

# Evaluation of the Impact of Skills for Life Learning: Longitudinal Survey of Learners, Wave 3

Pamela Meadows and Hilary Metcalf  
NIESR

Research Report

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Skills for Life Learning: Longitudinal  
Survey of Learners, Wave 3*

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*NIESR*

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## Report summary

### Background

The *Skills for Life* programme is designed to improve literacy, numeracy and language skills of adults and of young people (aged 16 to 17) who had left full-time education. As part of the programme, literacy, numeracy and ESOL training was provided free of charge to those without literacy or numeracy qualifications at Level 2<sup>1</sup>.

### The evaluation

This report is the third in a series of reports of the evaluation of the impact of participation in a literacy or a numeracy course at a college for a qualification. As such, **the evaluation does not assess the full *Skills for Life* programme** (notably excluding ESOL courses and courses delivered outside college). The analysis is restricted to those aged 19 and over. (Descriptive information is provided on 16 to 18 year olds in the reports of Wave 1 and Wave 2, see Metcalf and Meadows, 2005, for Wave 1 and Meadows and Metcalf, 2005, for Wave 2).

The evaluation examines the impact of participation on a range of economic, personal and social outcomes, including employment, health and involvement in one's children's education (at Wave 2 and Wave 3). It also describes course benefits, as perceived by the participants (at Wave 2), factors affecting qualification gain and dropout (at Wave 2) and progression in education and training (at Wave 3). The first report described the characteristics of participants and their courses and identified factors affecting participation in *Skills for Life* literacy and numeracy courses (Metcalf and Meadows, 2005).

The evaluation is being conducted through a longitudinal survey of participants on literacy and numeracy courses (*Skills for Life* learners) and a matched group of non-participants with low or no literacy or numeracy qualifications. A short-test-based assessment administered prior to interview confirmed respondents to be lacking literacy or numeracy skills at Level 2. Respondents were first interviewed in 2002/03 (when course participants were on their course), with second and third wave interviews taking place one and two years later, respectively. This report provides findings based on analysis of the first three waves of the survey.

### The impact of *Skills for Life* courses on participants

*Skills for Life* courses do have an impact, and this is likely to increase.

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<sup>1</sup> Approximately equivalent to GCSE Grades A\*-C. Since the evaluation started, the eligibility criteria have changed. Current eligibility for the programme is based upon an assessment exercise to test that those without a Level 2 literacy or numeracy qualification are indeed in need of developing these skills.

An important impact relates to lifelong learning. Adults with poor basic skills have often not had good experiences at school, and it is known that those with poor school experiences are difficult to attract back into learning as adults. Yet those who had taken literacy or numeracy courses have become more positive in their attitudes towards the value of education and training, and a large proportion have gone on to take new courses (many of them full-time).

This active engagement with full-time education on the part of the former *Skills for Life* learners means that although their employment rates have been higher (and the differences with the comparison group larger) at each successive wave of the study, the differences from non-*Skills for Life* learners are not statistically significant. It is, however, reasonable to expect that some of those currently taking education and training courses will move into employment over the next few years.

Whilst, at this stage, *Skills for Life* had not increased employment, it did have a positive effect on net earnings as learners increased their average annual take-home pay two years on, compared to non-learners whose average annual income fell.

### **New course start-up and progression for *Skills for Life* learners**

*Skills for Life* learners tended to **continue** their education and training, through continuing previous courses and starting new ones:

72 per cent were on a course one year later (at Wave 2) and 57 per cent were on a course two years later (at Wave 3);

64 per cent had started a new course for a qualification within the following two years (by Wave 3) (47 per cent by Wave 2, and 40 per cent between Wave 2 and Wave 3).

In starting new courses and progressing to higher-level courses *Skills for Life* learners tended to move from basic skills courses to vocational courses, in particular, and, to a lesser extent, to academic courses. Nevertheless, some started new basic skills courses.

*Skills for Life* seemed to provide an effective stepping stone to **progression**, i.e. for moving to courses at a higher qualification level:

30 per cent of *Skills for Life* learners had done a new course by Wave 3 that was at a higher level than any of those undertaken at Wave 1.

Progression was most common in the first year.

*Skills for Life* appeared particularly effective for those least skilled in literacy and numeracy, as progression increased as course level decreased. At the same time, those who were most likely to progress were not necessarily the least qualified, as those with other prior qualifications at level 3 (at Wave 1) were also more likely to progress. Similarly, those who had stayed in full-time education beyond the age of 18 were also more likely to progress.

The findings emphasise the importance for progression of positive outcomes from courses: completion is most important and qualification gain less so.

Personal characteristics, other than health, had little or no effect on course continuation or progression, suggesting that *Skills for Life* was assisting diverse people equally.

# 1 Introduction

## 1.1 Background

### 1.1.1 Policy background

*‘Roughly 20% of adults - that is perhaps as many as 7 million people - have more or less severe problems with basic skills, in particular with what is generally called 'functional literacy' and 'functional numeracy': "the ability to read, write and speak in English, and to use mathematics at a level necessary to function at work and in society in general"’. (‘The Moser Report’, DfES, 1999)*

The impact of poor basic skills on individual lives is far-reaching. Unemployment, temporary work and chequered job histories are more common and earnings lower (Dearden *et al.*, 2000; McIntosh and Vignoles, 2001; Ekinsmyth and Bynner, 1994; Bynner and Parsons, 1997a; Bynner and Parsons, 1997b). Women tend to have children at a younger age and withdraw from the labour market (Bynner *et al.*, 2001). Physical and mental health tends to be worse and participation in community life and politics is less common (DfEE, 1999). Moreover, basic skills difficulties may transfer to the next generation due to parents having problems reading to their children and helping them with their schoolwork (DfEE, 1999).

Concern over the levels of literacy and numeracy in the population, their effect on individuals and their effect on the economy prompted the establishment of a government inquiry, chaired by Claus Moser, into basic skills in 1998 (DfES, 1999). It reported that 20 per cent of adults had “*more or less severe problems with basic skills*” and recommended a target of halving the number of functionally illiterate adults over a decade (DfEE, 1999). Forty percent of adults were considered as having major problems with numeracy and Moser recommended that this figure should be reduced to 30 per cent over the same time period (DfES, 1999).

### 1.1.2 The introduction of the Skills for Life programme

In response to the Moser Report, in 2001 the government established ‘*Skills for Life*’ a long-term programme for adults to improve literacy, numeracy and communication. The programme is aimed at a wider group of people than those suffering functional literacy and numeracy problems identified by Moser. It seeks to increase participation in, and the effectiveness of, literacy, numeracy and communication courses for those without Level 2 qualifications in literacy and numeracy. As part of the programme, literacy and numeracy courses for those without Level 2 qualifications in these subjects are provided free. About half of the working age population are eligible for such courses (see Metcalf and Meadows, 2005). Further details of the background to the programme can be found in the Report of Sweep 1 (Metcalf and Meadows, 2005).

The programme was established both to improve basic skills, but also to improve employment and other aspects of individuals' lives. NIESR and BMRB were commissioned to conduct an evaluation of the impact (and cost-effectiveness) of the *Skills for Life* programme, in relation to literacy and numeracy training. The evaluation is largely concerned with the wider benefits of *Skills for Life* participation (primarily employment, further learning, health, social participation and participation in children's education), rather than with the effect on literacy and numeracy competence. It uses a longitudinal design, tracking *Skills for Life* participants and a similar group of non-participants. This report presents findings of the impact two years after participation in the *Skills for Life* course.

## **1.2 Previous evidence relating to the impact of basic skills programmes**

How effective should we expect the *Skills for Life* programme to be? Few robust studies exist of the impact of adult basic skills training on literacy and numeracy competence or on wider outcomes (such as employment and health). Most have been small-scale and qualitative, whilst the quantitative studies have tended to describe changes amongst the learners rather than measure change against a comparison group. The more robust research tends to show few effects. Moreover, analyses of the benefits of improved literacy and numeracy tend to assume that the return to basic skills competences and qualifications are the same whether these were gained during continuous full-time education or gained at a later stage.

### ***1.2.1 The impact of basic skills programmes on basic skills***

Certainly, the evidence suggests that adult literacy or numeracy courses may not lead to higher literacy and numeracy competence. Even where people report significant differences in their ability to manage their daily lives (to write notes for their work or complete official forms, for example) this is not generally detectable using standard well-established tests (Fingeret and Danin, 1991; Fingeret, 1985; Heath, 1983; Fingeret and Drennon, 1997; Rahmani *et al.*, 2002). The notable exception to this general picture is Brooks *et al* (2001a) which used very detailed tests and found differences in some areas of competence.

Beder (1999) and McIntosh (2004), in reviewing previous evaluations of literacy training programmes found a dearth of robust evidence of the impact: most research suffered from major methodological problems, notably, the lack of a robust (or any) counterfactual; most were qualitative and relied on trainees' perceptions of effects. From the evidence, Beder felt able to conclude only that "*it is likely*" that literacy participants made gains in employment, wages, continued education and in self-image. However, only two of the reviewed studies of employment impacts used comparison groups, with one reporting negative and the other positive effects. Beder was agnostic about whether these gains could have stemmed from literacy improvement: it was unclear from the reviewed studies whether basic skills training improved basic skills.

### ***1.2.2 The impact of basic skills acquisition on employment***

Even if training does improve literacy and numeracy skills, it cannot be assumed that gaining these skills as an adult has the same effect on employment as gaining them during compulsory (or full-time continuous) education. Indeed, the effect on employment and earnings of improvements in literacy and numeracy during

adulthood (as opposed to adult participation on courses) appears to be weak. Dearden *et al* (2000) report a six per cent increase in earnings from improving numeracy skills to Level 1 (where the improvement took place between the ages of 16 and 37). They find no effect for increasing literacy to Level 1. Machin *et al.* (2001), using a comparison group approach to examine the impact on employment and wages of improvements in literacy and numeracy skills between the age of 33 and the age of 37 found wage effects (for those with low basic skills) only for men whose numeracy had improved. They found no effect on employment, nor an effect for women, nor for literacy improvement. Denny *et al.* (2003) used the International Adult Literacy Survey to estimate the relationship between functional literacy and earnings and they found that moving from a level of functional literacy below level 1 to a higher level had only a small effect on earnings (an increase of around 5 per cent). However, they found that in the United States the rate of return from moving from very low levels of functional literacy to higher levels was much greater than in other countries (of the order of 30 per cent).

However, Machin *et al.* (2001) report improvements in both earnings and employment for both men and women if they *perceive* that they have improved their literacy and numeracy (between the age of 33 and the age of 37).

Our evaluation of the impact after one year of participation in *Skills for Life* also showed little effect, with no discernible improvement in employment amongst *Skills for Life* participants compared with the comparison group (Meadows and Metcalf, 2005). However, a number of factors associated with employability (self-esteem, attitudes towards education and training, employment commitment and long-term illness or disability) had improved to a greater degree amongst *Skills for Life* participants than non-participants. Moreover, over half of *Skills for Life* participants had achieved a qualification from their literacy or numeracy course, whilst three-quarters believed the course had improved their literacy or numeracy.

### **1.2.3 The impact of basic skills acquisition on training**

Whilst literacy and numeracy skills may only have a limited direct effect on employment success, at lower levels, newly acquired skills may be building blocks to the development of skills relevant to the workplace, including though progression in further education and training. Certainly, *Skills for Life* participants showed an increased commitment to education and training compared with similar people who had not been on a *Skills for Life* course (Meadows and Metcalf, 2005). The OECD (2000) found that people with higher levels of literacy were more likely to take part in employer-organised training than those with lower literacy levels even where they had the same qualification levels. In addition, improving literacy and numeracy is likely to lead to greater self-confidence, which also tends to develop cumulatively. Employment and earnings effects are more likely to come through later as enhanced literacy and numeracy allows people to develop skills that more directly influence their employment and earnings prospects. (See for example, Boe 1997, Bonjour and Smeaton 2003, Bynner *et al* 2001). To test these theories, the evaluation two years after participation in *Skills for Life* courses examined course progression as well as employment and other effects.

### 1.3 The impact evaluation

The NIESR/BMRB evaluation of the *Skills for Life* programme, is restricted to the impact of literacy and numeracy training (i.e. ESOL, although part of the programme, is excluded). The evaluation focuses on the impact on individuals who have taken part in a college course in literacy or numeracy (for a qualification), including the impact on economic activity, employment, earnings, participation in further training and health as well as ‘softer’ outcomes, such as the impact on self-esteem, work commitment and involvement in their children’s education and wider society. Because the time available in the interview was limited, those taking part in the study took only a very short literacy and numeracy test. The tests were designed to be sufficiently sensitive to detect low levels of literacy and numeracy, but not sufficiently sensitive to detect small changes.

Overall the approach may be seen as a ‘black-box’ evaluation: we do not assess or identify the impact on literacy and numeracy competence, but move to final outcomes, such as employment and health. Whilst this is a standard approach to impact evaluation, the evidence cited above of the low identified impact of adult basic skills training on literacy and numeracy competence and the identified effects on employability make it particularly pertinent. However, this does leave unaddressed the process by which adult literacy and numeracy training might affect wider outcomes and whether the *Skills for Life* programme does improve basic skills. For example, is there a simple process by which training improves literacy and numeracy skills and these (directly or via qualification gain) improve employability ((Figure 1.1, Model a))? However, since the, albeit limited, evidence has not found that adult basic skills training increases basic skills competence, it seems unlikely that the effect on employability is through improved literacy and numeracy skills. Alternatively, does participation in basic skills training increase other aspects of employability (such as motivation and self-esteem) and thus improve employment directly (and, possibly indirectly, through improvements in basic skills as well) (Figure 1.1, Model b))?

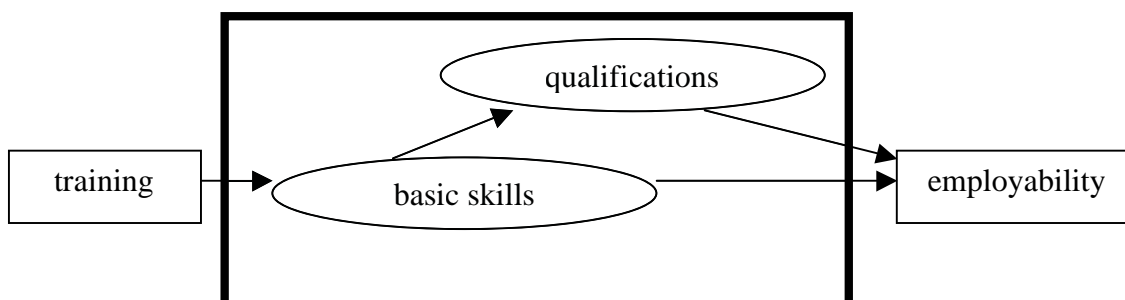
The impact evaluation is being conducted through a longitudinal survey of people who were participating in literacy or numeracy courses aimed at gaining a qualification in colleges (excluding ESOL) (referred to as the ‘*Longitudinal Learners’ Survey*’) and of a matched comparison group of people with people with similar literacy and numeracy skills and qualifications who were not participating in *Skills for Life* courses for a qualification. The comparison sample was drawn from a number of sources<sup>2</sup>, with the sample restricted, variously, to those with low (or no) literacy or numeracy qualifications (always below Level 2 in either literacy or numeracy) or those with low tested literacy or numeracy skills (again either literacy or numeracy below Level 2). The achieved sample sizes for each wave are shown in Table 1.1.

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<sup>2</sup> From the National Adult Learning Survey, from the *Skills for Life* Survey and from a household survey. See Metcalf and Meadows (2005) for full details.

Figure 1.1 Models of basic skills training effects on employability

a) Direct effects on employability, with black box



b) Indirect effects on employability, with black box

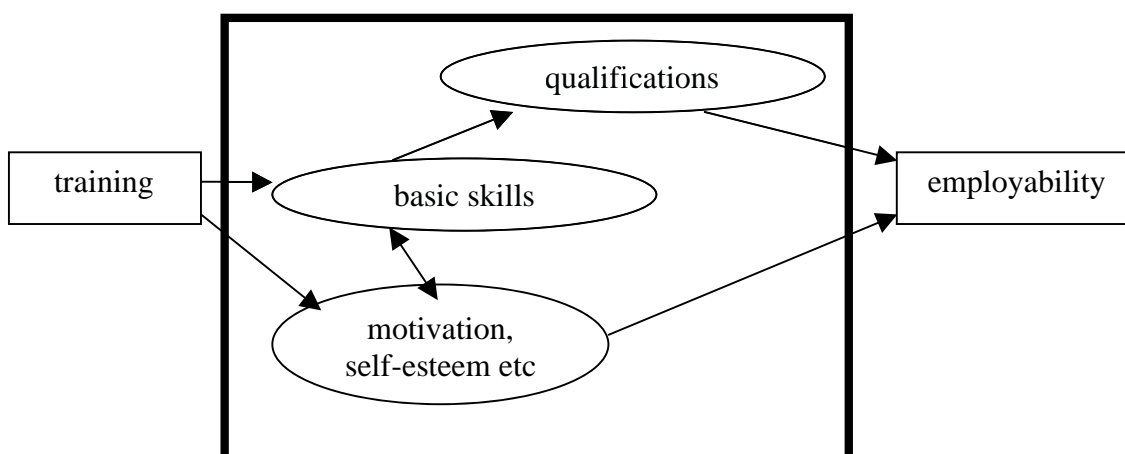


Table 1.1 Achieved sample sizes, Wave 1 to Wave 3

	<i>Skills for Life</i> learners	comparison group
Wave 1	1990	2255
Wave 2	1094	1122
Wave 3	682	674

Note that the comparison group is used in the impact analysis only, which uses a matched comparison method. The matching did not result in the full comparison sample being used.

The first sweep of the survey was conducted between September 2002 and July 2003 and provides a base line from which the effects of literacy and numeracy training can be measured. The second sweep was conducted January to August 2004 and the third sweep between January and June 2005, with respondents being interviewed as close as possible to a year and two years, respectively, after their initial interview. Further details of the survey are given in Metcalf and Meadows (2005) and

in Appendix 1 of this report. A fourth survey sweep is taking place a year after the third.

Analysis of the first sweep of the *Longitudinal Learners' Survey* was reported in 'Evaluation of the impact of basic skills learning Report on Sweep 1' (Metcalf and Meadows, 2005). This provided a detailed description of the personal characteristics and courses of a representative sample of *Skills for Life* learners who were on college courses leading to a qualification. The report also uses the *Skills for Life Survey* to provide a description of the population eligible for *Skills for Life* and to identify factors which affected participation in literacy and numeracy courses.

Analysis of the second sweep was reported in Meadows and Metcalf (2005). This report focussed on impact after one year (discussed above, p11), perceived benefits of the course, qualification gain and dropout. Analysis was confined to those aged 19 years old or over at the time of their Wave 1 interview. This was because of major differences (educational, personal and economic activity) between those aged 19 and over and those under 19, making it inappropriate to analyse all ages together, whilst sample size restrictions precluded separate analysis.

This report, of impact after two years, is also restricted to those aged 19 and over at Wave 1. As well as assessing the wider impact of participation in a *Skills for Life* course two years on, the report explores continued participation in learning and progression for those who were on *Skills for Life* courses. This was due to our earlier finding that participation in *Skills for Life* increased commitment to education and training and due to our previous tentative conclusion that, for this group, participation in basic skills courses might be an early, rather than final, training step on the road to employment (Meadows and Metcalf, 2005).

As background to the analysis, the next chapter provides a brief description of the characteristics of *Skills for Life* learners interviewed at Sweep 3, including a description of change for some of the main outcome variables. (For a full description of the characteristics of *Skills for Life* learners, readers are referred to 'Evaluation of the impact of basic skills learning Report on Sweep 1' (Metcalf and Meadows, 2005)).

Chapter 3 analyses the impact of participation in a literacy or numeracy course through comparing outcomes for *Skills for Life* learners and a comparison group of non-*Skills for Life* learners. Outcomes examined include satisfaction with life, self-esteem, perceived improvement in literacy and numeracy, attitudes towards education and training, economic status, health and assistance provided to one's children.

Chapter 4 focuses on the *Skills for Life* learners and explores their continuation to other courses and progression to higher-level courses.

The final chapter, brings together the findings to draw general conclusions about *Skills for Life*.

Note that throughout the report reference to age is to age at the time of the Wave 1 interview (e.g. those referred to as 19 to 24 year olds are, at Wave 3, 21 to 26 year olds).



## 2 Characteristics of Skills for Life learners responding to Wave 3

### 2.1 Introduction

This section describes the main characteristics of literacy and numeracy learners aged 19 and over (at Wave 1) (A fuller description of the characteristics of the learners who took part in Wave 1 is provided in Metcalf and Meadows, 2005.) The original sample was representative of 19 to 65 year olds pursuing a course which leads to a literacy or numeracy qualification at college.

It also provides comparative information about those who took part at Wave 3. This shows that Wave 3 respondents were very similar to the representative sample at Wave 1, suggesting that little response bias had occurred and that the findings of the analysis of Wave 3 was likely to be a good indicator of outcomes for all *Skills for Life* learners.

Tables report data for the full sample at Wave 1 and at Wave 3. The text describes the data from Wave 1.

### 2.2 Courses being pursued

By definition, all *Skills for Life* learners were pursuing a literacy or numeracy course for a qualification at college when they were first interviewed. This was the course which led to their inclusion in the *Skills for Life* learners sample and is referred to in the report as their 'main course'. This main course was either for a literacy or numeracy qualification or for a more general qualification which included a basic skills qualification (such as an NVQ). However, many *Skills for Life* learners (48 per cent) had been undertaking other courses, in addition to their main course, when they were first interviewed. These included other literacy and numeracy courses and non-literacy or numeracy courses.

In this section, first, the full range of courses being pursued by the *Skills for Life* learners is described. This is followed by a description of the main course. **The data refer to courses being undertaken when first interviewed.**

Two-thirds of *Skills for Life* learners were doing a course for a literacy qualification (including, for example, GCSE in English) and almost half a numeracy course. Nearly one sixth were doing a Key Skills qualification (Table 2.1).

Vocational qualifications were more common (39 per cent) than academic (32 per cent). However, GCSE was the most common qualification being pursued (by 26 per cent), with 16 per cent doing GCSE English and 15 per cent doing GCSE Maths. Sixteen per cent were doing City and Guilds courses and ten per cent CLAIT or other IT. Fewer than five per cent of learners were doing any other type of qualification.

Table 2.1 *Skills for Life* learners: all courses, type of qualifications pursued at Wave 1  
per cent Skills for Life learners

	Wave 1	Wave 3
Basic skills	87 <sup>a</sup>	85
Literacy qualification (all)	67	65
Numeracy qualification (all)	44	47
combined literacy and numeracy	3	4
Key skills qualification (all)	18	16
ESOL	2	1
Academic	29	32
GCSE	28	26
GCSE English	16	16
GCSE Maths	14	15
A or AS Levels/ Access course	2	2
degree, HND, nursing, teaching	2	2
Vocational	36	39
City and Guilds	19	16
CLAIT/other IT	9	10
NVQ	4	4
RSA	2	2
GNVQ	1	0
BTEC/BEC/TEC	1	1
ONC	1	1
other	7	10
no qualification details given <sup>b</sup>	57	58
course information unknown	5	7
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Column percentages: columns may total more than 100 per cent as respondents may report more than one course.

<sup>a</sup> All Skills for Life learners in the sample were on a basic skills course for a qualification at Wave 1. However, not all reported that they were or gave adequate details to identify whether their course was for a literacy or a numeracy qualification.

<sup>b</sup> Other than whether a literacy, numeracy or Key Skills qualification

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

Wave 3 respondents were very similar to respondents at Wave 1 in terms of their Wave 1 courses.

Most commonly, the highest level course was at Level 2 (29 per cent) (Table 2.2). Level 1 (23 per cent) and Entry Level 1 (17 per cent) were the next most common highest qualification levels being pursued. Respondents were similar in Wave 1 and Wave 3.

Table 2.2 *Skills for Life* learners: all courses, highest qualification level pursued at Wave 1

	per cent Skills for Life learners	
	Wave 1	Wave 3
Entry Level 1	17	16
Entry Level 2	6	6
Entry Level 3	5	4
Level 1	23	21
Level 2 <sup>a</sup>	29	31
Level 3	6	6
Level 4	2	2
Level unknown	8	10
course information unknown	4	4
Total	100	100
n weighted	1873	644
n unweighted	1872	646

<sup>a</sup> All GCSEs are included as Level 2.

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

### 2.2.1 *Main course, Wave 1*

Turning to respondents' main course (i.e. the one which led to them being selected for the study), three-quarters said their main course included literacy and half included maths (Table 2.3).

Table 2.3 *Skills for Life* learners: main course, literacy and numeracy content, Wave 1

	per cent Skills for Life learners	
	Wave 1	Wave 3
main course includes maths	50	52
main course includes literacy	74	74
Total	100	100
n weighted	1873	644
n unweighted	1872	646

\* fewer than 0.5%

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 2, 2003/04)

The most common main course qualifications were GCSEs (24 per cent) and literacy-specific qualifications (23 per cent) (Table 2.4). City and Guilds (15 per cent) and numeracy-specific qualifications (14 per cent) were next most common.

Most commonly, main courses were at Level 2 (32 per cent) (Table 2.5). Eighteen per cent were at Level 1 and 13 per cent were mixed levels. Twenty-two per cent were below Level 1.

The motivation for doing their main course was most often for employment reasons or for one's own satisfaction (Table 2.6). Almost half were doing their main course in order to go on a further course, whilst 24 per cent were doing their course in order to be able to help their children.

Nearly all learners were doing their course part-time (93 per cent).

Table 2.4 *Skills for Life* learners: main course, type of qualification pursued at Wave 1  
per cent Skills for Life learners

	Wave 1	Wave 3
literacy	23	24
numeracy	14	15
literacy and numeracy combined	3	4
Key Skills	7	7
ESOL	1	0
GCSE	24	25
A A/S	1	1
degree, HND, nursing, teaching	*	0
City and Guilds	15	13
NVQ	2	3
ONC	1	1
BTEC	*	1
qualification not specified	1	2
course information unknown	5	4
Total	100	100
n weighted	1873	644
n unweighted	1872	646

\* fewer than 0.5%

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 2, 2003/04)

Table 2.5 *Skills for Life* learners: main course, qualification level pursued at Wave 1  
per cent Skills for Life learners

	Wave 1	Wave 3
Entry Level 1	11	10
Entry Level 2	6	7
Entry Level 3	5	5
Level 1	18	16
Level 2	32	33
Level 3	5	5
Level 4	*	0
mixed levels	13	15
level unknown	5	4
course information unknown	4	5
Total	100	100
n weighted	1873	644
n unweighted	1872	646

\* fewer than 0.5%

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 2, 2003/04)

Table 2.6 *Skills for Life* learners: main course, reason for doing course at Wave 1  
per cent Skills for Life learners

	Wave 1	Wave 3
work reasons	67	70
own satisfaction	61	61
to go on another course	45	42
to help children more	24	23
Total	100	100
n weighted	1873	644
n unweighted	1872	646

\* fewer than 0.5%

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 2, 2003/04)

## 2.3 Personal and familial characteristics

The average age of *Skills for Life* learners was 37. *Skills for Life* learners were spread across the age range, although more concentrated in the 19 to 44 age group (Table 2.7). Those aged 25-34 were slightly under-represented in the Wave 3 sample.

Table 2.7 *Skills for Life* learners: age at Wave 1

	Wave 1	Wave 3
19-24	22	22
25-34	25	19
35-44	29	32
45-54	15	17
55 and over	10	9
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

Women were over-represented amongst learners (57 per cent at Wave 3 and 58 per cent at Wave 1).

### 2.3.1 Family composition and children

Family composition may affect participation in literacy and numeracy courses. Most obviously, children may make participation in learning more difficult, whilst, at the same time, they may stimulate the desire to improve literacy and numeracy. Twenty-nine per cent of *Skills for Life* learners had children under 16 (Table 2.8). A high percentage had only one child (13 per cent of all learners).

Table 2.8 *Skills for Life* learners: family composition

		per cent Skills for Life learners	
		Wave 1	Wave 3
single, no children		54	53
partner		35	35
lone parent		11	12
Children under 16			
	none	71	70
	one	13	13
	two	11	10
	three or more	6	7
Total		100	100
n weighted		1873	644
n unweighted		1872	646

Figures do not sum to 100 per cent due to rounding.

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

Over one third of *Skills for Life* learners lived with a partner, whilst eleven per cent were lone parents.

### 2.3.2 Ethnicity

The majority of *Skills for Life* learners were white, 75 per cent (Table 2.9). Ethnic minority learners were fairly evenly spread across the other main British ethnic minority groups. Compared with Wave 1, whites were slightly over-represented amongst the Wave 3 respondents due to differential attrition rates.

Table 2.9 *Skills for Life* learners: ethnicity

		per cent Skills for Life learners	
		Wave 1	Wave 3
white		75	80
Asian or Asian British - Pakistani or Bangladeshi		7	8
Black or Black British - Caribbean and other		5	3
Black or Black British - African		4	3
Asian or Asian British - Indian		4	4
other		5	2
Total		100	100
n weighted		1873	644
n unweighted		1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

### 2.3.3 First language

English was an additional language for a relatively high percentage of *Skills for Life* learners, 17 per cent. However, very few were judged by the interviewer as not having good spoken English (five per cent).

### 2.3.4 Health and disability

Illness or disability was very common amongst *Skills for Life* learners. Forty-one per cent reported a long-standing illness or disability at Wave 1. Thirty per cent

(of all learners) said that their disability or health problem affected the amount or type of paid work they could do.

### 2.3.5 *Satisfaction with life*

How content a person is with their life is likely to affect whether that person feels the need to make changes (e.g. to participate in literacy and numeracy learning). On the other hand satisfaction with life may also indicate confidence and so one's ability and willingness to participate in literacy and numeracy training. The majority of *Skills for Life* learners at Wave 1 were happy with life (i.e. fairly or very happy), 85 per cent (Table 2.10). However, only one third were very happy with life.

Table 2.10 *Skills for Life* learners: satisfaction with life

	per cent <i>Skills for Life</i> learners	
	Wave 1	Wave 3
Very happy	36	34
Fairly happy	49	50
Neither happy nor unhappy	4	4
Not very happy	10	11
Not at all happy	2	1
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

## 2.4 **Skills and economic activity**

This section describes the literacy and numeracy levels of *Skills for Life* learners, as tested at interview. The second part of the section describes qualifications and schooling. Finally, the economic activity of *Skills for Life* learners at Wave 1 is described.

### 2.4.1 *Literacy and numeracy competence*

At Wave 1, seven per cent of *Skills for Life* learners did not complete the literacy test and the same percentage did not complete the numeracy test. Analysis of the qualifications and courses being undertaken by these respondents suggests that their literacy and numeracy levels tended to be low.

At Wave 1 many *Skills for Life* learners had very low levels of literacy and numeracy competence, particularly in numeracy (Table 2.11). For literacy, nearly all were below Level 2. Thirty-six per cent of *Skills for Life* learners were at Level 1. Thirty-nine per cent tested at the lowest two levels. Numeracy skills tended to be lower, with *Skills for Life* learners concentrated at the two lowest levels of numeracy skills (78 per cent) and only nine per cent of *Skills for Life* learners were at Level 1 or higher.

Table 2.11 *Skills for Life* learners: literacy and numeracy competence

per cent *Skills for Life* learners

	Wave 1	Wave 3
literacy test score		
Entry Level 1 or below	15	15
Entry Level 2	24	27
Entry Level 3	17	17
Level 1	36	36
Level 2 or above	*	0
test not completed	7	5
Total	100	100
numeracy test score		
Entry Level 1 or below	39	40
Entry Level 2	39	40
Entry Level 3	7	5
Level 1	5	4
Level 2 or above	4	6
test not completed	7	5
Total	100	100
n weighted	1873	644
n unweighted	1872	646

\* fewer than 0.5 per cent

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

Four-fifths of *Skills for Life* learners thought they had some problems with literacy or numeracy (Table 2.12). Problems were more often reported for literacy (69 per cent) than numeracy (53 per cent), despite the lower tested competence for numeracy.

Table 2.12 *Skills for Life* learners: self-assessed literacy and numeracy problems

per cent *Skills for Life* learners

	Wave 1	Wave 3
self-assessed problems: literacy	69	67
self-assessed problems: numeracy	53	53
self-assessed problems: literacy or numeracy	83	82
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

#### 2.4.2 *Qualifications and schooling*

Over one-third of *Skills for Life* learners had no qualifications at Wave 1 (Table 2.13). Twenty-nine per cent had qualifications with their highest at Level 1, whilst 14 per cent had their highest at Level 2 and 14 per cent said they had qualifications higher than this.



Table 2.13 *Skills for Life* learners: prior qualifications

per cent *Skills for Life* learners

	Wave 1	Wave 3
Highest qualification		
no qualifications	36	34
low level (unspecified)	6	8
Entry level 1	1	1
level 1 or higher	29	33
level 2 or higher	14	14
level 3 or higher	8	7
level 4	6	3
Literacy and numeracy qualifications		
Level 2 qualification in English	10	9
Level 2 qualification in Maths	4	4
neither	88	88
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

Almost four-fifths did not have Level 2 qualifications in either literacy or numeracy. However, ten per cent did have a literacy qualification at Level 2 and four per cent had a numeracy qualification at Level 2.

A large majority of *Skills for Life* learners had left school at the age of 16 or younger (Table 2.14). The remainder were equally spread between leaving before and after the age of 19.

Table 2.14 *Skills for Life* learners: schooling

per cent *Skills for Life* learners

	Wave 1	Wave 3
age left continuous full-time education		
16 and under	70	69
17-18	15	15
19 and over	15	15
overall experience of school		
Very positive	22	20
Somewhat positive	26	26
Neither positive nor negative	4	6
Somewhat negative	23	23
Very negative	24	25
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

One's experience at school may affect the need for literacy and numeracy training, but also willingness to take up training and to benefit from it. About half reported that their experience of school had been positive (and almost a quarter very positive), whilst almost half reported it negative (and almost a quarter very negative).

### 2.4.3 Economic activity

Economic activity and employment were low and unemployment high amongst *Skills for Life* learners at Wave 1. Only half of *Skills for Life* learners were economically active and only one third were employed (Table 2.15). Unemployment was very high amongst *Skills for Life* learners: 16 per cent were unemployed, giving an unemployment rate of 33 per cent.

Table 2.15 *Skills for Life* learners: main economic activity at Wave 1

	per cent <i>Skills for Life</i> learners	
	Wave 1	Wave 3
In full-time education	9	9
Economically active	49	53
Employed	33	32
Unemployed and seeking work	16	21
In part-time education (and not employed)	12	8
Other	30	30
Temporarily sick or disabled	3	3
Permanently sick or disabled	13	12
Looking after the home or family	11	12
Wholly retired	2	2
Government scheme (employment training)	1	1
Other	0	2
Total	100	100
n weighted	1873	644
n unweighted	1872	646

Source: Longitudinal Learners' Survey (Wave 1, 2002/03; Wave 3 2005)

Nine per cent of *Skills for Life* learners were in full-time education at Wave 1. The remainder were concentrated amongst being permanently sick or disabled (13 per cent) and looking after their family (11 per cent). In addition 12 per cent classed themselves as in part-time education (and without employment).

Those who had been economically active (notably unemployed) at Wave 1 were slightly over-represented amongst Wave 3 respondents, with those declaring themselves in part-time education at Wave 1 slightly under-represented.

### **3 Impact of participation on a Skills for Life course**

#### **3.1 The aim of the impact analysis**

The study was designed not only to enable the measurement of what had happened to the learners, but also to provide an assessment of what would have happened to them if they had not taken their literacy or numeracy courses (known as the counterfactual). Establishing the counterfactual is important, since some indicators (earnings for example) are liable to change over time as a result of increased experience and changes in the overall economic environment. Others (such as moving into paid employment) are likely to be affected by life course changes such as leaving full-time education or having a youngest child start primary school. Without a counterfactual, there is a risk of wrongly attributing movements in these indicators just to the fact of having taken a literacy or numeracy course.

The impact analysis relates only to adult learners over the age of nineteen. This was because of the impossibility of establishing a reliable comparison group who did not have a literacy or numeracy qualification and who were not involved in education or training courses. Young people in this position are a small proportion of the age group and hence difficult to find within the wider community. Moreover, as members of a very small minority they are likely to have other more complex needs which make them unreliable comparators.

#### **3.2 The evaluation approach**

As with all evaluations using either experimental or non-experimental methods, our aim was to obtain an unbiased estimate of the difference in outcomes between the learners and the non-learners

No matter how well designed an evaluation is, the process of comparing outcomes between groups is inevitably subject to measurement error. In the first place there will be differences in motivation and personal circumstances between those who take courses and those who do not. This characteristic in itself could affect outcomes such as employment, personal relationships and health. These outcomes for learners would probably differ from the outcomes for non-learners even in the absence of Skills for Life courses. Thus, the failure to control for this difference in an evaluation comparing participants and non-participants would lead to estimates of outcomes for those who have the greater motivation to participate to be incorrectly attributed to the courses themselves.

The standard problem with using a comparison group, as the present study has done, is that any observed differences in outcomes will partly reflect the true impact of doing a literacy or numeracy course, and partly reflect other differences between those who do courses and those who do not. This is called the standard sample selection problem: individuals who receive the treatment (in this case do a course) are generally not a random selection from the population. They have differing

characteristics and (often) experience different circumstances. Thus, one could observe different proportions in paid employment for those who had done a course relative to those who had not even if the courses themselves had no impact because individuals who take courses had better health or motivation for example (Heckman et al 1997).

In this study the learners group was representative of learners on courses leading to qualifications in either literacy or numeracy. However, because there was limited and inconsistent information available about the size or composition of the entire population of adults with poor literacy or numeracy, any comparison group of non-learners cannot be regarded as representative of any underlying population. Rather, they are just comparators for the learners group. What this means is that the outcomes for the comparison group cannot be treated as representative of the outcomes for all non-learners with low literacy or numeracy levels. Rather, they only provide a counterfactual for the learners. Details about how the comparison sample was selected can be found in Appendix 1.

### **3.2.1 Matching**

As there were some differences in characteristics between the learners and the comparison group we used propensity score matching as the method of comparing the two samples. In essence, rather than trying to match on a range of characteristics such as age, education, number of children, local labour market conditions etc, propensity score matching develops a single composite indicator, and the matching is done on the basis of that indicator. In this study the composite indicator is the probability of taking part in a *Skills for Life* course (Rosenbaum and Rubin 1983).

The composite indicator (propensity score) is calculated using logistic regression for each individual in both the learners and the non-learners sample based on their observed characteristics. The indicators used in the logistic regression for the propensity score matching were based on Wave 1 indicators only. The set of indicators used was the same at Wave 3 was almost exactly the same as it had been at Wave 2. The indicators were:

- age
- number and ages of children
- gender
- marital status
- ethnicity
- previous educational attainment
- literacy and numeracy levels achieved at Wave 1
- whether English is first language
- whether English is spoken at home
- self-perceived problems with literacy and numeracy
- employment status
- indicators of attitudes towards education and training
- index of employment commitment

In addition for Wave 3 the November 2002 unemployment rate for the local authority district in which the individual lived in Wave 1 was also included. This was designed to reflect the local labour market environment in which people were taking their decisions about whether or not to engage in learning. The impact of local labour

market circumstances on the decision to take a course could come about in two ways. If the labour market had low unemployment this might increase the potential rate of return to learning, both by increasing the probability of getting a job, and by increasing pay. If the labour market had a high unemployment rate the probability of getting any job with poor literacy and numeracy would be low, which might provide an incentive to improve them. In our equation to predict taking a course the effect of the unemployment rate is negative, in other words, otherwise similar people may be more likely to take literacy and numeracy course in areas where their potential rate of return is higher.

The local authority unemployment rate was obtained from the Office for National Statistics NOMIS database of local area labour market information. It was added to the dataset by matching the individual's postcode to their local authority area using the Office for National Statistics postcode mapping dictionary. In most cases full postcodes were available, but in a small minority of cases only the first three digits of the postcodes were available. Wherever possible these were imputed to local authority areas in two ways:

- learners sampled in colleges were imputed to the local authority area where all or most of the other learners from the same college lived
- comparison group members were imputed to the local authority which covered most of the relevant postcode area

No imputation took place where there was no postcode information provided at interview, nor in the small number of cases where the postcode provided did not exist. The effect of this is to exclude 27 Wave 3 respondents from the analysis of outcomes (24 former learners and 3 members of the comparison group).

All those who had been interviewed as “non-learners” in that they had not been sampled at colleges, but who in fact had been doing a *Skills for Life* course were excluded from the propensity score matching process. There were some 280 of these, which reduced the size of the comparison sample. The reason for the exclusion is that we are trying to measure the impact of doing a *Skills for Life* course, and thus the comparators (those who represent what could have happened to the learners if they had not done a course) should all be people with low levels of literacy and numeracy, but who have not done a course.

The equations used for the matching are in Appendix 1. The main variables used for the matching covered demographics, level of literacy and numeracy, pre-existing qualifications, age left full-time education, employment status and beliefs about the value of learning. The average estimated propensity to take part in learning for the learners was 0.651 and for the non-learners it was 0.635. Appendix 2 sets out the mean values of the variables used to develop the propensity scores before and after matching. The matching process has a significant impact on the measured bias in many cases. Once the propensity score was calculated, members of the treatment group (i.e. learners) were matched with a non-learner based on their predicted propensity to take a course. Thus, the individual predictors (such as age, number and age of children, highest qualification) may differ between the treated individual and the matched comparison individual, but overall the combined effect of their individual predictors gives them a similar propensity to take a course.

### **3.2.2 *Difference-in-differences***

The final possible source of potential bias lies in the unobserved characteristics of individuals such as motivation. To offset this a difference-in-differences approach was used. That is, the *change* in an indicator from one wave to another for the learners group was compared with the *change* in the same indicator for the comparison group. Heckman et al (1997) found that combining matching with difference-in-differences substantially reduces most of the bias introduced by using a comparison group rather than a randomly assigned experimental control group.

### **3.2.3 *Bootstrapping***

As a final check, the robustness of the estimates was tested by the use of bootstrapping. This is a way of testing the reliability of results, and in particular of providing an indication of the extent to which results may have been influenced by sampling error (Venables and Ripley 1999).

We have also looked at some of the transitions that took place between Wave 1 and Wave 2 to see if they are associated with particular outcomes at Wave 3. In other words we have attempted to assess whether some early outcomes might act as predictors to later outcomes. We have only reported outcomes as statistically significant if there is a 95 per cent probability that they have not occurred by chance. We also ran all our analyses with a 90 per cent confidence interval, but there were no outcomes that were significant at 90 per cent that were not also significant at 95 per cent.

## **3.3 What this study is measuring**

In this study the differences between the Wave 3 and the Wave 1 outcomes for those undergoing literacy and numeracy education and training courses leading to a qualification (the learners group) were compared with the differences between the same outcomes for a sample of people with low literacy and numeracy levels who were not undertaking such courses when they were first interviewed at Wave 1 (the comparison group). The outcomes considered were related both to paid work and to personal, family and social issues. This is because improvements to literacy and numeracy can lead to improvements in the quality of life even where there is no change in employment status or income.

The analysis included only the outcomes for people who were aged eighteen or more at the time they took their original course. Young people who were aged 16-18 at the time of their Wave 1 interview, many of whom were doing GCSE courses, were excluded from the analysis. This is because the pattern of transitions for young people entering adulthood and the labour market for the first time is likely to differ from the pattern for those who have already completed their initial education, many of whom will have established their own families and will have had experience of paid employment.

The Wave 1 interviews took place while the *Skills for Life* learners were doing their literacy or numeracy course in 2002 or 2003. The second wave of interviews took place a year later, and the third wave, which is the analysis reported here, in 2004 and 2005. Thus, for learners on one-year courses, the Wave 3 interview took place between sixteen and twenty-four months after they had completed their course. (Some learners were on longer courses.)

Most studies of literacy and numeracy training have been small scale and qualitative. Quantitative studies of the effects of literacy and numeracy training have tended to measure change and progress amongst learners, but have not used a comparison group to group to identify whether changes would have occurred irrespective of training (e.g. Gorman and Moss, 1979; Brooks *et al.*, 2001a, HM Inspectorate of Education 2005).

Beder (1999) reviewed a wide range of US evaluations of literacy schemes and found very few that compared learners with non-learners or that relied on anything other than self-report. International reviews of research on adult basic skills (Brooks *et al.*, 2001b) and of the effects of improvements in adult basic skills (McIntosh, 2004, unpublished) also failed to identify studies which used comparison groups.

The present study is unusual in (a) having a large sample (b) having a comparison group and (c) having measures for both groups at different points in time. All these features are likely to increase the reliability of the findings. The steps outlined above (in particular the use of propensity score matching and difference-in-differences) are designed to eliminate, or at least substantially reduce any bias in the estimates of impact. As a consequence, where positive or negative impacts are reported, it is reasonable to attribute them to having undertaken the Skills for Life course. Qualitative studies which rely purely on self-reported perceptions of learners are unable to provide any indication as to whether an observed effect (for example an increase in earnings) is due to the learning or reflects wider developments in the economy and society more generally.

### **3.4 Key findings from the present study compared with previous studies**

Although the present study uses a more rigorous methodology and has a larger sample than has traditionally been the case for studies of the impact of literacy and numeracy courses, the findings are in line with those found previously.

Beder (1999, p5) summarising the findings from 23 studies of outcomes of literacy and numeracy courses in the United States produced a list of eleven conclusions eight of which are potentially relevant to the UK context. Our findings concur with most of these.

*“1. In general, it is likely that participants in adult literacy education receive gains in employment.”*

The present study has found small gains in employment which are not statistically significant. However, the employment gains found at Wave 3 are larger than those found at Wave 2. Moreover, two-thirds of the former *Skills for Life* learners who were doing another course at the time of their Wave 3 interview were not in paid employment, although half those not doing a course were in paid work. This suggests that there is still scope for improvements in employment outcomes in subsequent waves as learners complete their current courses.

*“2. In general, participants in adult literacy education believe their jobs improve over time. However, there is insufficient evidence to conclude that participation in adult literacy education causes job improvement.”*

The present study has found evidence that former learners are more likely than non-learners to report improvements in their satisfaction with their promotion prospects.

*“3. In general, it is likely that participation in adult literacy education results in earnings gain.”*

Between Wave 1 and Wave 3 the earnings increase of the former *Skills for Life* learners was larger than that for the non-learners. We had not found an earnings effect at Wave 2.

*“4. In general, adult literacy education has a positive influence on participants’ continued education.”*

There were significant differences between the proportion of former *Skills for Life* learners who were doing new courses at Wave 3, compared with the proportion of members of the comparison group.

*“6. Learners perceive that participation in adult literacy education improves their skills in reading, writing, and mathematics.”*

There were significant differences between former learners and non-learners in their perceptions of the extent to which their literacy and numeracy skills had improved over the past year.

*“7. As measured by tests, the evidence is insufficient to determine whether or not participants in adult literacy education gain in basic skills.”*

The present study findings are similar.

*“9. Participation in adult literacy has a positive impact on learners’ self-image.”*

At Wave 2 that learners’ self-esteem had increased more than that of non-learners, but although there was a difference at Wave 3 it was not statistically significant.

*“10. according to learners’ self-reports, participation in adult literacy education has a positive impact on parents’ involvement in their children’s education.”*

The proportion of the learners sample in the present study who had children was relatively small. This in turn means that the outcomes related to children are based on a very small sample, with limited statistical power. There were no statistically significant effects for reading stories to children, helping with their homework, reading, writing or using the computer. This does not mean that there were no effects, just that the effects were not detectable.

*“11. Learners perceive that their personal goals are achieved through participation in adult literacy education.”*

Although learners were asked why they were doing their *Skills for Life* courses, a directly equivalent question was not asked of non-learners. This means that there were no measurable outcomes on this issue.



### 3.5 Detailed outcomes

Appendix 4 sets out a wide range of outcomes, and indicates where they are statistically significant. The table includes the raw differences between Wave 1 and Wave 3 for the learners and the comparison group, and also the differences after propensity score matching, which tend to be smaller.

Table 3.1 provides information about a limited set of key outcomes after propensity score matching at both Wave 2 and Wave 3. These outcomes are those where an outcome was statistically significant at either wave, or where the size of the difference changed markedly between the two waves.

#### 3.5.1 *Perceived improvements in literacy and numeracy*

When they were first interviewed respondents were not asked what they thought had happened to their literacy and numeracy over the previous year. These questions were only asked in the two follow-up waves. This means that we do not have a baseline from which to calculate differences in self-perceived literacy and numeracy improvements. We can only report the perceptions themselves. As a consequence there may be some bias in the measurement of these impacts. Nevertheless, the sizes of the effects are very large.

Respondents were asked whether they felt that their literacy and numeracy had shown (a) definite improvement, (b) some improvement or (c) no improvement in the last year. Thus, there were three possible answers for literacy and three for numeracy scored at 2, 1 and 0 respectively. Between Wave 1 and Wave 3 learners' assessments of their progress in numeracy over the previous year increased by an average of 0.83 points, while the non-learners' assessments of their progress over the previous year had increased by only 0.37. This difference is statistically significant. At the risk of over-generalisation this means that the learners were on average reporting some improvement (i.e. they had a score just below 1 point – the value for “some improvement”), while the non-learners were reporting no improvement (i.e. they had a score close to zero, the value for “no improvement”).

For literacy the perceived improvements were larger for both groups: 1.1 for the learners and 0.7 for the non-learners. Although the difference is smaller than it is for the numeracy it is still statistically significant.

Perhaps more dramatically, 56 per cent of learners and 29 per cent of non-learners reported that their numeracy had improved over the last year. This difference is statistically significant. Among the learners group, 65 per cent of those who had taken a course involving numeracy felt that their numeracy had improved over the previous year, whereas only 40 per cent of those whose course had not involved numeracy thought that their numeracy had improved.

More than two-thirds (68 per cent) of learners but only 50 per cent of non-learners reported that their literacy had improved. Again, these differences are statistically significant. Taking the two-thirds of learners who felt that their literacy had improved, this consisted of 42 per cent who were on a course which involved literacy and 27 per cent who were not.

Learners' strong perceptions that their literacy and numeracy have improved is in line with the findings of other studies (Beder 1999, Fingeret and Danin 1991, Fingeret 1985, Heath 1983, Fingeret and Drennon 1997, HM Inspectorate of Education 2005). In this study learners were not asked for specific examples of where

the improvement has made a difference, but Heath (1983) found that for those with very low literacy levels, being able to write a note for a child to take to school or a list of items to remind themselves made a significant difference to their lives.

Table 3.1 Key outcomes: Wave 2 and Wave 3

	Wave 2				Wave 3							
	learners	non-learners	difference	significant	N learners	N non-learners	learners	non-learners	difference	significant	N learners	N non-learners
Labour market and work												
change in employment status (net increase/decrease in proportion of sample)	3.7%	4.3%	-0.7%		1020	1022	5.3%	3.8%	1.4%		623	616
change in take home pay (non-employed=0)	£124	-£144	-£268		1020	1022	£558	-£713	£1,272	**	590	587
change in satisfaction with promotion prospects (scale -4 to +4)	-0.40	-0.23	-0.17		998	969	-0.1	-0.4	0.3	**	201	285
Health and disability												
net change in proportion of sample receiving hospital in-patient treatment	-2.3%	2.4%	4.7%		1009	1022	-3.7%	3.6%	-7.3%	**	615	616
Self-esteem												
change in self-esteem (scale -24 to +24)	0.50	-0.13	0.63	**	1020	1022	0.48	0	0.48		623	616
Education and training												
change in commitment to education and training (scale -16 to +16)	0.04	-0.90	0.94	**	1020	1022	0.93	0.30	0.63	**	623	616
Self-perceived literacy and numeracy												
net proportion reporting self-perceived improvement in literacy in past year	76.4%	41.9%	34.5%	**	1020	1022	69.4%	50.1%	19.2%	**	623	616
net proportion reporting self-perceived improvement in numeracy in past year	58.9%	19.7%	39.2%	**	1020	1022	55.7%	28.7%	27.1%	**	623	616

Note: \*\* denotes significant at the 5% level.

### 3.5.2 Labour market outcomes

Changes in several types of labour market outcome were measured:

Change in the proportion of the sample in paid employment

Change in net earnings

Change in employment commitment

Change in satisfaction with promotion prospects for those in paid employment

#### Paid employment

The net increase in the proportion of learners in paid employment (i.e. the proportion gaining employment less the proportion no longer in paid employment) was 5.3 per cent, while for the non-learners it was 3.8 per cent. This includes self-employed people as well as employees.

This difference was not statistically significant, but was nevertheless an improvement on the W ave 2 position. At W ave 2 the net increase among learners was 3.7 per cent and that for the non-learners 4.3 per cent. Thus, there is some sign that the learners' position is improving relative to the non-learners. Moreover, as people who have moved on to take new courses (discussed below) complete them and move into seeking work, it is likely that the net increase in employment will continue to improve.

#### Net earnings

In calculating the impact on earnings, all those not in paid employment either at W ave 1 or at W ave 3, were assigned zero earnings for that wave. All those in paid employment who did not state their earnings were excluded from the analysis. Thus, the overall impact on net earnings is a combination of the change in the proportion in paid employment (that is the proportion of zeroes), and the change in earnings among those who are employed.

At W ave 3 former learners had average take-home pay (including income from self-employment) that was £558 a year higher than it was at W ave 1, while non-learners were earning £713 a year less than they had been at W ave 1. This difference was statistically significant. Although the proportion of non-learners in paid employment had increased, their earnings had fallen. The usual reasons for lower earnings are reduced hours (a switch from full-time to part-time working perhaps) or a forced job change. People who become unemployed typically have lower earnings in their new job than they did in their old one.

#### Employment commitment

Survey respondents were asked to agree or disagree with a series of five statements at all three waves to elicit their commitment to paid employment. These were:

1. Even if I had a lot of money I would still work in a job
2. I am the sort of person who needs to have a job
3. Having a job is very important to me
4. I very much want to be in a job

5. Even if it were possible for me to retire I would continue to work in a job

The answers were combined to produce an index with values of 5 to 25. Thus the change in commitment between waves could range from -19 to +19. Positive values indicate becoming more positive about paid employment, and negative values becoming less positive.

Both learners and non-learners became less positive about paid employment between Wave 1 and Wave 3 (-2.6 and -3 respectively). The difference between the two groups was not statistically significant. In both cases Wave 3 responses were rather more negative than Wave 2 responses (which showed a difference of around -0.5).

### Promotion prospects

Satisfaction with promotion prospects was measured on a scale of 1 to 6. Thus, changes between waves could take values of -5 to +5. These questions were only asked of people who were in paid employment, so for change to be measured a respondent had to be in paid work at both Wave 1 and Wave 3.

Former learners had little change in their satisfaction with their promotion prospects between Wave 1 and Wave 3 (-0.1) while non-learners had a larger fall (-0.4). This difference is statistically significant. At Wave 2 the former learners had had a fall of -0.4 and the non-learners a fall of -0.2, but the difference was not statistically significant. Thus, learners had shown an improvement in their satisfaction with their promotion prospects between Waves 2 and 3, while comparison group members had shown a decline.

Among former learners 38 per cent reported higher levels of satisfaction with their promotion prospects at Wave 3 compared with 29 per cent of non-learners. Further, 35 per cent of learners reported lower levels of satisfaction with their promotion prospects at Wave 3, compared with 44 per cent of non-learners.

### Other aspects of work

There were only small differences between the former learners and the comparison group in terms of changes in their satisfaction with their job security or their pay. The differences were not statistically significant. There were no statistically significant differences in these indicators at Wave 2 either.

### 3.5.3 Out of work benefits

At both Wave 1 and Wave 3 respondents were asked about receipt of out-of-work benefits by the respondent or their partner. The benefits included in the analysis were Jobseekers Allowance, Incapacity Benefit, Income Support, Widow's Pension, Statutory Sick Pay, Invalid Care Allowance, retirement pension, Severe Disability Grant Allowance and Carer's Allowance.<sup>3</sup>

Among the learners there was a 3.8 percentage point fall in the proportion of the sample receiving out-of-work benefits at Wave 3 compared with the proportion at Wave 1, while among the non-learners the fall was 0.4 percentage points. However, the difference was not statistically significant.

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<sup>3</sup> We recognise that some of these benefits may be payable when people are in paid work, but in practice the overwhelming majority of recipients are out of work.

### 3.5.4 Health and disability outcomes

There was a range of health outcomes included in the analysis, but for only one of them was there a large or statistically significant difference between the former learners and the non-learners. However, in most cases the outcomes for the learners were better than the outcomes for the non-learners.

The one statistically significant difference was that there was a difference in the incidence of hospital in-patient treatment. There was a net fall of 3.7 percentage points in the proportion of former learners receiving hospital in-patient treatment at Wave 3 when compared with Wave 1, whereas there was an increase of 3.6 percentage points among the non-learners. This difference was statistically significant. At Wave 2 there had been a smaller fall in the proportion having in-patient treatment (2.3 percentage points) and a smaller increase among the non-learners (2.4 percentage points). That difference was not statistically significant.

The other health outcomes reviewed were:

- o The proportion of both learners and non-learners who reported worse less the proportion who reported improved health
- o The change in the average value of the health index between Wave 1 and Wave 3
- o Change in long-standing illness or disability
- o GP attendances
- o Hospital outpatient appointments
- o Nights spent as a hospital in-patient

### 3.5.5 Activities with children

Only a minority of both learners and non-learners lived in households where there were children under sixteen (and even fewer were living with their own or their partner's children rather than with younger siblings or other relatives). Because the questions relating to activities with children were only asked of people who had children living in the household, the analysis had to be restricted to people who had children in their household in both Wave 1 and Wave 3. This means that the statistical power of any of the comparisons involving children is very limited, and the differences between the two groups would need to be large to be statistically significant.

Thus, although respondents were asked about reading stories to children, helping them with homework, with reading, with writing and with using the computer, the small number of respondents meant that in no case were the differences between the two groups statistically significant.

The combination of small sample numbers and an ageing cohort of children in the household will probably make it difficult to detect results in this area in future waves of the study, although it has been found to be important in other studies. The US evidence reviewed by Beder (1999) found that being better able to help children was one of the more frequently observed outcomes of literacy and numeracy training for adults. HM Inspectorate of Education (2005) which involved interviews with more than 150 literacy and numeracy learners in Scotland also found that being able to help children was cited by many as an important outcome for them.

### 3.5.6 Self-esteem and life satisfaction

Previous studies have consistently found that those who take literacy or numeracy courses have an improved self-image (Beder 1999). At Wave 2 we found statistically significant differences in self-esteem between the learners and the non-learners. However, the difference at Wave 3 was not significant.

Self-esteem was measured in this study using the shortened version of the Rosenberg self-esteem scale (Rosenberg 1965) developed by Smith et al. (2001). Respondents were asked to agree or disagree with a series of six questions, each of which had five possible answers. In each case high self-esteem was scored with a value of 5 and low self-esteem with a value of 1. Sometimes this reflected agreement with a statement and sometimes disagreement. The six questions were:

1. I like myself
2. I often wish I was someone else
3. I am able to do things well
4. I don't think much of myself
5. There are some good things about me
6. There are lots of things about myself I would like to change

Former Skills for Life learners showed a small increase in self-esteem between Wave 1 and Wave 3 (0.49 on a scale of -24 to +24). This was identical to the increase found at Wave 2. Non-learners showed no change in their self-esteem between Wave 1 and Wave 3. Between Wave 1 and Wave 2 they had shown a small decline (-0.13). Both the sample size and the difference were larger at Wave 2, leading to an outcome that was statistically significant. However, at Wave 3 the smaller difference (accounted for by the unchanged self-esteem in the comparison group) and the smaller sample size meant that the difference was not statistically significant.

Satisfaction with life was measured on a scale of 1 to 5, so the change between Wave 1 and Wave 3 was measured on a scale of -4 to +4. Both the learners and the non-learners showed an increase of less than 0.1, and the difference between the two groups was not statistically significant.

### 3.5.7 Education and training

#### Commitment to education and training

There were large and statistically significant differences in the change in commitment to education and training between the former Skills for Life learners and the comparison group.

Commitment to education and training was measured by four questions each with five possible answers. Thus, the value of the index at each wave varied from 4 to 20 (with 20 being the maximum level of commitment), and the change between waves could vary from -16 to +16.

Respondents were asked for the extent to which they agreed with the following four statements:

1. You are more likely to get a better job if you do some learning



2. Learning new things makes you more confident
3. To get a job you know is more important than what you know
4. Getting qualifications takes too much effort

Between Wave 1 and Wave 3 the former Skills for Life learners had an average increase in the value of their index of 0.93, while the comparison group members had an increase of 0.3. This difference is statistically significant.

At Wave 2 there was also a statistically significant difference between the two groups, but this was made up of a very small improvement in commitment among the learners (.04) and a decline in commitment among the non-learners of 0.9. Thus, both learners and non-learners have both become more positive towards education and training since Wave 2.

#### Doing a new course

Another significant difference between the two groups was the extent to which they had gone on to take a new education or training course. At the time of the Wave 3 interview, nearly half (48 per cent) of former Skills for Life learners were taking a new education or training course, while only 10 per cent of comparison group members were. (A more detailed discussion of both new and continuing courses for Skills for Life learners can be found in Section 4.2.2.)

This finding is particularly important in that it supports the hypothesis that the main value of improving literacy and numeracy skills for adults as well as for young people is that it opens the way to learning skills which are directly relevant to work, and to life more generally. Literacy and numeracy are building blocks to the development of skills relevant to the workplace rather than necessarily leading to a direct increase in employability. While they are useful in themselves, the real value of literacy and numeracy courses lies in enabling people to progress to further education and training and to develop skills that more directly influence their employment and earnings prospects. (See for example, Boe 1997, Bonjour and Sm Eaton 2003, Bynner et al 2001).

It is also consistent with international research. Beder (1999) reported that participation in adult literacy and numeracy training led to greater participation in further education training for US adults. It also led to an increase in acquiring the GED qualification (the adult equivalent of high school graduation). Rahmani et al (2002) found that Australians who completed basic skills training were more likely to be continuing in education than those who did not start or did not complete the course.

The fact that half the learners are using their literacy and numeracy courses as a stepping stone to other learning is likely to be an important explanation for the small (and statistically insignificant) scale of the employment effects found at Wave 3, which took place two years after respondents were first interviewed. As learners complete their new courses and start to look for and find paid work the proportion of the sample who are employed is likely to increase further. Among former Skills for Life learners, two-thirds of the people taking courses are not currently employed, compared with 56 per cent of the people who are not taking courses.

### 3.6 Associations between Wave 2 outcomes and Wave 3 outcomes

Given the suggestion from other studies that the final outcomes from undertaking courses to improve literacy and numeracy often take some time to emerge, one potential benefit of a longitudinal study design is that it enables trajectories to be tracked, and an assessment made of the extent to which some of the outcomes observed soon after the completion of the Skills for Life course at Wave 2 might be predictors of outcomes observed at later stages in the learners' lives. This is potentially useful for practitioners and funders since they are only likely to be in a position to monitor short-term outcomes.

The analysis reported here examined the variables where there were statistically significant differences between the former learners and the comparison group at Wave 2 to see whether they were associated with outcomes at Wave 3.

The statistically significant outcomes at Wave 2 that were analysed were:

- o self-esteem
- o attitudes to education and training
- o employment commitment
- o self-perceived improvement in literacy
- o self-perceived improvement in numeracy.

We looked at the correlation between each of these Wave 2 outcomes and the following Wave 3 outcomes:

- o change in employment status
- o change in earnings
- o taking an education or training course.

In almost all cases there was no relationship between the Wave 2 outcomes and the Wave 3 outcomes. Thus, there is little that can be concluded at this stage as to whether early outcomes might be predictors of later outcomes. Of the fifteen possible relationships, only two were statistically significant.

#### 3.6.1 Attitudes to education and training and subsequent participation in education and training courses

Former Skills for Life learners were more likely than non-learners to have increased their commitment to education and training between Wave 1 and Wave 2 of the study. However, within the former learners group, those who had increased their commitment to education and training between Wave 1 and Wave 2 were significantly more likely to be taking an education or training course at Wave 3 than those whose commitment had not increased. Among those whose commitment was higher at Wave 2, 54 per cent were taking a course at Wave 3. Among those whose commitment had not increased at Wave 2, 45 per cent were taking a course at Wave 3. This difference is statistically significant.

#### 3.6.2 Self-perceived improvement in numeracy and literacy and earnings

Former Skills for Life learners who perceived that their numeracy had improved between Wave 1 and Wave 2 had significantly larger increases in earnings between Wave 1 and Wave 3 than those whose numeracy had not improved. They had

an average increase in earnings of £3567 a year. Those who thought at Wave 2 that their numeracy had declined had an increase of £232 and those who thought there was no difference in their numeracy had a fall of £232. (The difference between these two groups is not statistically significant.)

There was no association between self-perceived improvement in literacy at Wave 2 and the increase in earnings between Wave 1 and Wave 3.

Although we have not identified many predictors of future positive outcomes, we will continue to analyse such associations at the next Wave because of the practical value of early indicators as feedback to practitioners and funders.

### 3.7 Overall conclusions of the impact study

Skills for Life courses do have an impact on self-esteem, on earnings, on employment and on health, although at this early stage many of the impacts are small. However, there are indications that some of these outcomes (employment in particular) are likely to increase in the future.

An important impact relates to lifelong learning. Adults with poor basic skills have often not had good experiences at school, and it is known that those with poor school experiences are difficult to attract back into learning as adults. Yet those who had taken literacy or numeracy courses have become more positive in their attitudes towards the value of education and training, and a large proportion have gone on to take new courses (many of them full-time).

This active engagement with full-time education on the part of the former Skills for Life learners means that although their employment rates have been higher (and the differences with the comparison group larger) at each successive wave of the study, the impact is not statistically significant. It is, however, reasonable to expect that some of those currently taking education and training courses will move into employment over the next few years.

## 4 Skills for Life learners: progression in education and training

### 4.1 Introduction

The impact analysis showed that participation on a Skills for Life course increased subsequent participation in learning. It also led to a greater commitment to education and training. In this chapter we examine in more detail Skills for Life learners' subsequent education and training, describing the type of courses undertaken and the factors which affect subsequent learning.

In Section 4.2, the general pattern of participation in education and training one and two years after initial interview is described. This shows that many Skills for Life learners continue their *W ave 1* Skills for Life course into a second and a third year but, also, that many start new courses. It also shows that starting a new course whilst continuing courses from the previous year is common. Specifically:

72 per cent of Skills for Life learners were still in education and training in Year 2;

57 per cent of Skills for Life learners were still in education and training in Year 3;

64 per cent had started new courses within two years (47 per cent in Year 2 and 40 per cent in Year 3).

The pattern of further study was complex, with many starting new courses whilst continuing existing courses.

The rest of the chapter then focuses on new courses. Section 4.3 describes the characteristics of new courses pursued: their subject and level:

34 per cent of Skills for Life learners had started a new course at Level 2 or above in either Year 2 or Year 3;

almost half (48 per cent) of Skills for Life learners had started a new vocational course in either Year 2 or 3;

43 per cent had started a new basic skills course, with the percentage of new starts for the latter declining across the years;

17 per cent of Skills for Life learners had started a new academic course;

NVQs, City and Guilds and IT qualifications were most common.

These new courses may be at the same, a higher or a lower level than those pursued at *W ave 1*. Our interest was particularly on progression, so Section 4.4 describes the pattern of progression and the types of progression courses (i.e. courses at a higher level than at *W ave 1*):

30 per cent of Skills for Life learners had started a new , higher-level course in either Year 2 or 3 ; progression was more common in Year 2 than Year 3 ;

by Year 3 , 24 per cent of Skills for Life learners had moved to a higher-level course at Level 2 or higher (including 15 per cent to Level 3 or higher) ;

Progression was most common for those whose highest level of study in Year 1 was Level 1 , but progression was high from all levels .

Finally , Section 4.5 examines the factors which affect starting new courses and progression . This found that there are relatively few personal and educational characteristics which are associated with new course participation and progression . This suggests that Skills for Life courses can act as a route to learning for a wide range of people , and that there appear to be few factors , apart from health , which act as a barrier to future learning .

## 4.2 Continuation in education and training

This section provides an overview of Skills for Life learners participation in education and training one and two years after their first interview on the study . Of particular interest is take up of new courses , especially of courses at a higher level than previously (i.e. progression) . However , new course start-up may be delayed when Wave 1 course(s) continue into second or subsequent year . In which case focussing on new course start-up will underestimate the participation in education and training . Therefore , this section starts by describing overall participation in education and training , whether on a new course or a continuing course . It then describes how continuing courses , new starts and new starts at a higher level (i.e. progression) inter-relate .

### 4.2.1 Participation in education and training

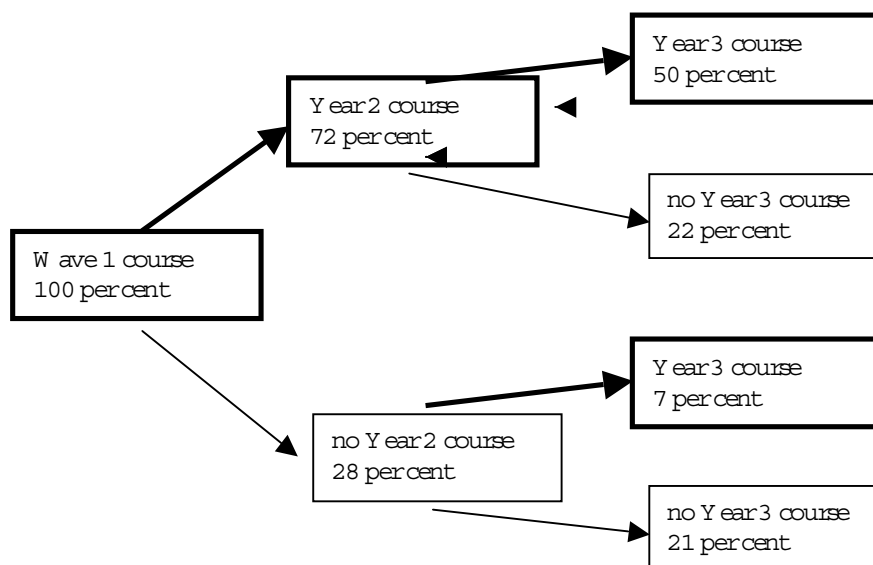
Participation in education and training for Skills for Life learners in Years 2 and 3 was very high (Figure 4.1) .

Almost three-quarters (72 per cent) were on a course at Year 2 and 57 per cent were on a course at Year 3 .

Half of Skills for Life learners participated in education and training at both Year 2 and Year 3 . About one fifth participated in Year 2 , but then stopped at Year 3 .

Re-entry into education and training by those who were not doing a course in Year 2 was not uncommon : one quarter of this group (seven per cent of all learners) returned to learning in Year 3 .

Figure 4.1 Participation in courses, Years 1 to 3



#### 4.2.2 New courses and course continuation

In part, the high level of course participation was due to learners continuing the same courses from one year to the next. However, new course starts were also high (see Figure 4.2 and Figure 4.3):

at Year 2, almost half (48 per cent) of Skills for Life learners were continuing a course from Year 1, with 40 per cent continuing their main Skills for Life course and 22 per cent continuing another Year 1 course (and 15 per cent doing both);

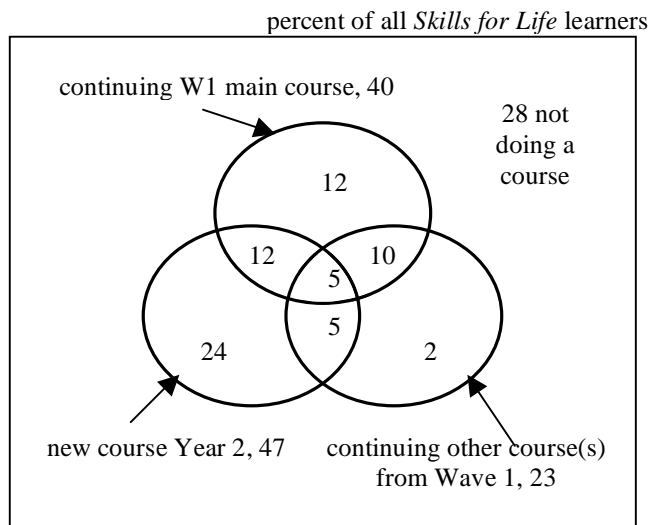
at Year 3, nearly one third (32 per cent) of Skills for Life learners were continuing a course from Year 2, with 21 per cent still on their main Skills for Life course (from Wave 1) and 20 per cent continuing another Year 2 course (and nine per cent doing both);

by Year 2, 47 per cent had started a new course since Year 1;

by Year 3, 40 per cent had started a new course since Year 2;

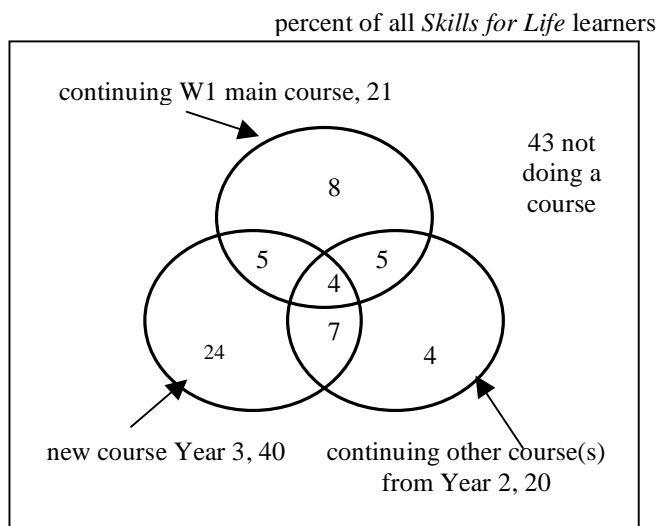
over both years, 64 per cent of Skills for Life learners had started new courses (including 23 per cent who had started new courses in both Years 2 and 3).

Figure 4.2 New and continuing courses, Year 2



Elements may not sum to total due to rounding.

Figure 4.3 New and continuing courses, Year 3



Elements may not sum to total due to rounding.

#### 4.2.3 Combining new courses and continuing courses

We had expected *Skills for Life* learners to complete one course before starting another. However, as the Figure 4.2 and Figure 4.3 show, many *Skills for Life* learners started a new course whilst continuing a previous course:

by Year 2, 22 per cent of *Skills for Life* learners had started a new course, whilst continuing a course from Year 1;

by Year 3, 16 per cent of *Skills for Life* learners had started a new course, whilst continuing a course from Year 2.

Comparison of those who were continuing a previous course and those who were not (Table 4.1) shows that:

those continuing courses at Year 2 were just as likely to start a new course as those who were not continuing a course. (Forty-nine per cent of continuers started a new course, compared with 46 per cent of those not continuing a course)

at Year 3, those continuing a course from the previous year were more likely to start a new course than those who were not continuing a course (45 per cent and 38 per cent respectively).

Table 4.1 New and higher-level courses by continuation of Year 1 courses

	new course	no new course	total <sup>a</sup>	doing a new higher-level course	not doing a new higher-level course	total <sup>a</sup>
Year 2						
continuing a Year 1 course	49	51	100	22	78	100
not continuing a Year 1 course	46	54	100	22	78	100
Total	47	53	100	22	78	100
Year 3						
continuing a Year 2 course <sup>b</sup>	45	55	100	15	85	100
not continuing a Year 2 course <sup>b</sup>	38	62	100	16	84	100
Total	40	60	100	16	84	100

<sup>a</sup> Base refers to all respondents at the relevant year.

<sup>b</sup> Includes Year 1 courses continued through Year 2 and into Year 3

Progression (i.e. starting a course at a higher level) was just as common amongst those continuing courses between years as those not.

The role of continuation and other factors on new course starts and progression is examined in detail using regression analysis in Section 4.5.

### 4.3 New course characteristics, Years 2 and 3

As Skills for Life learners moved to new courses, the types of courses taken changed. Not only did they progress to higher levels, but they moved away from basic skills courses to vocational and academic courses. These changes are described in this section.

#### 4.3.1 Changes in the characteristics of courses

There was a major change in the types of courses started in Years 2 and 3 compared with Year 1 courses, with a movement towards vocational courses and away from basic skills (Table 4.2):

the prevalence of basic skills courses declined relative to academic and, particularly, to vocational courses;

the move away from basic skills courses and towards vocational courses grew over time, from Year 2 to Year 3:



- o vocational courses grew from 44 per cent (Year 1), to 65 per cent of new starts in Year 2, to 73 per cent of new starts in Year 3;
- o basic skills courses declined from 89 per cent in Year 1, to 63 per cent of new starts in Year 2 to 53 per cent of new starts in Year 3.

the prevalence of academic courses declined slightly.

The shift from basic skills courses towards vocational courses suggests that, as Skills for Life learners improved their basic skills many then moved on to education and training that was more directly vocational.

Examining new course subjects in more detail, shows that:

amongst academic courses, fewer took new GCSE courses in Years 2 and 3 than had at Wave 1, whilst higher-level courses increased; and

amongst vocational qualifications, the main relative changes were an increase in the percentages doing NVQs and 'other' (generally low-level) qualifications.

The highest level at which Skills for Life learners were studying showed some tendency to rise (Table 4.3):

there was a marked increase in the percentage studying up to Level 3, rising from six per cent in Year 1 to 18 per cent in both Years 2 and 3;

there was some decline in Entry Level courses, which was marked at Entry Level 1;

however, there was a decline in Level 2 courses, from 31 per cent in Year 1, to 26 per cent in Year 2 and 23 per cent in Year 3.

Table 4.2 New course starters: new course qualification, Years 2 and 3

	% Skills for Life learners starting a new course			
	W ave 1 courses	Y ear 2 new courses	Y ear 3 new courses	New courses, Y ears 2 and/or 3
Basic skills	89	63	53	67
literacy	70	41	33	43
num eracy	51	36	25	38
com bined literacy and num eracy	4	0	0	
Key Skills	17	21	20	27
ESOL	1	4	0	3
Academ ic qualifications	29	23	23	26
GCSE	28	16	12	17
A or A S Levels, A ccess course	2	7	7	8
Vocational qualifications	44	65	73	75
NVQ	4	15	21	21
GNVQ	0	3	2	3
C ity and Guilds	17	17	10	17
RSA	3	2	1	2
BTEC	1	3	5	4
ONC	1	1	1	1
CLA IT /other IT	11	12	11	16
other	15	27	38	38
Total (Skills for Life learners starting a new course)	100	100	100	100
n weighted	598	305	257	412

Base: Skills for Life learners starting a new course

Table 4.3 New course starters: highest new course qualification level Years 2 and 3

H ighest new course qualification level	% Skills for Life learners starting a new course			
	W ave 1 courses	Y ear 2 new courses	Y ear 3 new courses	New courses, Y ears 2 and/or 3
low level/level unknown	16	19	23	16
Entry level 1	10	1	2	2
Entry level 2	6	3	5	5
Entry level 3	4	2	2	2
level 1	21	27	21	23
level 2	31	26	23	28
level 3	6	18	18	20
level 4	2	3	6	5
no details given	4			
total	100	100	100	100
n weighted	644	305	257	412

Base: Skills for Life learners starting a new course

#### 4.3.2 Participation in new courses

The previous section (4.3.1) examined how the type of new courses Skills for Life learners started changed over the three years. This section describes the extent to which Skills for Life learners took up these new courses. (The difference in percentages between the two sections is because this section refers to the percentage of all Skills for Life learners. The previous section examined the percentage of new course starts.)

The shift in new starts, from basic skills courses to vocational courses was described in the previous section, along with the relative stability in the percentage of new academic courses. However, given the difference in percentage of Skills for Life learners taking basic skills courses, vocational courses and academic courses in Year 1, the pattern of Skills for Life learners on the different type of courses in later years was as follows (Table 4.4):

a substantial minority of Skills for Life learners started new basic skills courses in Years 2 and 3: 30 per cent of Skills for Life learners started a new basic skills course in Year 2 and 21 per cent started one in Year 3;

the percentage of Skills for Life learners starting a new vocational course equalled those starting new basic skills courses in Year 2 and overtook it in Year 3 (by Year 3 29 per cent vocational and 21 per cent basic skills);

the percentage of Skills for Life learners starting new academic courses was low: 11 per cent in Year 2 and nine per cent in Year 3;

together, over both Year 2 and Year 3:

- o 48 per cent of Skills for Life learners started a new vocational course;
- o 43 per cent started a new basic skills course; and
- o 17 per cent started a new academic course.

The highest-level, new course was at Level 1 and above for a substantial minority of Skills for Life learners. Few had started new courses at Entry Levels only:

new course at Level 2 and above: 22 per cent (Year 2), 19 per cent (Year 3) and 34 per cent over both years;

new course at Level 1: 13 per cent at (Year 2), eight per cent (Year 3) and 15 per cent over both years; and

new course at Entry Level: three per cent (Year 2), four per cent (Year 3) and five per cent over both years

Table 4.4 New course participation, new course qualification, Years 2 and 3

	% Skills for Life learners			
	W ave 1 courses	Y ear 2 new courses	Y ear 3 new courses	New courses, Y ears 2 and/or 3
Basic skills	83	30	21	43
literacy	65	19	13	28
num eracy	47	17	10	24
com bined literacy and num eracy	4	0	0	0
Key Skills	16	10	8	17
ESOL	1	2	0	2
Academ ic qualifications	27	11	9	17
GCSE	26	8	5	11
A or AS Levels, A ccess course	2	3	3	5
degree, HND, HNC, nursing, teaching	2	2	3	3
Vocational qualifications	41	31	29	48
NVQ	4	7	8	14
GNVQ	0	2	1	2
C ity and Guilds	16	8	4	11
RSA	2	1	0	1
BTEC	1	2	2	3
ONC	1	0	1	1
CLA IT /other IT	10	6	4	10
other	14	13	15	24
no course/new course	7	53	60	64
Total	100	100	100	100
n weighted	644	644	644	644

Base: all Skills for Life learners

Table 4.5 New course participation, highest new course qualification, Years 2 and 3

H ighest new course qualification level	% all Skills for Life learners			
	W ave 1 courses	Y ear 2 new courses	Y ear 3 new courses	New courses, Y ears 2 and/or 3
low level/level unknown	16	9	9	10
Entry level 1	10	1	1	1
Entry level 2	6	1	2	3
Entry level 3	4	1	1	1
level 1	21	13	8	15
level 2	31	12	9	18
level 3	6	9	7	13
level 4	2	1	3	3
no details given	4	52	60	36
total	100	100	100	100
n weighted	644	644	644	644

Base: all Skills for Life learners

#### 4.4 Progression

So far, this chapter has concentrated on participation in education and training. We have not examined whether Skills for Life learners were building up their skills, moving to higher levels of competence and knowledge. This is examined in this section, through examination of progression to higher-level courses. First the incidence of progression is examined (Section 4.4.1) and then the types of courses to which Skills for Life learners progressed (Section 4.4.2).

##### 4.4.1 Incidence of progression

Progression, in terms of moving to courses at a higher qualification level was fairly common: 30 per cent of Skills for Life learners had done a new course by Year 3 that was at a higher level than any of those undertaken at Wave 1.

Progression was most common in the first year, with 20 per cent undertaking a new higher-level course by Year 2, whilst by Year 3, 15 per cent of former Skills for Life learners were doing a new course that year which was at a higher level than any at Wave 1 (Table 4.6).

Over these first two years progression tended to be in one step: moving to a new course (by Year 2) and progressing further was rare. Few, six per cent, started a new course during Year 3 that was at a higher level than any new course undertaken during Year 2 and only one per cent started a new course each year which was at a higher level than any in the previous year.

Table 4.6 Progression to higher-level courses, Years 2 to 3

	% Skills for Life learners			
	Year 2 v W 1	Year 3 v Year 2	Year 3 v W 1	Year 2 and/or Year 3 v W 1
no course(s)	53	77	60	36
did lower level course	11	8	10	13
did same level course	9	7	9	13
did higher-level course	20	6	15	30
level of course(s) unknown	8	2	6	9
total	100	100	100	100
n weighted	644	644	644	644

The table compares the highest course level between the years indicated. Thus if a person takes a higher-level course during Year 2 than they did at Wave 1, but no course during Year 3, they will be recorded as follows: in column 'Year 2 v W 1' - did higher-level course; in columns 'Year 3 v Year 2' and 'Year 3 v W 1' - no course; and column 'Year 2 and/or Year 3 v W 1' - did higher-level course.

Base: all Skills for Life learners

Most progression was to Level 2 courses<sup>4</sup> or higher (Table 4.7). Over the two years since Wave 1:

- 24 per cent of Skills for Life learners had started a higher-level course (compared with their highest level Year 1 course) at Level 2 or higher:
  - o nine per cent at Level 2 and

<sup>4</sup> Figures relate to the highest level course to which a learner had progressed at Year 2 or Year 3 and to any learning at that level. They do not indicate whether learners were undertaking learning to reach a full Level 2 (the equivalent of 5 A\*-C grades at GCSE).

- o 15 per cent at Level 3 or higher.
- a further six per cent had progressed to a Level 1 course.

Table 4.7 Progression: highest course level, Years 1 to 3

	% Skills for Life learners			
	Year 2 v W 1	Year 3 v Year 2	Year 3 v W 1 <sup>a</sup>	Years 2 or 3 v W 1
doing a higher-level course, Level of highest course	20	6	15	30
Entry Level	1	0	1	1
Level 1	5	1	2	6
Level 2	6	1	4	9
Level 3 or higher	9	5	8	15
not doing a new higher-level course	79	93	85	70
Total	100	100	100	100
n weighted	644	644	644	644

<sup>a</sup> includes those who did a higher-level course at Year 3 compared with Year 2 (i.e. those in the previous column).

Base: all Skills for Life learners

More Skills for Life learners progressed in Year 2 than in Year 3 (20 per cent compared with 15 per cent). However, the decline in progression at Year 3 was confined to Level 2 courses and lower; the percentage progressing to Level 3 was maintained in Year 3 (eight per cent progressed to Level 3 at Year 3, compared with nine per cent at Year 2). This pattern is likely to reflect, in part, a delay in progression until longer Wave 1 courses (which extended into Year 2) were completed and, in part, people progressing at Year 2 and then to Level 3 at Year 3. Nearly all of the six per cent who made progress each year (starting a higher-level course after one year and a still higher-level course after two) started a Level 3 course or higher in Year 3 (five per cent of all Skills for Life learners).

Focussing on those progressing to Level 2 and higher (Table 4.8):

those whose highest Year 1 course was at Level 1 were most likely to progress (41 per cent over the two subsequent years);

- o not surprisingly, this group were most likely to progress to Level 2 (27 per cent compared with 14 per cent to higher levels);
- o progression was much more common in Year 2 than Year 3 (30 per cent and 14 per cent respectively);

nearly one quarter (23 per cent) of those whose highest Year 1 course was at Level 2 progressed to Level 3 or higher over the two subsequent years, with the same percentage (15 per cent) progressing in each year; (these figures include seven per cent took at Level 3 or higher course in both Years 2 and 3);

thirty-one per cent of those whose highest Year 1 course was at an Entry Level progressed:

- o the largest percentage progressed to Level 1 (12 per cent); this was concentrated in Year 1;
- o eight per cent each progressed to Level 2 and to higher-level courses (16 per cent in total);
- o Level 2 and higher progression was similar in Year 2 and Year 3;
- o three per cent progressed within the Entry Levels.

15 per cent whose highest level course was at Level 3 or higher, progressed yet higher.

Table 4.8 Progression, Years 2 to 3, by Wave 1 course level

highest qualification studying, Wave 1	Year 2 v W 1			Year 3 v W 1			Total Years 2 or 3 v W 1 <sup>a</sup>			n
	Level 1	Level 2	Level 3 or higher	Level 1	Level 2	Level 3 or higher	Level 1	Level 2	Level 3 or higher	
Entry levels	10 <sup>b</sup>	5	5	5 <sup>c</sup>	6	5	12 <sup>d</sup>	8	8	266
level 1		19	11		9	5		27	14	127
level 2			15			15			23	199
level 3 or higher			8			11			15	52
Total		6	9		4	8		9	14	644

Row percentages: percent of those with a given highest level Wave 1 course progressing to each level

<sup>a</sup> Those who took a higher-level course during either Year 2 or Year 3. Some took a higher-level course than at W 1 during both Year 2 and Year 3 and at the same higher level. Therefore data does not sum across rows to the 'Total Years 2 or 3 v W 1'. (E.g. 15 per cent of Skills for Life learners took a W 1 Level 2 course and a Level 3 (or higher) course during Year 2, also 15 per cent took a W 1 Level 2 course and a Level 3 (or higher) course during Year 3. In total 23 per cent took a W 1 Level 2 and a higher-level course during Year 2 and/or Year 3, including seven per cent who took at Level 3 (or higher) course during both Years 2 and 3).

<sup>b, c</sup> in addition, two per cent progressed to a higher Entry Level

<sup>d</sup> in addition, three per cent progressed to a higher Entry Level

#### 4.4.2 Progression: types of courses of those progressing

The following describes the types of new courses pursued by those who progressed to a higher-level course. It covers all new courses this group undertook, not just those at the higher level.

As with new course starts (Section 4.3.1), the new courses started by those progressing to higher-level courses showed a shift to vocational courses and away from basic skills courses (Table 4.9). However, unlike all new course starts, there was also a shift towards academic courses.

of those progressing to a higher level course, 68 per cent (Year 2) and 73 per cent (Year 3) started new vocational courses, compared with 41 per cent doing a vocational course at Year 1;

of those progressing to a higher level course, 33 per cent (Year 2) and 44 per cent (Year 3) started new academic courses, compared with 27 per cent doing an academic course at Year 1;

of those progressing to a higher level course, 71 per cent (Year 2) and 52 per cent (Year 3) started new basic skills courses, compared with 83 per cent doing a basic skills course at Year 1.

Table 4.9 Progression: courses of those progressing to higher-level courses, Years 2 and 3

	% Skills for Life learners courses W 1	% Skills for Life learners on a higher-level course		
		Year 2 v W 1	Year 3 v W 1	Years 2 or 3 v W 1
Basic skills	83	71	52	71
literacy	65	43	29	44
numeracy	47	38	28	40
combined literacy and numeracy	4			
Key Skills	16	22	20	29
ESOL	1	6	1	4
Academic qualifications	27	33	44	38
GCSE	26	19	16	21
A or AS Levels, Access course	2	11	15	15
degree, HND, HNC, nursing, teaching	2	6	15	9
Vocational qualifications	41	68	73	81
NVQ	4	16	29	24
GNVQ	0	5	4	5
City and Guilds	16	28	10	25
RSA	2	1	1	1
BTEC	1	5	12	8
ONC	1	2	4	3
CLAIT/other IT	10	13	9	18
other	14	18	20	29
did not know on a course	7			
Total doing a higher-level course	100	100	100	100
n unweighted	644	131	98	191
n weighted	646	108	91	168

Bases are: all Skills for Life learners column 2; Skills for Life learners who were on a higher-level course, columns 3 to 5.

The table shows all courses for Year 1 (column 2) and the new courses pursued by those who had progressed to a course at a higher level than the highest level course done at Wave 1 (columns 3 to 5). Respondents may be doing more than one course, not all of which may be higher than the highest level Wave 1 course.

Examining these new courses in detail:

for vocational courses:

- o growth was particularly marked for NVQs, growing from four per cent in Year 1, to 16 per cent in Year 2 to 29 per cent in Year 3;
- o growth was strong for City and Guilds in Year 2 (28 per cent of new course starts compared with 16 per cent of Year 1 courses) but tailed off in Year 3 (ten per cent);



- o growth was strong for BTECs in Year 3 (12 per cent, compared with one per cent in Year 1 and five per cent in Year 2);

for academic courses, new starts shifted to higher-level courses:

- o new starts in GCSEs declined over Years 2 and 3 compared with participation at Year 1 (26 per cent in Year 1, 19 per cent in Year 2 and 16 per cent in Year 3);
- o growth was strong for A Levels, AS Levels and Access courses (two per cent in Year 1, eleven per cent in Year 2 and 15 per cent in Year 3);
- o growth was also strong for degrees, HNCs, teaching and similar courses in Year 3 (two per cent in Year 1, six per cent in Year 2 and 15 per cent in Year 3);

decline occurred in all types of basic skills courses with the exception of Key Skills courses:

- o decline was greatest for literacy courses (65 per cent in Year 1, 43 per cent in Year 2 and 29 per cent in Year 3).

These patterns strongly suggest that, for those who progressed, Skills for Life courses acted as a springboard to vocational and academic qualifications.

#### 4.4.3 Progression: participation in higher level new courses

This section describes how the patterns discussed in the previous section translate into the percentage of Skills for Life learners pursuing different types of new courses whilst having progressed<sup>5</sup>.

In Year 2, similar percentages of Skills for Life learners had progressed to a higher-level course and had started a new basic skills course or a new vocational course (Table 4.10):

16 per cent of all Skills for Life learners had progressed to a higher-level course and had started a new basic skills course

15 per cent of all Skills for Life learners had progressed to a higher-level course and had started a new vocational course

From Year 2 to Year 3, there was little decline in the percentage starting vocational courses and by Year 3 new vocational courses had overtaken new basic skills courses:

12 per cent of all Skills for Life learners had progressed to a higher-level course and had started a new vocational course (Year 3)

eight per cent of all Skills for Life learners had progressed to a higher-level course and had started a new basic skills course (Year 3)

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<sup>5</sup> The difference in percentages between this and the previous section is because this section refers to the percentage of all Skills for Life learners. The previous section (4.4.2) examined the percentage of new course starts for those who progressed.

Table 4.10 Progression: incidence of new course types and progression to higher-level courses, Years 2 and 3

	% Skills for Life learners			
	courses W 1	higher level Year 2 v W 1	higher level course Year 3 v W 1	higher level course Years 2 or 3 v W 1
Basic skills	83	16	8	21
literacy	65	10	5	13
numeracy	47	8	5	12
combined literacy and numeracy	4	0	0	0
Key Skills	16	5	3	9
ESOL	1	1	0	1
Academic qualifications	27	7	7	11
GCSE	26	4	3	6
A or AS Levels, Access course	2	2	2	5
degree, HND, HNC, nursing, teaching	2	1	2	3
Vocational qualifications	41	15	12	24
NVQ	4	3	5	7
GNVQ	0	1	1	2
City and Guilds	16	6	2	7
RSA	2	0	0	0
BTEC	1	1	2	2
ONC	1	0	1	1
CLAIT/other IT	10	3	2	5
other	14	4	3	8
did not know on a course	7			
Total doing a higher-level course	100 <sup>a</sup>	22	16	30
no known higher-level course	na	78	84	70
Total	100	100	100	100
n unweighted	644	596	608	644
n weighted	646	589	612	646

Base is all Skills for Life learners

<sup>a</sup> All courses at Wave 1

The table shows all courses at Wave 1 (column 2) and the new courses pursued by those who had progressed to a course at a higher level than the highest level course done at Wave 1 (columns 3 to 5). Respondents may be doing more than one course, not all of which may be higher than the highest level Wave 1 course.

For academic courses, in each of Year 2 and Year 3, seven per cent of all Skills for Life learners had progressed to a higher-level course and had started a new academic course.

Across the two years, this totalled:

24 per cent of all Skills for Life learners who had progressed to a higher-level course and had started a new vocational course

21 per cent of all Skills for Life learners who had progressed to a higher-level course and had started a new basic skills course

eleven per cent of all Skills for Life learners who had progressed to a higher-level course and had started a new academic course .

These percentages suggest that Skills for Life courses result in progression for a substantial percentage of participants.

#### 4.5 Factors affecting continuation and progression

##### 4.5.1 Introduction

The factors associated with starting new courses and progressing to a higher-level course were examined using logistic regression, so that the combined effect of different factors could be assessed.

The factors examined were:

- the influence of Wave 1 courses and the outcomes from these courses;
- previous education, skills and qualifications;
- personal characteristics;
- economic characteristics and
- continuation of a Wave 1 course<sup>6</sup>

Full results are given in Appendix 3. Here, the main findings are discussed.

The models were better at explaining progression (i.e. starting a higher-level course than the highest level undertaken at Wave 1) and less good at explaining starting new courses generally (whether at a higher level or not). They were particularly poor at explaining who started a new course during Year 2. This suggests either that the factors influencing starting a new course were not among those collected by our study or that whether a learner started a new course one year on from their basic skills course could not be explained systematically, and was in fact fairly random. In our discussion below, we therefore concentrate on the findings for progression.

We focus on factors either which were significant in a number of models or which were both significant and have a strong, underlying theoretical basis for influencing take up or progression. This is to avoid drawing conclusions based on spurious correlations<sup>7</sup>.

##### 4.5.2 Factors affecting progression: Wave 1 courses

A number of Wave 1 course characteristics and course-related factors were associated with progression. The following course characteristics appeared to influence progression:

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<sup>6</sup> The models were run both with continuation of a Wave 1 course as an interaction term (during Year 2 for Wave 2 outcomes and during Year 3 for Wave 3 outcomes) and without this interaction term. The models with the interaction term performed slightly better and so are the ones presented here.

<sup>7</sup> With a larger sample size, we could have used a higher confidence level (than five per cent) instead. It is worth remembering that with a five per cent confidence level, for every twenty explanatory factors included in a regression, one will probably be statistically significant for purely random reasons.

Course level: those who were on lower level courses at W ave 1 were more likely to progress.

- o progression by Year 2 was more common for those whose highest level course at W ave 1 was below Level 3
- o progression during Year 3 steadily rose as highest level of course at W ave 1 declined, being greatest for those whose highest W ave 1 course was at an entry level courses

Vocational courses: those who had been on vocational courses at W ave 1 were more likely to have progressed to a higher-level course during Year 3, although this effect was not apparent during Year 2.

This may have been because those taking a vocational course at W ave 1 were likely to be still be doing a vocational course at the same level during Year 2, but had completed that level and moved onto a new level by Year 3.

Not surprisingly, outcomes of W ave 1 courses appeared to influence whether learners started a new course and progressed to a higher-level course.

Dropout of W ave 1 courses appeared to affect progression:

- o those who dropped out of a W ave 1 course were less likely to start a new course during either Year 2 or Year 3, but
- o those who dropped out of their original W ave 1 Skills for Life course, but continued another W ave 1 course during Year 2 were more likely to start a new, higher-level course during Year 2.

This pattern may be because some dropout will be due to switching to a more appropriate course. Thus, although drop-out may reflect loss of motivation, it may also reflect strong motivation to learn and make progress.

- o those who dropped out of a course during Year 2 were less likely to progress during Year 3.

Completion of W ave 1 courses tended to increase the likelihood of progression. Those who had both completed their original W ave 1 Skills for Life course and had been doing another course at W ave 1 which continued into Year 2, were also more likely to take up new courses.

Qualification gain

- o qualifications gained during Year 2 did not seem to influence either the take-up of new courses or progression.

#### 4.5.3 Factors affecting progression: Education, skills and qualifications

Previous education, skills and qualifications appeared to influence the likelihood both of continuation of learning and of progression to higher-level courses. Two factors stand out strongly:

those who had left continuous full-time education at a later age (19 and over) were

- o more likely to continue onto a new course in Year 2 or 3
- o more likely to progress to a higher-level course in Year 2;

those who were better qualified were

- o more likely to start new courses
- o more likely to progress
- o those with Level 3 qualifications (at Wave 1), in particular, were more likely to start new courses in Years 2 and 3 and to progress in Year 2.

This suggests that Skills for Life courses were providing remedial literacy or numeracy training for those otherwise well-qualified or enabling this group to fill a gap in their set of qualifications (e.g. GCSE English or Maths) to enable them to progress further.

Those who said that they had had a positive experience of school were less likely to have progressed onto a higher-level course in Year 2 and less likely to have started a new course in Year 3.

Although there were some associations between different levels of literacy and numeracy competence at Wave 1 and subsequent learning and progression, these did not show an entirely consistent pattern. However:

those with entry level 2 or 3 literacy competence at Wave 1 were more likely than those in other categories to have progressed to a higher-level course in both Years 2 and 3;

those with entry level 2 or 3 numeracy competence at Wave 1 were more likely to have progressed to a higher-level course in either Year 2 or Year 3.

On the other hand, those who had self-perceived literacy and numeracy problems at Wave 1, or whose first language was not English, and were continuing their Wave 1 course in Year 3, were less likely than those who had not reported literacy or numeracy problems at Wave 1 to have progressed to a higher-level course. It is possible that those with self-perceived literacy and numeracy difficulties had problems which were qualitatively different from those of people who were tested as being at the same level but did not perceive they had problems. It is also possible that they have less confidence, and are therefore more reluctant to enrol for higher-level courses.

#### 4.5.4 Factors affecting continuation and progression: Personal characteristics and economic activity

Few personal characteristics in the model seemed to be associated with whether Skills for Life learners started a new course or progressed. Those that were, were related to health, ethnicity, children, age and gender:

there appeared to be some decline in new course start-up and progression with age, but the effect was small and confined to new course start-up in Year 2 and progression in Year 3;

those with better health were more likely to take up a new course in both Year 2 and Year 3. However, at both waves they were less likely to have progressed to a course at a higher level.

The effects of gender, ethnicity, having children and economic activity and related factors were inconsistent across years and between start-up and progression and so did not appear to provide a reliable indication of their influence.

#### 4.6 Summary

##### 4.6.1 Summary: continued participation in education and training

Skills for Life courses appear to encourage continued participation in education and training:

72 per cent of Skills for Life learners were still in education and training in Year 2;

57 per cent of Skills for Life learners were still in education and training in Year 3;

64 per cent had started new courses within two years (47 per cent in Year 2 and 40 per cent in Year 3).

The pattern of further study was complex, with many starting new courses whilst continuing existing courses:

50 per cent continued in education and training over the two years;

22 per cent continued into a second year, but not a third;

a small percentage moved out of education and training in Year 2, but started a course in Year 3.

##### 4.6.2 Summary: new courses and progression

Skills for Life provided a spring board for development towards higher-level courses and towards more job-oriented training:

34 per cent of Skills for Life learners had started a new course at Level 2 or above in either Year 2 or Year 3;

30 per cent of Skills for Life learners had started a new, higher-level course in either Year 2 or 3; progression was more common in Year 2 than Year 3;

by Year 3, 24 per cent of Skills for Life learners had moved to a higher-level course at Level 2 or higher (including 15 per cent to Level 3 or higher);

almost half (48 per cent) of Skills for Life learners had started a new vocational course in either Year 2 or 3;

43 per cent had started a new basic skills course, with the percentage of new basic skills course starts declining across the years;

17 per cent of Skills for Life learners had started a new academic course; academic new starts were more common for those who had

started higher-level courses and many of these were progressing to Level 3 and higher;

NVQ, City and Guilds and IT qualifications were most common.

Progression was most common for those whose highest level of study in Year 1 was Level 1, but progression was high from all levels:

41 per cent progressed to Level 2 courses or higher (14 per cent of these progressed to Level 3 or higher) from Level 1 courses;

16 per cent progressed to Level 2 or higher from Entry Level 1 courses;

23 per cent progressed to Level 3 or higher from Level 2 courses;

15 per cent progressed to Level 4 or higher from Level 3 courses.

#### 4.6.3 Summary: factors affecting progression

There are relatively few personal and educational characteristics which are associated with new course participation and progression. This suggests that Skills for Life courses can act as a route to learning for a wide range of people, and there appear to be few factors, apart from health, which act as a barrier to future learning.

The findings identify the importance of progression, rather than of doing new courses, and particularly that progression at one stage leads to further progression.

Participation in Skills for Life seemed to provide an effective stepping stone to progression.

The findings are very positive in relation to improvements amongst the least skilled, as progression increased as course level decreased. At the same time, those who were most likely to progress were not necessarily the least qualified, as those with level 3 qualifications (at Wave 1) were also more likely to progress. Similarly, those who had stayed in full-time education beyond the age of 18 were also more likely to progress.

The findings emphasise the importance of positive outcomes from courses in increasing participation in new courses and progression:

completion is particularly important in this respect

qualification gain is less important.

## 5 Conclusions

The study was established to assess the impact of participation in Skills for Life courses on economic outcomes, both for the individual and the economy. The previous report found that, after one year, there was no impact on employment and earnings, but that, in terms of employability indicators, small, but significant, improvements were identified in terms of self-esteem, health and employment commitment (Meadows and Metcalf, 2005). We concluded that, for people with low basic skills, the path to improved employment would tend to be from basic skills courses, via vocational and academic courses and that this path could be relatively long. The current findings strongly support this hypothesis. Moreover, they indicate that Skills for Life courses are an effective springboard onto this path, increasing participation in education and training and leading to the build up of employment-related qualifications and skills.

### 5.1.1 Impact on Labour Market Outcomes

In terms of employment, small but significant effects of Skills for Life courses on earnings and on employment have started to be identified. Skills for Life courses continue to have an impact on employability, through improved self-esteem, greater participation in education and training and improved health. There are indications that some of these outcomes (employment in particular) are likely to improve in the future.

The most important impact relates to greater participation in education and training. Adults with poor basic skills have often not had good experiences at school, and it is known that those with poor school experiences are difficult to attract back into learning as adults. Participation on Skills for Life courses has increased commitment towards education and training and increased participation in new courses.

Indeed, this greater participation in education and training is liable to be depressing the employment impact of Skills for Life courses at this stage. Although Skills for Life learners' employment rates have been higher (and the differences with the comparison group larger) at each successive wave of the study, greater participation in full-time education means that the impact is not statistically significant. It is, however, reasonable to expect that some of those currently taking education and training courses will move into employment over the next few years.

### 5.1.2 Educational participation and development

The impact evaluation showed that Skills for Life courses increased participation in education and training, with Skills for Life learners more likely to start new courses than non-Skills for Life learners.

Further analysis of Skills for Life learners' participation education and training showed that the nature of these courses was very likely to improve employment prospects. Education and training paths were often upwards, to higher-level courses. Indeed, 30 per cent of Skills for Life learners took a higher-level course in the subsequent two years. There was also a shift away from basic skills courses towards



vocational courses, particularly, and, for those entering higher-level courses, towards academic courses.

Positive outcomes from first year courses were important indicators of participation in new courses and of progression. Key was course completion. Qualification gain was of less importance.

### 5.1.3 Social inclusion

Obviously, improving basic skills will make a contribution to social inclusion, as will increased employment, education and training. However, Skills for Life appeared to be making an additional contribution, through achieving equal outcomes irrespective of important personal characteristics. No differences were found in further participation and progression in education and training by gender, ethnicity or parenthood. Some difference was found by age, albeit small, and by health.

Moreover, Skills for Life appeared to be addressing the needs of the least skilled as those on the lowest level courses were the most likely to move on to a higher-level course. However, this bias towards the least skilled was not clear cut, as those with the highest qualifications (at the start of the study) and those who had initially left full-time education aged 19 and over were also more likely to progress.

## Appendix 1: Wave 3 Survey Technical Report

Prepared by: Nick Coleman and Hannah Carpenter, BM RB Social Research<sup>8</sup>

### A 1.1 Introduction

This technical report provides details on the Wave 3 of the Learners Panel survey, carried out by BM RB Social Research, in conjunction with the National Institute of Economic and Social Research (NIESR), on behalf of the Department for Education and Skills (DES).

The survey as a whole examines basic skills training in England, and was designed to obtain interviews from both learners and non-learners. This report should be read in conjunction with the technical reports from Wave 1 and Wave 2, which includes details on the design of the survey. These details are not repeated in this report.

The report provides details on:

- Design
- Sample selection
- Questionnaire
- Fieldwork procedures
- Response rates
- Analysis
- Weighting.

### Design

The study design is described in detail in the Wave 1 technical report. It was based on the need to compare outcomes for a sample of people who, at the start of the study, received basic skills training (learners) and those who did not (non-learners or control sample). To maximise the effectiveness of the analysis, the learners sample and control sample needed to be matched closely, in terms of demographic features, as well as levels of literacy and numeracy.

The survey uses a longitudinal design in order to examine individuals' progress and outcomes over time. The Wave 3 survey involved re-contacting individuals who had been interviewed at Wave 1, and again at Wave 2, and carrying out a third interview. Wave 3 fieldwork took place one year after Wave 2, and two

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<sup>8</sup> Part of BM RB International Limited. BM RB/NC/W/45102075. BM RB International is ISO 9001 accredited, and is certified as working to the requirements of M RQ SA /BS7911 market research quality standards

years after Wave 1. A fourth wave of fieldwork (in 2006) is also included in the study.

### Sample selection

At Wave 2, interviews were conducted with 2,216 individuals: 1,094 learners and 1,122 non-learners (control survey). As part of the Wave 2 interview, respondents were asked whether they would be willing to be re-contacted. A total of 2,033 respondents agreed to be re-contacted: 1,002 learners and 1,031 non-learners, 92 per cent of Wave 2 respondents in each case. These 2,033 individuals represented the sample for the Wave 3 survey.

The sample was split into three batches in order to ensure that respondents were interviewed as close as possible to one year after their Wave 2 interview. The batches were as follows:

	Number of cases	Fieldwork dates
Batch 1	536	January-March
Batch 2	719	March-May
Batch 3	777	May-June

### Questionnaire Development

#### Main Questionnaire

The questionnaire was designed by NIESR, in consultation with BM RB and DfES. The average interview length was 50 minutes.

The agreed questionnaire was programmed for use as a CAPI (Computer Assisted Personal Interviewing) questionnaire, using Quantum software. The programming was carried out at BM RB.

#### Literacy and Numeracy Tests

As part of the interview, a literacy and numeracy test was administered. At Wave 1 it had been agreed that the test should last 15 minutes on average, and the same test was used at Waves 2 and 3.

This Wave 1 test was a shortened version of the literacy and numeracy test that had been used on the SFL survey, produced by the Centre for Developing and Evaluating Lifelong Learning (CDELL) at the University of Nottingham. CDELL produced this shortened version of the SFL test.

#### Fieldwork

All fieldwork was carried out face-to-face by The Operations Centre. BM RB and The Operations Centre are both a part of Kantar, the information, insight and consultancy arm of WPP. The Operations Centre exists to provide all Kantar's UK companies with access to the best operations capabilities.

## Pilot

It was decided that it would not be necessary to conduct a pilot at Wave 3 as the questionnaire was very similar to Wave 2, and the contact procedure was identical to Wave 2.

## Advance letters

Letters were sent to all respondents who were to be re-contacted for this survey. These letters informed respondents that they would be contacted, gave them some background to the survey, and re-assured them about confidentiality. It also gave them BM RB's contact details should they have any questions about the survey. The letter is shown below.

## Briefings

At Wave 2, interviewers were briefed personally by the BM RB research team, but it was considered unnecessary to re-brief interviewers again for Wave 3 (as there were very few differences between waves). The same interviewers who had worked on Wave 2 of the survey were used to conduct interviews for Wave 3, and full written instructions were provided to the interviewers. The instructions covered:

- Background to the survey and objectives
- Overall design
- Content of interviewer assignments
- Contact procedures
- Ways of maximising response rates
- Questionnaire and test
- Administrative issues.

## Incentives

As this was the third time these respondents were contacted, it was decided that incentives should be used at Wave 3. Incentives were not used at Waves 1 and 2 of this survey. The incentive was a £10 WH Smiths voucher. Interviewers gave one voucher to each respondent who they interviewed. The advance letter had already informed respondents exactly what the incentive was.

## Fieldwork Timing

Fieldwork took place between January and June 2005. The relatively long fieldwork period was determined by the need to stagger fieldwork, so that respondents would be interviewed as close as possible to one year after their Wave 2 interview.

Advance letter

Ref: 45102075/serial

Name

Address

January 2005

Dear

You very kindly helped us by taking part in an interview in your home last year. This was about your experiences of education and employment. The interviewer was from BMRB Social Research, and the survey is on behalf of the Department for Education and Skills.

When you spoke to the interviewer last year, you said that you would be willing to be contacted again. We would very much like to speak to you again, to find out about your experiences in the last year. We are interested in speaking to a wide range of people, so whatever you have been doing in the last year, we would like to speak to you.

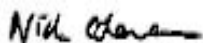
As a token of our appreciation we are offering a £10 WH Smiths voucher as a thank you to all those who take part in this important survey.

An interviewer from The Operations Centre working on behalf of BMRB Social Research will call at your home. Please note that the interviewer will carry an identification card at all times. Everything that you say will be treated in the strictest confidence by BMRB.

In the meantime, if you have any questions about the survey, please contact me on 020 8433 4408.

Thank you very much for your help in this important study.

Yours faithfully



Nick Coleman  
Senior Associate Director  
BMRB Social Research

## Contact procedures

A contact sheet was issued for each respondent and interviewers were instructed only to interview the person named on the contact sheet. Interviewers were required to make a minimum of five calls at each address before returning the contact sheet with a "no contact" outcome.

All interviews were conducted in the respondent's home unless an alternative location was requested by respondent (for example the college where they were studying at that time).

## Movers

Where the named respondents had moved from the listed address, interviewers attempted to obtain an up-to-date address from the new occupant. Where no contact with the household was possible, interviewers attempted to contact neighbours, firstly in order to confirm whether the named person was still living there, and then if not, to try and obtain a new address.

Where a new address was obtained, interviewers either visited the new address themselves (if it was nearby) or returned the contact sheet to the field office for re-allocation to a different interviewer.

## Quality Control Measures

For all face-to-face surveys, the Operations Centre's standard quality control procedures exceed those stipulated by IQCS (Interviewer Quality Control Scheme) and BS7911 (the British Standard Specification for Organisations conducting Market Research) and are summarised as follows:

Interviewers are accompanied by a Supervisor, for an afternoon and/or evening, on at least three assignments a year.

Ten per cent of respondents are re-contacted by phone or letter on all surveys.

## Response Rates

Table A 1.1 shows response rates for all respondents, split by fieldwork batch.

Table A 1.1 Response rates for all respondents

	Batch 1		Batch 2		Batch 3		Total	
	No	%	No	%	No	%	No	%
Total sample	536		719		777		2032	
Interviews	380	71	468	65	518	67	1366	67
Moved, not traced	25	5	40	6	55	7	120	6
Opt-out	17	3	13	2	8	1	38	2
Refusal	31	6	58	8	54	7	143	7
No contact	41	8	79	11	80	10	200	10
Other	42	8	61	8	62	8	165	8

Table A 1.2 shows response rates for the learner and control sample separately (this distinction relates to their status at Wave 1). The response rates are very similar for the two groups.

Table A 1.2 Response rates: learners and control sample

	Learners		Control	
	No	%	No	%
Total sample	1002		1031	
Interviews	682	68	674	65

While it is not possible to assess the impact of the incentive, these response rates are higher than originally anticipated, and also higher than the response rates at Wave 2 (59% amongst learners and 54% for the control sample). This suggests that the incentive did help to boost response.

## Analysis

### Coding

Open-ended questions were coded by The Operations Centre's Coding department. This comprised:

- coding of industry and occupation for current/previous work, using Standard Industrial Classification (SIC) and Standard Occupational Classification (SOC 2000)

- coding of responses to open-ended questions, using code frames designed by BM RB.

### Weighting

Weights had been applied to the Wave 1 data, and these weights were carried forward into the Wave 3 data. An additional weight was applied at Wave 3, to account for non-response between Waves 1 and 3. This weight was produced by comparing the profiles of the Wave 1 and Wave 3 interviewed samples on key characteristics. Specifically, this weight reflected an adjustment for age, employment status and ethnicity (within the control sample) and age, gender, qualifications and first language (within the learners sample). Individual weights for learners, reflecting non-response between Waves 1 and 3, were as follows:

Table A 1.3 Weights to adjust for non-response between Waves 1 and 3 – Learners group

Age	Gender	Qualifications	Language	Weight
16 – 18	Male	Currently studying GCSE	English	0.7251
16 – 18	Male	Currently studying GCSE	NotEnglish	0.7739
16 – 18	Male	Not studying, have GCSE	English	0.3609
16 – 18	Male	Not studying, have GCSE	NotEnglish	0.3818
16 – 18	Male	Not studying, no GCSE	English	1.1512
16 – 18	Male	Not studying, no GCSE	NotEnglish	0.5382
16 – 18	Male	Don'tknow	English	1.3367
16 – 18	Male	Studying other	NotEnglish	1.5377
16 – 18	Female	Currently studying GCSE	English	1.1357
16 – 18	Female	Currently studying GCSE	NotEnglish	0.4432
16 – 18	Female	Not studying, have GCSE	English	0.9384
16 – 18	Female	Not studying, have GCSE	NotEnglish	0.3166
16 – 18	Female	Don'tknow	English	2.9396
16 – 18	Female	Don'tknow	NotEnglish	0.7538
16 – 18	Female	Studying other	English	4.2059
19 – 24	Male	Currently studying GCSE	English	1.0289
19 – 24	Male	Currently studying GCSE	NotEnglish	1.8995
19 – 24	Male	Not studying, have GCSE	English	0.8442
19 – 24	Male	Not studying, no GCSE	English	1.0764
19 – 24	Male	Not studying, no GCSE	NotEnglish	0.3166
19 – 24	Male	Don'tknow	English	0.5540
19 – 24	Male	Don'tknow	NotEnglish	1.2663
19 – 24	Male	Studying other	English	1.0553
19 – 24	Female	Currently studying GCSE	English	0.7914
19 – 24	Female	Not studying, have GCSE	English	0.7123
19 – 24	Female	Not studying, no GCSE	English	0.8231
19 – 24	Female	Don'tknow	English	0.7387
19 – 24	Female	Studying other	English	0.9497
25 +	Male	Currently studying GCSE	English	0.8442
25 +	Male	Currently studying GCSE	NotEnglish	1.1080
25 +	Male	Not studying, no GCSE	English	0.9158
25 +	Male	Not studying, no GCSE	NotEnglish	1.4774
25 +	Male	Don'tknow	English	0.7387
25 +	Male	Studying other	English	0.8367
25 +	Male	Studying other	NotEnglish	1.2663
25 +	Female	Currently studying GCSE	English	0.7387
25 +	Female	Currently studying GCSE	NotEnglish	1.7412
25 +	Female	Not studying, have GCSE	English	1.0553
25 +	Female	Not studying, have GCSE	NotEnglish	1.2663
25 +	Female	Not studying, no GCSE	English	0.9181
25 +	Female	Not studying, no GCSE	NotEnglish	1.4246
25 +	Female	Don'tknow	English	0.8231
25 +	Female	Don'tknow	NotEnglish	1.4246
25 +	Female	Studying other	English	0.8058
25 +	Female	Studying other	NotEnglish	0.9497

For the control sample, rrm weights were used for ethnicity and employment status, and a separate age weight was added.



Table A 1.4 R in weights to adjust for non-response between W ave 1 and W ave 3 – control group

Em ploy m ent status	Ethnicity	W eight
Em ployee	W hite B ritish	0.8951
Em ployee	W hite Irish	1.4640
Em ployee	W hite other	3.0028
Em ployee	B lack C aribbean	2.1552
Em ployee	A sian Indian	1.8235
Em ployee	A sian Pakistani	3.6852
Em ployee	Chinese	1.3099
Em ployee	O ther	3.7114
Em ployee	M ixed	1.2803
Em ployee	Refused	0.2620
Self-em ployed	W hite B ritish	0.9276
Self-em ployed	W hite other	3.1118
U nemployed	W hite B ritish	0.9147
U nemployed	B lack C aribbean	2.2024
U nemployed	A sian Pakistani	3.7660
Full-tim e education	W hite B ritish	1.2751
Full-tim e education	M ixed	1.8239
Part-tim e education	W hite B ritish	2.2820
Full-tim e education w ith job	W hite B ritish	0.3521
Full-tim e education w ith job	B lack C aribbean	0.8477
O n governm ent scheme	W hite B ritish	0.8693
Tem porarily sick or disabled	W hite B ritish	0.6709
Tem porarily sick or disabled	B lack C aribbean	1.6154
Perm anently sick or disabled	W hite B ritish	0.9009
Perm anently sick or disabled	W hite Irish	1.4734
Perm anently sick or disabled	M ixed	1.2885
Looking after fam ily or hom e	W hite B ritish	1.0604
Looking after fam ily or hom e	W hite other	3.5573
Looking after fam ily or hom e	A sian Indian	2.1603
Looking after fam ily or hom e	M ixed	1.5168
Retired	W hite B ritish	0.6520
O ther	A sian B angladeshi	3.2600

Table A 1.5 W eights by age to adjust for non-response between W ave 1 and W ave 3 – control group

Age	W eight
16 - 24	1.1063
25 - 34	1.1459
35 - 44	1.0461
45 - 54	0.8477
55+	0.6588
Refused	0.8708

## Appendix 2: Logistic regression equation used for propensity score matching

Table A 2.1 Logistic regression equation used for propensity score matching

Logistic regression	Number of obs	=	3476
	LR chi2 (47)	=	1355.06
	Prob > chi2	=	0.0000
Log likelihood = -1724.63	Pseudo R2	=	0.2821

Dependent variable: Doing a Skills for Life course at Wave 1

	Odds Ratio	Sig	Std Err	z	P >  z	[Conf. Interval]	
literacy test score entry level2	1.13678		0.19042	0.77	0.444	0.81865	1.57855
literacy test score entry level3	0.58414	***	0.10091	-3.11	0.002	0.41636	0.81954
literacy test score level1	0.95446		0.16261	-0.27	0.784	0.68350	1.33285
literacy test score level2	0.02181	***	0.02254	-3.70	0.000	0.00288	0.16539
literacy test incomplete	0.16850	***	0.06193	-4.85	0.000	0.08199	0.34630
numeracy test score entry level2	0.73251	***	0.07961	-2.86	0.004	0.59198	0.90641
numeracy test score entry level3	0.68973	**	0.11549	-2.22	0.027	0.49676	0.95766
numeracy test score level1	0.96295		0.18305	-0.20	0.843	0.66343	1.39770
numeracy test score level2	1.42974		0.31257	1.64	0.102	0.93147	2.19456
numeracy test incomplete	2.78231	***	1.01698	2.80	0.005	1.35918	5.69553
qualifications below level1	1.53673	**	0.28057	2.35	0.019	1.07446	2.19789
qualifications level1	1.61368	***	0.18270	4.23	0.000	1.29254	2.01459
qualifications level2	1.76646	***	0.25989	3.87	0.000	1.32395	2.35687
qualifications level3	1.36693		0.25726	1.66	0.097	0.94525	1.97673
qualifications level4	1.00690		0.20859	0.03	0.974	0.67088	1.51121
left f-t education age 16 or less	1.05504		0.17088	0.33	0.741	0.76807	1.44924
left f-t education age 17	1.44867	***	0.18445	2.91	0.004	1.12873	1.85929
did not go to school	3.44214		2.48192	1.71	0.086	0.83768	14.14418
age left education not stated	4.70178		3.85711	1.89	0.059	0.94184	23.47181
age - median	1.00399		0.00412	0.97	0.332	0.99595	1.01209
living with a partner	0.45595	***	0.04833	-7.41	0.000	0.37041	0.56124
lone parent	0.45470	***	0.07023	-5.10	0.000	0.33593	0.61546
has child aged 0-2	0.50928	***	0.08689	-3.95	0.000	0.36453	0.71152
has child aged 5-7	0.57937	**	0.12381	-2.55	0.011	0.38111	0.88076
has child aged 11-15	0.78094	**	0.09762	-1.98	0.048	0.61124	0.99776
youngest child aged 5-7	1.75617	**	0.45073	2.19	0.028	1.06194	2.90422
ethnic group black Caribbean	1.97941	***	0.52365	2.58	0.010	1.17856	3.32446
ethnic group black African	3.85712	***	1.32121	3.94	0.000	1.97103	7.54799
ethnic group Indian	4.54510	***	1.47019	4.68	0.000	2.41106	8.56801
ethnic group Pakistani/Bangladeshi	7.19212	***	2.34385	6.05	0.000	3.79714	13.62249
ethnic group other	3.01356	***	1.01925	3.26	0.001	1.55305	5.84757
health index	0.83799	***	0.03603	-4.11	0.000	0.77027	0.91168
no long-standing illness/disability	0.62536	***	0.06818	-4.31	0.000	0.50504	0.77434
English is not first language	2.22683		0.96600	1.85	0.065	0.95155	5.21123

	Odds Ratio	Sig	Std Err	z	P >  z	[Conf. Interval]	
speaks only English at home	1.97169		0.87810	1.52	0.127	0.82367	4.71983
positive experience of school	0.65162	***	0.05884	-4.74	0.000	0.54591	0.77779
has problem s writing in English	1.96376	***	0.21897	6.05	0.000	1.57824	2.44345
has problem s spelling in English	1.92573	***	0.21385	5.90	0.000	1.54908	2.39397
has no problem s with English or math s	0.45496	***	0.05399	-6.64	0.000	0.36054	0.57410
employed	0.33239	***	0.03418	-10.71	0.000	0.27172	0.40661
strongly believe learning helps get a job	1.21945	**	0.12292	1.97	0.049	1.00084	1.48582
strongly believe learning makes more confident	1.96143	***	0.23090	5.72	0.000	1.55728	2.47045
strongly believe who you know gets you a job	0.78614	***	0.06799	-2.78	0.005	0.66357	0.93137
strongly disagree getting qualifications too much effort	1.49466	***	0.13899	4.32	0.000	1.24562	1.79347
employment com m itm ent index	1.06673	***	0.01120	6.16	0.000	1.04502	1.08890
LA unem ploy m ent rate	0.90004	***	0.03229	-2.94	0.003	0.83893	0.96561

Omitted categories

literacy test score entry level1

num eracy test score entry level1

no qualifications

left full-tim e education aged 18+

ethnic group w hite

\*\*\* significant at 1% level

\*\* significant at 5% level

Table A 2. 2 Effect of Propensity Score Matching on Differences between Learners and Non-learners

Variable	Sample	Mean		% bias	% reduction  bias	t-test	
		Treated	Control			t	p> t
literacy test score	Unmatched	7.4600	10.4550	-13.0	-3.80	0.16	0.615
	Matched	7.5044	6.9894	2.2	82.80	0.69	
numeracy test score	Unmatched	6.5203	6.9854	-2.2	-0.66	0.63	0.623
	Matched	6.5647	7.0024	-2.1	5.90	-0.67	
highest qualification	Unmatched	2.4490	2.5908	-4.9	-1.45	0.39	0.616
	Matched	2.4296	2.3823	1.6	66.60	0.69	
age less median	Unmatched	1.5886	1.4043	20.9	6.19	0.10	0.302
	Matched	1.5603	1.5260	3.9	81.40	1.95	
living with a partner	Unmatched	0.6046	2.1670	-13.3	-3.93	0.16	0.366
	Matched	0.6727	-0.0003	5.7	56.90	1.54	
lone parent	Unmatched	0.3709	0.5887	-44.7	-13.13	0.05	0.724
	Matched	0.3769	0.3784	-0.3	99.30	-0.46	
has child aged 0-2	Unmatched	0.1169	0.1416	-7.4	-2.17	0.28	0.433
	Matched	0.1175	0.1307	-3.9	46.70	-1.24	
has child aged 5-7	Unmatched	0.0572	0.1357	-26.8	-7.80	0.08	0.642
	Matched	0.0584	0.0623	-1.3	95.10	-0.63	
has child aged 11-15	Unmatched	0.1126	0.1643	-15.0	-4.40	0.14	0.583
	Matched	0.1131	0.1044	2.5	83.30	0.77	
ethnic group	Unmatched	0.1181	0.1941	-21.0	-6.15	0.10	0.635
	Matched	0.1194	0.1253	-1.6	92.20	-0.65	
health index	Unmatched	0.0572	0.1357	-26.8	-7.80	0.08	0.642
	Matched	0.0584	0.0623	-1.3	95.10	-0.63	
ethnic group	Unmatched	0.0812	0.0865	-1.9	-0.56	0.67	0.427
	Matched	0.0810	0.0699	4.0	-110.00	1.26	
ethnic group	Unmatched	0.1181	0.1941	-21.0	-6.15	0.10	0.635
	Matched	0.1194	0.1253	-1.6	92.20	-0.65	
ethnic group	Unmatched	1.6046	1.2081	35.0	10.45	0.06	0.235
	Matched	1.5490	1.4905	5.2	85.30	2.59	
health index	Unmatched	0.5898	0.4724	10.4	3.07	0.20	0.759
	Matched	0.5917	0.6052	-1.2	88.50	-0.40	
	Unmatched	1.5812	1.7486	-36.0	-10.65	0.06	0.323
	Matched	1.5848	1.6112	-5.7	84.30	-1.80	
	Unmatched	1.1445	1.0622	27.3	8.13	0.08	

Variable	Sample	Mean		% bias	% reduction  bias	t-test	
		Treated	Control			t	p> t
employed	M atched	1.1363	1.1262	3.3	87.80	1.57	0.360
	Unm atched	0.8745	0.9438	-24.3	-7.22	0.09	
	M atched	0.8819	0.8925	-3.7	84.70	-1.65	0.347
	Unm atched	1.0369	1.0297	4.0	1.18	0.45	
	M atched	1.0377	1.0435	-3.3	18.40	-1.00	0.501
	Unm atched	0.4613	0.5681	-21.5	-6.33	0.10	
	M atched	0.4623	0.4554	1.4	93.50	0.35	0.786
	Unm atched	0.4274	0.1632	60.5	17.96	0.04	
	M atched	0.4202	0.4025	4.1	93.30	1.49	0.376
	Unm atched	0.5966	0.2876	65.4	19.30	0.03	
	M atched	0.5905	0.5918	-0.3	99.60	0.28	0.824
	Unm atched	0.1476	0.4470	-69.3	-20.18	0.03	
	M atched	0.1508	0.1506	0.0	100.00	-0.25	0.845
	Unm atched	0.3370	0.5568	-45.3	-13.31	0.05	
	M atched	0.3436	0.3626	-3.9	91.30	-1.58	0.359
	Unm atched	0.7552	0.6503	23.1	6.78	0.09	
	M atched	0.7519	0.7470	1.1	95.40	0.56	0.675
	Unm atched	0.8549	0.7254	32.2	9.40	0.07	
M atched	0.8536	0.8270	6.6	79.40	2.25	0.267	
Unm atched	0.5252	0.6043	-16.0	-4.71	0.13		
M atched	0.5302	0.5319	-0.3	97.80	-0.39	0.762	
Unm atched	0.3844	0.3524	6.6	1.95	0.30		
M atched	0.3832	0.4016	-3.8	42.20	-1.04	0.487	
Unm atched	16.5580	15.6560	20.5	5.99	0.11		
M atched	16.5270	16.4410	1.9	90.50	0.83	0.558	
LA unem ploym entr ate	Unm atched	2.5781	2.6088	-2.5	-0.73	0.60	
	M atched	2.5731	2.5905	-1.4	43.10	-0.30	0.816

## Appendix 3: New courses and progression

Table A 3.1 Factors affecting starting a new course at W ave 2

Dependent variable: whether started a new course at W 2 (1 yes, 0 no)

Logit estimates		Number of obs = 614				
		Wald chi2(44) = 78.07				
		Prob > chi2 = 0.0012				
Log pseudo-likelihood = -367.88077		Pseudo R2 = 0.1309				

w 2new c	Coef.	Robust Std. Err.	z	P >  z	[95% Conf. Interval]	
tested numeracy competence						
Entry Level2	0.046415	0.339078	0.14	0.891	-0.61817	0.710994
Entry Level3	0.207458	0.514141	0.4	0.687	-0.80024	1.215156
Level1	0.864281	0.648409	1.33	0.183	-0.40658	2.135138
Level2 or higher	1.028415	0.680351	1.51	0.131	-0.30505	2.361879
no full test	1.056222	0.942426	1.12	0.262	-0.7909	2.903344
interaction						
Entry Level2	0.186313	0.471718	0.39	0.693	-0.73824	1.110864
Entry Level3	1.83123	0.982282	1.86	0.062	-0.09401	3.756467
Level1	-0.1196	1.236482	-0.1	0.923	-2.54306	2.303859
Level2 or higher	-0.79202	0.971412	-0.82	0.415	-2.69596	1.111908
no full test	-0.76518	1.188891	-0.64	0.52	-3.09536	1.565007
highest qualification held						
below level1	0.632245	0.443482	1.43	0.154	-0.23696	1.501453
Level1	-0.0154	0.266525	-0.06	0.954	-0.53778	0.506979
Level2	-0.05409	0.360411	-0.15	0.881	-0.76049	0.6523
Level3	1.182458	0.494134	2.39	0.017	0.213974	2.150942
Level4	-0.06208	0.640056	-0.1	0.923	-1.31657	1.192401
age left school						
17-18	0.135273	0.308361	0.44	0.661	-0.4691	0.73965
19 and over	1.035967	0.36503	2.84	0.005	0.320522	1.751413
children						
one	0.63296	0.403774	1.57	0.117	-0.15842	1.424343
two	-0.14163	0.444093	-0.32	0.75	-1.01204	0.728775
three or more	-0.60067	0.55685	-1.08	0.281	-1.69207	0.490736
interaction						
one	-0.98545	0.573826	-1.72	0.086	-2.11013	0.139226
two	0.353661	0.717769	0.49	0.622	-1.05314	1.760464
three or more	0.350594	0.762098	0.46	0.645	-1.14309	1.844278
change in health, W 1-W 2						
no change	0.310869	0.274423	1.13	0.257	-0.22699	0.848727
improved	0.907424	0.39312	2.31	0.021	0.136923	1.677924
economic activity, W 1						
unemployed	-0.24442	0.348933	-0.7	0.484	-0.92832	0.439475
full-time education	-0.83578	0.411398	-2.03	0.042	-1.6421	-0.02945
other	0.282068	0.259797	1.09	0.278	-0.22713	0.791262

w2newc		Coef.	Robust Std. Err.	z	P >  z	[95% Conf. Interval]	
highest qualification studying, W 1							
	Level1	-0.50427	0.415882	-1.21	0.225	-1.31938	0.310848
	Level2	-0.97249	0.394808	-2.46	0.014	-1.7463	-0.19868
	Level3 or higher	0.217759	0.583003	0.37	0.709	-0.92491	1.360423
interaction	Level1	1.738277	0.562939	3.09	0.002	0.634937	2.841617
	Level2	1.29861	0.529256	2.45	0.014	0.261287	2.335933
	Level3 or higher	1.001691	0.762052	1.31	0.189	-0.4919	2.495285
age (ln)		-0.71356	0.352928	-2.02	0.043	-1.40529	-0.02184
employment commitment, index		0.549924	0.312756	1.76	0.079	-0.06307	1.162913
interaction		-0.91361	0.381719	-2.39	0.017	-1.66177	-0.16546
local unemployment rate		0.258425	0.333675	0.77	0.439	-0.39557	0.912415
interaction		-0.74616	0.472381	-1.58	0.114	-1.67201	0.17969
course qualification, W 1 basic skills-specific		0.591396	0.323997	1.83	0.068	-0.04363	1.226417
completed a W 1 course by W 2		0.488641	0.266916	1.83	0.067	-0.0345	1.011786
dropped out of a W 1 course		-0.75134	0.366935	-2.05	0.041	-1.47052	-0.03216
interaction		1.663283	0.553537	3	0.003	0.57837	2.748196
continued W 1 course at W 2		2.331843	1.130529	2.06	0.039	0.116046	4.54764
constant		-0.45796	1.701119	-0.27	0.788	-3.79209	2.876168

Table A 3.2 Factors affecting starting a new higher-level course at Wave 2

Dependent variable: whether started a new higher-level course at Wave 2 (1 yes, 0 no)

Logit estimates				Number of obs = 570		
				Wald chi2(69) = 139.34		
				Prob > chi2 = 0.0000		
Log pseudo-likelihood = -367.88077				Pseudo R2 = 0.3176		

	Coef.	Robust Std. Err.	z	P >  z	[95% Conf. Interval]	
w2progn2						
tested literacy competence						
Entry Level2	0.935457	0.898327	1	0.298	-0.82523 2.696147	
Entry Level3	2.802372	0.930997	3	0.003	0.977652 4.627092	
Level1	1.770093	0.967797	1.8	0.067	-0.12676 3.666941	
no full test	1.980247	0.907975	2.2	0.029	0.200649 3.759845	
interaction						
Entry Level2	-0.43317	1.104794	-0	0.695	-2.59853 1.732186	
Entry Level3	-3.20583	1.215674	-3	0.008	-5.58851 -0.82315	
Level1	-1.59468	1.173964	-1	0.174	-3.89561 0.706249	
no full test	0.235685	1.431824	0.2	0.869	-2.57064 3.042007	
tested numeracy competence						
Entry Level2	-0.76539	0.591729	-1	0.196	-1.92516 0.394374	
Entry Level3	-0.37946	0.828641	-0	0.647	-2.00356 1.244652	
Level1	0.326163	1.008808	0.3	0.746	-1.65107 2.30339	
Level2 or higher	0.501912	0.917345	0.6	0.584	-1.29605 2.299875	
interaction						
Entry Level2	1.828741	0.762618	2.4	0.016	0.334038 3.323445	
Entry Level3	2.190562	1.419081	1.5	0.123	-0.59079 4.97191	
Level1	0.435841	2.414886	0.2	0.857	-4.29725 5.168931	
Level2 or higher	-0.02976	1.284957	-0	0.982	-2.54823 2.488712	
highest qualification held						
below level1	0.686751	0.633303	1.1	0.278	-0.5545 1.928002	
Level1	0.541701	0.399575	1.4	0.175	-0.24145 1.324854	
Level2	0.648482	0.496692	1.3	0.192	-0.32502 1.62198	
Level3	2.03161	0.636341	3.2	0.001	0.784405 3.278816	
Level4	-0.12959	1.007451	-0	0.898	-2.10416 1.844977	
age left school						
17-18	0.328685	0.424599	0.8	0.439	-0.50351 1.160883	
19 and over	0.9569	0.46292	2.1	0.039	0.049594 1.864206	
ethnicity						
Black or Black British - Caribbean	-0.21041	1.454826	-0	0.885	-3.06182 2.640996	
Black or Black British - African	0.5404	1.035801	0.5	0.602	-1.48973 2.570532	
Asian or Asian British - Indian	2.129075	0.743111	2.9	0.004	0.672605 3.585545	
Asian or Asian British - Pakistani or other	-0.1418	0.660416	-0	0.83	-1.43619 1.152589	
other	0.186574	1.990702	0.1	0.925	-3.71513 4.088278	
children						
one	-0.7151	0.856518	-1	0.404	-2.39384 0.963648	
two	-0.46065	0.6531	-1	0.481	-1.7407 0.819401	
three or more	-1.96574	0.748574	-3	0.009	-3.43292 -0.49856	
interaction						
one	-0.09015	0.972739	-0	0.926	-1.99668 1.816386	
two	-0.29572	1.233832	-0	0.811	-2.71399 2.122547	
three or more	2.175724	1.20971	1.8	0.072	-0.19526 4.546712	



w2progn2	Coef.	Robust Std. Err.	z	P> z	[95% Conf.	Interval]
change in health, W 1-W 2						
no change	1.936722	1.328576	1.5	0.145	-0.66724	4.540683
improved	4.429135	2.32342	1.9	0.057	-0.12468	8.982954
interaction						
no change	-3.97839	1.766861	-2	0.024	-7.44137	-0.5154
improved	-6.14695	2.964027	-2	0.038	-11.9563	-0.33756
economic activity, W 1						
unemployed	-0.00822	0.52339	-0	0.987	-1.03405	1.017604
full-time education	0.44892	0.674129	0.7	0.505	-0.87235	1.770188
other	1.316662	0.401303	3.3	0.001	0.530122	2.103202
highest qualification studying, W 1						
Level1	0.680809	0.550146	1.2	0.216	-0.39746	1.759074
Level2	-0.72512	0.580904	-1	0.212	-1.86367	0.413432
Level3 or higher	-2.55654	0.897423	-3	0.004	-4.31545	-0.79762
interaction						
Level1	0.052887	0.75584	0.1	0.944	-1.42853	1.534305
Level2	-1.39019	0.817245	-2	0.089	-2.99196	0.211579
Level3 or higher	-0.77881	1.331219	-1	0.559	-3.38795	1.830335
positive experience of school	-0.78143	0.344265	-2	0.023	-1.45618	-0.10669
female	-0.58955	0.317293	-2	0.063	-1.21143	0.032334
lives with a partner	0.671719	0.361445	1.9	0.063	-0.0367	1.380138
health index, W 1	-4.2355	1.38187	-3	0.002	-6.94391	-1.52708
interaction	4.956057	1.807545	2.7	0.006	1.413334	8.498781
health index, W 2	2.310612	1.366038	1.7	0.091	-0.36677	4.987998
interaction	-3.66567	1.83732	-2	0.046	-7.26675	-0.06459
very happy with life	-0.3622	0.499457	-1	0.468	-1.34112	0.616716
interaction	1.160184	0.664738	1.8	0.081	-0.14268	2.463046
employment commitment, index	2.213722	0.649624	3.4	0.001	0.940483	3.486961
interaction	-2.49953	0.76711	-3	0.001	-4.00304	-0.99602
reason for doing main course own satisfaction	-1.04507	0.344522	-3	0.002	-1.72032	-0.36982
course included literacy, W 1	-0.30188	0.540053	-1	0.576	-1.36036	0.756605
interaction	-1.58789	0.852249	-2	0.062	-3.25827	0.082483
course included numeracy, W 1	0.733521	0.515858	1.4	0.155	-0.27754	1.744584
interaction	-1.34616	0.696145	-2	0.053	-2.71058	0.018259
completed a W 1 course by W 2	-0.08963	0.613403	-0	0.884	-1.29187	1.112621
interaction	1.44334	0.824215	1.8	0.08	-0.17209	3.05877
dropped out of a W 1 course	-0.58307	0.56492	-1	0.302	-1.6903	0.524148
interaction	2.530067	0.845807	3	0.003	0.872315	4.187819
gained qualification by W 2	0.798089	0.445116	1.8	0.073	-0.07432	1.670501
continued W 1 course at W 2	11.7137	3.163585	3.7	0	5.513184	17.91421
constant	-10.4255	2.63493	-4	0	-15.5899	-5.26116

Table A 3.3 Factors affecting starting a new course at W ave 3

Dependent variable: whether started a new course at W 3 (1 yes, 0 no)

Logit estimates

Number of obs = 578

Wald chi2(56) = 123.20

Prob > chi2 = 0.0000

Log pseudo-likelihood = -367.88077

Pseudo R2 = 0.2157

w3newc	Coef.	Robust Std. Err.	z	P >  z	[95% Conf. Interval]	
<b>tested numeracy competence</b>						
Entry Level2	0.002874	0.281689	0.01	0.992	-0.54923 0.554974	
Entry Level3	0.877598	0.539616	1.63	0.104	-0.18003 1.935226	
Level1	-0.10306	0.737016	-0.14	0.889	-1.54758 1.34147	
Level2 or higher	0.168445	0.554342	0.3	0.761	-0.91804 1.254935	
no full test	0.893637	0.521636	1.71	0.087	-0.12875 1.916025	
<b>highest qualification held</b>						
below level1	1.19566	0.553941	2.16	0.031	0.109957 2.281364	
Level1	0.178839	0.358244	0.5	0.618	-0.52331 0.880985	
Level2	0.695421	0.47168	1.47	0.14	-0.22905 1.619896	
Level3	1.400679	0.49557	2.83	0.005	0.429381 2.371977	
Level4	0.071934	0.68916	0.1	0.917	-1.2788 1.422662	
<b>interaction</b>						
below level1	-2.67429	1.016637	-2.63	0.009	-4.66686 -0.68172	
Level1	-0.01266	0.683248	-0.02	0.985	-1.3518 1.32648	
Level2	-0.02766	0.749457	-0.04	0.971	-1.49656 1.441252	
Level3	0.841426	1.179074	0.71	0.475	-1.46952 3.152369	
Level4	-1.72218	1.243504	-1.38	0.166	-4.1594 0.715046	
<b>age left school</b>						
17-18	-0.52277	0.338037	-1.55	0.122	-1.18531 0.139771	
19 and over	1.051152	0.409862	2.56	0.01	0.247837 1.854466	
<b>ethnicity</b>						
Black or Black British - Caribbean	-0.04145	0.76941	-0.05	0.957	-1.54946 1.466567	
Black or Black British - African	2.587661	0.971142	2.66	0.008	0.684258 4.491064	
Asian or Asian British - Indian	-0.82386	0.725151	-1.14	0.256	-2.24513 0.597407	
Asian or Asian British - Pakistani or other	0.042258	0.58435	0.07	0.942	-1.10305 1.187562	
other	0.276907	1.056375	0.26	0.793	-1.79355 2.347364	
<b>interaction</b>						
Black or Black British - Caribbean	1.933755	1.515315	1.28	0.202	-1.03621 4.903717	
Black or Black British - African	-1.96519	1.810228	-1.09	0.278	-5.51317 1.582791	
Asian or Asian British - Indian	3.078334	1.449788	2.12	0.034	0.236801 5.919867	
Asian or Asian British - Pakistani or other	1.591338	1.071341	1.49	0.137	-0.50845 3.691129	
other	-0.19141	2.16903	-0.09	0.93	-4.44263 4.059812	
<b>children</b>						
one	-0.75039	0.337806	-2.22	0.026	-1.41247 -0.0883	
two	-0.53992	0.437225	-1.23	0.217	-1.39687 0.317023	
three or more	-1.01696	0.510816	-1.99	0.046	-2.01815 -0.01578	

w3newc	Coef.	Robust Std. Err.	z	P >  z	[95% Conf.	Interval]
economic activity, W 1						
unemployed	0.075765	0.547481	0.14	0.89	-0.99728	1.148808
full-time education	-0.60163	0.7388	-0.81	0.415	-2.04965	0.846393
other	0.435889	0.501069	0.87	0.384	-0.54619	1.417965
interaction						
unemployed	2.238184	1.628365	1.37	0.169	-0.95335	5.42972
full-time education	3.825175	2.103453	1.82	0.069	-0.29752	7.947867
other	4.142181	1.890218	2.19	0.028	0.437422	7.84694
economic activity, W 2						
unemployed	1.7188	0.580659	2.96	0.003	0.580729	2.85687
full-time education	1.806144	0.649304	2.78	0.005	0.533532	3.078756
other	0.13129	0.499407	0.26	0.793	-0.84753	1.11011
interaction						
unemployed	-5.97321	1.926029	-3.1	0.002	-9.74816	-2.19826
full-time education	-5.65155	2.043843	-2.77	0.006	-9.65741	-1.64569
other	-4.77447	1.928238	-2.48	0.013	-8.55375	-0.9952
positive experience of school	-0.65195	0.292928	-2.23	0.026	-1.22608	-0.07782
interaction	1.037548	0.568732	1.82	0.068	-0.07715	2.152242
health index, W 2	-0.72384	0.271043	-2.67	0.008	-1.25508	-0.19261
reason for doing main course						
help children more	0.598805	0.314992	1.9	0.057	-0.01857	1.216179
own satisfaction	0.220321	0.298252	0.74	0.46	-0.36424	0.804883
interaction	1.650264	0.634707	2.6	0.009	0.406261	2.894268
did higher-level course at W 2	0.531322	0.350883	1.51	0.13	-0.1564	1.21904
interaction	-1.27089	0.729936	-1.74	0.082	-2.70154	0.159756
completed a W 1 course by W 2	0.280477	0.283259	0.99	0.322	-0.2747	0.835655
interaction	1.448694	0.736045	1.97	0.049	0.006071	2.891316
dropped out of a W 1 course	-0.73022	0.351674	-2.08	0.038	-1.41949	-0.04095
interaction	2.518062	0.98001	2.57	0.01	0.597278	4.438847
gained qualification by W 3	1.111724	0.423223	2.63	0.009	0.282223	1.941226
continued W 1 course at W 3	-1.24978	0.824429	-1.52	0.13	-2.86563	0.366075
constant	-1.40907	0.48875	-2.88	0.004	-2.367	-0.45113

Table A 3.4 Factors affecting starting a new higher-level course at W ave 3

Dependent variable: whether started a new higher-level course at W 3 (1 yes, 0 no)

Logit estimates		Number of obs = 520				
Log pseudo-likelihood = -367.88077		Wald chi2(61) = 123.53				
		Prob > chi2 = 0.0000				
		Pseudo R2 = 0.3368				
w13p1gn2	Coef.	Robust	z	P >  z	[95% Conf. Interval]	
<b>tested literacy competence</b>						
Entry Level2	0.8734795	0.642609	1.36	0.174	-0.3860112	2.13297
Entry Level3	1.241925	0.728284	1.71	0.088	-0.1854853	2.669335
Level1	1.782667	0.736005	2.42	0.015	0.340123	3.225211
no full test	0.4763859	0.932948	0.51	0.61	-1.352158	2.30493
<b>tested numeracy competence</b>						
Entry Level2	0.6057316	0.478519	1.27	0.206	-0.3321477	1.543611
Entry Level3	0.8905354	0.686305	1.3	0.194	-0.4545984	2.235669
Level1	-0.3492088	0.819955	-0.43	0.67	-1.956292	1.257874
Level2 or higher	0.1948323	0.808689	0.24	0.81	-1.39017	1.779834
interaction Entry Level3	1.924228	0.857446	2.24	0.025	0.243665	3.604792
<b>highest qualification held</b>						
below level1	-0.1196533	0.536445	-0.22	0.823	-1.171065	0.931759
Level1	-1.199347	0.482958	-2.48	0.013	-2.145928	-0.25277
Level2	-0.5851468	0.526835	-1.11	0.267	-1.617723	0.44743
Level3	0.1666097	0.779847	0.21	0.831	-1.361862	1.695081
Level4	-1.59445	1.271042	-1.25	0.21	-4.085646	0.896746
<b>age left school</b>						
17-18	0.1428077	0.519491	0.27	0.783	-0.8753763	1.160992
19 and over	0.7592209	0.537216	1.41	0.158	-0.2937038	1.812146
interaction 17-18	-1.854577	1.271073	-1.46	0.145	-4.345834	0.63668
19 and over	2.643234	1.452811	1.82	0.069	-0.2042238	5.490693
<b>ethnicity</b>						
Black or Black British - Caribbean and other <sup>a</sup>						
Black or Black British - African	0.253258	1.601736	0.16	0.874	-2.886086	3.392602
Asian or Asian British - Indian	1.452786	0.970558	1.5	0.134	-0.4494731	3.355045
Asian or Asian British - Pakistani or other	2.023496	1.000971	2.02	0.043	0.0616287	3.985363
0.8941383	0.870595	1.03	0.304	-0.8121958	2.600472	
<b>children</b>						
one	-0.5362123	0.645687	-0.83	0.406	-1.801736	0.729312
two	0.7795389	0.564006	1.38	0.167	-0.3258916	1.884969
three or more	-1.639256	1.043467	-1.57	0.116	-3.684414	0.405903
interaction one	3.642352	1.490585	2.44	0.015	0.7208595	6.563844
two	0.3404391	1.4306	0.24	0.812	-2.463485	3.144364
three or more	1.781373	1.44019	1.24	0.216	-1.041348	4.604094
<b>change in health, W 1-W 3</b>						
no change	-0.6854035	0.744442	-0.92	0.357	-2.144482	0.773675
improved	-0.7604845	0.838866	-0.91	0.365	-2.404632	0.883664
interaction no change	3.054231	1.699767	1.8	0.072	-0.2772515	6.385713
improved	5.763938	2.129148	2.71	0.007	1.590885	9.936991

w13prgn2	Coef.	Robust	z	P> z	[95% Conf.	Interval]
economic activity, W 1						
unemployed	0.5063395	0.610685	0.83	0.407	-0.6905806	1.70326
full-time education	1.023966	0.716439	1.43	0.153	-0.3802278	2.42816
other	0.5177062	0.573431	0.9	0.367	-0.6061973	1.64161
interaction						
unemployed	-3.059541	1.589599	-1.92	0.054	-6.175097	0.056015
full-time education	-2.212855	1.240251	-1.78	0.074	-4.643702	0.217992
other	-3.118559	1.291163	-2.42	0.016	-5.649192	-0.58793
highest qualification studying, W 1						
Level1	-1.826172	0.600285	-3.04	0.002	-3.002708	-0.64963
Level2	-2.060224	0.506762	-4.07	0	-3.05346	-1.06699
Level3 or higher	-3.697758	0.91642	-4.04	0	-5.493907	-1.90161
English a subsequent language	-1.821834	0.892977	-2.04	0.041	-3.572037	-0.07163
age (ln)	-1.260685	0.523858	-2.41	0.016	-2.287427	-0.23394
female	0.8763517	0.340051	2.58	0.01	0.2098635	1.54284
health index, W 3	-0.9857836	0.52868	-1.86	0.062	-2.021978	0.050411
interaction	2.437542	1.271667	1.92	0.055	-0.054879	4.929963
self-assessed, problems with literacy	-0.2374877	0.407523	-0.58	0.56	-1.036219	0.561243
interaction	-2.335477	1.178689	-1.98	0.048	-4.645665	-0.02529
self-assessed, problems with numeracy	0.0356121	0.366659	0.1	0.923	-0.6830258	0.75425
interaction	-1.935764	0.980192	-1.97	0.048	-3.856904	-0.01462
local unemployment rate	0.1734724	0.363811	0.48	0.633	-0.5395838	0.886529
interaction	2.289547	0.902768	2.54	0.011	0.5201532	4.05894
course included numeracy, W 1	-1.027344	0.435491	-2.36	0.018	-1.88089	-0.1738
course was for a vocational qualification, W 1	1.350164	0.492296	2.74	0.006	0.385281	2.315048
continued W 1 course at W 2	1.032029	0.443138	2.33	0.02	0.1634954	1.900562
did higher-level course at W 2	0.8193808	0.399056	2.05	0.04	0.0372451	1.601516
completed a W 1 course by W 2	1.020644	0.468062	2.18	0.029	0.1032598	1.938028
dropped out of a W 1 course	-0.9792234	0.550717	-1.78	0.075	-2.058609	0.100163
dropped out of a W 2 course	-1.352859	0.681749	-1.98	0.047	-2.689064	-0.01666
gained qualification by W 3	2.651421	0.715818	3.7	0	1.248444	4.054397
continued W 1 course at W 3	-4.436492	2.009656	-2.21	0.027	-8.375345	-0.49764
constant	1.747766	2.045369	0.85	0.393	-2.261084	5.756616

<sup>a</sup> Omitted: predicts failure perfectly

Appendix 4

Table A 4.1 W ave 3 outcomes

Changes between W ave 1 and W ave 3	unmatched		matched		difference	Significant	No of observations	
	learners value	non-learners value	learners value	non-learners value			learners	non-learners
Labour market and work change in employment status (net increase/decrease in proportion of sample)	5.6%	-1.8%	5.3%	3.8%	1.4%		623	616
change in take home pay (non-employed=0)	£575	-£1,339	£558	-£713	£1,272	**	590	587
change in employment commitment (scale -19 to + 19)	-2.6	-2.5	-2.6	-3	0.4		611	578
change in satisfaction with pay (scale -4 to + 4)	0.1	0	0.1	0.1	0		201	285
higher satisfaction with pay (proportion reporting)	27.4%	22.5%	27.1%	25.3%	1.8%		201	285
lower satisfaction with pay (proportion reporting)	28.4%	26.0%	28.6%	31.2%	-2.5%		201	285
change in pay satisfaction (proportion improving less proportion worsening)	-0.1%	-3.6%	-1.5%	-5.9%	4.3%		201	285
change in satisfaction with job security (scale -4 to + 4)	0	-0.1	-0.1	-0.2	0.1		201	285
satisfaction with job security increased (proportion reporting)	22.5%	20.1%	23.0%	20.2%	2.8%		258	323
satisfaction with job security decreased (proportion reporting)	22.1%	23.8%	22.9%	26.0%	-3.1%		258	323
change in satisfaction with job security (proportion increased less proportion decreased)	0.4%	-3.7%	0.0%	-5.9%	5.9%		258	323
change in satisfaction with promotion prospects (scale -4 to +	-0.1	-0.1	-0.1	-0.4	0.3	**	201	285

Changes between Wave 1 and Wave 3	unmatched		matched		difference	Significant	No of observations	
	learners value	non-learners value	learners value	non-learners value			learners	non-learners
4)								
satisfaction with promotion prospects increased (proportion reporting)	37.8%	37.6%	37.7%	29.4%	8.2%		201	285
satisfaction with promotion prospects decreased (proportion reporting)	34.8%	37.2%	35.2%	43.7%	-8.5%		201	285
change in satisfaction with promotion prospects (proportion increased less proportion decreased)	2.3%	-4.9%	2.0%	-10.7%	12.7%		258	323
change in proportion of sample receiving out of work benefits	-4.1%	1.6%	-3.8%	-0.4%	-3.4%		623	616
Health and disability change in health index (-10 to +10, negative values=improvement)	0.1	0	0.1	0.1	0		623	616
change in no of visits to GP over past year	-0.28	-0.27	-0.28	-0.54	0.26		573	609
change in no of hospital outpatient appointments in past year	-0.22	-0.07	-0.23	-0.11	-0.12		598	611
net change in proportion of sample receiving hospital inpatient treatment	-3.4%	0.5%	-3.7%	3.6%	-7.3%	**	615	616
change in no of inpatient nights (including those with zero)	-0.1	0	-0.12	-0.14	-0.26		149	130

	unmatched		matched		difference	Significant	No of observations	
	learners value	non-learners value	learners value	non-learners value			learners	non-learners
Changes between Wave 1 and Wave 3								
change in long-standing illness or disability (proportion developing illness/disability less proportion no longer having)	-2.2%	-5.7%	-2.6%	-0.2%	-2.4%		623	616
worse health (proportion reporting)	18.5%	16.7%	18.6%	20.0%	-1.4%		496	504
better health (proportion reporting)	14.6%	13.5%	14.8%	15.0%	0.2%		496	504
change in health (proportion improving less proportion worsening)	-3.9%	-3.2%	-3.8%	-5.0%	1.2%		496	504
Self-esteem and satisfaction with life								
change in satisfaction with life (-4 to +4)	0.05	0.03	0.04	0.08	-0.04		623	616
improvement in satisfaction with life (proportion reporting)	22.8%	20.1%	22.4%	21.9%	0.4%		623	616
reduction in satisfaction with life (proportion reporting)	20.9%	18.7%	20.9%	18.2%	2.7%		623	616
change in life satisfaction (proportion improving less proportion worsening)	1.9%	1.5%	1.5%	3.7%	-2.2%		623	616
change in self-esteem (scale -24 to +24)	0.41	0.06	0.48	0	0.48		623	616
net change in self-esteem (proportion improving less proportion worsening)	7.9%	2.4%	8.9%	-1.1%	10.1%		623	616
Activities with children								
net change in proportion of sample helping children to read	-6.4%	-5.9%	-6.4%	-6.6%	0.2%		125	187



	unmatched		matched		difference	Significant	No of observations	
	learners value	non-learners value	learners value	non-learners value			learners	non-learners
Changes between Wave 1 and Wave 3								
net change in proportion of sample helping children with writing	-6.0%	-0.5%	-6.8%	3.7%	-10.5%		133	189
change in helping children with homework (large negative -3 to large positive +3)	-0.37	-0.2	-0.35	-0.41	0.06		178	241
change in no of days per year read story to children	-55	-22	-57	-26	-31		116	156
Education and training								
change in commitment to education and training (scale -16 to +16)	0.91	0.86	0.93	0.3	0.63	**	623	616
proportion currently on an education or training course	48.8%	10.1%	48.1%	11.1%	36.9%		623	616

Other outcomes (not difference in differences)	unmatched		matched		difference	Significant	No of observations	
	learners value	non-learners value	learners value	non-learners value			learners	non-learners
Self-perceived changes in literacy and numeracy over past year net proportion reporting self-perceived improvement in literacy in past year	70.0%	32.6%	69.4%	50.1%	19.20%	**	623	616
net proportion reporting self-perceived improvement in numeracy in past year	56.2%	23.1%	55.7%	28.7%	27.10%	**	623	616
self-perceived improvement in numeracy in past year (average of 0= no improvement, 1= some imp, 2= def imp)	0.84	0.29	0.83	0.37	0.46	**	623	616
self-perceived improvement in literacy in past year (average of 0= no improvement, 1= some imp, 2= def imp)	1.1	0.45	1.1	0.7	0.39	**	623	616

\*\* indicates significant at 5% level

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