed Welsh literacy assessment

The one group where there was a substantial difference was amongst those with “no substantial work”¹⁵⁵. Where it was the respondent that was out of work, they were likely to have performed less well (53 per cent at Level 1 or above) than where the head of household was out of work (77 per cent at Level 1 or above).

Survey results were also broken down by NS-SEC; National Statistics Socio-Economic Classification (Table 68). This is an alternative occupational classification, which aims to create a more descriptive and flexible way of describing what people do in their day to day work and which allows more insight into the different characteristics of different job types.

Similarly to the position illustrated in Figure 42, Table 68 shows that those in higher skilled roles were more likely to be assessed at a higher level of Welsh literacy. More than half of the respondents in managerial and professional roles were found to be at Level 2 or above for Welsh literacy, yet this figure fell to one in five for respondents in (unskilled) routine occupations.

¹⁵⁵ That is work of a paid nature.

Table 68 Welsh literacy by occupation (SEC)**Key: Read across rows**

SEC Category	Entry Level %	Level 1 %	Level 2 %
Higher managerial and professional (60/59)	21	26	54
Lower managerial and professional (283/268)	20	25	55
Intermediate (93/95)	23	35	43
Small employers and own account workers (57/73)	39	27	34
Lower supervisory and technical (109/110)	63	20	17
Semi-routine occupations (174/181)	40	34	26
Routine occupations (76/87)	53	27	20
Never worked/ long term unemployed (20/20)	[59]	[32]	[9]
Full-time student (94/72)	49	19	31

Base: All who completed Welsh literacy assessment

However, this represented a less clear relationship than in the English assessments, in that those in lower supervisory and technical roles displayed lower levels of Welsh literacy than those in semi-routine or routine occupations. This may again relate to the medium in which respondents worked, with those in technical occupations possibly less likely to be working in the medium of Welsh than those in more customer facing areas of work.

In addition to being able to break down the results by occupation, we can also analyse the sectoral differences of those working in different industries (Table 69) although there are issues with small sample sizes for many sectors. Of those industries with robust results, Education and Public Administration and Defence had the highest proportions of those at Welsh Literacy Level 2 or above.

Table 69 Welsh Literacy by industry sector (SIC)**Key: Read across rows**

Respondent SIC group	Literacy Assessment		
	Entry Level	Level 1	Level 2
	%	%	%
Accommodation and Food Service Activities (65/67)	49	29	22
Activities of Extra-territorial Organisation and Bodies (1/1)	[* ¹⁵⁶]	[0]	[0]
Administrative and Support Services Activities (19/23)	[64]	[8]	[28]
Agriculture, Forestry and Fishing (27/29)	[22]	[42]	[35]
Arts, Entertainment and Recreation (31/32)	[19]	[12]	[68]
Construction (45/46)	[67]	[20]	[13]
Education (183/173)	13	26	62
Electricity, Gas, Steam and Air Conditioning Supply (5/5)	[19]	[62]	[19]
Financial and Insurance Activities (19/19)	[18]	[40]	[42]
Human Health and Social Work Activities (133/146)	33	35	31
Information and Communication (16/11)	[6]	[18]	[76]
Manufacturing (58/63)	59	22	20
Mining and Quarrying (3/6)	[82]	[18]	[0]
Other Service Activities (17/15)	[29]	[17]	[55]
Professional, Scientific and Technical Activities (33/29)	[42]	[21]	[37]
Public Administration and Defence (74/74)	25	31	45
Real estate activities (5/3)	[0]	[0]	[* ¹⁵⁷]
Transport and Storage (33/32)	[70]	[18]	[13]
Water Supply (10/10)	[30]	[33]	[37]
Wholesale and Retail Trade (89/92)	44	31	26
Weighted base 907			
Unweighted base 924			

4.4.5 Occupation and gender

Section 1 of this chapter showed that there was a distinct gender divide in Welsh literacy assessment scores, with females more likely to be assessed at Level 1 or above than their male counterparts. As in the English medium survey results, there was an over-representation of men in management occupations and of women in administrative and secretarial occupations and personal service occupations. (Table 70)

¹⁵⁶ The data item is disclosive or not sufficiently robust for publication

¹⁵⁷ The data item is disclosive or not sufficiently robust for publication

Table 70 Occupation and gender**Key: Read down columns**

Respondent SOC group	Male %	Female %	Total %
Managers and Senior Officials	16	10	13
Professional Occupations	11	11	11
Associate Professional and Technical Operations	12	14	13
Administrative and Secretarial Occupations	6	17	12
Skilled Trades occupations	18	3	10
Personal Service Occupations	4	15	10
Sales and Customer Service Occupations	5	11	8
Process, Plant, and Machine Operatives	14	4	9
Elementary Occupations	13	14	13

Base: All respondents

However, when the Welsh literacy levels of respondents are broken down by both occupational level and gender, it can be seen that women scored better in the literacy assessments in the higher-skilled occupational levels. Hence, despite the fact that men were more likely to undertake managerial and professional occupations, this was not as a result of having better Welsh literacy skills (Table 71).

Table 71 Occupation and gender**Key: Read across rows**

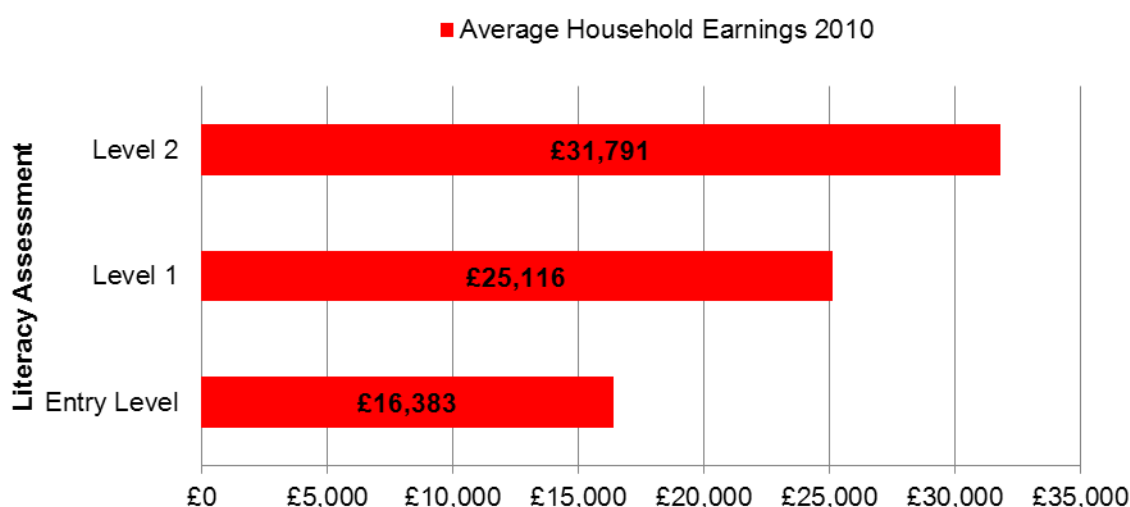
Occupation	Male			Female		
	Entry Level %	Level 1 %	Level 2 %	Entry Level %	Level 1 %	Level 2 %
Managers and Senior Officials	31	31	38	24	35	41
Professional Occupations	18	22	60	15	16	69
Associate Professional and Technical Operations	29	39	33	27	22	50
Administrative and Secretarial Occupations	27	34	39	16	33	51
Skilled Trades occupations	54	29	18	32	33	34
Personal Service Occupations	31	26	42	34	35	31
Sales and Customer Service Occupations	45	25	30	37	29	34
Process, Plant, and Machine Operatives	54	23	23	96	4	0
Elementary Occupations	67	21	12	46	32	22
Weighted base		408			500	
Unweighted base		381			543	

Base: All respondents who completed Welsh literacy assessment

4.4.6 Welsh literacy and household income

The relationship between Welsh literacy levels and household income amongst survey respondents was examined (Figure 43). There was a direct correlation between higher levels of literacy and higher income, in that average household income for those assessed at Level 2 was £31,791, whereas the figure was £16,383 amongst households where the respondent was assessed at Entry Level.

Figure 43 Household income and literacy



Base: All who completed Welsh literacy assessment

Looking at these results from a different perspective (Table 72), respondents living in households with an income of more than £50,000 were three times as likely to be assessed at Level 2 or above than those living in households with income under £10,000. Approximately half of those respondents who were living in households in the lowest income bracket were assessed at Entry Level for Welsh literacy.

Table 72 Household income and literacy

Key: Read down columns

	Total household income before tax in last year					
	Under £10,000	£10,000 - £19,999	£20,000 - £29,999	£30,000 - £40,000	£40,000 - £49,999	More than £50,000
	%	%	%	%	%	%
Entry Level	48	50	40	29	32	16
Level 1	34	25	30	32	18	25
Level 2	19	25	30	39	51	59
Weighted base	84	132	142	112	84	121
Unweighted base	120	157	143	101	68	90

Base: All who completed Welsh literacy assessment

The relationship between individual income and literacy followed a similar pattern to that in the previous table, in that assessment levels were substantially better amongst those with an income of £30,000 or more (Table 73) and that there was a relationship between the proportion of assessments at Level 2 and individual income.

Table 73 Individual income and literacy

Key: Read down columns

	Personal earnings before tax in last year (if working)					
	Under £10,000 %	£10,000 - £19,999 %	£20,000 - £29,999 %	£30,000 - £40,000 %	£40,000 - £49,999 %	More than £50,000 %
Entry Level	38	35	40	22	[19]	[5]
Level 1	32	32	21	27	[32]	[18]
Level 2	29	33	39	51	[50]	[77]
Weighted base	129	164	128	72	40	23
Unweighted base	123	147	105	56	28	17

Base: All who completed Welsh literacy assessment

4.4.7 Summary

The survey results demonstrate a link between the employment status of respondents and their Welsh literacy assessment results. 68 per cent of employed respondents were assessed at Level 1 or above, as opposed to 54 per cent of those who were unemployed at the time of the survey. There was, however, little difference between the assessment levels of full and part-time workers.

As was the case for the English survey and assessment results, there was a link between higher skilled employment and higher levels of literacy, with for example 80 per cent of managers and professionals assessed at Level 1 or above, but 50 per cent of those in working occupations being assessed at this level. However, the relationship was less clear in the Welsh medium results, with relatively low levels of literacy amongst those in skilled trades, for example.

Higher rates of Welsh literacy were associated with higher household and individual incomes, with those respondents assessed at Level 2, for example, having an average household income of £31,791, whereas the figure was £16,383 for respondents at Entry Level.

4.5 Welsh literacy skills in everyday life

This section of the report looks at the assessment results in the context of respondents' perceptions of their skills and the extent to which they feel included in the digital life of Wales. As discussed earlier in this report¹⁵⁸, poor literacy skills are widely known to have an impact on an individual's ability to play a full and active part in their community. Difficulties with communication or the lack of confidence that can emanate from poor literacy can exclude people from accessing the services and support they need to live a full life.

The section begins with a look at Welsh literacy assessment results in the context of respondents' self-assessments of their reading and writing ability in Welsh, followed by a look at respondents' confidence in their ability to read Welsh in different everyday situations and their ownership of books in Welsh. The section concludes with a brief look at digital inclusion and the extent to which respondents had access to computers and the Internet and the uses that they made of these facilities.

Key Findings

- Almost all of those interviewed said that they spoke both Welsh very or fairly well. However, there was a marked difference in literacy performance between those who felt that they spoke Welsh very well or fairly well.
- Respondents were equally confident about reading Welsh at work and in social situations (93 per cent confident). They were, however, less so in relation to reading forms.
- Only half of those interviewed were confident about writing in Welsh; those who were also scored well in the literacy assessment.

4.5.1 Self-assessment of literacy skills

Respondents were asked to self-assess their abilities to read in English and Welsh. Overall, respondents felt that they were better at reading English than Welsh; 89 per cent stated that they were very good at reading English compared to 71 per cent for reading Welsh, perhaps reinforcing the idea that respondents were more confident in their abilities to speak Welsh than to read it. 83 per cent of Welsh speaking

¹⁵⁸ Section 3.6.

interviewees assessed themselves as being very good at reading in English, with a further 11% assessing their ability as fairly good. Self-assessment levels of reading ability in Welsh were lower, where 61 per cent felt that they were very good, and 34 per cent that they were fairly good at reading in Welsh.

Table 74 Self-assessment of reading ability in Welsh

Key: Read down columns

Literacy Self-Assessment	Welsh			English		
	Very Good %	Fairly Good %	Below Average %	Very Good %	Fairly Good %	Below Average %
Entry Level	26	61	[*]	36	36	[*]
Level 1	28	23	[*]	26	28	[*]
Level 2 or above	46	16	[*]	37	36	[*]
Weighted base	709	283	*	889	104	*
Unweighted base	727	265	*	878	116	*

Base: All respondents who spoke Welsh fluently or fairly well

* The data item is disclosive or not sufficiently robust for publication

Of those who assessed themselves as being very good at reading Welsh, 26 per cent were scored as Entry Level in the Welsh literacy assessment against the overall total of 30 per cent, whilst of those who rated their reading skills as fairly good, more than 60 per cent were at Entry Level (Table 74). There was little difference in the Welsh literacy assessment results between those who thought that they spoke English very or fairly well (36 per cent at Entry Level in each case).

Table 75 Confidence in ability to read Welsh

Key: Read across rows

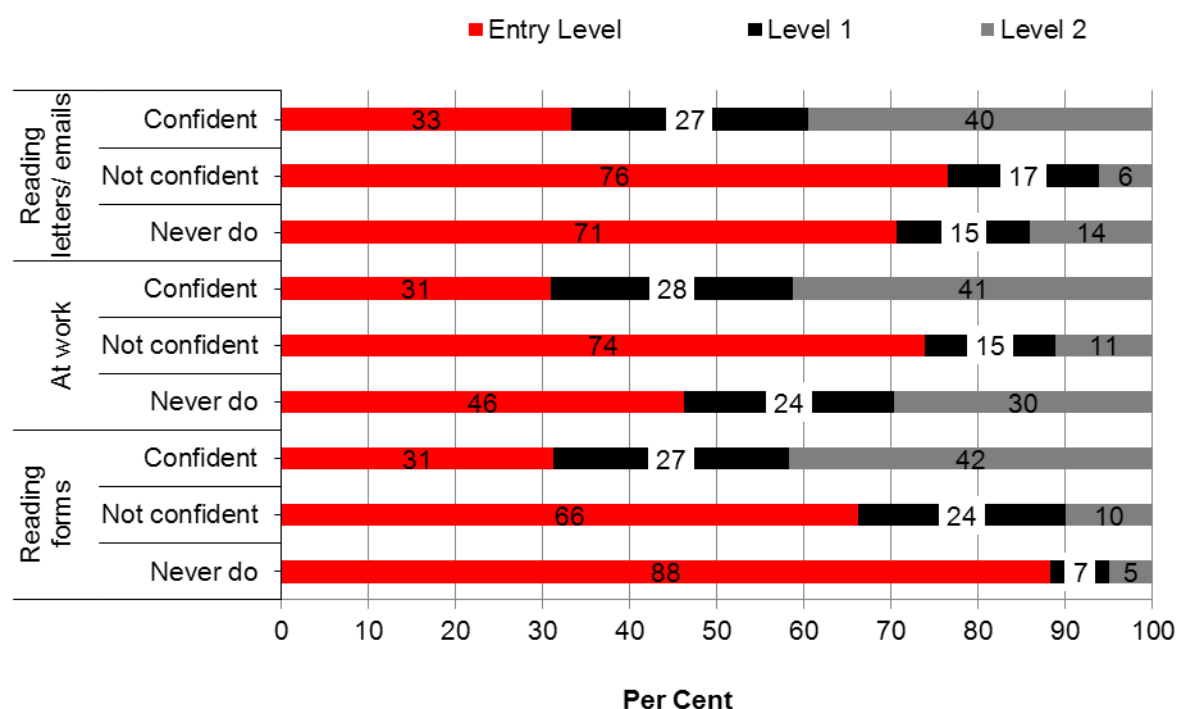
Setting	Confidence		
	Confident %	Not Confident %	Not Applicable %
Reading letters / e-mails from friends / family	93	6	1
At work	76	5	19
Reading forms	86	13	1
Weighted base	1290	1290	1290
Unweighted base	1279	1279	1279

Base: All respondents who spoke Welsh fluently or fairly well

Survey respondents were asked about their confidence in reading Welsh in a variety of settings (Table 75). Confidence levels were highest in relation to social activities, such as reading e-mails or letters from friends and family, although of those who were working, confidence levels in reading Welsh at work were equal to those in social situations. Respondents were least confident about reading forms, with 13 per cent stating that they were not confident with this activity.

Figure 44 shows that respondents' were relatively consistent in their self-assessments. Of those who were confident reading letters and e-mails, 33 per cent were assessed at Entry level for literacy and the proportion was similar for confidence in reading Welsh at work and reading forms, despite the fact that different proportions of respondents were confident about their reading in these different situations.

Figure 44 Confidence in ability to read Welsh by Literacy assessment level.



Base: All respondents who spoke Welsh fluently or fairly well

4.5.2 Reading and ownership of books

All those respondents who could read Welsh were asked how often they read books, magazines or newspapers in Welsh. Overall, 15 per cent said that they read in Welsh every day or most days, followed by 25 per cent who did so about once a week. Frequent reading was slightly more common amongst those who were fluent

in Welsh (17 per cent reading every day) and less common amongst those assessed at Entry Level for Welsh literacy.

It was shown in the survey of English speakers that lower literacy assessment scores were linked to lower levels of book ownership. The same was true for Welsh speakers (Table 76), especially in relation to books in Welsh: 82 per cent of those assessed at Entry Level had fewer than 25 books in Welsh in their household, whilst the figure for English books was 23 per cent amongst the same group. 59 per cent of the overall sample had fewer than 25 books in Welsh in their household, compared to 16 per cent with fewer than 25 books written in English. This may link to the use of Welsh as a predominately spoken language, or may provide a comment on the availability of books printed in the Welsh language.

Table 76 Reading and ownership of books

	Ownership of Books	
	Less than 25 Books	Less than 25 Books
	Welsh %	English %
Entry Level	82	23
Level 1	60	18
Level 2 or above	36	9
Total	59	16
Weighted base	591	163
Unweighted base	597	171

Base: All respondents who spoke Welsh fluently or fairly well

There was a relationship between ownership of Welsh language books and respondents' self-assessment of their ability to read in Welsh, as shown in Table 77.

Table 77 Literacy: Ownership of books and self-assessment of reading ability in Welsh

Key: Read down columns

Ownership of Books in Welsh	Reading Self - Assessment		
	Very Good	Good	Below Average /
	%	%	Poor %
Fewer than 25 books	48	78	85
25 or more books	51	22	11
Don't know	1	0	4
Weighted Base	785	434	71
Unweighted Base	768	435	76

Base: All who completed Welsh literacy assessment

51 per cent of those who said that they were very good at reading Welsh had 25 or more books in Welsh in their house, whilst the proportion fell to 11 per cent for those who felt that their reading skills were below average or poor. To reinforce this relationship, 85 per cent of respondents who felt that they had below average or poor reading skills said that they had fewer than 25 books in the Welsh language in their house.

4.5.3 Self-assessment of writing ability

The survey asked respondents to assess their ability to write in English and Welsh respectively. Overall, respondents were much more confident in their ability to write English than in their ability to write Welsh; 81 per cent stated that they were very good at writing English compared to just 51 per cent for writing Welsh. In addition, 21 per cent of respondents who assessed themselves as very good at writing Welsh were scored at Entry Level in the Welsh literacy assessment (Table 78).

Table 78 Self-assessment of writing ability

Key: Read down columns

Literacy Self-Assessment	Welsh*			English		
	Very Good	Fairly Good	Below Average	Very Good	Fairly Good	Below Average
	%	%	%	%	%	%
Entry Level	21	46	75	34	44	[69]
Level 1	25	31	18	26	27	[31]
Level 2 or above	55	23	7	40	29	[0]
Weighted base	506	395	99	810	180	11
Unweighted base	493	400	106	804	181	15

Base: *All respondents who can read Welsh

Of all the respondents that could write Welsh and did so every day or most days, 53 per cent were scored at Level 2 or higher in the Welsh Literacy assessment. This figure fell to 13 per cent for those who wrote Welsh fewer than several times a year. 25 per cent of respondents who could write Welsh did so online every day or most days, whilst 38 per cent of respondents said that they never wrote in Welsh on the internet (which might include sending e-mails or writing on Facebook/MySpace/Bebo).

4.5.4 Digital Inclusion and exclusion

This part of the report looks at Welsh literacy assessments in the context of respondents' access to computers and the Internet and the ways in which they used them. This is important because of the links between digital and social inclusion, as discussed in the English medium survey in section 3.6.6 of this report, which are supported by our results, which show that those with Entry Level Welsh literacy were less likely to have access to the internet or to have use of a computer than were the whole sample of respondents.

4.5.5 Internet access and computer use

Survey respondents were asked about their access to the Internet at home and also whether they had regular use of a computer. Table 79 shows that there was a relationship between home Internet access and respondents' assessment levels for Welsh literacy. For example, 94 per cent of those assessed at Level 2 or above had Internet access at home, whilst this was the case for 86 per cent of those assessed at Entry Level or below. There is however, no evidence to suggest a causal links here, as many other factors, such as employment or income will come into play. Similarly, for computer use, there was a disparity between the levels of computer use amongst those assessed at below Entry Level and those at Level 1 or above.

Table 79 Access to internet at home and use of computer

Setting	Internet access	Use of computer	Ever Used a Computer*	Self-Assessed ICT Skills Very / Fairly Good
	%	%	%	%
Entry Level	86	80	52	88
Level 1	92	87	52	86
Level 2 or above	94	96	54	94
Total	91	88	53	90
Weighted base	907	877	65	847
Unweighted base	808	789	96	763

Base: All respondents who spoke Welsh fluently or fairly well

*Of those who did not have access to a computer at the time of the survey.

Respondents who were assessed at Level 1 or above for literacy were more likely than those at Entry Level to use a computer for word processing, spreadsheet or database work or e-mailing. There was no difference, however, in their respective use of a computer for accessing the Internet (Table 80).

Table 80 Use of Computer by Literacy Level
Key: Respondents could choose more than one response

Activity	Entry Level %	Level 1 %	Level 2 %	Total %
Word processing	63	72	86	75
Accessing the Internet (World Wide Web)	97	96	99	97
E-mail	84	90	97	91
Using Spreadsheets/databases	38	48	49	45
Education and learning	49	58	65	58
Games	49	46	35	43
Programming	14	13	12	13
Work (unspecified)	0	0	0	0
Banking/ finance/ account management	0	0	0	0
Accounting	0	0	0	0
Design/ drawing/ computer aided design	0	0	0	0
Playing/ copying music/ burning CDs	0	1	1	1
Photography (any mention)	0	2	0	1
Shopping	0	1	0	0
Social networking	0	1	0	0
Watching TV/ films	0	0	0	0
Other	2	2	2	2
Weighted base	288	230	359	877
Unweighted base	256	209	324	789

Base: All who currently use a computer

The incidence of computer use was lower amongst older age groups, with only 68 per cent of 55-65 year old respondents stating that they used one. Half of those who did not currently use a computer had never used one. Amongst those who currently used a computer, the main activities that it was used for were; accessing the internet (97 per cent), e-mail (91 per cent) and word processing (75 per cent).

4.5.6 Self-assessment of IT Skills

All respondents who had ever used a computer were asked to self-assess their IT skills. 90 per cent felt that their IT skills were good, of whom the majority (51 per cent) felt that they were very good. Younger respondents were likely to assess their IT skills more highly than their older counterparts – for example 99 per cent of 16-19

year olds rated their IT skills as good, whilst the figure was 79 per cent for those aged 55-65.

Those who assessed their IT skills as very or fairly good were more likely than the whole sample to be assessed at Level 2 or above for literacy (39 per cent very good and 44 per cent fairly good, Table 81). However, they were more likely to be assessed at Entry Level than Level 1 for literacy and this is a result which would bear further investigation.

Table 81 Self-assessment of IT Skills

Key: Read down columns

IT Self-Assessment	Very Good %	Fairly Good %	Below Average %	Poor %
Entry Level	34	34	38	[53]
Level 1	27	22	38	[29]
Level 2 or above	39	44	24	[18]
Weighted base	460	387	78	17
Unweighted base	383	380	96	25

Base: All respondents who have ever used a computer

4.5.7 Summary

This section has shown that there was a relationship between respondents' literacy assessments and their own self-assessment of their ability to speak Welsh. Whilst there was a similar link between self-perception and assessment results in terms of Welsh reading skills, it was rather weaker.

Although 93 per cent of respondents were confident about their ability to read letters and e-mails from friends and family in Welsh, one third of these were assessed at Entry Level for literacy. There was a link between ownership of books and literacy assessment levels, although 41 per cent of respondents had more than 25 books in Welsh in their home, compared to 84 per cent with that number of books in English. In terms of writing skills, 21 per cent of those who felt that they were very good at writing Welsh were assessed at Entry Level for literacy.

In terms of digital inclusion, there was a weak correlation between literacy assessment levels and access to the Internet or use of a computer. For example 96 per cent of those assessed at Level 2 for literacy had the use of a computer, whereas 80 per cent of those assessed at Entry Level had the use of a computer.

4.6 Welsh Literacy Training

4.6.1 Introduction

In this short final section of the chapter, respondents' experiences of learning are investigated. The section begins by looking at the proportion of respondents who took part in Welsh literacy learning in the two years previous to the survey taking place, and whether this was linked to their literacy assessment results. The report looks at their experiences of learning, outcomes and most popular places to attend courses. It goes on to look at results for those who considered their Welsh reading, writing or speaking skills to be less than very good, but who had not taken up training, including the barriers to them doing so.

Key Findings

- 9 per cent of respondents had received training in either reading, writing or speaking Welsh during the last two years.
- Respondents assessed at Level 2 for literacy were more likely to undertake training in a school / college or university building than respondents at the lower levels, who were more likely to undertake training at a community building.
- The main reasons for not taking up training were lack of time (49 per cent), work commitments (34 per cent), childcare commitments (16 per cent), fees (11 per cent) and no suitable courses (11 per cent).
- College and university was the most popular choice to ask for advice or information about training with approximately 45 per cent response, followed by friends and family (17 per cent) and the internet (16 per cent).
- Younger age groups were more likely to cite college, university and the internet as sources of information or advice and older age groups were more likely to cite the library.

It is important that those individuals with a skills deficit are both aware of it (as seems to be becoming more widespread) and prepared to address it, if Wales is to take its place amongst developed nations. Engagement with learning depends on a wide range of factors, but these will include having access to suitable training in a

convenient location, the right kind of provision, support with childcare and securing time off work. However, it is also important that those who go through the process of developing their skills feel that the experience was worthwhile and that they have gained from it. In this section of the report, respondents' experiences of learning are investigated.

4.6.2 Literacy training and education

Respondents were asked whether they had received any training in Welsh over the previous two years. 91 per cent had not received any training in Welsh during that time, but of those who had, learning in reading, writing or speaking had been accessed fairly equally (Table 82).

Table 82 Training or education in Welsh Literacy in last two years

Received training in literacy	%
Reading	8
Writing	8
Speaking	7
Any of the above	9
Weighted Base	1292
Unweighted Base	1280

Base: All who completed Welsh literacy assessment

Respondents assessed at Entry Level for Welsh literacy were more likely to have accessed training than those assessed at higher levels (Table 83). 12 per cent of those assessed at Entry level for literacy undertook training of some sort, whereas the figure was 7 per cent for those at Level 2. The proportion of 16-19 year olds receiving training of some kind during the previous two years was understandably higher than other age groups who had received training or education during that time, as a large proportion of them would still have been in full-time education. A total of 87 per cent of respondents who received training in any aspect of Welsh literacy in two years prior to the survey completed their course.

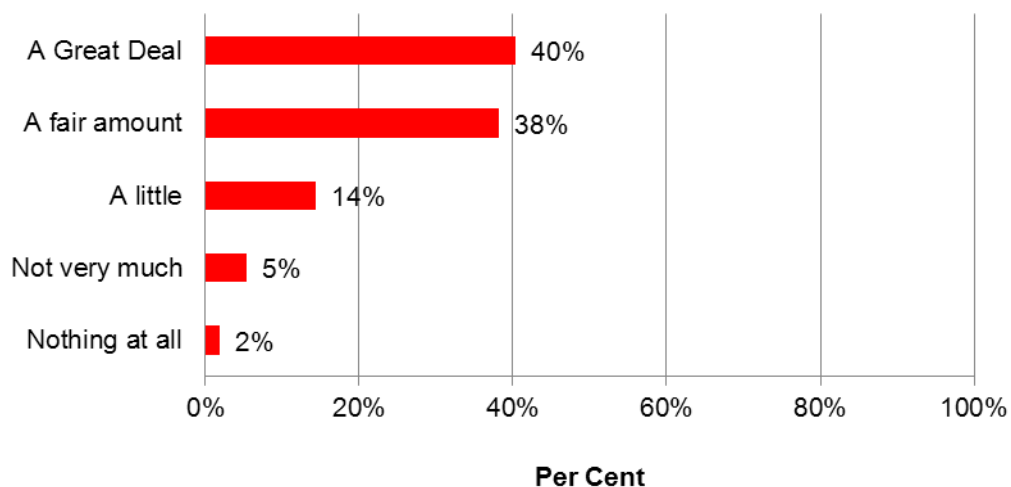
Table 83 Whether received training/education in Welsh Literacy in the last two years

Whether received training/education in Welsh in the last two years				
	Reading Welsh	Writing Welsh	Speaking Welsh	Any training
	%	%	%	%
Entry Level	11	10	11	12
L1	8	9	7	9
L2 or above	7	7	7	7
Weighted base	87	87	82	95
Unweighted base	70	70	65	77

Base: All who completed Welsh literacy assessment

Respondents who had undertaken training or education in Welsh during the past two years were asked how much they felt they had learned from their course(s). (Figure 45). Of those who that had accessed training, 78 per cent said that they had learned either a great deal or a fair amount from their course.

Figure 45 How much did you get from your training or education in Welsh literacy?

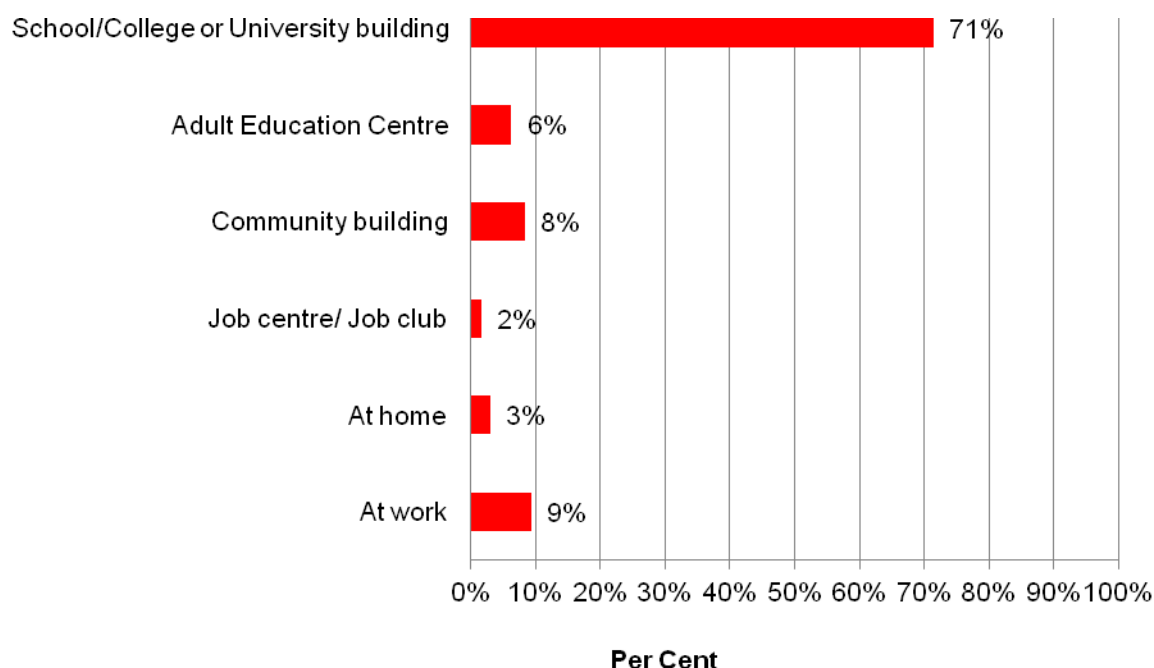


Base: All those undertaking training in reading, writing or speaking Welsh

A much smaller cohort was currently engaged in Welsh literacy training at the time of the survey, but the results cannot provide statistically robust conclusions due to sample size. Learners were most likely to have accessed courses in a school/college or university setting (Figure 46). In terms of the location of training, respondents at Level 2 for literacy were more likely to have undertaken training in a school / college or university building than respondents at the lower levels, who were more likely to

undertake training in a community setting. This is perhaps likely to reflect the nature of the courses at different levels.

Figure 46 Main teaching place for those undertaking Welsh literacy training



Base: All those undertaking training in reading, writing or speaking Welsh

Respondents who considered themselves less than very good at reading, writing, or speaking Welsh and who had not undertaken Welsh literacy training in the last two years were asked whether they had considered taking up training. (Table 84) The majority of respondents overall (88 per cent) had not considered training, but of those that had, more than half were at Entry Level for literacy. The main reasons for not taking up training were said to be a lack of time (49 per cent), work commitments (34 per cent), childcare commitments (16 per cent), fees (11 per cent) and no suitable courses available (11 per cent).

Table 84 - Whether considered taking up training in Welsh Literacy in the last 2 years

Key: Read down columns

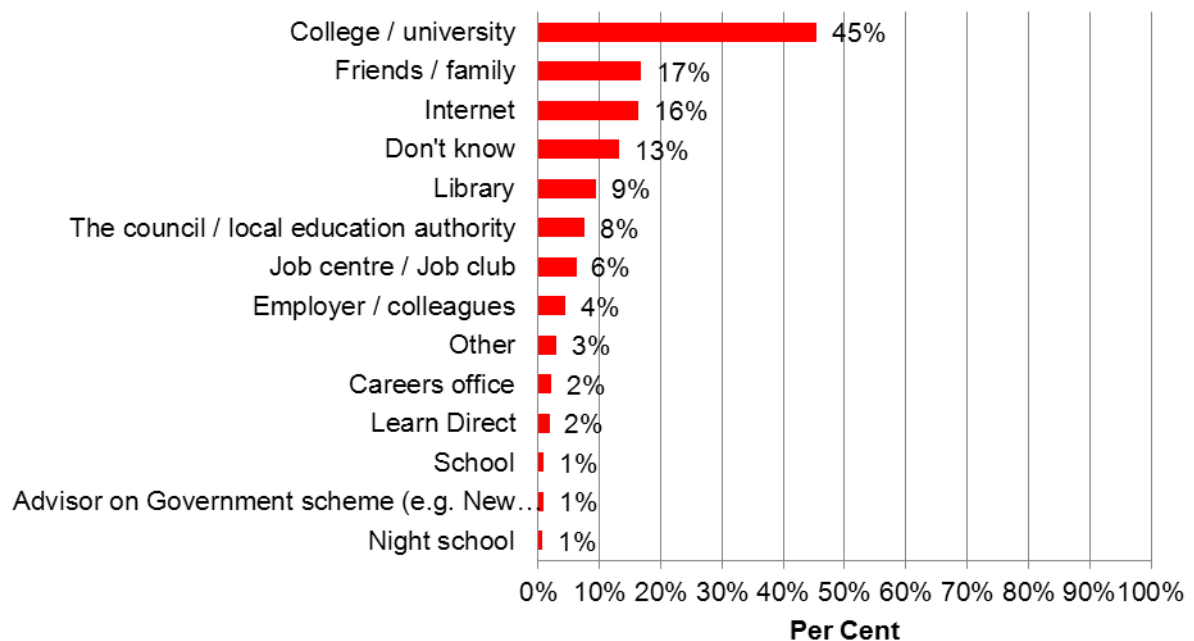
Whether considered taking up training in the last 2 years	Yes %	No %
Entry Level	56	49
L1	26	29
L2 or above	18	21
Weighted base	58	415
Unweighted base	54	446

Base: All who considered themselves less than very good at reading, writing, or speaking Welsh and have not undertaken training in the last 2 years

4.6.3 Advice on skills training

Respondents who had assessed their literacy skills as poor or below average and who had not accessed training were asked where they would go for advice or information about such training (Figure 47). College and university was the most popular choice with approximately 45 per cent of responses, followed by friends and family (17 per cent) and the Internet (16 per cent). Younger age groups were more likely to cite college, university and the internet as sources of information or advice and older age groups were more likely to cite the library.

Figure 47 Where to go for advice / info about Welsh Literacy training



Base: All who completed Welsh literacy assessment

4.6.4 Summary

The results discussed in this section have shown that 9 per cent of respondents had undertaken some kind of training in Welsh during the two years prior to the survey, although the figure was slightly higher (12 per cent) for those assessed at Entry Level for literacy. 78 per cent of respondents who had accessed training said that they had learned a great deal or a fair amount from the experience.

Of those respondents who had assessed their own literacy skills as fair or poor, 12 per cent had considered taking up learning / training. The great majority of learning was accessed in school / college or university settings and colleges or universities were also seen as the main places to seek advice about learning, cited by 45 per cent of respondents.

5. Summary

5.1 Overview

This report has presented the results of the National Survey of Adult Skills in Wales 2010, covering assessments of English and Welsh literacy skills, along with numeracy skills in Wales. The survey has built upon the intelligence gathered in the 2004 survey of English literacy and numeracy skills and has provided some broad comparators with the 2004 survey of Welsh literacy. The need for the survey came partially in response to the target set in the 2001 Basic Skills Strategy, subsequently carried over into the second Strategy in 2005, that 80 percent of working adults should have at least Level 1 literacy and 55 per cent at least Level 1 numeracy by 2010.

5.2 English Medium Survey Results

The results show that the target for English literacy has been exceeded, with 88 per cent of respondents assessed at Level 1 or above for literacy, which represents an increase of 13 percentage points since 2004. Progress on numeracy has been slower, with the overall result that 50 per cent of respondents were assessed at Level 1 or above, three percentage points higher than in 2004, but some five percentage points below the Strategy target.

It has been shown that younger respondents in the 16-19 age category were the least likely to be assessed at Level 1 or above for English literacy or numeracy, whilst those in the 35-44 bracket were the most likely. However, this was also the case in 2004, implying that individuals continue to develop their skills in their working life, after leaving school – a point which was made in the 2003 Skills for Life Survey in England¹⁵⁹.

There were regional differences in assessment levels for both English and Welsh literacy and numeracy, with respondents living in Mid Wales scoring higher than the Wales total for English literacy and numeracy and those in SE Wales scoring the highest for Welsh literacy.

¹⁵⁹ Op cit

The survey results show some differences in assessment levels by gender. Women were slightly more likely than men to be assessed at Level 1 or above for literacy, although the gap was not statistically significant. In the results of the numeracy assessments, however, men were substantially more likely to be assessed at Level 1 or above than were their female counterparts.

Housing tenure is also shown to be linked to skills levels; those with lower levels of literacy and numeracy were less likely than the whole sample to own their own home and more likely to be in local authority or housing association accommodation. They were also more likely to be claiming benefits¹⁶⁰, and especially housing benefit and sickness/disability benefit. There is also a link between respondents' self-assessments of their own health and assessment results for literacy and numeracy – with those considering that they were in poor health being less likely to be assessed at Level 1 or above for either literacy or numeracy.

There is a relationship between respondents' qualification levels and their assessment scores for literacy and numeracy. The proportion of literacy assessments at Level 2 or above improved for all qualification levels between 2004 and 2010 and there was a substantial reduction in the proportion of assessments at Entry Level or below amongst those with no qualifications.

The report describes how those who left school at age 16 or younger continue to develop their skills through their working lives, but at a lower level than those who stay on in education. There is also evidence of parents' record of education influencing the literacy and numeracy levels of their children.

The survey results showed that respondents who were not working at the time of the survey were twice as likely to be assessed at Entry Level or below as were their employed counterparts, although the proportion of literacy assessments at Entry Level for unemployed respondents has halved since 2004. Numeracy levels have not changed to the same extent, and 62 per cent of unemployed respondents were assessed at Entry Level in 2010.

¹⁶⁰ Other than Child Benefit, which is a universal entitlement.

There was no difference in the proportion of assessments at Level 1 or above for literacy between full and part-time workers and little difference in terms of their respective numeracy levels. There are broad links between SOC occupational level and literacy and numeracy skills, although some occupations stand out as displaying low scores for literacy (such as skilled trades), and numeracy (personal services). The relationship between the more socio-economically based SEC and literacy and numeracy was more consistent, however.

Household income is closely related to assessment levels for both literacy and numeracy. For example, respondents assessed at Level 2 or above for literacy had an average household income of almost twice that of those assessed at Entry Level or below. Only 1 per cent of respondents with a household income of £50,000 or more were assessed at Entry Level for literacy, whereas the figure was 22 per cent for those with an income of less than £15,000.

Individuals have become more realistic in their self-assessments of their literacy skills, with 90 per cent of those who felt that their reading skills were good being assessed at Level 2 or above.

Although a large majority of respondents were confident about their spoken English in a variety of settings, those assessed at Entry Level for literacy were least likely to be so.

There was also a link between ownership of books and self-assessment of reading ability and in terms of digital inclusion, respondents with Entry Level literacy were less likely to have access to the Internet or to a computer than the sample of respondents as a whole.

Only a very small proportion of respondents (4 per cent) had received any training in English or numeracy during the previous two years, although the figure was slightly higher (6 per cent) for those with Entry Level literacy or numeracy skills. Almost three-quarters of those who had engaged in training or education in English had achieved a qualification and 83 per cent felt that they had learned a great deal or a fair amount. For those accessing numeracy learning, the figures were very similar.

Formal sites of education, such as a school, college or university, were seen by respondents as the most likely places to access learning and they were most likely to have received information on learning from either a college / university or from friends and family, although employers were also seen as promoting maths training by some respondents.

5.3 Welsh Medium Survey Results

There was a slight fall in the assessed levels of Welsh literacy, from 67 percent at Level 1 or above in 2004 to 63 per cent in 2010. In addition, the proportion of fluent Welsh speakers assessed at Entry Level almost doubled over the six years between the surveys. Women respondents achieved substantially better results in the literacy assessment than did men (69 per cent at Level 1 or above for women, 58 per cent at that level for men). Younger respondents, in the 16-19 age category, were least likely to be assessed at Level 1 or above, whilst those in the 35-44 bracket were the most likely.

At a regional level, literacy assessment scores were highest amongst respondents from SE Wales, (74 per cent assessed at Level 1 or above against a Wales total of 63 per cent) and this was also true in the 2004 survey. Those born in Wales were more likely to be scored at Level 1 or above than those born elsewhere and those respondents who spoke mainly Welsh at work or school generally scored better in the Welsh literacy assessment (78 per cent at Level 1 or above) than those who spoke English in such situations (49 per cent), or who spoke both languages equally (65 per cent).

As in the English medium survey, there were some links between higher levels of Literacy assessment and home ownership. Those assessed at Level 1 or above were also less likely than the whole sample total to be claiming benefits¹⁶¹, and especially those relating to sickness and disability benefit. This was reinforced by the result that those with self-reported good health were more likely to have scored higher in the literacy assessment.

¹⁶¹ Other than child benefit, as before.

The links between highest qualification and Welsh literacy were less clear than was the case for English literacy results, although those respondents with higher level qualifications were more likely to be assessed at Level 1 or above for Welsh literacy than those with lower or no qualifications. Those educated all or mostly in Welsh were very much more likely to be assessed at Level 1 or above (76 per cent of respondents) than those who received their secondary education in either English (56 per cent at Level 1 or above) or English and Welsh equally (57 per cent).

Amongst those who left school at age 16 or younger, Welsh literacy levels increased with age up to the 45-54 age band. However, they remained below the level of the overall sample of respondents at each age point. Parental education was linked to literacy assessment results, as more than half of respondents whose parents both stayed in education beyond 16 were assessed at Level 2 or above, but this proportion fell to just a third for those whose parents did not.

The survey results demonstrate a link between the employment status of respondents and their Welsh literacy assessment results. 68 per cent of employed respondents were assessed at Level 1 or above, as opposed to 54 per cent of those who were unemployed at the time of the survey. There was, however, little difference between the assessment levels of full and part-time workers.

As was the case for the English survey and assessment results, there was a link between higher skilled employment and higher levels of literacy, with for example 80 per cent of managers and professionals assessed at Level 1 or above, but 50 per cent of those in working occupations being assessed at this level. Higher rates of Welsh literacy were associated with higher household and individual incomes, with those respondents assessed at Level 2, for example, having an average household income of £31,791, whereas the figure was £16,383 for respondents at Entry Level.

There was a relationship between respondents' Welsh literacy assessment results and their own self-assessment of their ability to speak Welsh. Whilst there was a similar link between self-perception and assessment results in terms of Welsh reading skills, it was rather weaker. There was a correlation between ownership of books and literacy assessment levels, although 41 per cent of respondents had more than 25 books in Welsh in their home, compared to 84 per cent with that number of

books in English. In terms of writing skills, 21 per cent of those who felt that they were very good at writing Welsh were assessed at Entry Level for literacy.

In terms of digital inclusion, there was a weak relationship between literacy assessment levels and access to the Internet or use of a computer. For example 96 per cent of those assessed at Level 2 for literacy had the use of a computer, whereas the figure was 80 per cent for those assessed at Entry Level.

9 per cent of respondents had undertaken some kind of training in Welsh during the two years prior to the survey, although the figure was slightly higher (12 per cent) for those assessed at Entry Level for literacy. 78 per cent of respondents who had accessed training said that they had learned a great deal or a fair amount from the experience.

Of those respondents who had assessed their own literacy skills as fair or poor, 12 per cent had considered taking up learning / training. The great majority of learning was accessed in school / college or university settings and colleges or universities were also seen as the main places to seek advice about learning, cited by 45 per cent of respondents.