



Department  
for Education

# **Quantitative programme of research for adult English and maths**

**Longitudinal survey of adult learners  
final research report**

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# Executive Summary

## Background to this study

This study offers a valuable resource for understanding the current adult learner landscape in England and for helping to define future strategy for improving English and maths skills amongst those failing to reach basic standards. These adult learners, aged 19 plus, have been an important focus for government policy for some decades, illustrated, for example, by the introduction of the Skills for Life initiative in 2001. This resulted in 2.8 million adult learners achieving a Skills for Life qualification by 2009. Also, the launch in October 2015 of a programme (ongoing) to reform functional skills qualifications, and the continuing commitment to statutory entitlement for adults to access fully-funded English and maths courses to progress to GCSE-Level 2.<sup>1 2</sup>

## Aims and methodology

In 2013 the Department for Business Innovation and Skills commissioned a consortium of organisations including Kantar Public (formerly TNS BMRB), NIESR, Alphaplus and Learning and Work Institute (formerly NIACE) to conduct the longitudinal survey of adult learners. The aims were to enhance our understanding of learners' experiences of Skills for Life funded courses delivered by colleges and look at how learners' skills progress during their course and in the year after. The survey also explored learners' broader economic outcomes, learning journeys and soft outcomes such as confidence in day to day life. The outputs are being published by the Department for Education, as during machinery of government changes in early 2017, responsibility for skills analysis moved from the Department for Business, Innovation and Skills over to the Department for Education.

Learners attending English or maths Skills for Life funded courses were interviewed at 3 points (waves) in their learning journey: around the start of their course; shortly after their course ended; and one year after the end of their course. Each interview included tests developed for the study to assess learners' reading and writing or numeracy skills. This is the final longitudinal research report, which focuses on the findings between waves 2 and 3. It refers to the interim, longitudinal survey of adult learners research report on waves 1 and 2, which explores the findings from the first 2 waves of research in more detail.

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/485969/BIS-15-615-skills-funding-letter-2016-to-2017.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485969/BIS-15-615-skills-funding-letter-2016-to-2017.pdf)

<sup>2</sup> The intention to improve the quality of apprenticeships outlined in 'New Challenges, New Chances' also remains a key Government priority (for example see [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf)) however, apprenticeships was beyond the scope of this research.

## Findings

### Labour force outcomes

Around two-fifths of English and maths learners gave an employment-related reason for taking their course (45% English learners, 40% maths learners).<sup>3</sup> However, the timescales of the research do not allow us to reliably assess whether courses have enabled learners to meet their desired outcomes at wave 3, as their studies may be part of a longer learning and employment journey. Key findings are summarised below:

- 23% of English learners and 21% of maths learners took their course to, ‘help them find work’
- 22% of English learners and 20% of maths learners took their course to ‘find a better job’
- Learners on Entry Level courses were particularly likely to be taking their course for work-related reasons (49% of English learners and 44% of maths learners), while learners on Level 2 courses were more likely to see the course as a stepping stone to higher qualifications (45% of English learners and 48% of maths learners)
- The likelihood of moving into work (as measured by being out of work at wave 2 and in employment at wave 3) did not vary by the level of Skills for Life course attended.<sup>4</sup> However, it is possible some of these learners may not have been in employment at wave 2 in order to attend their Skills for Life course (i.e. their employment status at wave 2 was caused by the course), making the wave 2-to-wave 3 comparison overly simplistic

The majority of learners who attended English courses and moved into work by the third survey believed that attending their course had helped them find work. This proportion was lower amongst maths learners, although still around half.

- Seven-tenths (69%) of the English learners who had moved into work a year on from the end of their course said their course had helped them find work (40% said it helped a lot and 6% said it was the main reason they found work)<sup>5</sup>
- Around half (52%) of maths learners who had moved into work said their course had helped them find work (23% said their course helped a lot; and 7% said it was the main reason)<sup>6</sup>

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<sup>3</sup> Giving one or more of the following main reasons for taking the course: to help find work; to find a better job; requirement of job; and, employer wanted you to.

<sup>4</sup> Amongst English learners 12% of Entry Level; 12% of Level 1 and 14% of Level 2 learners moved into employment. Amongst maths learners 11% of Entry Level; 10% of Level 1 and 12% of Level 2 learners

<sup>5</sup> Base = 126 English learners.

## Further learning outcomes

It has not been possible in this study to identify a relationship between learners' skills progression and the learning and, or economic activities they undertook during the year following their course.<sup>7</sup> However, courses might be seen as a route into other learning opportunities, with positive outcomes manifesting over a longer timeframe than the one year follow-up of this study.

- In the wave 1 survey at the start of their course learners were asked their main reasons for taking their Skills for Life funded English or maths course. A third (32%) of English learners, and two fifths (41%) of maths learners saw it as, 'a stepping stone to other training/qualifications'
- Learners on Level 2 courses were particularly likely to view their course this way (45% of English learners and 48% of maths learners) in comparison with learners on lower level courses (19% of English learners and 32% of maths learners) who, as mentioned in the previous section, were more likely to have work-related reasons (49% of English learners and 44% of maths learners).
- In the wave 3 survey, half of English learners (50%) and maths learners (48%) had attended a subsequent course during the year after they completed their Skills for Life funded course<sup>8 9</sup>
- For a sizeable minority of learners their original Skills for Life course directly led to this further learning - 35% of English learners and 29% of maths learners said they probably/definitely would not have gone on their highest level course if they had not attended their original Skills for Life course
- Amongst learners who took a subsequent course, 47% of learners who had taken an English Entry Level course went on to take a subsequent course at Level 1 or above;<sup>10</sup> 70% of Level 1 English learners progressed to a course at Level 2 or

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<sup>6</sup> Base = 107 maths learners.

<sup>7</sup> Multivariate analysis to explore the effect of attending subsequent courses in the year following learners' original Skills for Life funded courses suggested it did not have a significant effect on learners' wave 3 measured skills or labour market outcomes for either English or maths learners.

<sup>8</sup> At the time of the wave 3 interview, 41% of English learners and 36% of maths learners were still attending their highest level subsequent course.

<sup>9</sup> In the evaluation of Skills for Life courses where seven-tenths of learners (72%) took another course in the 3 years following their English or maths course. See Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses - final report, NIESR and BMRB.

<sup>10</sup> It should be noted that those taking a course at Entry Levels 2 or 3 could have progressed from a lower Entry Level course but the level of their Entry Level course is not identified.

higher; and 44% of Level 2 learners went on to a course higher than Level 2. Maths learners showed a very similar pattern<sup>11 12</sup>

- Over two thirds of learners (69% of all English learners and 67% of all maths learners) said they definitely / probably will attend courses in the next year

### Perceptions of skills improvement and softer outcomes

The impact evaluation studying learners who started on Skills for Life courses in 2002/2003 identified positive impacts on learners' self-esteem, perceived literacy and numeracy skills, attitudes towards education and training, and participation in education courses.<sup>13</sup> While this study did not follow a causal methodology, its findings are in keeping with these positive outcomes.

#### Skills and confidence

- The vast majority of learners felt that their original Skills for Life funded course helped their skills - 96% of English learners and 93% of maths learners said their course helped to improve their skills 'a lot' or 'a little'
- Similarly, nearly all English learners (98%) and maths learners (97%) who attended a course between wave 2 and wave 3 said that their highest / second highest level course helped improve their skills<sup>14</sup>
- In the wave 2 interview shortly after the end of their course learners were asked the extent to which their Skills for Life course helped their own self-confidence in their day to day life. The majority of learners (87% of English and 82% of maths learners) said it had helped (with 55% of English learners and 45% of maths learners saying 'a lot')

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<sup>11</sup> Amongst maths learners who attended a subsequent course: 54% of Entry Level learners attended a subsequent course at Level 1 or higher; 70% of Level 1 learners attended a subsequent course at Level 2 or higher; and 39% of Level 2 learners attended a course higher than Level 2.

<sup>12</sup> It is not possible to identify how many learners were re-taking their course. Data from the statistical first release in November 2015 shows that in 2013/14, for English courses the achievement rate for Entry Level learners was 75%; Level 1 learners 44%; and Level 2 learners 41%.

<sup>13</sup> Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses - final report, NIESR and BMRB.

<sup>14</sup> Learners who attended 2 or more courses were only asked this about their highest and second highest level course.

## Work-life

- At wave 2 learners in employment were asked whether they felt the course had helped with their confidence at work - 50% of English learners said the course had helped 'a lot', and a further 32% said 'a little' (for maths learners this was 38% and 35% respectively)
- The majority of learners in employment at wave 2 said their course had helped with their ability to do their job (48% of English learners said 'a lot' better and 27% 'a little' better; 33% of maths learners said 'a lot' better, and 33% 'a little' better)

## Happiness

- In aggregate, learners' happiness ratings on a 10-point scale at course completion were higher than at the start of their courses - amongst English learners the mean score was 7.0 at the start of the course and 7.5 at the end; amongst maths learners the mean score was 7.0 at the start and 7.6 at the end. So, 43% of English learners and 50% of maths learners gave a higher happiness rating at the end of their courses than they gave at the start). Mean happiness scores were fairly consistent one year on (7.6 for each of English and maths learners)

## Family

- At the start of their course 7% of English learners and 8% of maths learners said a main reason for taking the course was to 'help their child at school' (and 3% of English learners, and 2% of maths learners were 'encouraged to take the course by a family member')
- At the close of their course many learners with families felt the course had, 'helped improve the level of interest that the wider family had in learning' (67% of English learners and 62% of maths learners). Many learners with families also felt that their course had 'helped relationships with their partner or family' (58% of English learners and 50% of maths learners)

## Skills progression

Chapter 4 of this report outlines the approach used to independently assess learners' skills at the 3 survey stages of this study. As shown in table 1.1 below, there was a mixed picture of progression between waves 1 (start of course) and 2 (end of course) and waves 2 and 3 (one year after course end).

**Table 1.1: Overall proportion of learners who showed progress**

	<b>Wave 2 compared with wave 1</b>	<b>Wave 3 compared with wave 2</b>
 Reading	52%	54%
 Writing	51%	51%
 Maths	66%	46%

Base: Wave 2 learners (563 reading, 428 writing, 403 maths); Wave 3 learners (534 reading, 445 writing, 471 maths)

Learners on higher level courses were more likely to show progress when comparing their assessments at course completion (wave 2) to the start of the course (wave 1). However, the same pattern was not seen the year after their course.

- When comparing learners' wave 2 and wave 1 assessments, learners on Level 2 English courses were more likely to show progress in:
  - Reading - 61% on Level 2 courses showed progress compared with 46% on Level 1 and 44% on Entry Level courses
  - Writing - 70% on Level 2 courses, compared with 30% on Level 1 and 52% on Entry Level courses
- Maths learners on Level 2 courses (74%) and Level 1 courses (72%) were more likely to show progress in maths at the end of their course than learners on Entry Level courses (33%)
- In the wave 3 follow up one year later there was no difference by course level when looking at English course learners' reading skills
- However, looking at writing skills, learners who had originally attended an Entry Level course were more likely to demonstrate progress when comparing their wave 3 assessment with wave 2 - 64%, compared with 44% of learners who had attended a Level 1 course, and 41% who had attended a Level 2 course

- A similar pattern was seen in maths learners' numeracy skills, although to a lesser extent - 53% of learners who had attended an Entry Level maths course showed progression in wave 3, compared with 44% of learners who had attended a Level 1 or Level 2 course<sup>15</sup>

### **Discussion of why not all learners skills improved**

Firstly, there may be methodological reasons why the tests did not identify skills progression for some learners. It was necessary to use a different methodology at wave 1 to the 2 later interviews. The first interview was conducted in colleges via pen and paper and relying on course tutors to ensure tests were completed with appropriate consideration. The 2 follow-up interviews were conducted in-home, with an interviewer present.

The second important consideration is the reasons why learners took their course. At wave 1, 30% of English learners took their English course to 'improve their everyday reading and writing skills', while 25% of maths learners took their maths course to 'improve their ability to work with numbers'. As previously mentioned in this summary, for other learners the main reasons were work-related or as 'a stepping stone to other training / qualifications'. It should not be assumed that the course was necessarily at a level that would enable a learner to improve his or her skills. For example, some may have been seeking a qualification at their existing skills level to meet the entry criteria for a job or course. It is also not possible to identify the incidence of learners who were potentially taking a course at an inappropriate level for their skills.

Despite these caveats on interpretation, we are still able to identify a positive picture of skills progression during and beyond many learners' Skills for Life funded course. The differences by course level are particularly interesting. The finding that learners on higher level courses were more likely to demonstrate progress in the assessments directly after the end of their course is in keeping with these learners being more likely to view their course as a step towards further learning. It is also encouraging that learners who attended Entry Level courses appear more likely to have progressed their skills in the year following their courses. This suggests that adults with the lowest skills levels are having the opportunity to improve their skills, be it through work, day-to-day home life, further learning, or a combination of these factors.

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<sup>15</sup> Entry Level maths learners (base =266) 53% progressed; Level 1 maths learners (base = 82) 41% progressed; Level 2 maths learners (base =123) 45% progressed.

## Chapter 1: Introduction and background

There are some skills that are fundamental: to be successful in life and at work, people must be able to read and write and to use numbers with confidence. People need these skills for a functioning society and a healthy economy.

This study offers a valuable resource for understanding the current adult learner landscape in England and for helping to define future strategy for improving English and maths skills amongst those failing to reach basic standards. These individuals have been an important focus for government policy for some decades, and continue to be so today. This is evidenced by the government's statutory entitlement for adults to access fully-funded English and maths courses to progress to GCSE-Level 2.<sup>16</sup>

In the mid-nineties robust studies of the general population raised concerns over the level of adult skills in England. Estimates placed one in three adults unable to calculate the area of a room 21 feet by 14 feet even when using a calculator to do so. Also, one in five adults were unable to use the alphabetical index of the yellow pages to identify the page reference for a plumber.<sup>17</sup> In fact, numerous studies over the preceding 5 decades indicate this was not a recent phenomenon.<sup>18</sup> However, when considered in the context of a rapidly changing technological landscape and its implications on the skills required in a modern labour force, it was clear this situation was untenable.

Internal comparison studies at that time and more recently<sup>19</sup> identify adult literacy skills as being fairly average by international standards, and our numeracy skills rank towards the lower end of comparison tables. Notably, international studies of both adults and of young people (aged 15)<sup>20</sup> reveal a population that is characterised by a comparatively large distribution of skills. The issue is not that skills are low across the population, but the huge disparity between the highest and lowest performers. In essence there was, and remains, a large group of adults who have particularly low skills.

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<sup>16</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/485969/BIS-15-615-skills-funding-letter-2016-to-2017.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485969/BIS-15-615-skills-funding-letter-2016-to-2017.pdf)

<sup>17</sup> The National Survey of Health and Development as quoted in the Moser report 1999.

<sup>18</sup> <http://www.leeds.ac.uk/educol/documents/000000650.htm>

<sup>19</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/246534/bis-13-1221-international-survey-of-adult-skills-2012.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/246534/bis-13-1221-international-survey-of-adult-skills-2012.pdf)

<sup>20</sup> <http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm>

Government introduced the Skills for Life strategy in 2001 to address this issue by prioritising groups of adults with the greatest numeracy and literacy need. At its heart the strategy offers free education and training provision to enable adults with poor basic skills to develop their literacy and numeracy skills. In terms of learner numbers the strategy has had great success, surpassing its 2004 target of supporting 2.25 million adults to achieve a Skills for Life qualification by 2010, with 2.8 million learners achieving a Skills for Life qualification by 2009.<sup>21</sup> However, the Skills for Life surveys of the general adult population in 2003 and 2011 reveal that while the proportion of adults showing literacy skills of Level 2 standard and above has increased (equivalent to grades A\*- C at GCSE), there has been a disappointing level of progress at the lower end of the scale.<sup>22</sup> Numeracy skills actually appear to have shown a small decline.

Following consultation, in 2011 the Department for Business Innovation and Skills' New Challenges, New Chances report outlined reform plans for the further education and skills system. This includes expanding the Skills for Life programmes to offer free courses to enable adults to improve their basic literacy and numeracy skills to English and maths GCSE / Level 2.<sup>23</sup>

Consequently, in 2013 the Department for Business, Innovation and Skills (BIS), under the coalition government, commissioned this longitudinal programme of research to explore learners' experiences of adult English and maths courses. The core objective of this research was to aid understanding of how adult learners' skills develop both during, and beyond Skills for Life funded courses.<sup>24</sup> All learners included in the research were aged 19 or above and attended English or maths courses between Entry Level 1 and Level 2.

In October 2015, the Conservative government commissioned a programme of work to reform maths and English Functional Skills qualifications, to ensure they are rigorous and suit the needs of employers today. The Functional Skills reform programme and consultation process is ongoing. The findings from this longitudinal study of maths and English provide important context for policy makers considering the next steps in Functional Skills qualification reform.

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<sup>21</sup> Department for Innovation, Universities and Skills (2009). Skills for Life: Changing Lives.

<sup>22</sup> BMRB Skills for Life (2003); TNS BMRB Skills for Life (2011).

<sup>23</sup> <https://www.gov.uk/government/consultations/new-challenges-new-chances-next-steps-in-implementing-the-further-education-reform-programme>

<sup>24</sup> These are publically-funded courses.

This is the final report of the longitudinal survey of adult learners. The full programme of research included a longitudinal survey of learners, a Randomised Controlled Trial (RCT) and qualitative research to explore adult learning in colleges. It was delivered by a consortium of organisations. Kantar Public (formerly TNS BMRB) conducted the longitudinal survey, drawing on assessment tools designed by AlphaPlus, support from Learning and Work Institute (formerly NIACE) in the recruitment of colleges, and analysis by NIESR. The RCT was led by NIESR and AlphaPlus, with support from NIACE. Additionally, during the development stages Professor Steve Reder at Portland State University offered his expertise into the questionnaire design and analysis.

This report explores the findings from surveys conducted with a cohort of adult learners at the following 3 points in their learning journey:

1. Around the time they started their course
2. Shortly after the end of their course
3. One year after course completion

This report is supported by the following publications as part of the full programme of research.

- Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2
- Programme of research for adult English and maths longitudinal survey of adult learners technical report
- Programme of research for adult English and maths Randomised Control Trial report
- Programme of research for adult English and maths local authority comparison report
- Programme of research for adult English and maths data-sets

This research is a valuable resource for understanding the adult learner landscape and for helping to define future strategy for improving English and maths skills, not just amongst the higher performers but those who are currently failing to reach basic standards.

## Aims of the research

There were 4 main aims for the programme of research as a whole, to:

- Develop valid psychometric test instruments for research purposes
- Robustly test different models of delivery for adult basic English and maths provision and assess which is most effective for which group of learners
- Understand skills gain and atrophy over time
- Understand the economic and social associations of participation in such provision

For the first aim, the research required a reliable methodology for quantifying adult learners' abilities in English and maths to identify skills gain (or lack of) at different survey points. The research team developed a large bank of questions that would be appropriate for a range of different learner levels, which were trialled with learners to ensure their validity. These research assessment tools were used as an independent measure of skills to support more subjective assessments made by learners themselves when approaching the second and third aims of the programme of research.

The longitudinal survey explored elements such as the level and length of courses and investigated how experiences differed between learners from a variety of backgrounds. The RCT focused on differences between learners participating in more traditional classroom-based learning and classes which make extensive use of information technology.

The third aim is particularly interesting as at the time of commissioning there was little understanding of the longer term development of learners' skills. Therefore, the inclusion of a third interviewing stage in the longitudinal survey one year after course completion offers a unique insight into the progression of skills over time. This question of longer term skills gain, or lack of, is a particular focus of this report, along with the fourth study's aim to explore the economic and social associations of adult learning.

## Methodology

This section offers a brief overview of the research methods used in the longitudinal study. Please see the, Programme of research for adult English and maths longitudinal survey of adult learners technical report, for full details.

### Wave 1

The first wave of the survey was conducted using a pen and paper (PAPI) interviewing method. Colleges were recruited to take part in the survey by Kantar Public's telephone interviewing team before autumn term started, with fieldwork taking place in the autumn 2013 and spring 2014 college terms.

Face-to-face interviewers delivered printed versions of the questionnaires to the colleges and briefed a nominated member of staff on how to administer the questionnaires. Tutors were told they could help learners complete the first section of the questionnaire (which included demographics and attitudinal questions) but the assessment section needed to be the learner's own work. Colleges were asked to administer the questionnaires on the college premises, as close as possible to the start of each course.

A boost sample of learners attending e-learning classes (i.e. classes where the learning is primarily software driven rather than teacher-led) was also included with 236 learners in wave 1. Learners were contacted through learndirect centres. The process for sampling these learners is discussed in the technical report in more detail.

Learners were asked about their willingness to participate in later stages of the survey and were given a £5 incentive as a thank you for completing the first survey. Overall, 70% of learners agreed to be re-contacted in wave 2.

Completed questionnaires were returned to Kantar Public, where the demographic and attitudinal survey responses were digitally scanned and converted into a usable data format. The assessment sections were sent to AlphaPlus for marking by their team of specialists.

## Waves 2 and 3

The second and third waves of interviewing were conducted using Computer Assisted Personal Interviewing (CAPI). In wave 2 Kantar Public's face-to-face interviewers visited learners in their homes as close as possible to the end date of their courses. For the majority of the sample this was at the end of the summer 2014 term. In addition to the sample of wave 1 participants who had agreed to be re-contacted, a boost sample of learners taken from the Individualised Learner Record (ILR) was included. This ensured the sample size would allow reliable analysis of any changes in skill levels between waves 2 and 3. In wave 3 Kantar Public's face-to-face interviewers once again visited learners who had agreed to be re-contacted at wave 2 in their homes one year after their course finished. There was no ILR boost in wave 3.

Respondents completed the assessment section of the interview, following the same guidelines that were applied in wave 1 - primarily that their answers had to be all their own work. The only help that interviewers were allowed to give to respondents was on the use of the computer, for example explaining how to use the mouse or how to move from one question to the next. If the respondent was unable to input their own answers due to a disability, then the interviewer was allowed to act as a scribe. As in wave 1, the assessment data was marked by AlphaPlus.

## Weighting

As a longitudinal study of adult learners on English and maths courses who started a Skills for Life funded course in 2013/2014, the data in each wave were weighted to be representative of learners starting on courses within the scope of the study in 2013/2014.<sup>25</sup> The 2013/14 Individualised Learner Record (ILR) Aims database was used to identify the population characteristics.

The data from wave 1 were weighted to make the findings representative of the adult learning sector as a whole in terms of age, gender, region and the level of the course, with separate weights applied for English and maths. This makes the findings representative of the adult learning sector although they cannot be extrapolated to the wider population.<sup>26</sup> The data from waves 2 and 3 were additionally weighted to take account of any non-response bias between interviewing waves.

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<sup>25</sup> Please refer to the wave 2 full technical report for a list of courses.

<sup>26</sup> Separate weights were applied for English and maths. Full details of the weighting process can be found in the accompanying technical report.

## Learner definitions in this report

Due to the ILR boost sample at wave 2, not all learners at wave 2 had completed a wave 1 interview. In contrast, all learners in wave 3 had also completed a wave 2 interview.

Therefore this report predominantly reports on 1 of 2 datasets:

- The total wave 3 sample
- The total wave 3 sample and their responses at wave 2 (as distinct from the total wave 2 sample, some of whom did not complete an interview at wave 3)

The total sample of learners in each wave is summarised in table 1.1.

**Table 1.1 Sample size of learners in each wave (unweighted)<sup>27</sup>**

	<b>All learners</b>	<b>Entry Level</b>	<b>Level 1</b>	<b>Level 2</b>
	n	n	n	n
<b>Wave 1</b>				
English learners	2029	858	600	571
Maths learners	1825	682	598	545
<b>Wave 2</b>				
English learners	1889	1008	404	477
Maths learners	1798	932	422	444
<b>Wave 3</b>				
English learners	1077	627	224	226
Maths learners	1022	591	222	209

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<sup>27</sup> Please note that the base sizes at each wave are not indicative of longitudinal response rates due to the ILR boost sampling at wave 2, and reduced fieldwork targets at wave 3.

The programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2 includes a detailed analysis of the profile of learners, drawing out differences in profile across the different levels of course. In order to avoid repetition, this report focuses on the particular objectives of the second follow-up survey one year after course completion. Readers may find it useful to refer to the First Statistical Release for a broader profile of learners at this time.<sup>28</sup>

## Assessment instrument design and analysis

To independently assess learners' skills, 'tests' were used in all 3 waves of interviewing. These assessments were designed by AlphaPlus, who undertake performance analysis of assessments for UK-awarding organisations, DfE and Ofqual. The first stage of development involved designing a large bank of questions which were then trialled with learners to assess their validity. Questions were designed to cover the full range of course levels included in the survey - Entry Levels 1 to 3 and Levels 1 to 2. Following these trials, any unreliable questions were removed from the question bank.

AlphaPlus then drew upon the bank of validated questions to create a separate assessment for each of the 10 different types of class involved in the survey (5 levels in each of the 2 subjects). Each version was designed to be manageable and engaging for learners on a course of a given level, as well as being appropriate for measuring progress over the study timescale. To this end each of the assessments contained questions at a range of levels, ensuring that those with higher skills were challenged by some questions while accepting that those with lower skills would find some questions too difficult. The assessments were designed to be suitable for administration via pen and paper as well as CAPI to ensure compatibility across different learner environments and the wave 1, and waves 2 and 3 survey methodologies (described overleaf).

Learners in wave 1 completed the version of the assessment that was designed to be suitable for learners starting out on a course at each given level. In wave 2 these same learners took a version of the assessment that was one level higher to take into account the effect that the course was likely to have had on their skills. Bridging questions were included in the questionnaire variants to allow AlphaPlus to calibrate results across waves and determine whether progress had been made. When analysing the data, AlphaPlus used Item Response Theory (IRT) to derive a measure of performance across all of the different assessment versions.

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<sup>28</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/398446/learner-participation-outcomes-and-level-of-highest-qualification-release-nov14.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/398446/learner-participation-outcomes-and-level-of-highest-qualification-release-nov14.pdf). Further data is available on the Gov.UK archive: <https://www.gov.uk/government/statistical-data-sets/further-education-and-skills-statistics-archive>

For a range of reasons (as explained in the technical report) not all learners completing an interview had a valid assessment score in each wave. Table 1.2 outlines the number of learners with a valid assessment scores at each interviewing wave.

**Table 1.2 Sample size of learners with valid assessment scores (unweighted)**

	<b>Waves 1 and 2</b>	<b>Waves 2 and 3</b>	<b>Waves 1, 2 and 3</b>
	N	n	n
English learners - reading	563	534	171
English learners - writing	428	445	121
Maths learners - numeracy	403	471	134

## Multivariate analysis

Multivariate techniques are used throughout this report to explore the nature of change in skills, labour market outcomes and subjective well-being between survey waves 2 and 3 in more depth. This analysis allows us to identify the extent to which background characteristics and learning activity are correlated with change, while controlling for the likelihood that there are multiple influences on outcomes. This moves us closer to an understanding of what might be driving change. However, it is important to emphasise that this is only indicative and should not be interpreted as capturing relationships that are necessarily causal. Since no non-learners were surveyed we are not able to estimate the impact of learning as we do not have a non-learning counterfactual with which to compare the outcomes of learners.

The estimation approach varies depending on what outcome is being considered. Some outcomes are continuous in nature so a linear regression is possible. Other outcomes are recorded as categories so we apply ordered probit regression. With all outcomes the dependent variable is the change between waves 2 and 3. This change is related to a range of background characteristics and learning details. We include information on:

- Learners' level of skill as measured at the time of the wave 2 interview
- The change in skill between waves 2 and 3 (this is included as an explanatory variable for all outcomes except in those models where the change in skill is the outcome of interest)
- Whether the original course was at Level 1 or Level 2, rather than Entry Level
- Whether the learner dropped out of their original Skills for Life funded course (2013/2014)
- Whether learners who attended subsequent courses after wave 2 were still attending the course, rather than having completed it

- Whether, at wave 2, individuals were reasonably confident about their ability in English or maths (this variable is constructed using data reduction techniques to summarise respondents' answers to a series of questions about how comfortable they feel about using English/maths in everyday life)
- Whether, at wave 2, individuals are anxious about their English/maths ability (again, this variable summarises answers to a series of questions about everyday usage of English/maths)
- Whether learners faced any particular obstacles to learning when they were young
- Whether learners felt the course helped a lot with their self-confidence
- Whether learners felt the course improved their skills a lot
- Whether learners have undertaken any further courses since the time of the wave 2 interview
- Highest level of qualification (academic or vocational) converted to NVQ equivalents
- Demographics:
  - age
  - sex
  - whether they have dependent children
  - whether they have dependent children under the age of 5
  - whether they are non-white
  - whether English is a second language
  - whether they have health problems
  - whether they have a disability and how much this limits their activity
  - region of residence

## Chapter 2: Labour force outcomes

This longitudinal survey explored the motivations of learners for taking an English or maths Skills for Life funded course at the start of the course, and identified any changes in economic status between the end of their course and one year after. An objective was to identify whether there were any correlations between aims for the course and work-related outcomes. A further objective was to explore the relationship between skills progression and economic outcomes.

When interpreting these findings note that one year is a very short timeframe in which to explore work-related outcomes. Previous studies have indicated that such outcomes may take at least 5 to 7 years to become evident.<sup>29</sup>

### Summary

Looking back to wave 1, a sizeable proportion of learners were motivated by labour force outcomes when starting their course:

- 23% of English learners and 21% of maths learners took their course to help them find work
- 22% of English learners and 20% of maths learners took their course to find a better job

Amongst learners whose original motivation for taking their course was to help them find work:

- 17% of these English learners moved into employment between waves 2 and 3
- 11% of these maths learners moved into employment between waves 2 and 3<sup>30</sup>
- This compares to the very similar overall proportion of 13% of English learners and 11% of maths learners who were unemployed at wave 2 and in employment at wave 3

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<sup>29</sup> NIESR and BMRB: Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses (2009).

<sup>30</sup> Note the relatively low base of 108 English learners and 95 maths learners.

- Learners who had attended Entry Level English and maths courses were particularly likely to be taking their course for work-related reasons compared with learners who attended higher level courses.<sup>31</sup> However, the likelihood of moving into work (measured as being out of work at wave 2 and in employment at wave 3) did not vary significantly by the level of Skills for Life course attended<sup>32</sup>
- The majority of English learners (69%) who had moved into work a year on from the end of their course perceived that their course had helped them find work: two-fifths (40%) said it helped a lot; and 6% said it was the main reason they found work
- Around half (52%) of maths learners who had moved into work said their course had helped them find work (22% said their course helped a lot; and 7% said it was the main reason)<sup>33</sup>

## 2.1 English learners' employment patterns

### English learners' employment status at wave 3

English learners were asked about their employment status a year after their course ended. Nearly half of English learners (48%) were in work, with a quarter (27%) employed full-time (including those who were self-employed) (Figure 2.1).

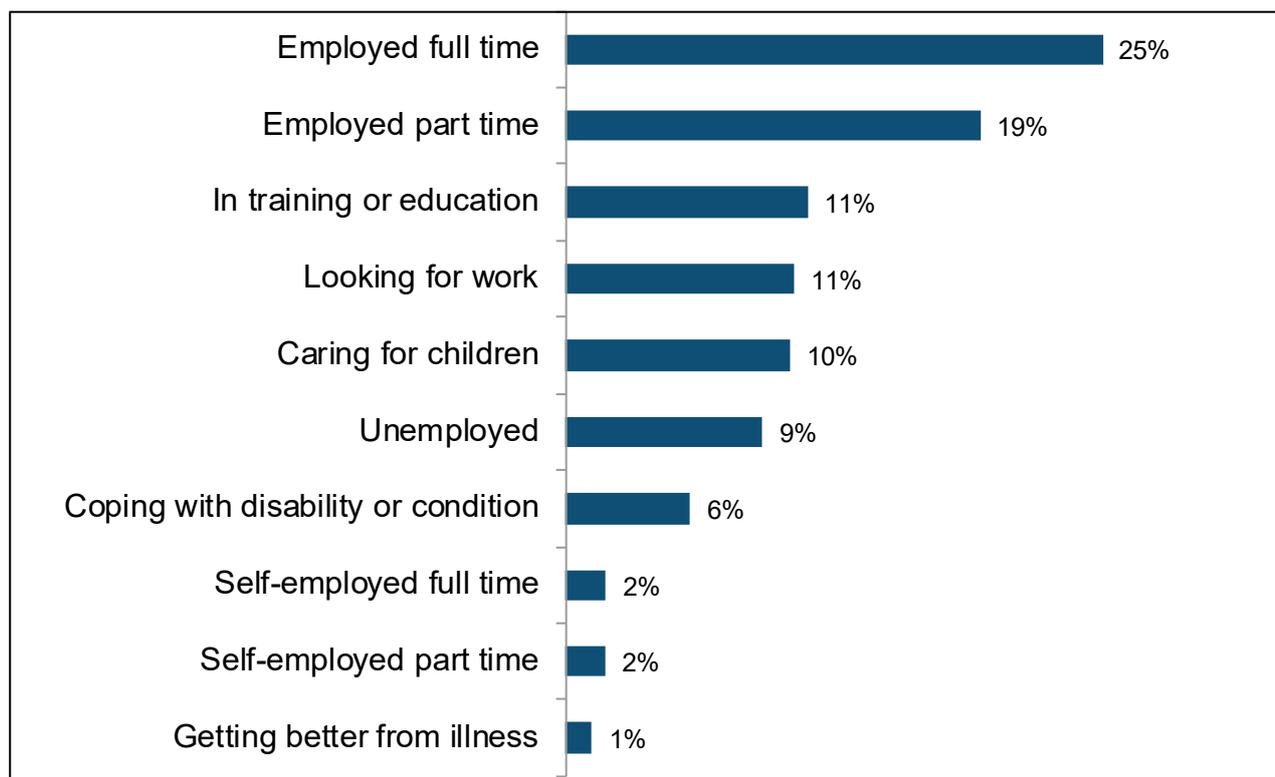
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<sup>31</sup> Learners on Level 2 courses were more likely to see the course as a stepping stone to higher qualifications. This is discussed in more detail in the next section.

<sup>32</sup> Amongst English learners 12% of Entry Level; 12% of Level 1 and 14% of Level 2 learners moved into employment. Amongst maths learners 11% of Entry Level; 11% of Level 1 and 12% of Level 2 learners.

<sup>33</sup> Base = 126 English learners; 109 maths learners.

**Figure 2.1 English learners' employment status one year after course completion**



Base: All English learners (1076).

Comparison of changes in employment status between the end of the learner's original course and a year on shows that around a third of English learners (35%) stayed in employment between waves 2 and 3, and 13% moved into work. However, close to half (46%) of adult learners on English courses were not in work at either wave 2 or wave 3.<sup>34</sup> A further 6% had been in work at wave 2, but were not in employment a year on from the end of their course.

As might be expected, there are patterns when we explore employment outcomes by age, gender and the learner's first language. These are discussed in section 2.3 in the context of the multivariate analysis, which offers a more sophisticated exploration of the correlations between learner characteristics and employment outcomes.

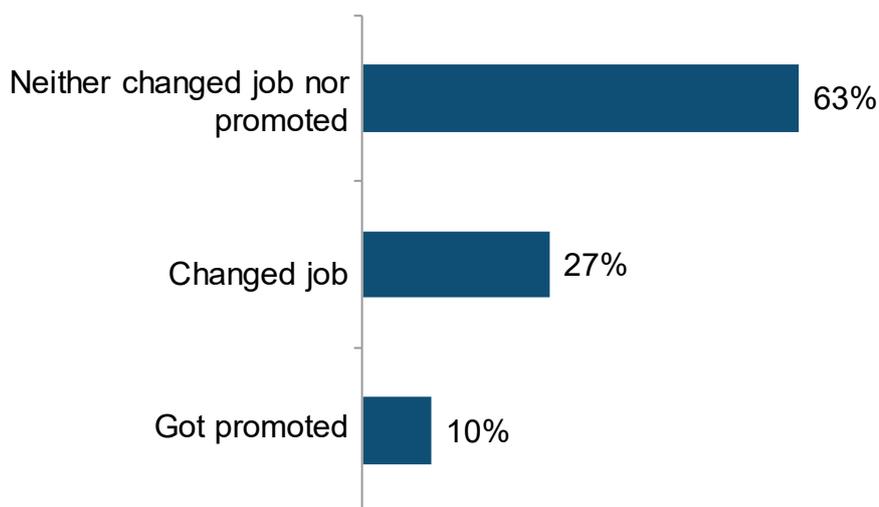
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<sup>34</sup> Of these learners not in work at either wave 2 or 3 (n=544) 21% reported they were looking for work at wave 3; 22% were in training or education; 20% were caring for children or other people; 12% were coping with a long term disability and 18% were unemployed and not looking for work.

## English learners' job changes

English learners who were in work at both wave 2 and wave 3 were asked if they had changed job or been promoted since their course ended (Figure 2.2).<sup>35</sup> The majority of learners (63%) said that they had not changed job or been promoted. However, a quarter (27%) responded that they had changed job a year on from the end of their course.

**Figure 2.2 Job change amongst English learners**



Base: English learners who were in employment at wave 2 and wave 3 (348).

Learners who changed job were asked if they preferred their new job compared to their old job. As seen in figure 2.3, over half of English learners (54%) who had changed job responded that they much prefer their new job.

**Figure 2.3 Preference for new job amongst English learners who had changed jobs between wave 2 and wave 3**



Base: English learners who had changed job between wave 2 and wave 3 (95)

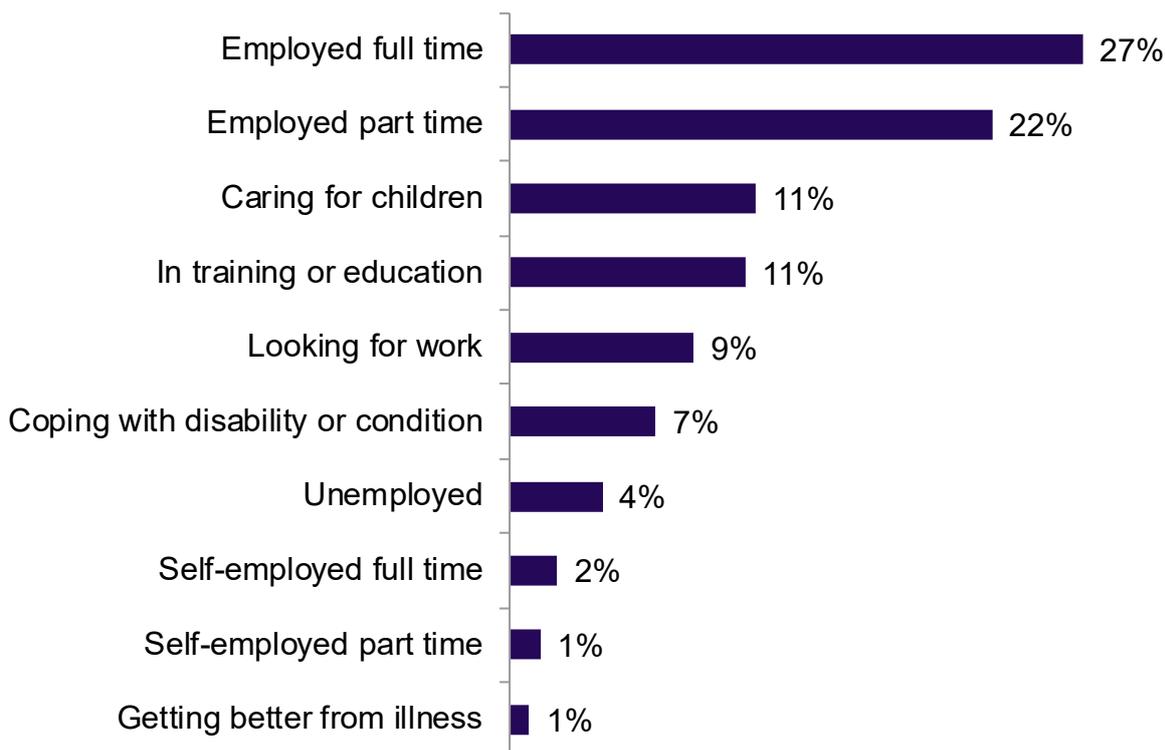
<sup>35</sup> Learners could say they had both changed job and been promoted (1% of English learners).

## 2.2 Maths learners employment patterns

### Maths learners' employment status at wave 3

Similar to English learners, maths learners were split nearly half and half between being in work (53%) or out of work (47%) one year after they completed their course (Figure 2.4).

Figure 2.4 Maths learners' economic status a year on from the end of their course



Base: All maths learners (1020)

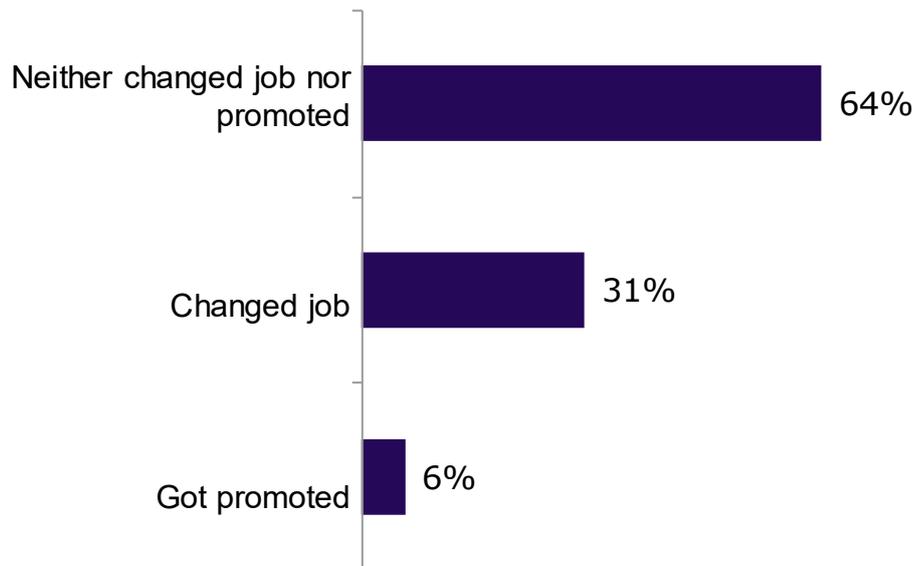
When comparing changes in employment status between wave 2 and wave 3, two-fifths of maths learners remained in employment between waves 2 and 3 (42%) and 11% moving into employment a year on from the end of their course. A further 7% were in employment at wave 2 but not at wave 3.

Section 2.3 includes multivariate analysis exploring correlations between learner characteristics and employment outcomes.

## Maths learners' job changes

Learners who were in employment at both wave 2 and wave 3 were asked if they had changed job or been promoted. Learners' responses to this question are shown in Figure 2.5. Two-thirds of maths learners (64%) said they had not changed job or been promoted, while 31% said they had changed job.

**Figure 2.5 Job change amongst maths learners**



Base: Maths learners who were in employment at wave 2 and wave 3 (315).

Learners who had changed job were asked whether they preferred their new job compared to their previous job. Figure 2.6 shows learners responses. Overall, maths learners tended to say they preferred their new job (78%) although 10% said they preferred their old job.

**Figure 2.6 Preference for new job amongst maths learners who had changed jobs between wave 2 and wave 3**



Base: Maths learners who had changed jobs a year on from the end of their course (91).

## 2.3 Factors associated with employment transitions

A primary research question of the follow up survey issued one year after learners completed their course was whether there was any evidence that improved skills might be associated with an increased tendency to be in work. In this section, we first explore whether the tendency to move in or out of work between interview waves varied according to particular background characteristics such as age or gender. We then use multivariate techniques to identify the degree of variation associated with each characteristic after controlling for other sources of variation.

### Guide to interpreting the multivariate analysis

The focus in this chapter is on working, whether as an employee or self-employed; full-time or part-time. Across the 2 interview waves, 3 possibilities exist for learners:

- Move away from work (be working at wave 2 but not at wave 3)
- Have the same status at both interviews (either in work or out of work)
- Move towards work (be out of work at wave 2 but working at wave 3)

The multivariate analysis models the probability of being in each of these categories and how this relates to learners' characteristics. The advantage of a multivariate approach is it allows us to see more clearly the extent to which variation in outcomes is associated with a particular background characteristic. For example, a simple comparison of the between-wave transitions of men and women may partly reflect gender differences in childcare responsibilities. In a multivariate setting, we can control for this to isolate the variation associated with gender.

The findings are outlined later in this chapter in table 2.1 (English learners' reading and writing skills) and table 2.2 (maths learners' numeracy skills). These show the estimated marginal effects of the regressors of main interest on the probability of either moving away from work or moving towards work. In the case of the wave 2 skill variable, the marginal effect represents the difference in the probability of being in each respective group for someone whose measured skill level at wave 2 is half a standard deviation above the mean compared with someone whose wave 2 skill is half a standard deviation below the mean. In this way, the reported marginal effect shows how the probability of being in each group differs with a one standard deviation difference in wave 2 skills around the mean. Roughly, if we imagine ordering learners by their wave 2 measured skill and then dividing the sample into equal-size thirds, the marginal effect shows the predicted probability for someone at the higher threshold (the two-thirds point) compared with the lower threshold

(the one-third point). This follows since the skills measures follow a normal distribution by construction.<sup>36</sup>

Similarly, the marginal effect of skills change shows the extent to which an improvement in measured skills between waves 2 and 3 is associated with the change in the probability of moving away from or towards work. As with wave 2 skills, the reported marginal effects correspond to the probability difference between the upper and lower thirds of the wave 2 skills change distribution.

The remaining rows in tables 2.1 and 2.2 are indicator variables, taking the value zero or one. The reported marginal effects give the change in the probability of being in the 'moving away from work' or 'moving towards work' group associated with a change from zero to one for each regressor.

Individuals' year-on-year working status appears to be characterised by stability more than by change. For both English and maths, more than 80% of learners are in the same state at wave 2 as at wave 3. This implies that the probability of experiencing change is low (less than 20%) so there is less likelihood that the models will capture significant associations.

When considering English learners, there is a complication arising from the fact that for some individuals only reading or only writing scores are available. A consequence of this for the multivariate analysis is that the sample of English learners for whom models that include reading scores can be estimated differs from the sample for whom models that include writing scores can be estimated. In some cases, this can give rise to seemingly contradictory results when considering the association with characteristics that are not skill-specific. For example, in Table 2.1 the results for writing suggest that women who dropped out of their course were more likely to enter work, while the results for reading do not suggest this. In principle, we would expect to see consistent findings across English skills since neither the outcome (work) nor the characteristic (dropping out) is skill-specific. Instead, the inconsistency arises from differences in the sample. In such cases, it is important to be careful when interpreting the results.

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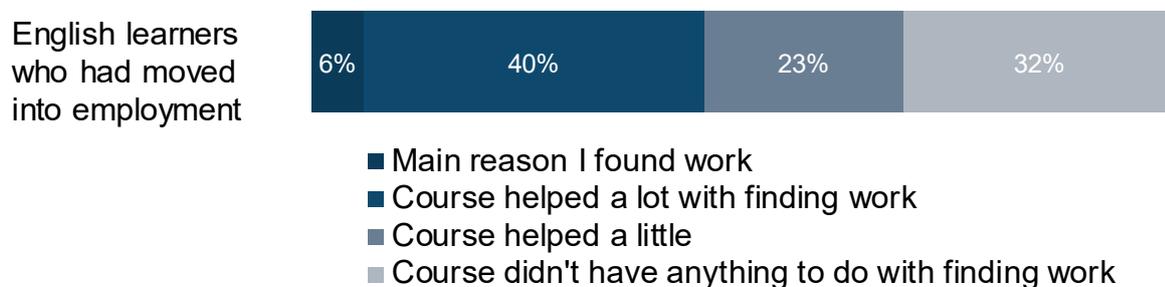
<sup>36</sup> This is the case for measured reading and maths since these measures were constructed using item response models. For writing, measures were constructed using a hybrid approach that combines item response modelling with examiner-marking. As a result of this, the writing measure is not constructed to follow a normal distribution.

## 2.4 English learners' perceptions of their course and employment outcomes

In this section we first explore adult learners' perceptions of the effect of taking English courses, before examining whether there are statistically significant associations between labour market outcomes and skills after controlling for other influences.

Over a tenth of learners (13%) moved into work during the year after they completed their course. These learners were asked how much they felt their course had helped them to find employment. Seven tenths (69%) of these learners perceived that their English course had helped. Figure 2.7 below shows the responses given by English learners who had moved into employment.

Figure 2.7 Perceptions of course's help in finding employment amongst English learners



Base: English learners who had moved into employment between wave 2 and wave 3 (126).

### English learners' employment transitions

Table 2.1 shows the marginal effects on entering and leaving work between interview waves 2 and 3, although note that the majority of these learning-related marginal effects are not statistically significant. Where the underlying relationship between the characteristic in question and work transitions is statistically significant it is marked with an asterisk (\*).

**Table 2.1 English learners: Marginal effects on entering and leaving work between waves 2 and 3**

Reading	All		Male		Female	
	Left work	Entered work	Left work	Entered work	Left work	Entered work
Measured skill, wave 2	0.01	-0.03	-0.01	0.03	0.02	-0.04
Measured skill change, waves 2-3	-0.02	0.03	-0.01	0.02	-0.03*	0.04*
Level 1 course	0.00	-0.01	0.00	0.00	0.03	-0.05
Level 2 course	0.00	0.00	0.00	-0.01	0.00	0.00
Dropped out of course	-0.01	0.01	-0.01	0.03	-0.01	0.02
Course increased confidence 'a lot'	-0.02	0.03	-0.03	0.09	0.02	-0.03
Course improved skills 'a lot'	0.00	0.00	-0.01	0.02	-0.01	0.01
Taken another course since wave 2	-0.01	0.02	0.00	0.01	0.00	0.00
Writing	Left work	Entered work	Left work	Entered work	Left work	Entered work
Measured skill, wave 2	0.01	-0.02	-0.03	0.03	0.02	-0.03
Measured skill change, waves 2-3	0.00	0.01	0.02	-0.02	-0.01	0.02
Level 1 course	0.00	0.00	0.09*	-0.08*	0.01	-0.02
Level 2 course	0.04	-0.05	0.48*	-0.21*	-0.03	0.05
Dropped out of course	-0.05	0.13	-0.01	0.01	-0.08*	0.28*
Course increased confidence 'a lot'	-0.02	0.02	-0.03	0.03	0.01	-0.01
Course improved skills 'a lot'	0.00	0.00	-0.04*	0.05*	0.02	-0.02
Taken another course since wave 2	-0.01	0.02	-0.01	0.01	-0.02	0.03

\* Marginal effects corresponding to statistically significant associations.

### **Exploration of skills and employment outcomes by English learners' gender**

Men (37%) who had attended English courses were more likely than women (20%) to be in full-time employment a year on from the end of their course (similar proportions moved into employment between waves 2 and 3 - 12% men and 13% women). Conversely, women were more likely to be caring for children or others, with 17% reporting this was the case compared to just 1% of men. Amongst those in employment, men were also more likely than women to have been promoted (15% compared with 5% of women).

We can observe though the multivariate analysis that overall – and for men and women separately – learners with a high measured reading skill in wave 2 were no more likely than others to leave or enter work between interview waves. This was also the case in respect of learners' writing skills at wave 2.

### **Exploration of skills and employment outcomes by English learners' age**

As might be expected, bivariate analysis reveals greater mobility amongst younger people who had attended courses between waves 1 and 2. Younger learners were more likely to be in training or education one year after the completion of their course than older learners (21% of learners aged 19-24, compared with 8% of those aged 25 and older). Additionally, learners aged 19-24 were more likely both to have moved into employment (20%, compared with 10% of learners aged 25 and over), and to have changed jobs (44% of learners aged 19-24 and 31% of learners aged 25-34, compared with 18% of learners aged 35 and over).<sup>37</sup> Conversely, older learners were more likely to have been in employment at both waves (40% aged 25 and over, compared with 22% of learners aged 19-24).

### **Exploration of skills and employment outcomes by English learners' first language**

The bivariate analysis shows that learners with English as a second language were more likely to have stayed in work between waves 2 and 3 (42%) compared with learners with English as a first language (30%). Also, they are more likely to have moved into work, with 15% of learners who had English as a second language reporting this was the case compared with 11% of learners whose first language was English. Multivariate exploration shows that this relationship was significant. Learners whose first language was not English were more likely to enter employment between waves (and less likely to leave employment) than those whose first language was English.

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<sup>37</sup> Bases: Under 24 (34), 25-34 (87), 35 plus (227).

## Exploration of skills and employment outcomes by English learners' course level

Bivariate analysis shows that learners who originally attended a Level 2 course were more likely to have changed job (36%) during the year after their course, when compared with Entry Level learners (19%) and Level 1 learners (23%).

## Other patterns in English learners' skills and employment outcomes

Bivariate analysis reveals a higher proportion of learners who improved their reading skills between waves 2 and 3 in the assessment changed job (40%) compared with learners who had not improved (16%).<sup>38</sup> However, there were no other significant differences in employment status a year on from the end of their course amongst English learners based on their improvement in reading or writing skills.

It is also worth remembering that in the wave 1 interview many learners identified that they had had to deal with difficult life circumstances which negatively impacted on their earlier achievement in education (42% of English learners and 45% of maths learners). These circumstances ranged from physical and mental disability through to difficulties with their family life or frequent changes in school. There are clear correlations between adults with poor health and learning disabilities being more likely to have poor English and maths skills, which are important factors when considering labour market outcomes.<sup>39</sup> The multivariate analysis indicated that disabled women with some activity limitation were more likely to enter and less likely to leave work than those with no disability.

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<sup>38</sup> Bases: Learners who had improved in the reading assessment (93), learners who had not improved in the reading assessment (72).

<sup>39</sup>

<https://www.researchonline.org.uk/sds/search/download.do;jsessionid=5C0BDE8CFF7DC92C73360C19E54377D9?ref=B3442>

## 2.5 Factors associated with employment transitions – maths learners

### Maths learners' perceptions of their course and employment outcomes

A tenth of maths learners (11%) moved into work during the year after they completed their course. Over half (52%) of these learners felt that their maths course had helped (Figure 2.8).

Attitudes amongst English learners were discussed earlier in this chapter - for comparison proportions were 69%, 6% and 40% respectively. So fewer maths learners saw a connection between their course and employment than English learners.

**Figure 2.8 Perceptions of course's help in finding employment amongst maths learners**



Base: Maths learners who had moved into employment between wave 2 and wave 3 (107).

## Analysis of maths learners' employment outcomes

As for adults who had participated in English courses, changes in skills and employment status were assessed for maths learners to explore any correlations between an improvement in skills and change in employment outcomes. The key findings discussed in this section are outlined in Table 2.2. Please refer to Section 2.2 earlier in this chapter for a guide to interpreting the multivariate analysis.

**Table 2.2 Maths learners: Marginal effects on entering and leaving work between waves 2 and 3**

	All		Male		Female	
	Left work	Entered work	Left work	Entered work	Left work	Entered work
Measured skill, wave 2	0.02	-0.04	0.04*	-0.09*	0.01	-0.01
Measured skill change, waves 2-3	0.00	0.00	0.01	-0.01	0.01	-0.01
Level 1 course	0.01	-0.01	0.02	-0.02	0.02	-0.03
Level 2 course	-0.03	0.04	0.00	0.00	-0.02	0.03
Dropped out of course	0.02	-0.02	0.09	-0.06	0.01	-0.02
Course increased confidence 'a lot'	0.00	0.00	0.00	0.01	0.01	-0.02
Course improved skills 'a lot'	0.02	-0.04	0.10*	-0.13*	0.00	0.01
Taken another course since wave 2	0.04*	-0.05*	0.04	-0.05	0.03	-0.05

\* Marginal effects corresponding to statistically significant associations.

## Exploration of skills and employment outcomes by maths learners' gender

Men were more likely than women to be working full-time one year after course completion, with 37% reporting this was the case compared with 23% of women. Women were more likely to be working part-time (30% compared with 15% of men) or caring for children or others (18% compared with 2% of men). Amongst learners in employment at both waves, men were more likely than women to have been promoted, with 10% saying they had been promoted compared with 4% of women.

Table 2.2 shows that men with higher skill levels were less likely to have entered work between the waves. There are 2 plausible explanations. The first is that those with higher skills were more likely to be in work in the first place. An alternative reason might be that those with higher skills were more likely to undertake further learning, thereby reducing their probability of entering work (this could include some moving from work to full-time study).

Male learners' views of the effectiveness of their course are strongly associated with employment transitions, although the same is not true for women. Men who thought that the course had improved their skills a-lot were more likely to move away from work. It is likely that this, at least in part, is driven by an increased uptake of further learning, with courses forming part of a longer learning journey.

### **Exploration of skills and employment outcomes by maths learners' age**

Similar to English learners, maths learners aged 24 or younger were more likely to be in training or education (21%) one year after their course, compared with those aged 25 to 34 (7%) and those aged 35 plus (6%). Quite possibly related to this, young learners (under 24) were less likely to remain in employment between wave 2 and wave 3 (32%) compared with learners aged 25 to 34 (44%) and 35 plus (47%). Younger learners were also more likely to have changed jobs between waves, with half saying this was the case (48%) compared with 30% of those aged 25 to 34 and 23% aged 35 plus.

### **Exploration of skills and employment outcomes by maths learners' course level**

Over half (56%) of Entry Level learners were not in employment at waves 2 or 3, compared with 35% of Level 1 learners and 34% of Level 2 learners. Conversely, Level 1 and Level 2 learners were more likely to have been in employment at both waves (45% and 48% respectively) compared with only a quarter (26%) of Entry Level learners. Similarly, learners who had attended an Entry Level course were less likely to have changed job (17%) compared with Level 1 learners (36%) or Level 2 learners (31%). This is consistent with Entry Level learners being more likely to say they were taking their course to help find work at the start of their course.

## Chapter 3: Continuing the learning journey

At the start of their course learners were asked their motivations for taking their Skills for Life course to identify whether the courses were seen as part of a longer learning path. In this chapter, we examine the progression of learning one year after the course ended. We explore learners' original motivations for taking their course, and their perceptions of whether their course led them to participate in further learning.

### Summary

Many learners attended further courses during the year after their course.

- At the start of their course a third (32%) of English learners, and two-fifths (41%) of maths learners saw their Skills for Life funded course as a stepping stone to other training/qualifications. Learners on Level 2 courses were particularly likely to view their course this way in comparison with learners on lower level courses<sup>40</sup> (who, as discussed in chapter 2 of this report, were more likely to have work-related reasons)
- Half of English learners (50%) and maths learners (48%) attended a subsequent course during the year after they completed their Skills for Life funded course.<sup>41</sup> <sup>42</sup> This rises to 62% of English learners and 59% of maths learners who said a main reason for taking their original course was as a stepping stone to other training/qualifications

It is clear that learners recognise the importance of having both maths and English skills.

- 15% of English learners who went on to a subsequent course after wave 2 reported that their highest level course was in maths, and 35% that their second highest level course was in maths
- 22% of maths learners who went on to subsequent courses, attended an English course as their highest level course, and 25% an English course was their second highest course<sup>43</sup>

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<sup>40</sup> 45% of English learners and 48% of maths learners on Level 2 courses saw it as a stepping stone.

<sup>41</sup> At the time of the wave 3 interview, 41% of English learners and 36% of maths learners were still attending their highest level subsequent course.

<sup>42</sup> These proportions are 54% of English learners and 54% of maths learners whose original course was Level 2.

<sup>43</sup> 26% of English learners who attended a course between wave 2 and wave 3 reported their highest or second highest course was in maths and 29% of maths learners who attended a course between wave 2 and wave 3 reported their highest or second highest course was in English.

Many learners reported that their subsequent course was at a higher level than the survey course (Table 3.1).<sup>44</sup>

**Table 3.1 Level of subsequent course by original course level**

Level of subsequent course	Level of original English Course			Level of original maths course		
	Entry Level 1	Level 1	Level 2	Entry Level 1	Level 1	Level 2
Level 1 or above	47%			54%		
Level 2 or above		70%			70%	
Level 3 or above			44%			39%
Base	250	113	109	267	102	109

Multivariate analysis to explore the effect of attending subsequent courses in the year following their original Skills for Life funded courses suggested it did not have a significant effect on learners' wave 3 measured skills for either English or maths learners. Therefore, ultimately it is not possible to identify a relationship between a learner's skills progression and the learning activities they took during the year following their course as compared to other activities.

### 3.1 English learners' attendance on subsequent courses

In addition to changes in learners' attitudes and skills, the purpose of the wave 3 follow-up survey was to identify if learners had continued with further learning in the year since their original course.

In the wave 1 survey at the start of their course when asked their main reasons for taking their Skills for Life funded English course, a third (32%) of learners, saw it as 'a stepping stone to other training/qualifications'. Learners on Level 2 courses were particularly likely to view their course this way in comparison with learners on lower level courses (45% learners on Level 2 courses, compared with 32% of Level 1 learners and 19% of Entry Level learners).

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<sup>44</sup> Note that there is also likely to be additional learners who have undertaken an Entry Level course at a higher level than their original Skills for Life Entry Level course, for example moving from Entry Level 1 to Entry Level 2 or 3. It is not possible to identify this from the dataset. Also, note that these courses may have been in different subjects to English or maths.

In fact, half of English learners said that they had attended further courses during the year after their original course. Of these learners, 64% had attended one subsequent course, 24% had attended 2 courses, 10% 3 courses; and, 2% 4 or more courses in the past year. Note, it is not possible to identify whether learners interpreted this as modules feeding into one larger course or if these were all distinct.

Learners were asked whether they had completed their courses or not at the time of interview. In the main, English learners had either completed their course (54% for highest level course and 72% for second highest level course) or were still attending the course (41% and 25%, respectively).

In the wave 2 interview there was a low incidence of learners in this study who had dropped out of their original Skills for Life course (7%). Drop-out rate in subsequent courses was similarly low, with only 5% having dropped out of their highest level course, and 3% their second highest level (see Table 3.2).

**Table 3.2 Subsequent course status amongst English learners**

	<b>Course completion for highest level course reported</b>	<b>Course completion for second highest level course reported</b>
I have already completed the course	54%	72%
I'm still attending the course	41%	25%
I left the course partway through	5%	3%
Base (unweighted)	493	175

In keeping with their greater likelihood of being motivated by work-related reasons when they started on the course, learners who had attended an Entry Level course were less likely to have attended any further courses following the end of their original course (44%, compared with 50% of Level 1 learners and 54% of Level 2 learners). It is also worth noting that data from the statistical first release in November 2015 shows that in 2013/14, the achievement rate at English Level 2 was 41% whereas for Entry Level learners the achievement rate was 75% and at Level 1 it was 44%. So, it may be that Level 2 learners in particular were more likely to need to re-take their course.<sup>45 46</sup>

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<sup>45</sup> <https://www.gov.uk/government/statistics/learner-participation-outcomes-and-level-of-highest-qualification-held>

Learners who had attended an Entry Level course as part of the longitudinal survey were more likely to have dropped out of their highest level subsequent course - 10% of learners dropped out, which compares with 3% of learners who had been on a Level 1 course and 3% on a Level 2 course.

Learners were also asked about the subject of the course and its length, with learners who attended more than 2 courses asked to think about the 2 highest level courses they attended.

Table 3.3 shows the subject of the most frequently attended courses during the year following the English course included in wave 1 of the study. The highest level subsequent course learners attended between wave 2 and wave 3 was most commonly an English course (38%), which indicates that learners were interested in progressing their English skills beyond their original course. Fifteen per cent of English learners attended a maths course as their subsequent highest level course, with 35% of learners who attended more than one course taking a course in maths as their second highest level course. A quarter of learners (26%) said their second highest level course was in English.

The second most common response, which was given by three-tenths of learners (29%), was that their highest level course was a course relating to a specific job.

**Table 3.3 English learners' subsequent course subject**

	<b>Highest level course subject reported</b>	<b>Second highest level course subject reported</b>
English	38%	26%
A course relating to a specific job	29%	16%
Maths	15%	35%
Computing / ICT	5%	7%
Base (unweighted)	488	172

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<sup>46</sup> Please note that this is not matched to achievement data for the course so it should not be assumed that the learners in this study were re-taking courses. Analysis of the level of course learners attended following their original course is conducted later in this chapter but reveals that equal proportions of Level 2 learners progressed to a Level 3 course and attended a Level 2 course. However, these courses were not necessarily English courses.

### 3.2 Maths learners' attendance on subsequent courses

Similar to English learners, around half of maths learners (48%) had attended further courses in the year after their course included in this survey. Maths learners who had gone on to further learning most commonly attended one course (70%), with a fifth (22%) saying they had attended 2, 6% 3, and 2% 4 or more. As mentioned in section 3.1 when discussing English learners, we are not able to identify whether these might be modular courses or re-takes as opposed to distinct courses.

As shown in Table 3.4, maths learners were at different stages in their courses at the time of the follow-up interview, with three-fifths (59%) having completed their highest level subsequent course, and 69% their second highest. Similar to English learners, course drop-out on subsequent courses amongst the learners interviewed in this study was low.

**Table 3.4 Subsequent course status amongst maths learners**

	<b>Course completion for highest level course reported</b>	<b>Course completion for second highest level course reported</b>
I have already completed the course	59%	69%
I'm still attending the course	36%	24%
I left the course partway through	4%	7%
Base (unweighted)	505	179

Learners who did not improve their maths skills between waves 2 and 3 were more likely to have attended a subsequent course (56%) compared with those who did improve (46%). This highlights the complex and interacting factors involved in the development of skills.

Similar to learners who attended an English course during wave 1 to wave 2, maths learners appear to place value on both numeracy and English skills, with English and maths featuring heavily in subsequent courses. Maths learners most commonly reported that the highest level course which they had attended was in maths (27%) and the second highest report was in English (22%). A further 25% said their second highest level course was in English. Table 3.5 below shows the subjects most frequently studied.

**Table 3.5 Maths learners' subsequent course subject**

	<b>Highest level course subject reported</b>	<b>Second highest level course subject reported</b>
Maths	27%	38%
English	22%	25%
A course relating to a specific job	29%	19%
Computing / ICT	6%	3%
Base (unweighted)	500	180

### **3.3 Influence of previous course on learning amongst English learners**

Learners were asked how much their previous course influenced their decision to go on any further courses. Responses were consistent when learners were asked about both their highest and second highest level subsequent course, as can be seen in Table 3.6. A third of English learners who had attended further courses (35%) said that they would not have attended their subsequent course without having attending the previous course. However, two-thirds (65%) said they still would have attended further courses whether they had been on the course or not.

**Table 3.6 Influence of previous course on further learning amongst English learners**

	<b>Attendance on subsequent course if hadn't been on original course: Highest level course</b>	<b>Attendance on subsequent course if hadn't been on original course: Second highest level course</b>
Yes – definitely would have gone on other course anyway	44%	51%
Yes – probably would have gone on other course anyway	21%	14%
No – probably would not have gone on other course	14%	16%
No – definitely would not have gone on other course	21%	18%
NET: Would have gone on other course anyway	65%	65%
NET: Would not have gone on other course	35%	34%
Base (unweighted)	493	175

Learners who had originally attended a Level 2 course were more likely to say they would not have attended their highest level course without the previous course (41%, which compares with 35% of Level 1 and 26% of Entry Level learners). Learners on Level 2 courses were more likely to see their original course as a 'stepping stone to further qualifications'.

It is interesting to explore learners' behaviour in the year following their original course in terms of whether learners progressed to more advanced courses. Learners were asked what level course they had taken a year on from their original course for their highest and second highest level subsequent course. Overall, around half of English learners (47%) reported that the highest level course which they had attended was at Level 1 or Level 2, with 37% of English learners saying their highest course was Level 2. Responses were similar when learners were asked about their second highest level course with two-fifths (42%) saying that they attended a Level 2 course. Responses are outlined in full in Table 3.7.

**Table 3.7 Level of course which English learners attended**

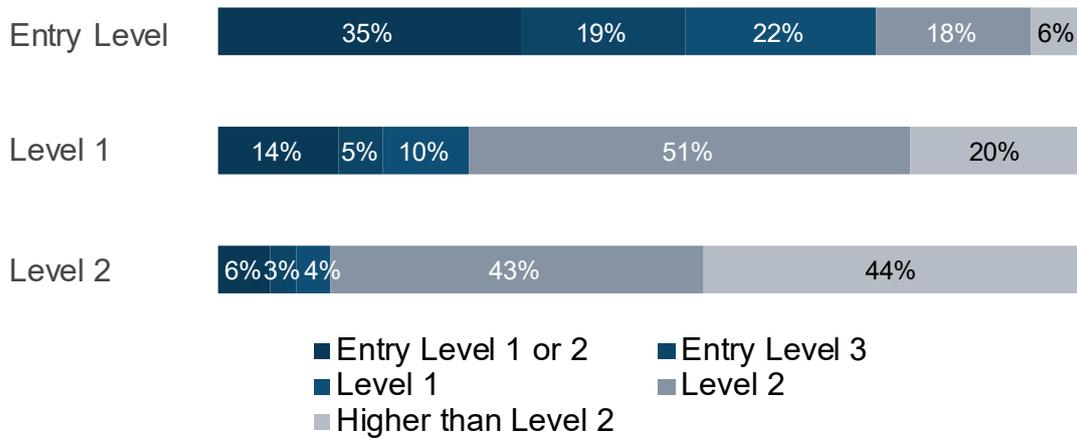
	<b>Level of highest level course reported</b>	<b>Level of second highest level course reported</b>
Entry Level 1 or 2	16%	16%
Entry Level 3	8%	6%
Level 1	11%	18%
Level 2	37%	42%
Level 3	11%	8%
Level 4	3%	<1%
Level 5	1%	2%
Level 6-8	9%	4%
Other	3%	4%
Don't know	2%	1%
Banded: Entry Level	24%	22%
Banded: Levels 1 and 2	47%	60%
Banded: Above Level 2	24%	14%
Base (unweighted)	491	175

Figure 3.1 shows the highest level course that learners attended between wave 2 and wave 3 compared with the level of the course they had originally attended. There is a mixed picture of progression for learners who studied at Entry Level, but this group spans a range of levels (Entry Level 1 through to Entry Level 3) so it is not possible to identify what proportion have progressed to a higher level course. It is also worth noting that learners were asked about courses in any subject, so it does not necessarily correlate to progression in English.

Half of learners who had studied at Level 1 (51%) said they had gone on to a Level 2 course, and a further 20% to course level higher than level 2. Over two-fifths (44%) of Level 2 learners reported they attended a course at a higher level than Level 2.

**Figure 3.9 Highest Level course (reported) compared with original course level**

**Original course level**



Base: Entry Level learners (250); Level 1 learners (113); Level 2 learners (109) excluding those who said 'other' or 'don't know'.

Whilst base sizes are small for analysis in the higher levels (as shown in brackets below) there were signs of progression in level of English course for a notable proportion of Entry Level and Level 1 learners. Looking at only learners who reported that the highest level course which they attended between waves 2 and 3 was in English:

- 50 English Entry Level learners reported that their English course had been at Level 1 or higher (base = 144);
- 34 English Level 1 learners reported they had attended an English course at level 2 or higher (base = 48); and
- 2 English Level 2 learners said they had attended an English course which was higher than Level 2 (base = 26).

### 3.4 Influence of previous course amongst maths learners

Seven-tenths of maths learners (71% of both highest and second highest level courses) reported that they would have attended the courses between wave 2 and wave 3 regardless of the maths course they attended between wave 1 and wave 2. Conversely three-tenths of learners (29%) would not have attended their subsequent course. Table 3.8 shows learners responses in full.

**Table 3.8 Influence of previous course on maths learners**

	<b>Attendance on subsequent course if hadn't been on original course: Highest level course</b>	<b>Attendance on subsequent course if hadn't been on original course: Second highest level course</b>
Yes – definitely would have gone on other course anyway	49%	55%
Yes – probably would have gone on other course anyway	21%	15%
No – probably would not have gone on other course	14%	11%
No – definitely would not have gone on other course	15%	17%
NET: Would have gone on other course anyway	71%	71%
NET: Would not have gone on other course	29%	29%
Base (unweighted)	505	180

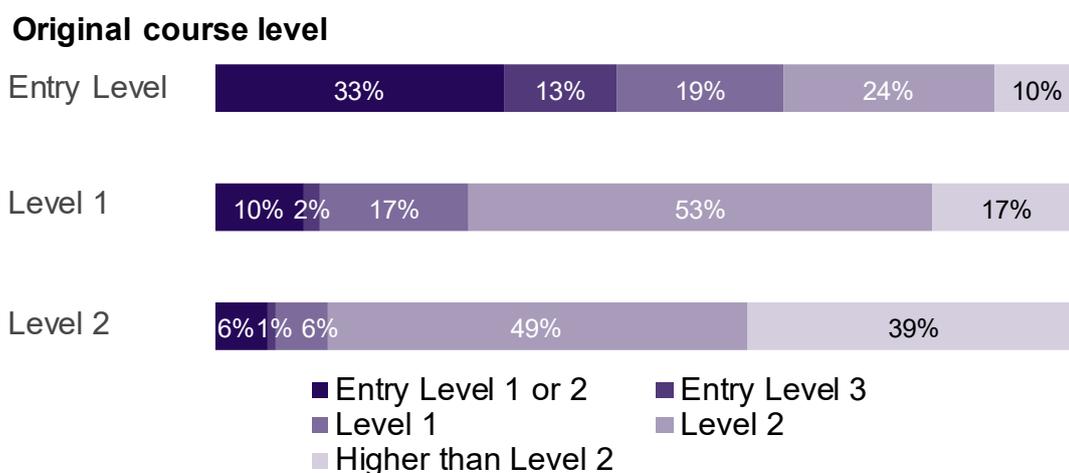
Table 3.9 shows maths learners' responses to the level of course which they had attended. Similar to English learners, the highest level course which learners most commonly attended was Level 2 (43%), while 37% of maths learners reported that their second highest level course was at Level 2.

**Table 3.9 Level of course maths learners attended**

	<b>Level of highest level course reported</b>	<b>Level of second highest level course reported</b>
Entry Level 1 or 2	13%	17%
Entry Level 3	4%	4%
Level 1	12%	27%
Level 2	43%	37%
Level 3	12%	6%
Level 4	2%	1%
Level 5	4%	-
Level 6-8	6%	-
Other	3%	3%
Don't know	1%	4%
Banded: Entry Level	17%	21%
Banded: Levels 1 and 2	55%	65%
Banded: Above Level 2	24%	7%
Base (unweighted)	505	180

Figure 3.2 shows a comparison of the level of course which learners attended originally against the highest level course they attended between wave 2 and wave 3. Similar to English learners, there are signs of progression in the level of course studied across all previous levels of courses. This is especially prominent at Level 1, with 53% progressing to study a Level 2 course. It should be noted that these courses cover any subject so findings do not necessarily correlate with progression in maths learning.

**Figure 3.10 Level of course which maths learners attended**



Base: Entry Level learners (267); Level 1 learners (102); Level 2 learners (109) excluding those who said 'other' or 'don't know'.

### 3.5 English learners' perceptions of whether the course helped them improve their skills

Learners were asked how much their subsequent course helped them to improve their skills. Generally, learners were positive, with four-fifths of learners (80%) saying their highest level course helped their skills 'a lot' and seven-tenths (74%) saying the same for their second highest level course. Nearly all English learners said their highest level (98%) and second highest level (94%) helped their skills, which is in line with what learners reported at the end of their 2013/2014 English course. That is, when 96% said their English course had helped their skills. Table 3.10 shows learner's responses.

**Table 3.10 Extent to which course felt to have helped English learners' skills**

	Highest level course	Second highest level course
A lot	80%	74%
A little bit	18%	20%
Not at all	2%	6%
Base (unweighted)	493	175

### 3.6 Maths learners' perceptions of whether the course helped them improve their skills

Maths learners generally felt the courses they attended in the year after they completed their original course helped them improve their skills, with three-quarters (74%) saying the course helped their skills 'a lot' for each of their highest and second highest level courses. In total, 95% of maths learners said their highest level and second highest level course helped their skills, which is comparable with findings at wave 2 when 93% of maths learners said their maths course had helped their skills. Table 3.11 below shows learners' responses.

Table 3.11 Extent to which course felt to have helped maths learners' skills

	Highest level course	Second highest level course
A lot	74%	74%
A little bit	21%	21%
Not at all	5%	5%
Base (unweighted)	505	180

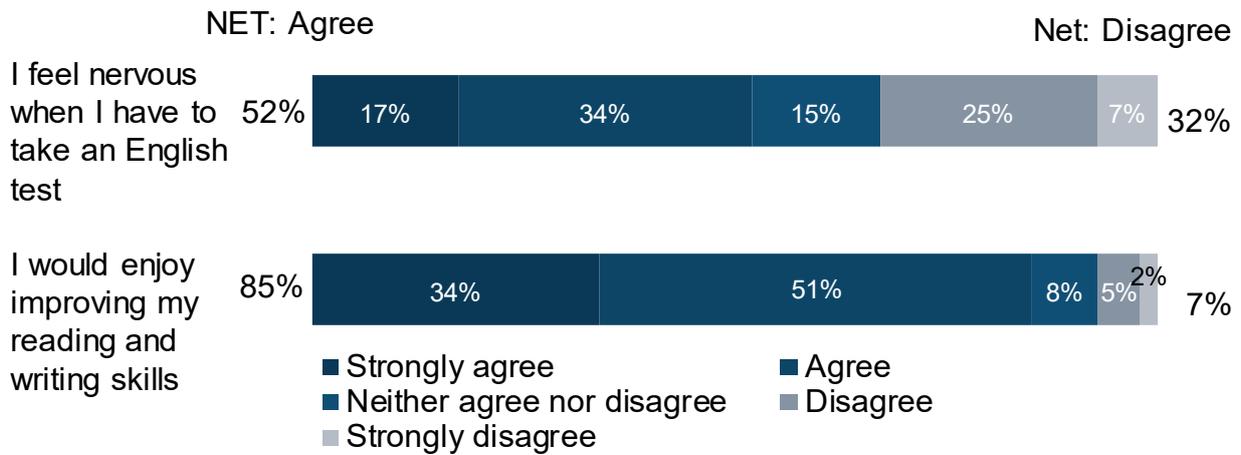
### 3.7 Future learning amongst English learners

#### Attitudes towards learning amongst English learners

Figure 3.3 shows English learners' attitudes towards learning at wave 3, one year after they completed their course. Learners showed a high level of interest in improving their skills with nearly nine-tenths (85%) agreeing that 'I would enjoy improving my reading and writing skills' and a third (34%) agreeing strongly with this statement. However, half (52%) of learners agreed that 'I feel nervous when I have to take an English test'.

It is perhaps unsurprising that learners are positive towards learning but simultaneously nervous when their skills are tested. As described in the wave 2 interim report, a notable proportion (42%) of learners said that they had had to deal with difficult life circumstances which negatively impacted on their earlier achievement in education. Issues ranged from physical and mental disability through to difficulties with their family life or frequent changes in school. It is reasonable to speculate that for some, tests and exams as well as more general learning have negative associations with disengagement with school and education in earlier years.

**Figure 3.3 English learners' attitude to learning**



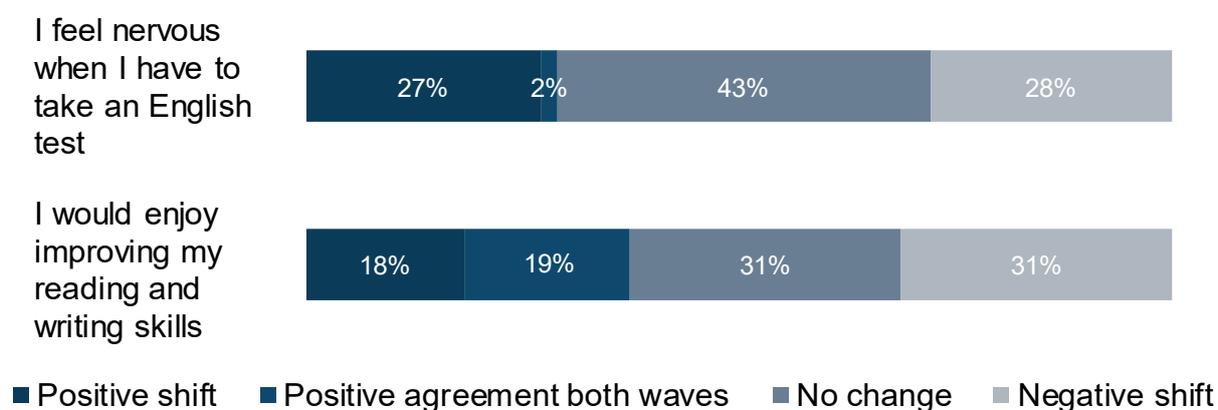
Base: All English learners (1076).

### Changes in attitudes between wave 2 and wave 3 amongst English learners

Statements were asked of learners at both wave 2 and wave 3, allowing analysis of changes in perceptions between waves.

There was a mixed response amongst English learners towards their nervousness when presented with an English test. A quarter of learners (27%) reported a positive shift between wave 2 and wave 3 in their confidence when faced with an English test. However, a similar proportion (28%) showed a negative change, indicating that they were more nervous about English tests a year on from the end of their course. Conversely, a year on from finishing their course, one-fifth of English learners (18%) showed a positive shift in agreeing that 'I would enjoy improving my reading and writing skills'. A similar proportion (19%) said they strongly agreed with the statement at both wave 2 and wave 3, suggesting there is a sizeable minority of English learners who continue to enjoy improving their English skills over time. However, three-tenths of English learners (31%) showed a negative change in their enthusiasm towards improving their English skills. There were no differences in changes in attitudes towards improving skills between learners who had attended further courses and those who had not. Figure 3.4 shows learners' responses.

**Figure 3.4 Changes in English learners' confidence between wave 2 and wave 3**



Base includes only learners who gave a response at both wave 2 and wave 3: I feel nervous when I have to take an English test (1059); I would enjoy improving my reading and writing skills (1060).

### Plans to attend future courses amongst English learners

Learners were also asked whether they intended to attend any other courses in the next year. Figure 3.5 shows English learners' responses. Seven-tenths of English learners (69%) said they will go on to other courses in the next year and only three-tenths said they would not attend more courses, reflecting the enthusiasm for studying amongst this group of learners.

**Figure 3.5 English learners' intentions to attend other courses in the next year**



Base: All English learners (1077).

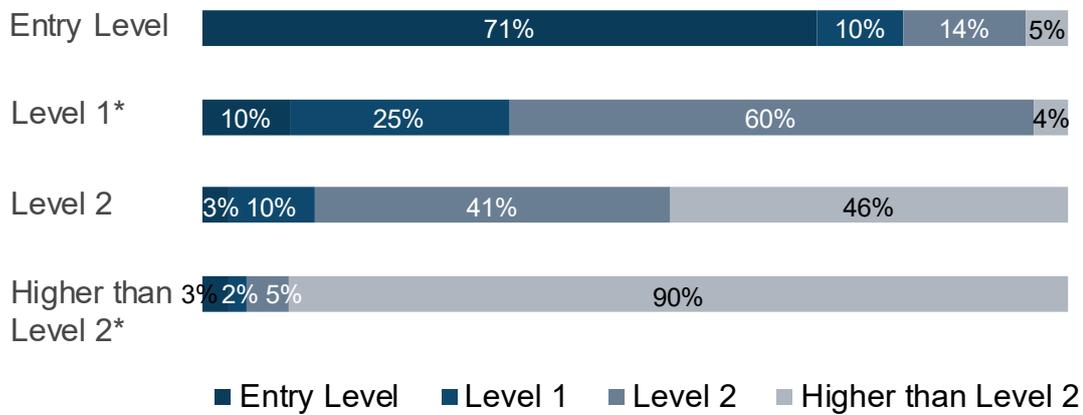
Reflecting courses undertaken in the year after their original course, learners were most likely to be considering further courses in English (33%), courses relating to a specific job (22%) or in maths (16%).

### **Future course level amongst English learners**

Learners who said they definitely / probably would attend other courses in the next year were also asked what level their future course will be at. A quarter (26%) of English learners who intended to go on to further courses in the next year said this would be Entry Level, 11% Level 1 and 29% Level 2, which mirrors the range of abilities of learners interviewed. A third (34%) of learners planned to study at a higher level than Level 2, with 12% saying their future course will be Level 6-8, which is degree level or higher.

There is also evidence that learners want to progress their skills when we look at learners' highest level course between waves 2 and 3 and the level of course they plan to study in the next year. Figure 3.6 compares the level of individuals' courses between waves 2 and 3 to the level of course the learner would like to take in the future. Base sizes prevent deeper analysis and are especially small for learners who attended a course higher than Level 2 at wave 3. Nevertheless, there are signs that learners are hoping to go onto higher level courses. Findings amongst Entry Level learners look like a high proportion (71%) are not progressing past Entry Level, but these groups include learners from Entry Level 1 to Entry Level 3 so there still may be progression within Entry Level courses. Whilst base sizes for Level 1 learners prevent conclusive analysis, 36 of the 59 Level 1 learners said they wanted to progress to a Level 2 course in the future.

**Figure 3.6 Comparison of wave 3 course level and intended next year's course level amongst English learners**



Base excluding learners who said 'Other' or 'Don't know': Entry Level learners (127); Level 1 learners (59); Level 2 learners (110); higher than Level 2 learners (54). \* Note low base.

### 3.8 Future learning amongst maths learners

#### Attitudes towards learning amongst maths learners

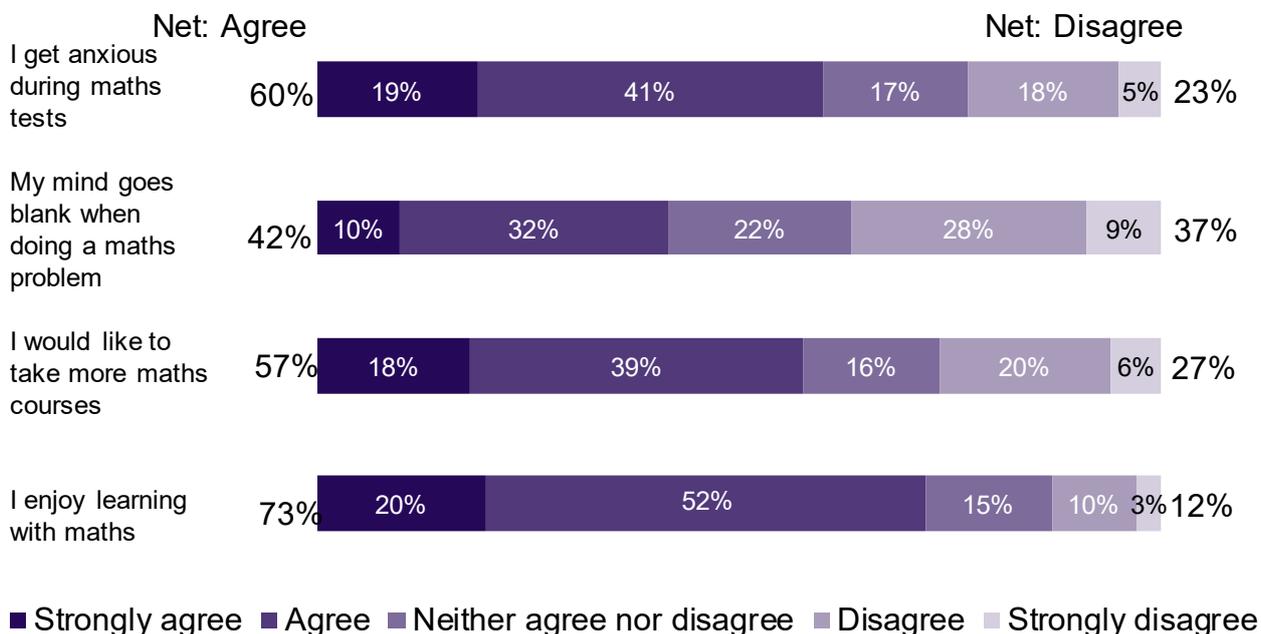
Maths learners were also asked a series of statements, which differed slightly to the statements asked of English learners. The statements analysed in this chapter relate to maths learners' enjoyment of learning. Further statements are analysed in chapter 6.

All statements analysed in this chapter are shown in Figure 3.7 below. Overall, maths learners seemed positive about learning but some showed signs that they lacked confidence when their maths skills were assessed.

A high proportion of maths learners showed enthusiasm towards learning with maths, with three-quarters (73%) agreeing that 'I enjoy learning with maths'. This enthusiasm also translated to maths learners wanting to improve their skills, with nearly three-fifths of maths learners (57%) agreeing that 'I would like to take more maths courses'.

Maths learners were more divided when asked about being assessed on their maths skills. Three-fifths agreed that 'I get anxious during maths tests'. Two-fifths (42%) agreed that 'My mind goes blank when doing a maths problem' although a similar proportion (37%) disagreed with the statement, suggesting a mixed reaction when presented with a maths problem.

**Figure 3.7 Maths learners' perceptions of their skills and enjoyment of learning a year on from the end of their course**



Base: All maths learners (1018).

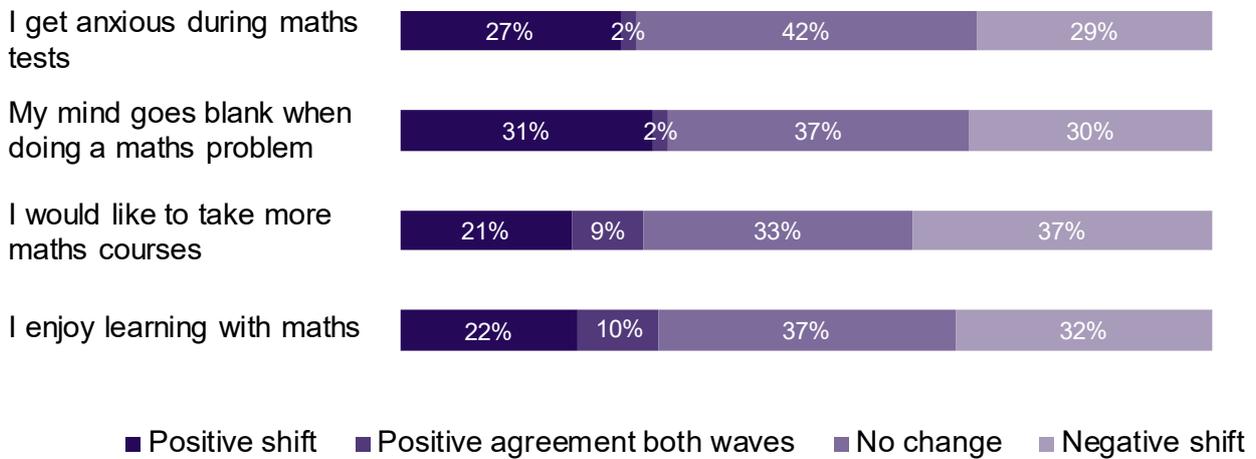
### Changes in attitudes between wave 2 and wave 3 amongst maths learners

Figure 3.8 shows the comparison of learners' responses between waves 2 and 3. For a notable proportion of learners their interest in learning had increased a year on from the end of their course. Around a fifth (22%) of learners showed a positive shift in their agreement that 'I enjoy learning with maths' and a similar proportion (21%), 'I would like to take more maths courses'. However, close to two-fifths of learners showed negative changes in their opinion on further maths learning (37%) and 32% were more negative about their enjoyment of learning maths.

There were also negative changes in learners responding that 'My mind goes blank when doing a maths problem' and learners' anxiety when doing a maths test. Around three-tenths in both cases (30% and 29%, respectively) responded with a more negative view to these statements. In both cases, around three-tenths of learners showed a positive shift in attitude and 2% remained at the most positive response.

There was no correlation between changes in confidence over time and having attended further courses between wave 2 and wave 3.

**Figure 3.8 Changes in maths learners' perceptions between wave 2 and wave 3**



Base: All maths learners who gave a response at wave 2 and wave 3 (1013).

### Plans to attend future courses amongst maths learners

Two-thirds of maths learners (67%) said that they intended to attend other courses in the next year. Figure 3.9 shows the responses given by maths learners in full. Learners who were definitely or probably going to attend another course in the next year were most likely to be planning courses relating to a specific job (28%), maths (20%), or English (18%).

**Figure 3.9 Maths learners' intentions to attend other courses in the next year**



Base: All maths learners (1022).

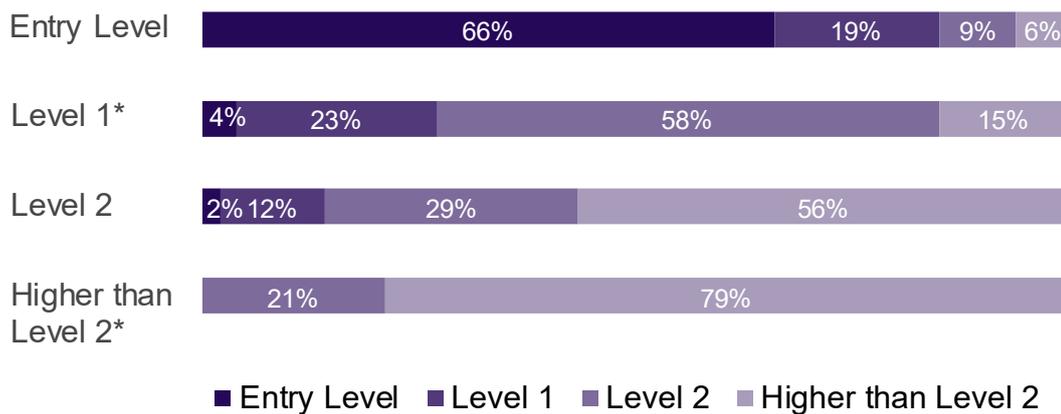
### Future course level amongst maths learners

Maths learners who definitely or probably would attend other courses in the next year showed similar patterns of response to English learners. A fifth (20%) said their future course would be Entry Level, 12% Level 1, and 29% Level 2. Around two-fifths (39%) of maths learners who intended to take a course in the next year were intending to take a course above Level 2, with 16% saying this course would be Level 6-8, which is degree level or higher.

Similar to English learners, there are signs that learners are looking to progress to higher level courses in the future when comparing the level of course they attended between

waves 2 and 3 and the level of the course they intend to take in the next 12 months. Whilst base sizes are small, especially for learners who attended a course at wave 3 which was higher than Level 2 - of the 60 Level 1 learners, 35 reported that they would want to attend a Level 2 course. Figure 3.10 below shows a comparison between the courses learners attended between wave 2 and wave 3 and level of any future courses they wanted to attend.

**Figure 3.10 Comparison of wave 3 course level and future course level amongst maths learners**



Base excluding learners who said 'Other' or 'Don't know': Entry Level learners (116); Level 1 learners (60); Level 2 learners (118); higher than Level 2 learners (59). \*Note low base.

### 3.9 Exploring the causal effects of further learning

As mentioned elsewhere in this report, the survey was not intended to support estimation of the causal impact of learning on skills and other outcomes. Consequently, the main body of the results describes associations between the different variables collected in the survey rather than causal relationships. With the data available to us, we are unable to distinguish associations which arise because one variable causes another and associations which arise because both variables are influenced by a third, unknown, common factor.

As detailed earlier in this chapter, roughly half of learners who attended courses in the wave 1 to wave 2 longitudinal study went on to attend subsequent courses after wave 2. In this section, we compare the outcomes of these further learners with those individuals who did not take any further courses. Specifically, we have explored the effect on skills change (reading and writing for English learners and maths for maths learners) and change in employment (for both English and maths learners). In this way, we hope to learn something about the causal impact of further learning.

Simply comparing outcomes of these 2 groups is unlikely to result in credible impact estimates because the learners who attended subsequent courses may differ in some way from those who do not go on to take further courses. For instance, if they were more motivated, any differences in outcomes will, at least in part, simply reflect the fact that more motivated people have better outcomes. This means it is not possible to assert that a causal impact of further learning has been identified.

To get closer to a causal impact estimate requires addressing this non-random selection into further learning. One option is to control for all differences using an approach such as propensity score matching. This requires that all characteristics influencing participation in further learning can be identified and observed, something that is unlikely to hold in this case. Instead, we used an instrumental variable approach.

An instrumental variable approach relies on the existence of a variable that influences participation but not outcomes - an 'instrument'. The broad idea is that since the instrument is unrelated to outcomes, it introduces a quasi-random assignment to participation. This allows an estimate of the impact of participation on outcomes for the subgroup of people whose participation is influenced by the instrument.

The standard problem with instrumental variable estimates is identifying a suitable instrument. The approach taken in this study was to consider only those individuals interviewed in all 3 survey waves and to use a response to a wave 1 question as the basis for an instrument. Specifically, in wave 1 learners were asked why they were taking the course in question - one of the possibilities was that they were taking it as a 'stepping stone to other qualifications or training'. We used this as our instrument.

It is of course possible to question whether this variable is suitable for use as an instrument. In its favour, it is strongly correlated with whether individuals participate in further learning (see table 3.12). Learners who gave this as their reason for participating in their original course were more likely to participate in subsequent learning. The more difficult question is whether the variable is likely to be related to the change in outcomes between wave 2 and wave 3. This is not something that can be formally established but, on the face of it, it is not clear why (or how) that variable should influence such change other than through its effect on further learning.

The main results are shown in the upper panel of Table 3.12. The change in skills (reading, writing, and maths) is estimated as a linear model while the change in work is estimated as an ordered probit. This latter variable takes a value of -1 if someone stops working, a value of zero if their employment status does not change, and a value of 1 if they move into work. Table shows that the influence of 'taken any course since wave 2' on the variables in question is not statistically significant in any of the equations.

The conclusion from this analysis is that there is no evidence of an impact of subsequent learning on skills or employment.

There are 2 important points to bear in mind. First, the estimates relate only to a subgroup of further learners. That is, those whose reason for undertaking their first course dictates participation in further learning (it was assumed that this instrument had the strongest claim to being legitimate). It is perfectly possible that the impact of further learning would be different for other groups within the population. Second, the estimates relate to the impact of further learning rather than the impact of any learning. These results are silent on the question of whether the initial learning had an impact.

For these reasons, it is important not to generalise from these findings. They suggest that, for a specific group of people, there is little short-term benefit on skills from further learning beyond the initial course (at least not in terms of the outcomes measured as part of this study). A fuller assessment of the effect of the initial training is not possible with the available data.

**Table 3.12 Estimates of the causal effect of taking a course after wave 2 on changes in reading, writing and maths skills and working**

	English learners			Maths learners	
	Reading Skill	Writing Skill	Working	Maths Skill	Working
Taken any course since wave 2	0.04	0.079	0.108	0.078	-0.212
	(0.322)	(0.656)	(0.756)	(0.687)	(-1.311)
Constant	-0.034	0.012		-0.052	
	(-0.460)	(0.153)		(-0.754)	
First stage regression: whether taken any course since wave 2					
Took course as stepping stone to further learning	0.473***	0.488***	0.458***	0.492***	0.482***
	(3.153)	(3.262)	(2.984)	(3.207)	(3.112)
Constant	-0.156*	-0.169*	-0.153*	-0.275***	-0.258**
	(-1.737)	(-1.892)	(-1.713)	(-2.633)	(-2.438)
Log standard error	-0.409***	-0.336***		-0.590***	
	(-10.28)	(-6.831)		(-10.941)	
$\tanh^{-1} \square$	-0.02	-0.171	-0.086	-0.259	0.126
	(-0.115)	(-1.075)	(-0.672)	(-1.358)	(0.833)
Cut 1			-1.485***		-1.553***
			(-12.827)		(-13.692)
Cut 2			1.194***		1.119***
			(12.933)		(10.515)
N	771	744	1077	678	1022

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

## Chapter 4: Independent assessment of skills

A core objective of this study was to explore the progression of learners' skills both during their course, and in the year after it ended. Assessment tools were developed for this study, with learners taking 'tests' as part of their interview in each survey.

These findings can be taken as indicative of learners' skills but there are broader considerations when interpreting these findings, not least whether it was the learner's objective to improve his or her skills. For example, some learners may have been working towards a qualification in line with an existing skills level. It is also not possible to identify the extent to which some learners may have started on a course at an inappropriate level for their existing skills. As such, we should not assume that the progression of skills during or beyond their course is an appropriate outcome measure for all learners. Variations in performance may also indicate a regression to the mean - the phenomenon whereby random variations in measured scores disappear when re-measured. Essentially in a real life test situation people can have a bad day or a good day, which means there is a random element to their test score on any day. Please refer to the, Programme of research for adult English and maths longitudinal survey of adult learners technical report, for a full discussion of the assessment and its interpretation.

Care should also be taken to avoid assumptions of causality - this study was not designed to be an impact evaluation and in the absence of a counterfactual we are not able to directly attribute any changes in skills to participation in the Skills for Life course.

### Summary

The proportions of English learners who showed progress in their reading and writing, and maths learners who showed progress in their maths skills are summarised in Table 4.1. Comparisons are made from wave 1 (start of course) to wave 2 (end of course) and from wave 2 to wave 3 (one year after the course ended). This shows a mixed pattern of progression, which may well be related to different needs and objectives of learners when embarking on their course.

**Table 4.1 Proportions of English and Maths learners who showed progress**

		<b>Wave 1-wave 2</b>	<b>Wave 2 - wave 3</b>
	Reading	52%	54%
	Writing	51%	51%
	Maths	66%	46%

Base: Wave 2 learners with a valid score (563 reading, 428 writing, 403 maths), Wave 3 learners with a valid score (534 reading, 445 writing, 471 maths).

Looking across the full study timeline reveals a similarly mixed picture (Table 4.2)

**Table 4.2 Levels of progression during, after and throughout a course**

	No progression	Progression during but not after	Progression after but not during	Progression throughout
 Reading	23%	21%	36%	20%
 Writing	17%	32%	34%	17%
 Maths	19%	42%	13%	26%

Base: All learners who attended an English course, and had scores at all 3 waves for reading (171) or writing (121), All learners who attended an English course, and had scores at all 3 waves for maths (134).

As shown in Table 4.3, when comparing learners' assessments at the beginning and end of their course, there was differentiation by level, with learners on Level 2 courses being more likely to show progression. This is consistent with the greater likelihood of these learners seeing their course as a stepping stone to further learning and their original Skills for Life course being part of an ongoing learning journey.<sup>47</sup>

**Table 4.3 Progression in English and maths learners during their course (wave 1 to 2) by level**

English learners: Reading		Entry Level	Level 1	Level 2
	Progress	44%	46%	61%
	Base	194	154	215
English learners: Writing		Entry Level	Level 1	Level 2
	Progress	52%	30%	70%
	Base	191	111	126
Maths learners: Maths		Entry Level	Level 1	Level 2
	Progress	33%	72%	74%
	Base	100	140	163

<sup>47</sup> 45% of English learners and 48% of maths learners on Level 2 courses saw it as a stepping stone.

In the year following learners' courses there was a different pattern of progression. Firstly, there was no difference in progression according to learners' course level with regards to reading skills. However, when it comes to writing skills, there was an inverse pattern to that seen between waves 1 and 2 - English learners who attended Entry Level courses were more likely to show progression than learners who had attended more advanced courses (64% of Entry Level learners, compared with 44% of Level 1 and 41% of Level 2).

To a lesser extent, a similar pattern is observed amongst maths learners - learners who had attended Entry Level maths courses were more likely to progress in the year following their course than learners who'd attended higher level courses (53% of Entry Level learners progressed, compared with 44% of learners who attended either a Level 1 or Level 2 course).

### **Description of assessments**

The longitudinal survey incorporated tests developed by the research team specifically for this research in order to assess learners' skills in a consistent and credible manner. English and mathematical skills were assessed using separate tests. The English assessment consisted of a reading component and a writing component, providing us with 2 separate measures for each learner with a valid assessment at each stage.

The English writing component tested learners' abilities in spelling, punctuation and grammar (SPAG), and also included an extended writing element, where learners were asked to write a piece of text. There was no marker judgement involved in scoring the mathematics, reading and SPAG items. By contrast, the extended writing exercise required markers to judge learners' scripts against a 0 – 11 scale.

Learners attending different levels of course were tested using separate assessments, although there was substantial overlap between levelled tests. For example, some Entry Level 2 questions were also used in Entry Level 3 tests, and some Entry Level 3 questions were in Level 1 tests, and so on. This overlap was useful for linking tests to show comparability. Further information on the development and contents of the assessments is included in the programme of research for adult English and maths technical report.

### **Analysis of assessments**

The analysis of the assessments drew on an Item Response Theory (IRT) approach to give a more nuanced understanding of learners' abilities than simply looking at the total number of questions each learner got correct. This approach is widely used in psychological and educational testing. In this research, IRT was used to model learners' latent ability by looking both at each learner's overall test score, as well as which particular questions they got right.

To give an example taken from Yu (2013),<sup>48</sup> imagine that 5 individuals all score 60% on a test. Classical test theory would conclude that all 5 have the same ability. However, IRT would also look at which questions each individual got right. Questions which only one respondent answered correctly could be seen as more difficult than those which everyone got right. This provides additional information that can be used to model individuals' underlying ability. In this way IRT approaches use 'item difficulty' (the share of correct answers on a question), and respondents' scores across all items, to model the latent ability of a respondent.<sup>49</sup>

For this analysis we used Rasch modelling to structure this relationship.<sup>50</sup> The Rasch model rests on creating a common scale, and states that the relationship between a person's ability and item difficulty is probabilistic, i.e. when an able individual encounters an easy item, there is a finite probability that he or she will get it right. We can also transform this equation to estimate a person's ability based on their responses to items of known difficulty. This feature of the Rasch model is known as 'sample independent measurement.' It means that we are able to understand a person's score independently of the sample of questions that he or she responded to, and we can understand a question's difficulty independently of the sample of people who answered it. This feature of Rasch measurement has enabled us to compare different participants' abilities even where they have (in the main) answered different questions.

When exploring any patterns in progression between waves 1 and 2 and waves 2 and 3 we should be conscious that variations may simply be capturing regression to the mean. This is the phenomenon whereby random variations in measured scores disappear when re-measured. Essentially, in a real life test situation people can have a bad day or a good day, which means there is a random element to their test score on any day. Someone whose score is randomly affected in this way at wave 2 through, say, a bad day could go on to have another bad day at wave 3. Nevertheless, the expectation is that they will return to form. If so, a negative relationship results - the randomly negatives go up, the randomly positives go down.

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<sup>48</sup> Yu C-H. (2013) A Simple Guide to Item Response Theory (IRT) and Rasch Modeling <http://www.creative-wisdom.com/computer/sas/IRT.pdf>.

<sup>49</sup> Thissen D and Steinberg L. (2009) Item Response Theory In: Millsap RE and Maydeu-Olivares A (eds) *The SAGE Handbook of Quantitative Methods in Psychology*. London: SAGE, 148-177.

<sup>50</sup> Rasch G. (1960) *Probabilistic Models for Some Intelligence and Attainment Tests*. Copenhagen: Denmark's Paedagogiske Institut.

## 4.1 English learners' progression

### Review of reading progression during English courses as assessed at wave 1 and wave 2



Just over half (52%) of English learners performed better in the reading assessment at the end of their course than they did at the start, although Level 2 course participants were much more likely (61%) than learners at either Entry Level (44%) or Level 1 (46%) to show improvement (Table 4.4). As detailed in the Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2, progress was more common amongst male learners and learners who were in full-time employment at the start of their course. That is, when compared to female learners and those in part-time employment.<sup>51</sup>

**Table 4.4 Proportion of learners whose performance in English reading skills progressed during their course, by course level**

	All English learners	Entry Level	Level 1	Level 2
Progress	52%	44%	46%	61%
No progress	48%	56%	54%	39%
Base (unweighted)	563	194	154	215

### English learners' reading skills progression one year after course completion as assessed at wave 2 and wave 3

One year after their course ended, over half of all English learners (54%) showed improvement in their reading skills compared to directly after the end of their course (Table 4.5). In contrast to the pattern found at wave 2, the likelihood of progressing at wave 3 did not vary significantly according to the level of course the learners attended or their gender. There were also no differences amongst those who were in employment at wave 3 and those who were not.

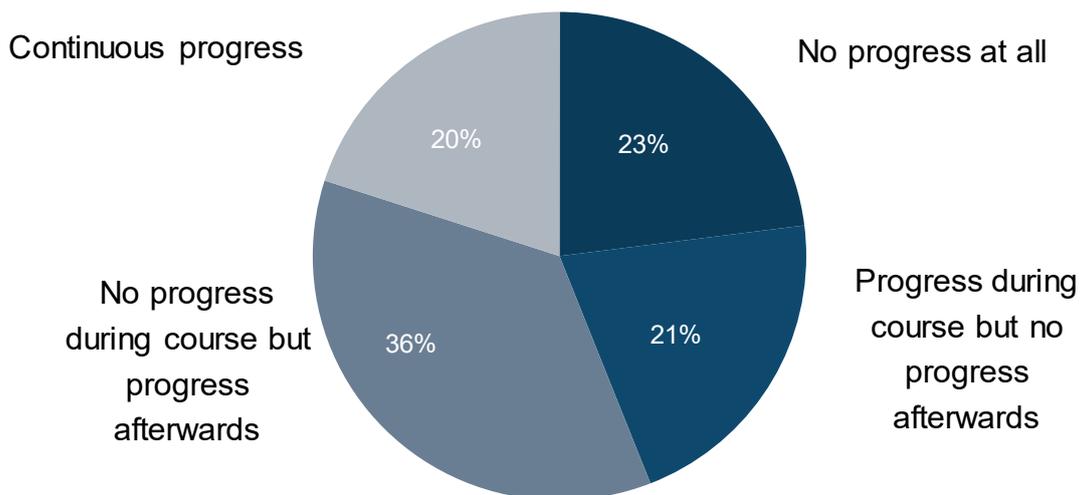
<sup>51</sup> Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

**Table 4.5 Proportion of learners whose performance in English reading skills progressed after their course, by course level**

	All English learners	Entry Level	Level 1	Level 2
Progress	54%	55%	55%	52%
No progress	46%	45%	45%	48%
Base (unweighted)	534	307	116	111

A small number of learners (n=171) undertook valid reading assessments at the start and end of their course as well as one year later. As shown in Figure 4.1, the most common pattern observed amongst these learners was an absence of progress during the course followed by progress in the subsequent year (36%). Almost a quarter of learners did not achieve any progress either during, or in the year following, their course (23%). The remainder made progress between the start and end of their course, but were almost evenly split in terms of their subsequent development. While 20% continued to make progress after their course ended, 21% did not progress in their reading skills. These patterns did not vary by course level.

**Figure 4.11 Proportion of learners whose performance in English reading skills progressed or did not progress during and after their course**



Base: All learners who attended an English course and had reading scores at all 3 waves (171).

## Review of writing progression during English courses as assessed at wave 1 and wave 2



Overall half of learners on English courses demonstrated progress in the writing assessment between waves 1 and 2 (51%). Level 1 learners stood out as far less likely to show progress in writing than their Entry Level or Level 2 counterparts (Table 4.6). Progress was most commonly observed amongst native English speakers who attended Level 2 courses (78%, compared with 55% of non-native English speakers on Level 2 courses).<sup>52</sup>

**Table 4.6 Proportion of learners whose performance in writing progressed during their course, by course level**

	All English learners	Entry Level	Level 1	Level 2
Progress	51%	52%	30%	70%
No progress	49%	48%	70%	30%
Base (unweighted)	428	191	111	126

## English learners' writing skills progression one year after course completion as assessed at wave 2 and wave 3

Just over half of English learners (51%) showed progress in their writing skills in the year following the end of their course (Table 4.7), with Entry Level learners more likely to improve (64%) than their counterparts at either Level 1 (44%) or Level 2 (41%). Yet, no other significant differences amongst demographic subgroups were identified.

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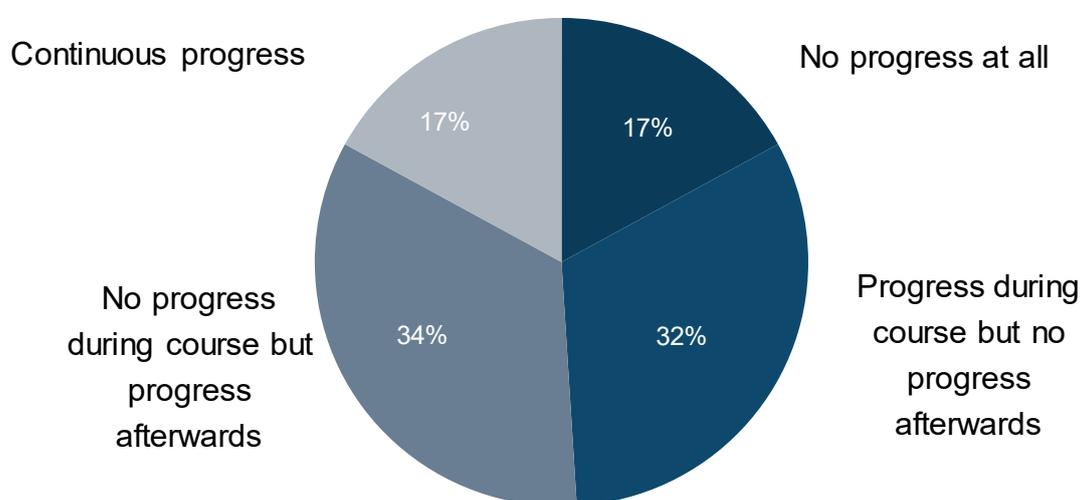
<sup>52</sup> For a more detailed analysis please refer to the interim report - Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

**Table 4.7 Proportion of learners whose performance in writing progressed after their course, by course level**

	All English learners	Entry Level	Level 1	Level 2
Progress	51%	64%	44%	41%
No progress	49%	36%	56%	59%
Base (unweighted)	445	285	91	69

As shown in Figure 4.2, amongst learners whose progress was tracked from the start of the course to a year after its end (n=121), there was an even split between those who made continuous progress in their writing skills (17%), and those who demonstrated no progress in either the wave 2 or wave 3 assessments (17%). Around a third of learners (34%) made no progress during the course itself, but improved their performance in the subsequent year. A further third (32%) made progress during the course but then showed no increase in their skills after.

**Figure 4.12 Proportion of learners whose performance in English writing skills progressed or did not progress during and after their course**



Base: All learners who attended an English course, and had writing scores at all 3 waves (121).

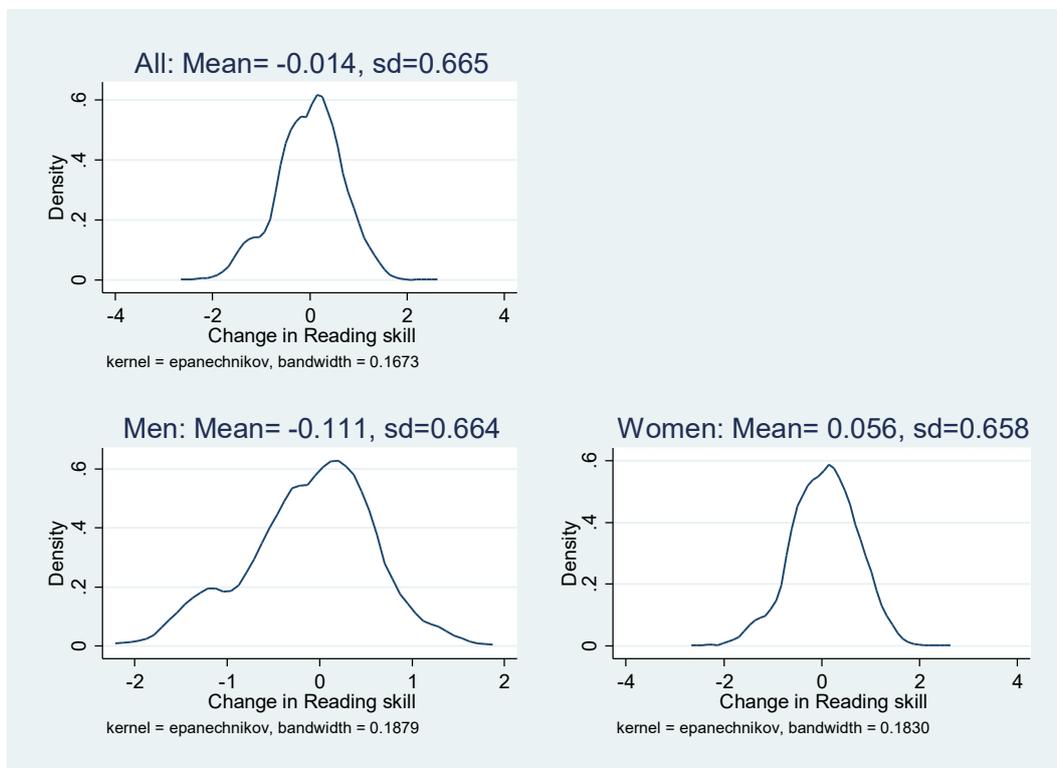
### Exploring patterns of skills change amongst English learners

In this section we report the results of multivariate analysis exploring the relationship between learner and course characteristics and learner outcomes in terms of progression in reading skills between wave 2 (directly after course completion) and wave 3 (one year on). As explained earlier in this report, this approach aims to identify which characteristics are associated with the outcome (in this case progression in reading skills), while allowing

for the fact that there are likely to be multiple influences on outcomes. Throughout we report results for both the full sample of English learners (which we refer to as the pooled sample), as well as separately for men and women, as some different patterns are apparent by gender. We focus our discussion on those factors which show a statistically significant relationship with progression in reading skills.

Figure 4.3 shows how the change in reading skills is distributed. Overall, the change is close to 0. However, there was a greater tendency among men than women to show a reduction in reading skills.

**Figure 4.13 The change in reading skill between waves 2 and 3, for English learners**



It is also true with writing that women experience greater skills gain than men. As figure 4.4 shows there is a small positive increase overall, but this is driven by women (and as for reading skills there is in fact, a small reduction for men).

**Figure 14.4 The change in writing skill between waves 2 and 3, for English learners**

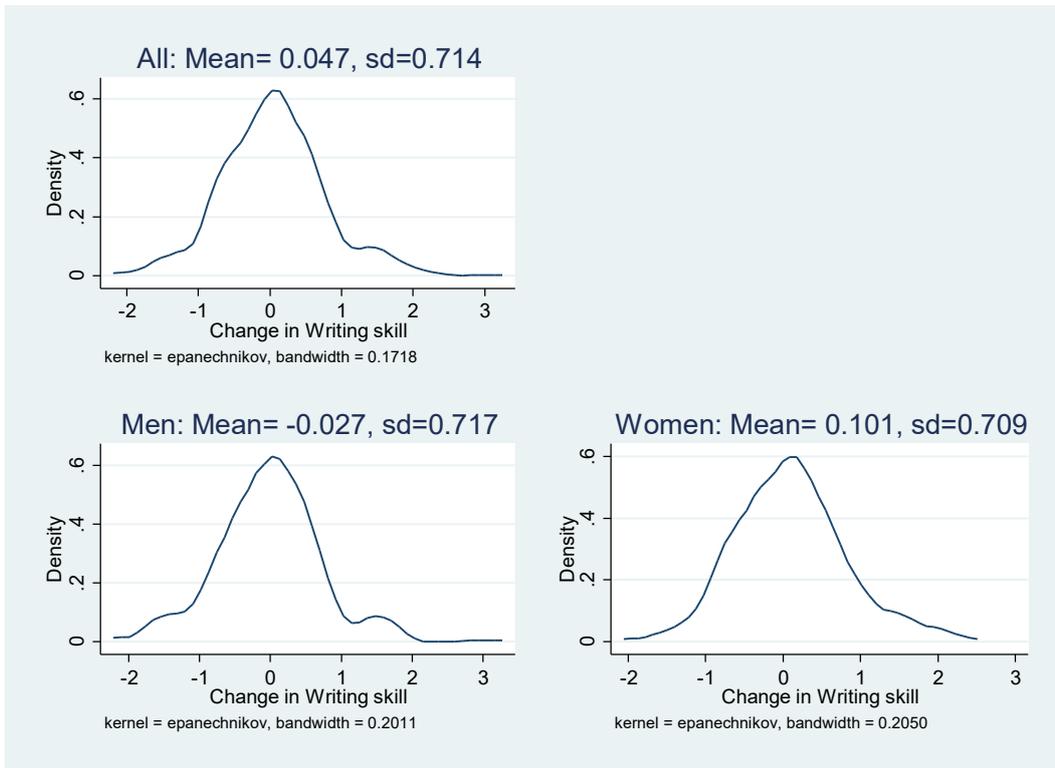


Table 4.8 shows the relationship between skills change between interview waves and the same key factors considered when examining employment transitions. Significant relationships are marked with an asterix (\*). For both men and women we see that the skill level at wave 2 was negatively related to the change in reading skills between waves 2 and 3. When both genders are taken together we see that those learners who took Level 1 or Level 2 courses showed larger gains in skills between wave 2 and wave 3 than learners who took Entry Level courses. This holds both for reading and writing. Learners who dropped out of their course between wave 1 and wave 2 of the longitudinal study show relatively lower gains in writing than those who did not drop out. This seems to be driven largely by men. The same does not hold for reading, where no significant effects are seen.

**Table 4.8 English learners: associations between skills change between waves 2 and 3 and course characteristics**

	Reading			Writing		
	All	Male	Female	All	Male	Female
Measured skill, wave 2	-0.27*	-0.30*	-0.25*	-0.53*	-0.58*	-0.48*
Level 1 course	0.19*	0.17	0.18	0.37*	0.37	0.38*
Level 2 course	0.24*	0.21	0.31*	0.54*	0.43	0.60*
Dropped out of course	-0.26	-0.07	-0.21	-0.34*	-0.45*	-0.08

\* Marginal effects corresponding to statistically significant associations.

## 4.2 Maths learners' progression

### Review of numeracy progression during maths courses as assessed at wave 1 and wave 2



Two-thirds of maths learners (66%) showed progress in their maths skills between the start and end of their course, with a greater proportion of learners on Level 1 and Level 2 courses showing improvement than those who attended Entry Level courses (Table 4.9). The likelihood of improvement did not differ by the learners' demographic characteristics.<sup>53</sup>

**Table 4.9 Proportion of learners whose performance in maths progressed during their course, by course level**

	All English learners	Entry Level	Level 1	Level 2
Progress	66%	33%	72%	74%
No progress	34%	67%	28%	26%
Base (unweighted)	403	100	140	163

<sup>53</sup> For a more detailed analysis please refer to the interim report - Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

### Maths learners' numeracy skills progression one year after course completion as assessed at wave 2 and wave 3

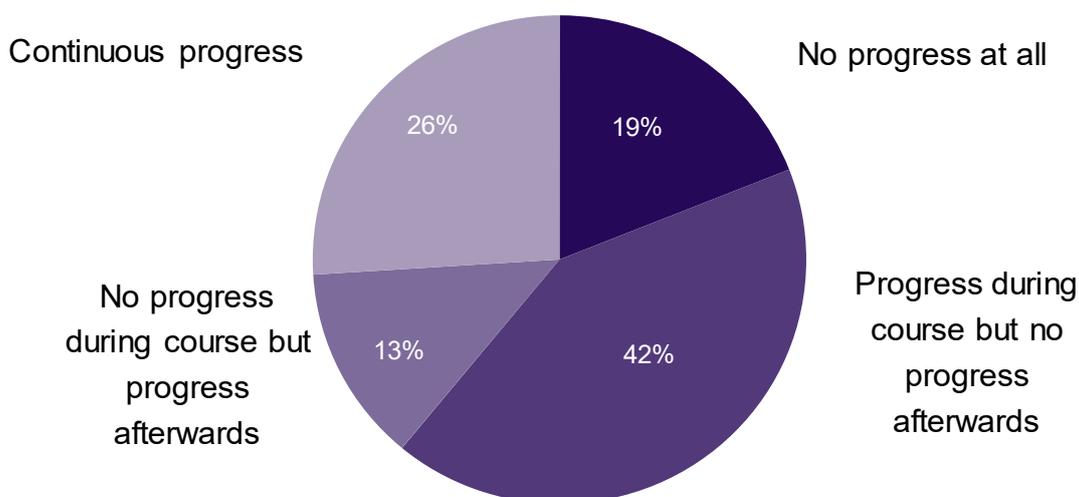
Progress in maths skills was less common in the year following the course (Table 4.10), with only 46% of all maths learners improving their performance overall. However, reflecting the pattern seen with regards to English learners' writing skills, learners on Entry Level courses were more likely to show progress in their numeracy skills in comparison with learners who originally attended higher level courses (53% of Entry Level learners compared with 44% of learners who had attended either a Level 1 or Level 2 course).

**Table 4.10 Proportion of learners whose performance in maths progressed after their course, by course level**

	All English learners	Entry Level	Level 1	Level 2
Progress	46%	53%	41%	45%
No progress	54%	47%	59%	55%
Base (unweighted)	471	266	82	123

As Figure 4.5 shows, looking across the entire period from the start of the course until the year after its completion the most common pattern amongst learners was progress in skills during the course, but then no progress in the year after (42%).

**Figure 4.15 Proportion of learners whose performance in maths progressed or did not progress during and after their course**

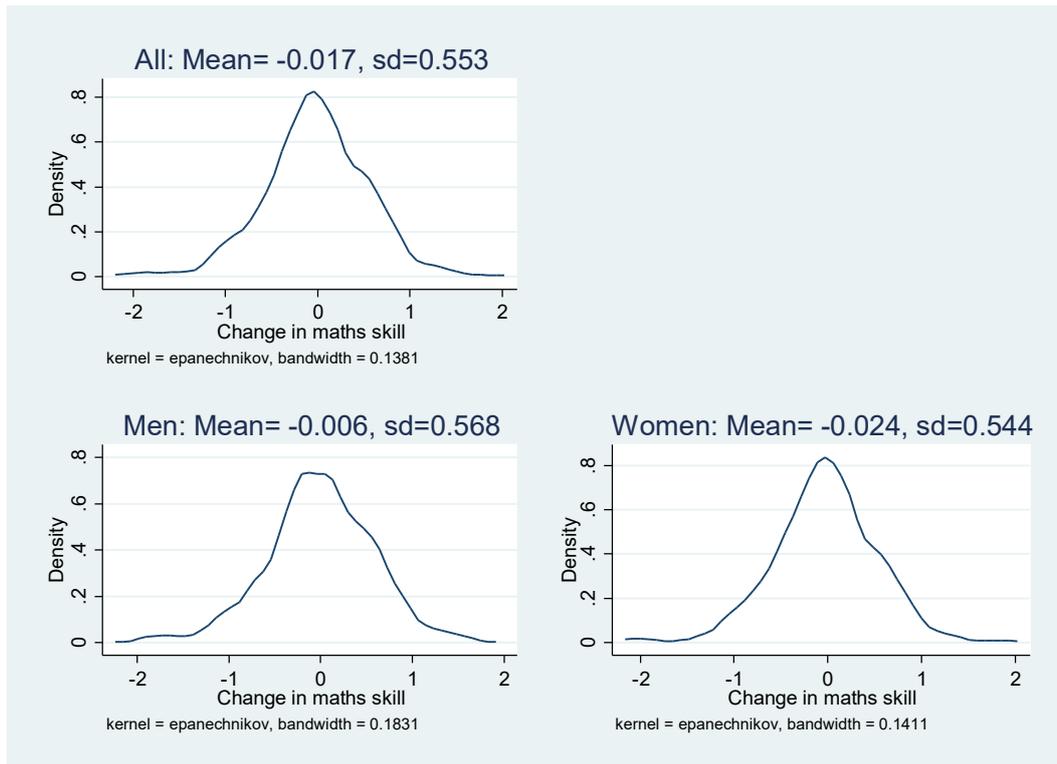


Base: All learners who attended a maths course, and had maths scores at all 3 waves (134).

## Identifying patterns of skills change amongst maths learners

The multivariate analysis did not show any significant relationships between learner characteristics and a change in maths skills between waves 2 and 3. The distribution of change in maths skills is shown in Figure 4.6. This is more centred on zero than was the case for reading and writing amongst English learners, and there are no real differences between the sexes.

**Figure 4.6** The change in maths skills between waves 2 and 3, for maths learners



## Chapter 5: Learners' perceptions of skills

This chapter looks at how learners rated their own abilities in specific aspects of English, in maths and in ICT at the start of their course and one year after it ended.<sup>54</sup>

### Summary

As the summary table below shows, on average learners were more likely to give a higher rating of their different skills at wave 2 than wave 1 and at wave 3 in comparison to wave 2. However, a notable proportion of learners gave lower ratings at each point.

**Table 5.1 Learners ratings of own skills**

		At the end of the course		1 year later	
		Lower rating >	Higher rating <	Lower rating >	Higher rating <
Reading 	English	14%	29%	16%	22%
	Maths	13%	22%	13%	19%
Writing 	English	16%	35%	17%	25%
Speaking 	English	15%	29%	19%	18%
	Maths	15%	21%	16%	18%
Numbers 	Maths	16%	34%	18%	23%
Computers 	English	14%	28%	20%	16%
	Maths	16%	22%	19%	19%

Base: Wave 2 learners (905 English, 754 Maths), Wave 3 learners (1077 English, 1022 Maths).

<sup>54</sup> Note that learners who gave themselves the highest rating at the start of their course would not have been able to give a higher rating at the end, while those who described their reading, writing or maths skills using the lowest rating would not have been able to give a lower rating of their skills.

## 5.1 English course participants' perceptions of their English skills

### Review of change in perceptions between wave 1 and 2

At the start of their course over four fifths of English learners rated their reading skills (84%) or speaking skills (86%) as either good or very good, but only 69% gave a similarly favourable appraisal of their writing skills. As might be expected, learners attending more advanced courses tended to rate their abilities more highly than other learners. Learners whose first language was something other than English and those who lacked formal qualifications were more likely than the rest to give negative ratings of their reading, writing and speaking skills.

Three-tenths of learners gave a higher rating of their reading ability (29%) or speaking ability (30%) at the end of the course than they did at the start, while around a third did the same with regards to their writing ability (35%). Level 2 learners were the least likely to perceive an improvement in their skills. However, it is worth bearing in mind that there was less room for improvement amongst this group as they were more inclined than other learners to give their skills the highest possible rating at the course outset.

When comparing learners' own assessments of their skills progression and the independent assessments, around a fifth over-estimated their progress in reading (23%) or writing (21%), and around a third under-estimated it (35% for reading and 33% for writing).

<sup>55</sup>

The next subsections discuss English learners' perceptions of their abilities at wave 3; a year after the completion of their course.

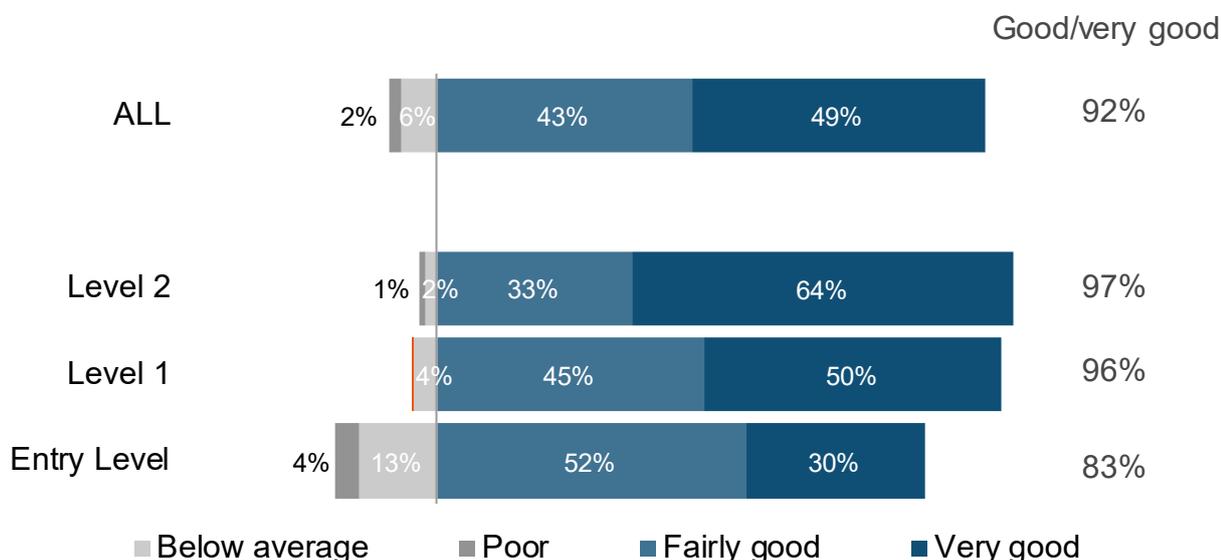
### Changes in reading ability (self-assessed)

At wave 3, nine-tenths (92%) of English learners described their reading skills as either good or very good, although this was less common amongst previous Entry learners (83%) than learners who had attended more advanced courses (Figure 5.1).

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<sup>55</sup> This analysis excludes anyone who gave themselves the highest rating possible at wave 1 and 2, as they had no room for improvement. This compares those who gave themselves a higher rating against whether they demonstrated progress in the assessment and vice versa. For a more detailed analysis please refer to the interim report - Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

**Figure 5.16 How good at reading (self-perception) 1 year after course ended, by English course level**



Base: Wave 3 learners who answered the question and attended: Any English course (1077); Entry Level 1-3 English course (627); Level 1 English course (224); Level 2 English course (226).

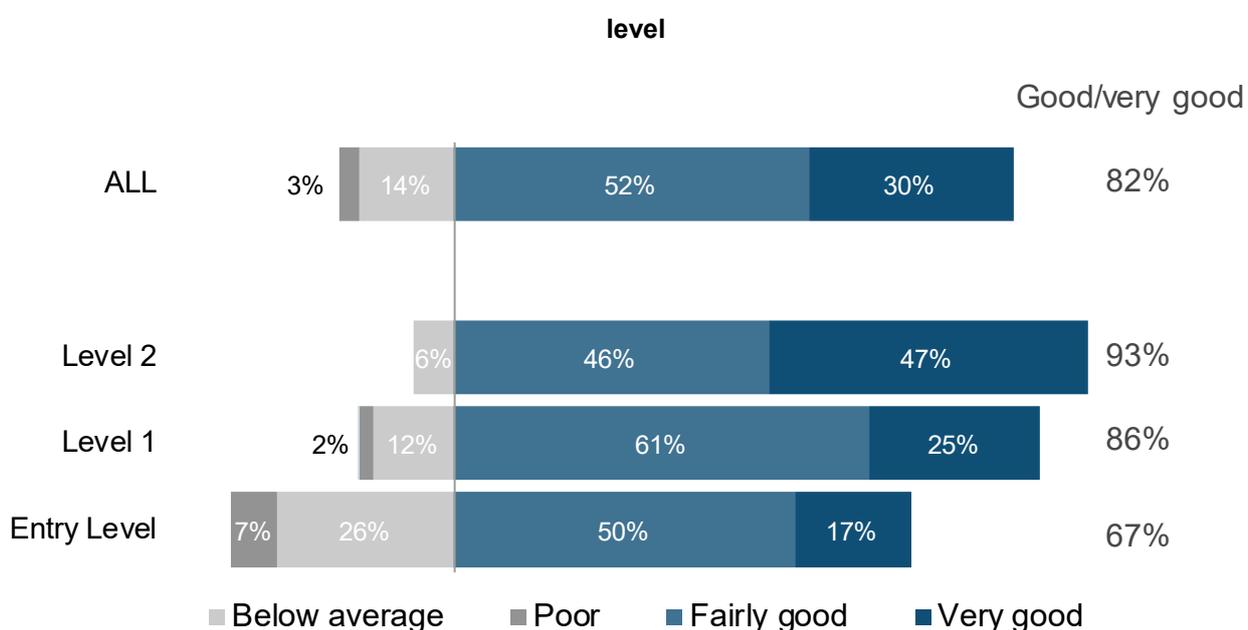
Three-fifths of learners (62%) used the same rating to describe their reading skills at waves 2 and 3, though it should be noted that 33% of all English learners were unable to indicate any skills gain they may have experienced after the course ended as they had already given the highest rating to their skills at the end of the course. A ‘very good’ rating at both waves was more likely amongst learners who had attended more advanced courses (50% at Level 2, falling to 16% at Entry Level) and native English speakers (40%, compared with 24% of learners whose first language was something else).

A fifth of learners (22%) indicated an improvement in their reading, rising to 28% amongst those who reported taking additional English courses after the end of their original course. Meanwhile, 16% of all learners indicated that they felt that their reading had deteriorated between the 2 waves by giving a lower rating one year after course completion. Entry Level learners were the most likely to indicate a belief that their skills had declined in the year after their course ended (23%). Learners who had made no measurable progress in the reading assessment at wave 3 were almost twice as likely (20%) as those who made progress (11%) to believe that their skills had deteriorated, suggesting a degree of correspondence between actual and perceived skills loss for some.

## Changes in writing ability (self-assessed)

As in previous waves, writing skills were less likely to be rated highly than either reading or speaking skills. At wave 3 four-fifths (82%) rated their skills as very or fairly good. There was variation between learners who attended courses at different levels, with Level 2 learners much more likely (93%) than either Level 1 learners (86%) or Entry Level learners (67%) to have a favourable perception of their writing ability. A full breakdown is in Figure 5.2. A 'very good' rating was more common amongst native English speakers (38%, compared with 20% of learners for whom English was an additional language) and employed people who wrote every day in their jobs (42%, compared with 22% of employed people who never performed writing tasks in their jobs).

**Figure 5.17 How good at writing (self-perception) one year after course ended, by English course**



Base: Wave 3 learners who answered the question and attended: Any English course (1077); Entry Level 1-3 English course (627); Level 1 English course (224); Level 2 English course (226).

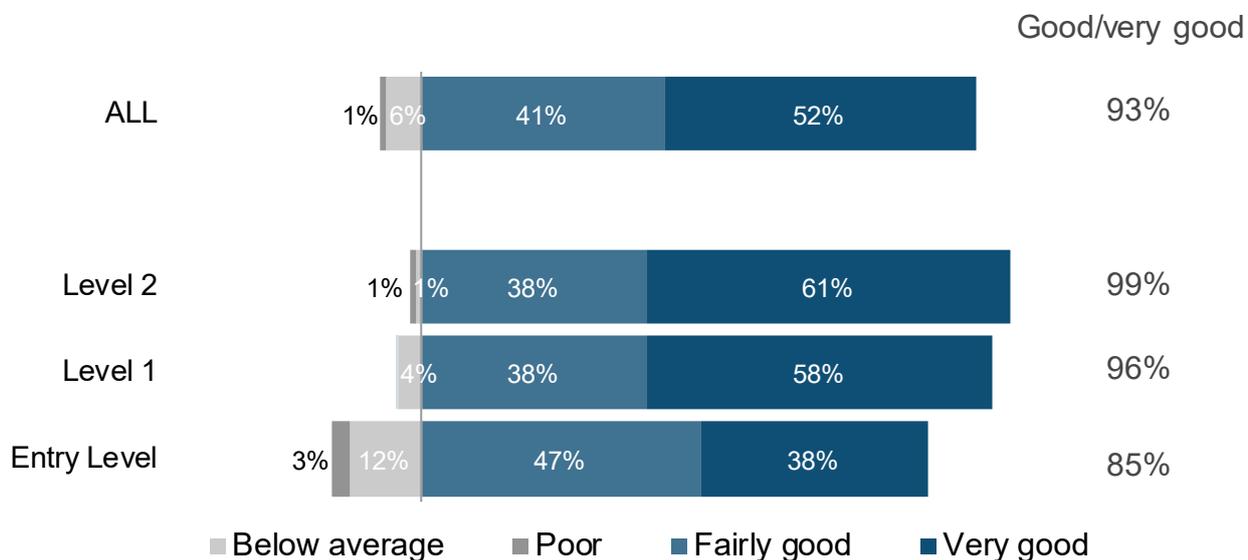
Three-fifths of learners (59%) described their writing skills consistently between waves 2 and 3, with 18% of all English learners saying they were 'very good' at both stages. As with reading, learners who had attended more advanced courses were more likely to give a very favourable appraisal of their writing ability at both waves (32% of Level 2 learners, falling to 7% of Entry Level learners), as were native English speakers (24%, compared with 10% of those whose first language was something else). Learners who failed to make any measurable progress in their writing skills were more likely (23%) than those who progressed (15%) to describe their skills as 'very good' at both waves.

A quarter of all learners (25%) – and proportionately more Entry Level learners (30%) – gave ratings which indicated a perceived improvement in their writing skills in the year following the end of their course. Learners who attended additional English courses in the period between survey interviews were no more likely to feel their writing had improved (25%) than those who had not undertaken further English courses (24%). Notably, this perception was in line with the finding that people who undertook additional courses were no more likely to show measurable progress in their writing skills. A further 17% felt that their skills had declined. Overall, there was no clear pattern of correspondence between actual skills gain or loss (as measured by performance in the writing assessment) and perceived improvement or deterioration in writing.

### Changes in speaking ability (self-assessed)

The majority of learners (93%) rated their English speaking abilities as ‘very’ or ‘fairly’ good at wave 3, though a ‘very good’ rating was markedly less common amongst Entry Level learners when compared with learners who had attended more advanced courses (Figure 5.3). Unsurprisingly the same was true of learners whose first language was something other than English (35% described their speaking skills as ‘very good’, compared with 65% of native English speakers).

**Figure 5.18 How good at speaking (self-perception) one year after course ended, by English course level**



*Base: Wave 3 learners who answered the question and attended: Any English course (1077); Entry Level 1-3 English course (627); Level 1 English course (224); Level 2 English course (226).*

Around two-fifths of learners (38%) described their speaking abilities as ‘very good’ at both wave 2 and wave 3, while half as many indicated that their skills had improved (18%) or deteriorated (19%) between the 2 waves. Learners for whom English was an additional

language were more likely (23%) than native English speakers (15%) to believe their speaking had developed in the year after their course ended.

### Exploration of the relationships between English learners' self-assessed skills

In this section we draw on multivariate analysis to explore the relationship between learner characteristics and change in self-assessed skills. As with the consideration of employment transitions, these are presented as marginal effects.

### English learners' self-assessed reading skills

Table 5.1 shows the marginal effects of various factors on self-assessed reading skills. The only significant relationship is between measured reading skill change and self-assessed reading skill change among women (shown with an asterisk). Women whose measured skills increased between interview waves were more likely to give a higher rating of their reading skills.

**Table 5.1 Marginal effects on self-assessed reading skills**

	All		Male		Female	
	Worse	Better	Worse	Better	Worse	Better
Measured skill, wave 2	-0.03	0.03	-0.01	0.01	-0.04	0.05
Measured skill change, waves 2-3	-0.02	0.02	0.03	-0.03	-0.03*	0.04*
Level 1 course	-0.02	0.03	-0.08	0.09	-0.01	0.02
Level 2 course	0.04	-0.04	-0.03	0.03	0.05	-0.06
Dropped out of course	0.15	-0.11	0.31	-0.15	0.03	-0.04
Course increased confidence 'a lot'	0.02	-0.03	0.01	-0.01	-0.03	0.04
Course improved skills 'a lot'	0.04	-0.05	-0.02	0.02	0.07	-0.12
Taken another course since wave 2	0.00	0.00	0.02	-0.02	-0.01	0.02

\* Marginal effects corresponding to statistically significant associations

## English learners' self-assessed writing skills

Table 5.2 contains results for self-assessed writing skills. For women, a high level of skills at wave 2 and a change in skills between wave 2 and wave 3 are associated with an increased proportion reporting better writing skills. Learners reporting at wave 2 that the course had helped a lot with their self-confidence were significantly less likely to report increased writing skills. On the other hand, men who reported at wave 2 that their skills improved a lot as a result of the course are more likely to show an increase in self-assessed writing skills since wave 2.

**Table 5.2 Marginal effects on self-assessed writing skills**

	All		Male		Female	
	Worse	Better	Worse	Better	Worse	Better
Measured skill, wave 2	-0.03	0.03	0.01	-0.02	-0.07*	0.08*
Measured skill change, waves 2-3	-0.03	0.04	0.03	-0.05	-0.06*	0.08*
Level 1 course	0.05	-0.07	0.06	-0.11	0.07	-0.08
Level 2 course	0.00	0.00	-0.06	0.11	0.08	-0.09
Dropped out of course	0.01	-0.01	-0.02	0.04	-0.01	0.01
Course increased confidence 'a lot'	0.07*	-0.11*	0.06	-0.10	0.07	-0.11
Course improved skills 'a lot'	-0.07	0.09	-0.11*	0.17*	-0.05	0.06
Taken another course since wave 2	-0.04	0.06	-0.06	0.10	-0.04	0.06

\* Marginal effects corresponding to statistically significant associations

## 5.2 Maths course participants' perceptions of their numeracy and English skills

### Review of change in perceptions between wave 1 and 2

In general, learners embarking on maths courses had a more positive perception of their English skills than those beginning English courses, with over nine-tenths rating their ability in reading (92%) and speaking English (93%) as 'very' or 'fairly' good at the start of their course. However, only 83% described their numeracy skills favourably. Entry Level learners tended to rate themselves more negatively than other learners in all skills, both numeric and non-numeric.

A third of maths learners (34%) gave a higher rating of their abilities with numbers at the end of the course, although 16% indicated a belief that their skills had deteriorated by giving themselves a lower rating. Learners also had altered estimations of their reading and speaking skills, with around a fifth giving ratings that indicated they felt their English skills had improved (22% reading and 21% speaking) despite the fact that these skills were not directly targeted for improvement by the maths courses they attended.<sup>56</sup>

The next subsections show maths learners' perceptions of their abilities at wave 3, a year after the completion of their course.

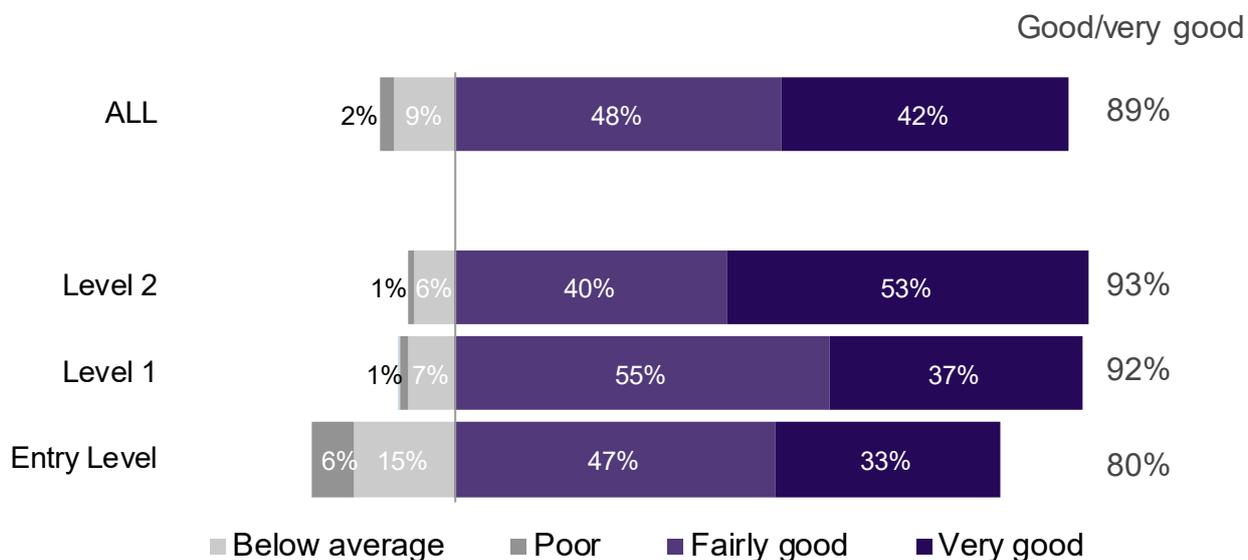
### Changes in ability to work with numbers (self-assessed)

One year after the end of their course, 89% of maths learners described their ability to work with numbers as 'very' or 'fairly' good. Entry Level learners were still less likely than the rest to rate their abilities positively (Figure 5.4). A positive estimation of numeracy skills was more common amongst learners for whom English was an additional language (93%, compared with 88% of native English speakers) or who were in work at the time of their wave 3 interview (94%, compared with 84% of those not in work). Learners who never or infrequently undertook money-related tasks at home (such as home budgeting, checking bank statements or costs for a journey) were less likely to give a positive rating of their ability to work with numbers (78%) than those who undertook such tasks on a weekly or more frequent basis (92%).

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<sup>56</sup> For a more detailed analysis please refer to the interim report - Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

**Figure 5.4 How good at working with numbers in daily life (self-perception) one year after course ended, by maths course level**



Base: Wave 3 learners who answered the question and attended: Any maths course (1022); Entry Level 1-3 maths course (591); Level 1 maths course (222); and, Level 2 maths course (209).

Three-fifths of maths learners (59%) rated their numeracy consistently between waves 2 and 3, with 25% describing their numeracy as ‘very good’ at both stages. Around a quarter (23%) indicated that their skills had improved between the 2 waves. Interestingly, self-perceived improvement was less common amongst those who had taken additional maths courses in the year following the end of their course (16%, compared with 24% who had received more tuition in the subject).<sup>57</sup> The answers given by a further 18% indicated a perception that their skills had deteriorated.

In general, it was more common for learners who showed progress in their numeracy between waves 2 and 3 to believe their ability to work with numbers in daily life had improved (28%, compared to 18% of those who did not make progress). This suggests a degree of correspondence between actual and perceived skills gain.

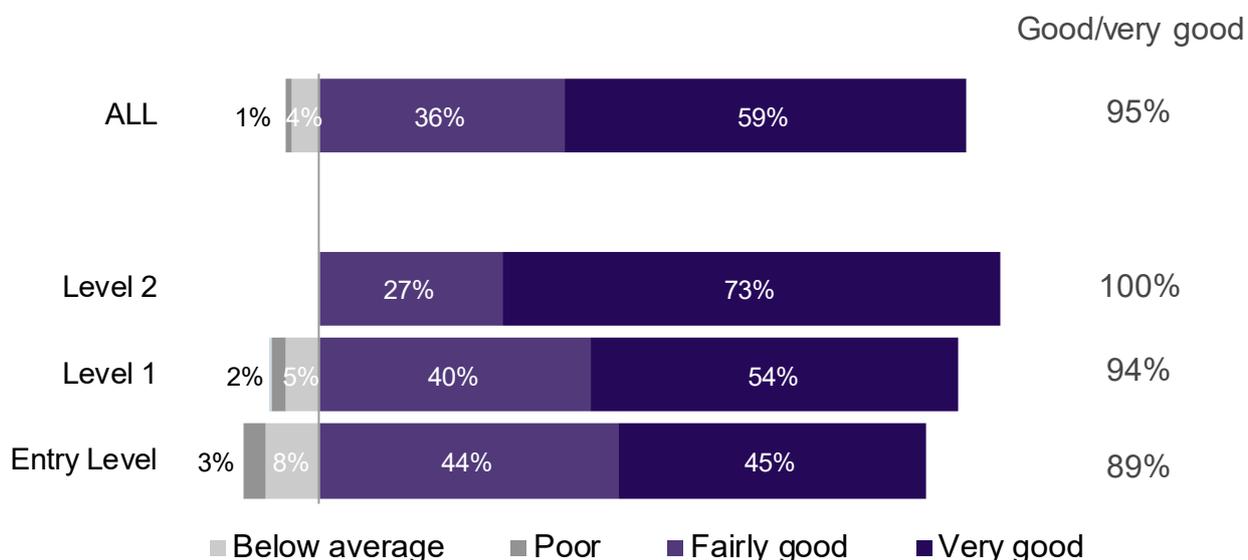
### Changes in reading ability (self-assessed)

On average, well over nine-tenths of maths learners (95%) rated their reading skills as ‘very’ or ‘fairly’ good a year after their course had ended, although this rating was almost universally given by Level 2 course participants and became progressively less common amongst those who attended more basic courses (Figure 5.5). A favourable description was disproportionately more likely to be given by those who were in work at wave 3 (97%,

<sup>57</sup> Base = 815 those who had not attended further maths courses; 206 those who had attended further maths courses.

compared with 93% of those who were not in work). Unsurprisingly, it was less common amongst learners who reported never reading materials such as leaflets, manuals, timetables or TV guides for information (81%, compared with 96% of those who did so every day or several times a week).

**Figure 5.5 How good at reading (self-perception) one year after course ended, by maths course level**



Base: Wave 3 learners who answered the question and attended: Any maths course (1022); Entry Level 1-3 maths course (591); Level 1 maths course (222); and, Level 2 maths course (209).

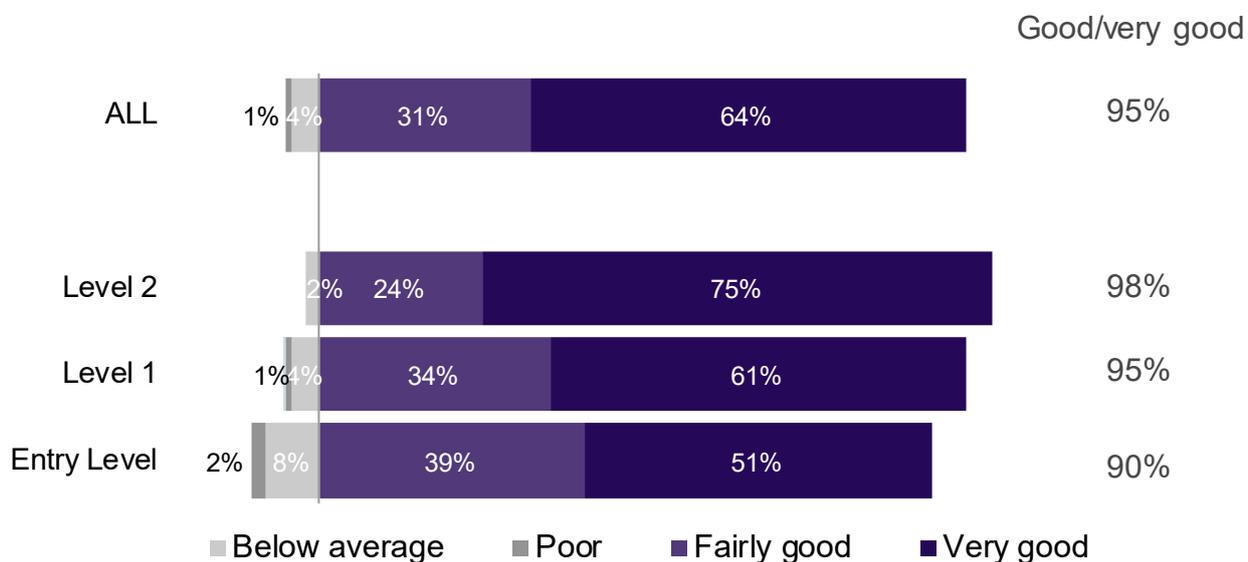
Over two-thirds of learners indicated their reading skills remained at the same standard between waves 2 and 3 (68%), with 43% describing their reading as ‘very good’ at both stages. The ratings given by a further 19% indicated the belief that they had gained reading skills since the end of their course: this was more common amongst learners who were not in employment at wave 3 (22%, compared with 16% of those in work). Conversely, 13% felt that their reading had deteriorated over the year, with learners who attended Entry Level and Level 1 courses more likely to indicate this (18% and 17%, respectively) than Level 2 learners (7%). Since maths learners’ reading skills were not objectively measured through the survey, it is not possible to say whether these perceptions reflect actual gains or losses in skills.

### Changes in speaking ability (self-assessed)

Maths’ learners’ perceptions of their speaking abilities at wave 3 were broadly in line with those of English learners - over nine-tenths (95%) gave themselves a ‘very good’ or ‘fairly good’ rating, with favourable ratings more common amongst those who attended more advanced courses (Figure 5.6). Native English speakers were more likely (97%) to rate their speaking abilities positively, compared with non-native English speakers (90%). There was also variation by employment status, with 97% of maths learners who were in

work at wave 3 giving a favourable rating of their conversational abilities as opposed to 93% of learners who were not in work.

**Figure 5.6 How good at speaking (self-perception) one year after course ended, by maths course level**



Base: Wave 3 learners who answered the question and attended: Any maths course (1022); Entry Level 1-3 maths course (591); Level 1 maths course (222); and, Level 2 maths course (209).

Almost two-thirds of maths learners gave the same rating of their speaking ability at waves 2 and 3 (65%), with 50% describing themselves as ‘very good’ at both stages. Around a fifth (18%) felt that their speaking had improved, rising to 24% amongst those who were not in employment at wave 3 (compared with 13% of those in work). A further 16% indicated that their speaking ability had deteriorated between the 2 survey interviews.

### Exploration of the relationships between maths learners’ self-assessed numeracy skills

This section reports the results of multivariate analysis conducted to explore the relationship between learner and course characteristics and self-assessed maths skills. Table 5.3 shows the marginal effects of various factors on self-assessed maths skills for maths learners. This shows that the measured skills and the level of learning is not significantly associated with the change in learners’ assessments of their maths ability.

Men who dropped out of their original course were much more likely to give a lower rating of their maths skills one year after the end of their course and much less likely to give a higher rating. Learners who felt at wave 2 that the course improved their skills a-lot were more likely to give a higher rating of their maths skills one year after.

**Table 5.3 Marginal effects on self-assessed maths skills**

	All		Male		Female	
	Worse	Better	Worse	Better	Worse	Better
Measured skill, wave 2	0.00	-0.01	-0.03	0.03	0.05	-0.08
Measured skill change, waves 2-3	0.00	0.00	-0.02	0.02	0.02	-0.03
Level 1 course	-0.03	0.04	-0.07	0.12	-0.06	0.08
Level 2 course	-0.02	0.02	-0.01	0.02	-0.06	0.08
Dropped out of course	0.05	-0.05	0.30*	-0.17*	-0.01	0.01
Course increased confidence 'a lot'	0.03	-0.04	-0.07	0.11	0.09*	-0.12*
Course improved skills 'a lot'	-0.10*	0.11*	-0.07	0.09	-0.12*	0.13*
Taken another course since wave 2	0.03	-0.04	0.01	-0.01	0.02	-0.03

\* Marginal effects corresponding to statistically significant associations

### 5.3 Perceptions of ICT skills amongst English and maths learners

#### Review of change in perceptions between wave 1 and 2

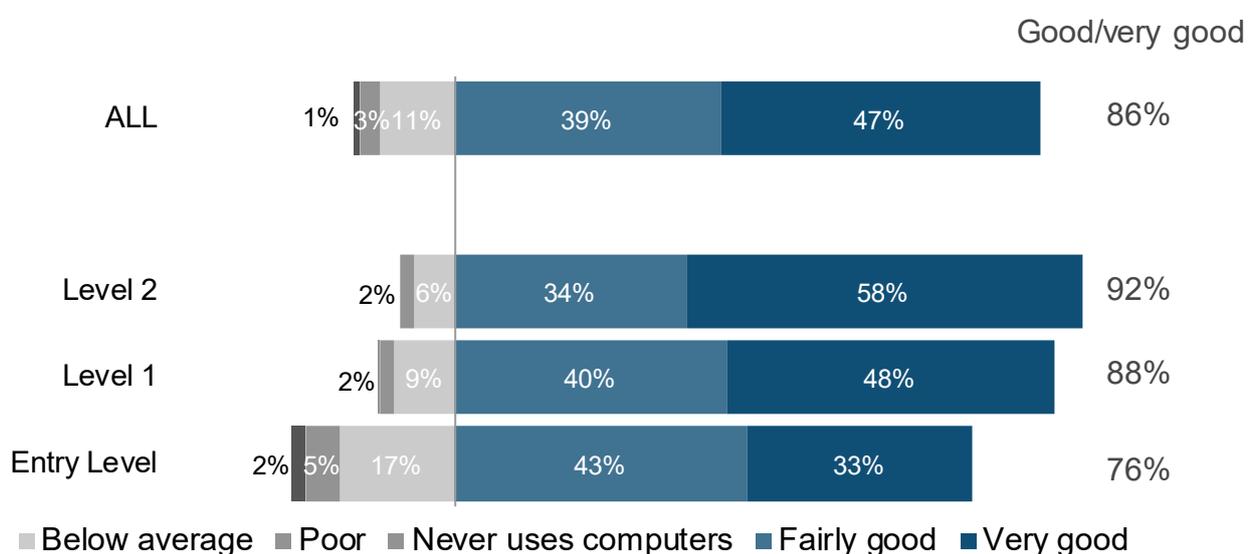
Learners were asked to rate their abilities at using computers at the start and end of their course, as well as a year later. At the start of their courses, maths learners gave ratings that were higher than those of their counterparts embarking on English courses, and higher than those in the general adult population of England. Around nine-tenths of maths learners (86%) and eight-tenths of English learners (80%) described their ICT skills as 'very' or 'fairly' good at the course outset, with proportions higher amongst Level 2 learners (92% of maths Level 2 learners and 91% English Level 2 learners, falling to 75% amongst Entry level maths learners and 63% amongst Entry Level English learners). At the end of the course, 22% of maths learners and 28% of English learners gave their abilities a higher rating than they had before, indicating a perceived improvement in their skills.

The next subsections explore learners' perceptions of their abilities at wave 3, a year after the completion of their course.

## Changes in English learners' perceived ability to use computers

The proportion of English learners who gave a favourable rating of their ICT skills remained consistent between the end of the course (86%) and the subsequent year (86%). As observed in previous waves, Level 2 learners were more likely to describe their abilities positively than learners who attended less advanced courses (Figure 5.7), and those aged under 35 at the start of the course (58%) were more likely than their older counterparts to assign their skills the highest rating (33%). It is worth noting that learners who moved into employment between waves 2 and 3 were more likely to describe their skills favourably (92%) than those who remained unemployed or were already in work at wave 2 (84%). However, a relationship between self-perceived ICT abilities and a move to employment should not be assumed on the basis of this finding.

**Figure 5.7 How good at using computers (self-perception) one year after course ended, by English course level**



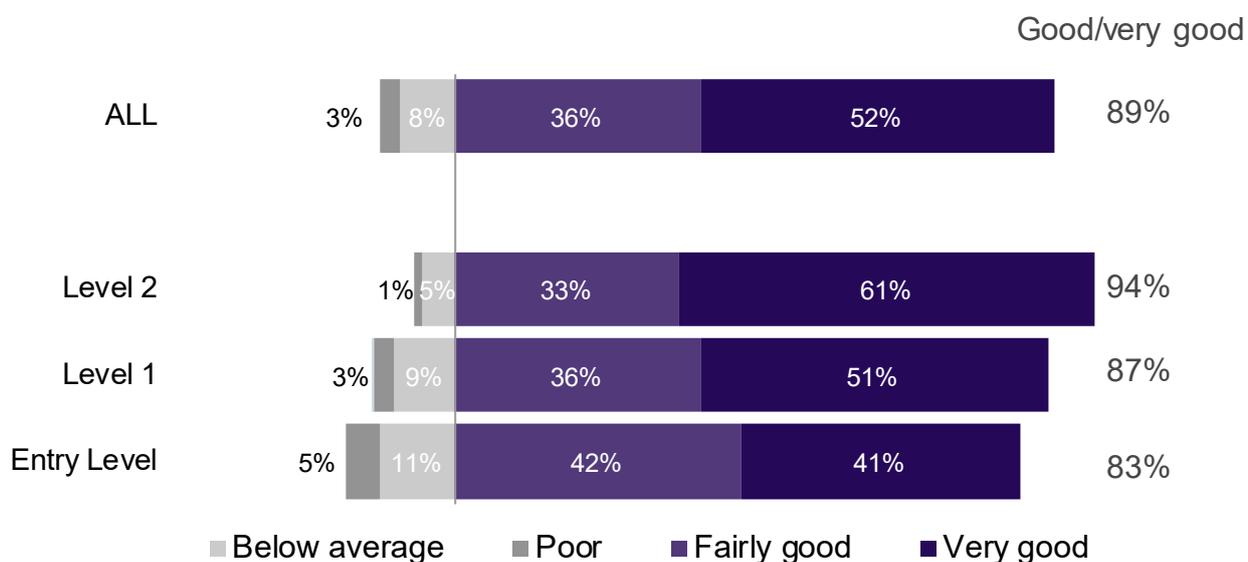
Base: Wave 3 learners who answered the question and attended: Any English course (1077); Entry Level 1-3 English course (627); Level 1 English course (224); and, Level 2 English course (226).

Almost two-thirds of English learners (64%) did not perceive a change in their ICT abilities between waves 2 and 3 as identified through their ratings, although it should be noted that the 36% of all English learners already gave themselves the highest rating possible at wave 2 and were unable to use the questionnaire scale to indicate any improvement they may have experienced in the subsequent year. The ratings provided by 16% of learners indicated a belief that their skills had improved, with this being slightly more common amongst women (18%) than men (13%). Finally, a fifth (20%) gave a lower rating of their ICT skills in the wave 3 interview.

## Changes in maths learners' perceived ability to use computers

Turning to maths learners, the vast majority rated their ICT skills favourably at wave 3 (89%, which is consistent with findings at wave 2 where 89% rated their IT skills as good ). On average, around half of learners (52%) described their skills as very good (Figure 5.8), with Level 2 learners more likely than the rest to do so (61%), alongside learners who were aged 35 or under at the start of the course (62%), male learners (56%) and those who were in work at wave 3 (58%).

**Figure 5.8 How good at using computers (self-perception) one year after course ended, by maths course level**



Base: Wave 3 learners who answered the question and attended: Any maths course (1022); Entry Level 1-3 maths course (591); Level 1 maths course (222); Level 2 maths course (209).

Three-fifths of maths learners (62%) gave themselves the same rating at the end of their course and a year later, although 38% of maths learners used the top end of the scale, 'very good,' at both waves 2 and 3. The remainder were split fairly evenly between those who gave a higher rating of their skills (19%) and those who gave a lower rating (19%).

## Chapter 6: Learners' perceptions of their abilities and using skills in everyday life

A series of statements was used to gauge learners' attitudes towards English and maths and to identify any concerns they had in using English or maths in their everyday lives. The same questions were repeated at the start of their course, at its end, and again a year after the course was completed in order to identify attitudinal shifts over time. As cautioned elsewhere in this report, readers should not interpret a causal relationship between changes in attitude and attendance on English and maths courses. Nonetheless, it is still interesting to explore learners' attitudes during and beyond their Skills for Life courses.

### Summary

Attitudes predominantly shifted in a positive direction between waves 1 and 2 of the survey, and then stabilised between waves 2 and 3. However, there were 2 deviations from this overall pattern:

- In the year following the end of their course, English learners were more likely to express greater – rather than reduced – concerns about their spelling; and,
- maths learners were more likely to express a lower interest in maths, rather than a greater one

This second observation is particularly interesting, given two-fifths (42%) of maths learners showed progress between waves 1 and 2, but no progress during waves 2 and 3. This was the most common pattern in maths learners across the 3 waves of the study. This suggests that for a notable proportion of learners the skills that they developed while they were attending their course may have not fully embedded in the following year. It is not clear the extent to which a reduced interest in maths may have led to the atrophy of numeracy skills; or if the atrophy of numeracy skills could have led to a diminished interest in maths.

There was no relationship between the direction in which these shifts occurred, and the demonstration of progress in reading, writing, or numeracy (as measured by performance in the assessments).

## 6.1 English course participants' attitudes towards English

### Review of change in perceptions between wave 1 and 2

The majority of English learners already felt a facility for using basic English in their daily lives at the start of their course, with over seven-tenths finding it easy to read directions (78%) or write to people they know (71%). The proportions who found it easy to read directions did not vary by the learners' first language, though learners for whom English was an additional language were less likely than average to find writing easy (67% agreement with 'I find it easy to write to someone I know', compared with 75% agreement amongst native English speakers). The most widespread concerns amongst learners embarking on English courses had to do with correct usage of grammar, spelling and punctuation. Entry Level course participants were more likely to express strong concerns in all 3 areas, and more likely than learners attending more advanced courses to express discomfort in filling in forms.

Many learners' perceived facility for these tasks had improved by the end of their course, and the concerns of many had subsided. As shown in Table 6.1, a greater proportion of learners found everyday reading and writing tasks easy at wave 2, and smaller proportions were concerned about their use of spelling and grammar (although there was no change in the proportion who reported having difficulty filling in forms). Looking at the answers given by individual learners who took part at wave 1 and 2 of the survey, there was a positive shift in perceptions around ease of reading or writing in around a third of cases (33% and 35%, respectively) and a positive shift in perceptions around usage of grammar and spelling in around two-fifths of cases (38% and 37%, respectively). Over a third indicated that their difficulties with form-filling had diminished between the start and end of their course (36%).<sup>58</sup>

As shown in Table 6.1, between the end of their course and a year later, learners' perceptions with regards to these issues had mostly either stabilised or worsened. There was no change in the overall proportion of learners who found it easy to read directions or had concerns about their spelling. However, the proportions who were worried about their grammar or their ability to fill in forms had increased.

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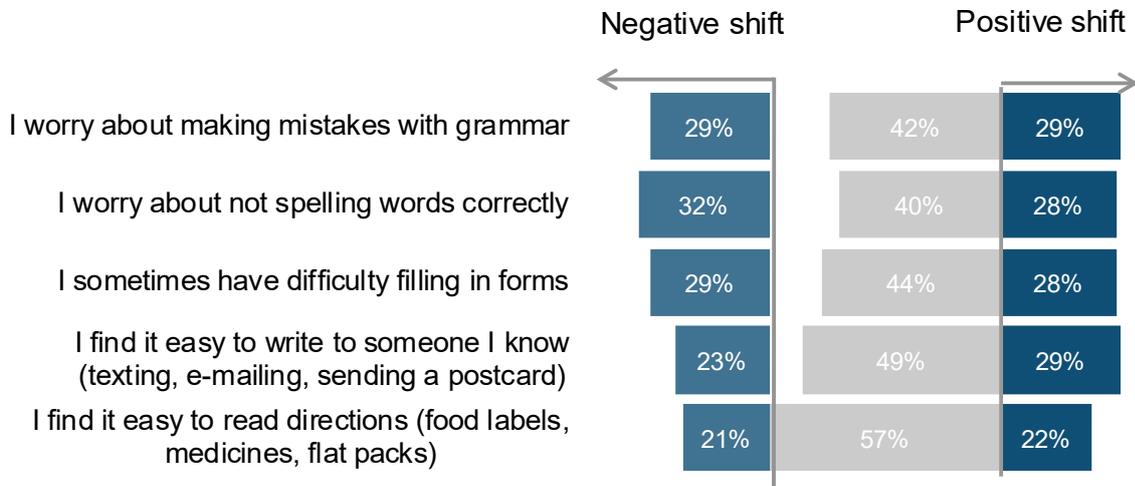
<sup>58</sup> For a more detailed analysis please refer to the interim report - Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

**Table 6.2 Proportions of English learners who had positive attitudes or concerns about their English skills at the start, end, and a year after the completion of their course**

	<b>Agree at start of course</b>	<b>Agree at end of course</b>	<b>Agree one year later</b>
<b>Positive attitudes</b>			
I find it easy to read directions (food labels, medicines, flat-packs)	78%	88%	88%
I find it easy to write to someone I know (texting, e-mailing, sending a postcard)	71%	81%	84%
<b>Concerns</b>			
I worry about not spelling words correctly	64%	59%	59%
When I am writing I worry about making mistakes with grammar	70%	66%	62%
I sometimes have difficulty filling in forms	39%	42%	38%
Base (unweighted)	c.1943	1866	1077

More positively, a growing number of learners felt that their facility for writing had improved at wave 3 (84%, up from 71% at wave 1 and 81% at wave 2). This is also reflected in the attitudinal shifts of individual learners who took part in both wave 2 and wave 3 (Figure 6.1): 29% indicated a perceived improvement in their facility for writing to people they know, and only 23% indicated a perceived deterioration. Attitudinal shifts regarding spelling, on the other hand, showed the reverse pattern: while 28% indicated that concerns about spelling were lessening through more positive ratings, a further 32% indicated mounting concern following the end of their course with a negative shift in their rating.

**Figure 6.19 Shifts in attitudes amongst English learners between the end of their course and a year later**



Base: Learners who answered each question at both wave 2 and wave 3 and attended an English course (c.1060).

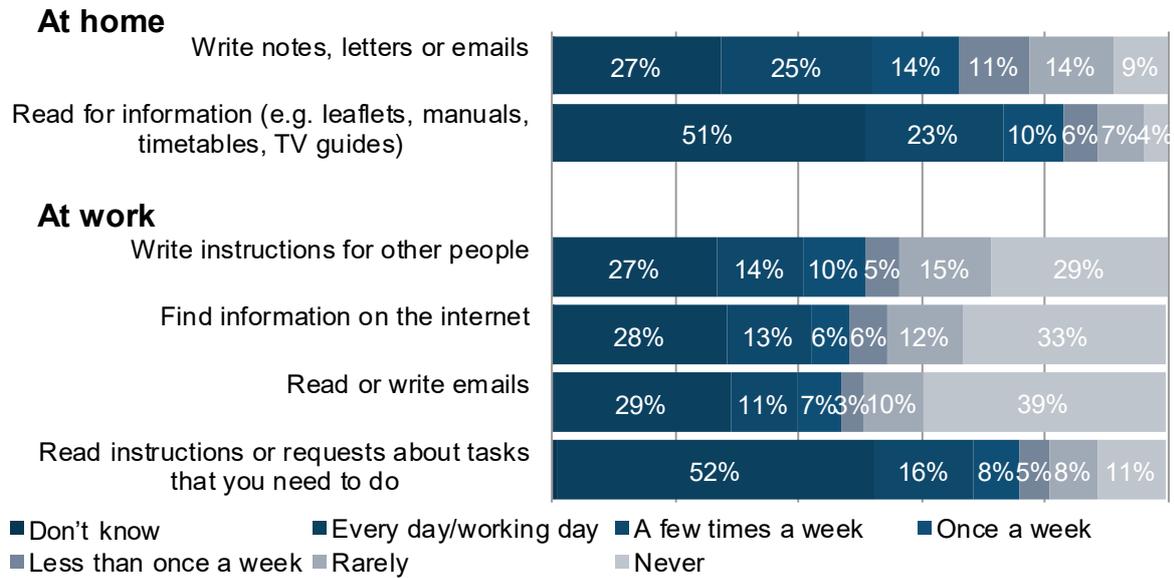
There was no clear relationship between the direction in which these shifts occurred, and the attainment of measurable progress in reading or writing (as measured by performance in the assessments).

### Use of English skills in everyday life

Learners who had attended courses in English were asked how often they carried out various activities at home and (for those in employment) at work. Figure 6.2 shows the frequencies they reported at the end of the course, and Figure 6.3 shows changes in frequency between the end of the course and the subsequent year. Only literacy-related activities are shown.

In general, learners who completed courses in English undertook writing activities less frequently than reading activities, with fewer than three-tenths saying they wrote daily but over a half saying they read daily (Figure 6.2). Entry Level learners were more likely than their counterparts who attended more advanced courses to report never reading for information or writing notes, letters or emails at home. It was also slightly more common for men (11%) than women (7%) to say they never wrote notes, letters or emails at home.

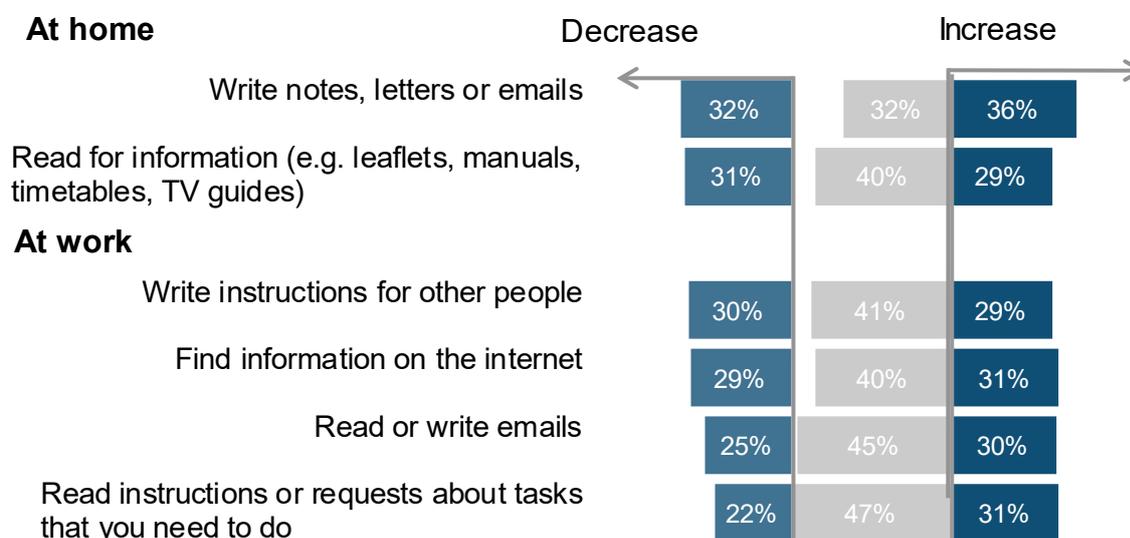
**Figure 6.20 Frequency of literacy-related activities undertaken by English learners at end of course**



Base: Wave 2 learners who answered each question and attended an English course: All (1887); All in employment at wave 2 (796).

Between the end of the course and the end of the subsequent year, there was a marked uplift in the frequency of writing notes, letters or emails at home (Figure 6.3): 36% indicated that they did this more often at wave 3 than at wave 2 (though a further 32% said they did this less frequently). There were more modest uplifts in the frequency of reading or writing emails at work or reading instructions or requests about tasks (increases were indicated by 30% and 31%, respectively, of English learners); proportionally fewer indicated that they were undertaking these activities less often than they had before (25% and 22%, respectively). While there were increases in the frequency with which other reading and writing activities were undertaken, these were balanced by the fact that roughly equivalent proportions reported a fall-off in frequency.

**Figure 6.21 Change in frequency of literacy-related activities undertaken by English learners between the end of their course and a year later**



Base: Learners who answered each question at both wave 2 and wave 3 and attended an English course: All (c.1073); All in employment at wave 2 and wave 3 (348).

A year after their course ended, learners were also asked how frequently they read various materials outside of work. The same questions were used in the 'International Survey of Adult Skills' (PIAAC) in 2012, providing relatively recent comparative data amongst the general adult population of England<sup>59</sup> and allowing us to gain a degree of insight into the standard of the learner cohort's literacy skills relative to that of the wider population.

The proportions who never undertook these activities, who undertook them at least weekly, or who practised them daily, are shown in Table 6.2. Broadly speaking, learners who had completed their course a year ago were less likely to practise most of these activities at all and less likely to practise them on a weekly or more frequent basis. Notable exceptions, however, were reported with regards to 'manual or reference materials' and 'diagrams, maps or schematics'. These were more likely to be consulted in everyday life, and more likely to be read on a frequent basis by the cohort of learners interviewed at wave 3 than amongst the general adult population.

<sup>59</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/246534/bis-13-1221-international-survey-of-adult-skills-2012.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/246534/bis-13-1221-international-survey-of-adult-skills-2012.pdf); page:111-113

**Table 6.3 Everyday reading practices of English learners at wave 3, compared to all adults in England aged 16-65**

Outside your work, in everyday life, how often do you usually read?	Adult English and maths survey (wave 3)			International Survey of Adult Skills (PIAAC) 2012		
	Never	At least weekly	Daily	Never	At least weekly	Daily
Directions or instructions	10%	54%	23%	11%	50%	23%
Letters, memos or email	5%	78%	48%	3%	87%	64%
Articles in newspapers, magazines or newsletters	14%	64%	29%	6%	82%	49%
Articles in professional journals or scholarly publications	52%	22%	8%	51%	19%	5%
Books, fiction or non-fiction	22%	49%	23%	18%	53%	31%
Manuals or reference materials	27%	33%	12%	31%	21%	5%
Bills, invoices, bank statements or other financial statements	7%	51%	18%	6%	58%	16%
Diagrams, maps or schematics	34%	26%	8%	38%	16%	3%
Base (unweighted)	1077			5131		

## 6.2 Maths course participants' attitudes towards maths

### Review of change in perceptions between wave 1 and 2

Learners embarking on maths courses tended to hold positive attitudes towards maths at the course outset, with 87% believing it would be useful in the future and 64% describing the subject as interesting. At the same time, three-quarters (76%) described maths as challenging and large minorities said the subject made them nervous (38%), or expressed concerns about their ability to solve problems (47%) or undertake maths tests. Women and native English speakers were more likely than average to express these concerns, as were Entry Level course participants (as compared with those on Level 2 courses).

The proportion of maths learners describing maths as interesting remained steady between the start and end of the course, while the proportions expressing concerns about maths diminished between waves 1 and 2. This can be seen in Table 6.3, which shows agreement levels with four of the statements repeated at all 3 waves of the survey.

The answers given by individual learners who took part at wave 1 and 2 of the survey add weight to the suggestion that concerns about maths diminished between the start and end of the course. Around two-fifths of the individual learners who were interviewed at both stages indicated that their concerns about solving maths problems and nervousness about maths had subsided by the end of the course through their ratings at each stage (41% and 38%, respectively), and far fewer indicated greater concerns (21% and 22%, respectively). While this suggests that the courses may have contributed to a net increase in learners' confidence around their maths skills, the picture was not completely consistent. For example, learners were more likely to indicate that they found maths challenging once the course was completed (31%) than to indicate that its challenges had diminished (21%). This was disproportionately more common amongst Entry Level course participants, and perhaps stems from having gained a better appreciation, through participation in the course, of the multiple ways in which numbers can be applied and put to use in daily life.<sup>60</sup>

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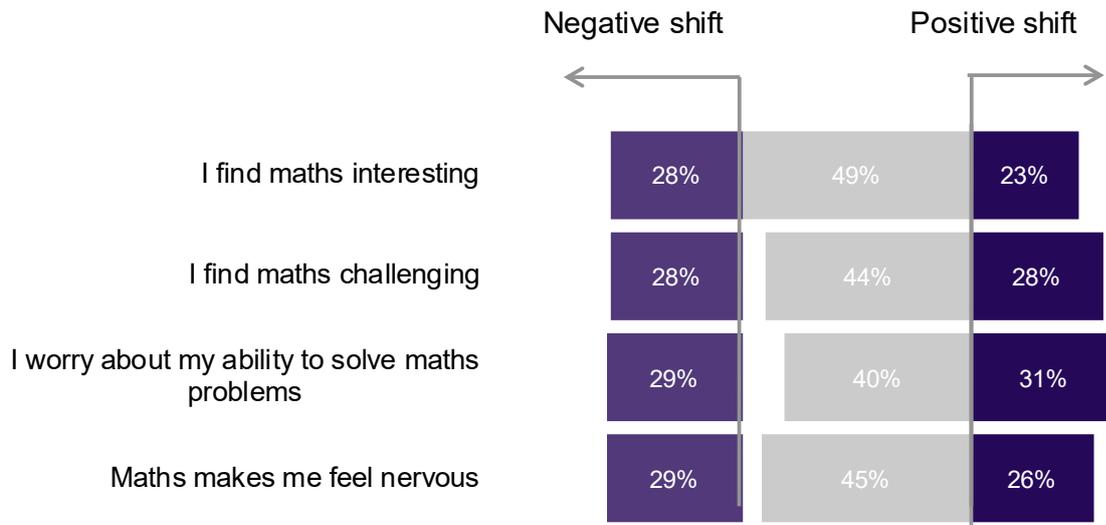
<sup>60</sup> For a more detailed analysis please refer to the, Programme of research for adult English and maths longitudinal survey of adult learners research report on waves 1 and 2.

**Table 6.4 Proportions of maths learners who had positive attitudes or concerns about their maths skills at the start, end, and a year after the completion of their course**

	<b>Agree at start of course</b>	<b>Agree at end of course</b>	<b>Agree one year later</b>
I find maths interesting	65%	65%	63%
I find maths challenging	76%	73%	70%
I worry about my ability to solve maths problems	47%	42%	41%
Maths makes me feel nervous	38%	36%	34%
Base (unweighted)	c.1739	1786	1018

Agreement levels for the four statements shown in table 6.4 remained stable between waves 2 and 3, suggesting that maths learners' views did not alter substantially between the end of the course and the subsequent year. The answers given by individual learners broadly support this. Hence, the proportions who underwent either a positive or a negative shift in their views regarding maths problems, anxiety around maths, and the degree to which maths was perceived as a challenge were roughly equivalent (Figure 6.4). However, the proportion indicating a decline in their interest in maths (28%) surpassed the proportion whose interest in the subject had grown (23%). These patterns did not vary significantly by the level of course attended.

**Figure 6.22 Shifts in attitudes amongst maths learners between the end of their course and a year later**



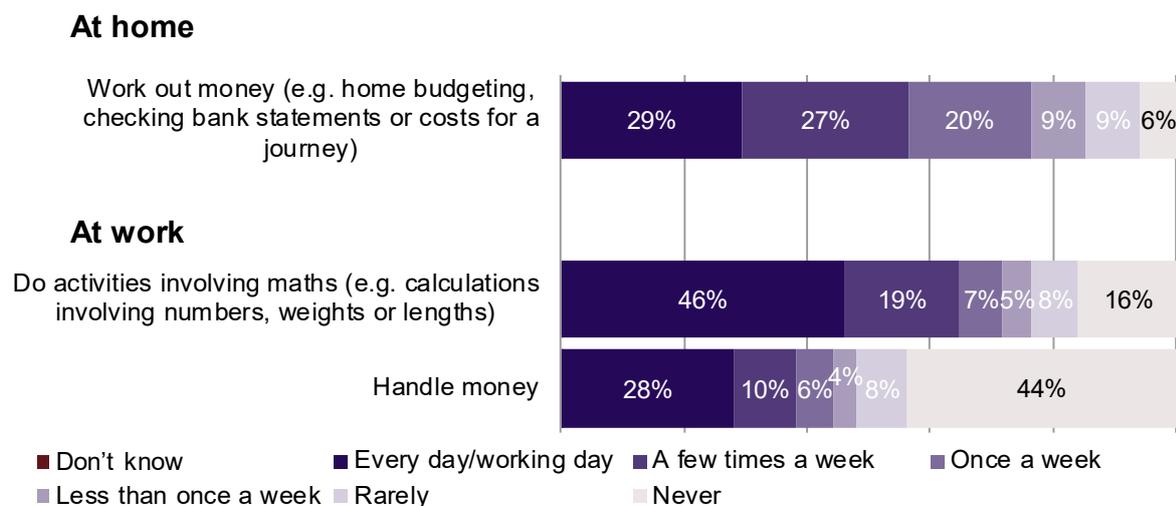
Base: Learners who answered each question at both wave 2 and wave 3 and attended a maths course (c.1010).

Changes in attitudes at wave 2 and wave 3 bore no apparent relationship with whether or not learners showed measurable progress in their numeracy skills.

### Use of maths skills in everyday life

Once their course was completed, maths learners reported the frequency with which they carried out various activities at home and (for those in employment) at work. Their responses regarding numerical activities are shown in figure 6.5.

**Figure 6.23 Frequency of numerical activities undertaken by maths learners at end of course**

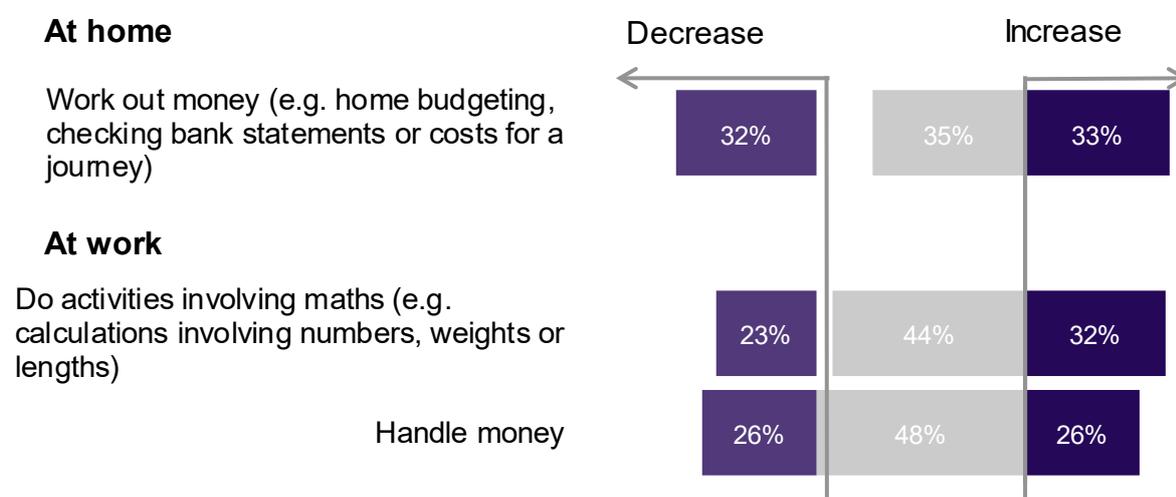


Base: Wave 2 learners who answered each question and attended a maths course: All (1796); All in employment at wave 2 (745).

While handling money was not a frequent practice for many of those who were in work at wave 2 (44% never did this), over seven-tenths worked out money and budgeting as part of their home life or undertook activities involving maths in their job on at least a weekly basis (76% and 71%, respectively). Women were more likely to report working out money daily in their home lives (36%, compared with 24% of men), as were learners who attended Level 2 courses (34%, compared with 26% of Entry Level and 27% of Level 1 course participants).

Maths learners were asked the same questions a year later, to gauge whether any skills gain they may have made was being put to use in their day-to-day lives after the course was behind them. The proportions of individuals who increased or decreased the frequency of these activities by the time of their wave 3 interview are shown in figure 6.6. Notably, around a third of learners (32%) practiced numerical activities at work more frequently than they had directly after the course ended (and only 23% did this less frequently than before). No subgroups stood out as particularly likely to undergo a step-up in frequency. There was little change in the frequency with which the rest of the activities were undertaken.

**Figure 6.24 Change in frequency of numerical activities undertaken by maths learners between the end of their course and a year later**



Base: Learners who answered each question at both wave 2 and wave 3 and attended a maths course: All (1020); All in employment at wave 2 and wave 3 (c.316).

## Chapter 7: Family outcomes

In 1999 the Moser report highlighted the tendency for children with parents with lower English and maths skills to be more likely to have lower English and maths skills themselves due to their parents' difficulties reading to them and helping with their schoolwork.<sup>61</sup> This finding is reinforced in the more recent OECD report on skills in England.<sup>62</sup> Qualitative work undertaken during the previous evaluation of learners on Skills for Life courses also observed the stigma that adults with poor basic skills can feel in their own household and the increased confidence that courses can give them in engaging with their children's reading and homework.<sup>63</sup>

In this chapter we explore the frequency of learners with children in the household reading with their children/helping with their homework. As with all outcomes discussed in this report there are additional considerations when interpreting the data. For example, changes in frequency may be related to the child's age (such as a child progressing to independent reading during the study timeframe) or home circumstances (such as a partner joining or leaving the household) so any shifts in involvement in the child's reading or homework should not be seen as an indication of learners' ability or motivation.

### Summary

- At the start of their course 7% of English learners and 8% of maths learners said a main reason for taking the course was to help their child at school (and 3% of English learners, and 2% of maths learners were encouraged to take the course by a family member).
- At the close of their course in wave 2 many learners with families felt the course had helped improve the level of interest that the wider family had in learning (67% of English learners and 62% of maths learners). They also felt that their course had helped relationships with their partner or family (58% of English learners and 50% of maths learners).
- One year on from the completion of their English course over two-fifths (43%) of learners with a child aged up to 9 said they read with their child every day and only one-tenth of learners (12%) reported that they had not read with their child/ren in the last week. This is similar to these activities at wave 2 when

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<sup>61</sup> <http://www.educationengland.org.uk/documents/pdfs/1999-moser-summary.pdf>

<sup>62</sup> <https://www.oecd.org/unitedkingdom/building-skills-for-all-review-of-england.pdf>

<sup>63</sup> Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses - final report NIESR and BMRB.

14% of English learners said they had not read with their child in the last week and 40% read with their child every day

- Looking at individual learners, three-tenths English learners (29%) were reading to their child more frequently at wave 3 compared with wave 2, although conversely 31% were reading less frequently
- 27% of English learners reported not helping their children with homework in the last week, while 20% helped their child every day. This is consistent with wave 2 where 30% of English learners had not helped their child with their homework in the last week and 22% helped their child every day
- There was more of a shift amongst maths learners – one-fifth of maths learners (22%) said they had not helped their child with their homework in the last week, one year after course completion. This compares with 32% of maths learners who said the same at wave 2 (the proportion who helped daily was 27% at wave 3 and 22% at wave 2).

## **7.1 Family outcomes amongst English learners**

### **Profile of English learners with children in the household**

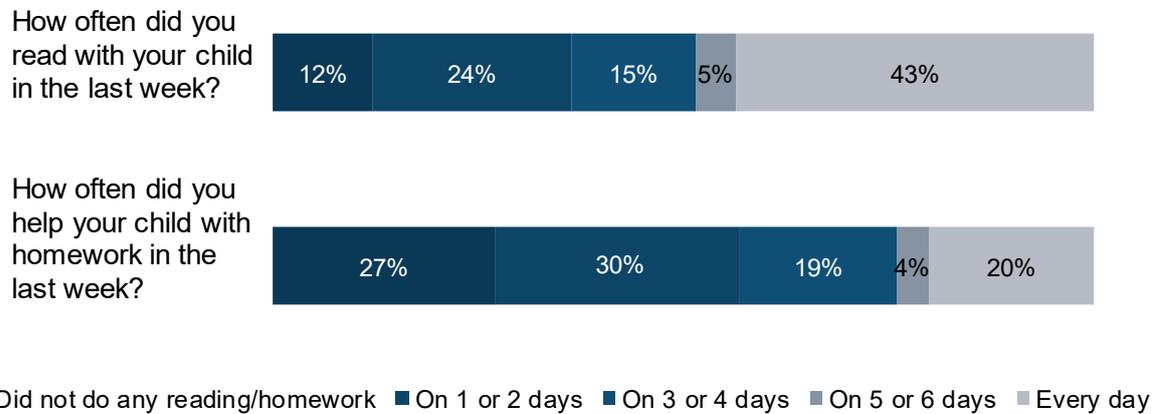
At wave 3 over two-fifths of English learners (43%) said they had children living in their household. As we'd expect, learners aged 35 to 44 (72%) and 25 to 34 (54%) were more likely to have children in the home compared to learners under 24 (12%) or over 45 (32%). Women (57%) were more likely than men (23%) to have children in their household. On average, learners had 2 children present in the home and the mean age of their youngest child was 6 years old.

### **Reading and helping children with their homework**

Learners with children in their household were asked how much they helped their children with reading and homework in the last week (excluding school holiday for homework). Learners with children up to age 9 were asked how often they read with their child and learners with children aged 5 to 15 were asked how often they help their child with their homework.

Figure 7.1 shows how often learner's read with their child and help them with homework.

**Figure 7.25 Frequency with which English learners read with children and help with their homework**



Base: Learners who read with their children (382); Learners who help their child with their homework (313).

Only 12% of learners reported that they had not read with their children in the last week, while over 43% said they read with their child every day. These findings are consistent with wave 2, when 14% of English learners had not read with their child in the last week and 40% read with their child every day.

There were no differences based on progress in learner’s writing skills. However, whilst not a significant difference due to small base sizes, indicatively, learners who improved their reading skills in the year after their original course were more likely to read with their children every day (42%) compared to those who did not improve (31%). There were no differences by the level of learners’ original course.

Women were more likely than men to read with their children every day, with nearly half of women (47%) reporting this was the case compared with 28% of men.

White learners were also more likely to report not reading with their children in the last week (18%), compared with Black and Minority Ethnic (BME) learners (6%).

There was a mixed picture in how often English learners helped with their child's homework. Around a quarter of learners (27%) reported not helping their children with homework in the last week, compared with 20% who said they helped their child every day. This is consistent with wave 2, where 30% of English learners had not helped their child with their homework in the last week and 22% helped their child every day.

However, frequency could be related to how often their child has homework or whether their child requires help, so we should not infer that this is necessarily due to the learners' motivation or ability. In contrast to the indicative pattern noted above whereby learners' whose reading skill improved in the year after their courses and were more likely to read to their child daily, there were no patterns between improvement in reading skills or writing skills and frequency of helping with their child's homework.

BME learners were more likely to help their children with their homework every day (28%) compared with white learners (13%). Learners who had one child at home were less likely to help their child with homework, with two-fifths (39%) saying they had not helped their child with homework in the last week compared with 17% of learners with 2 or more children at home.<sup>64</sup>

### **Changes in frequency of reading with child or helping with homework between wave 2 and wave 3 amongst English learners**

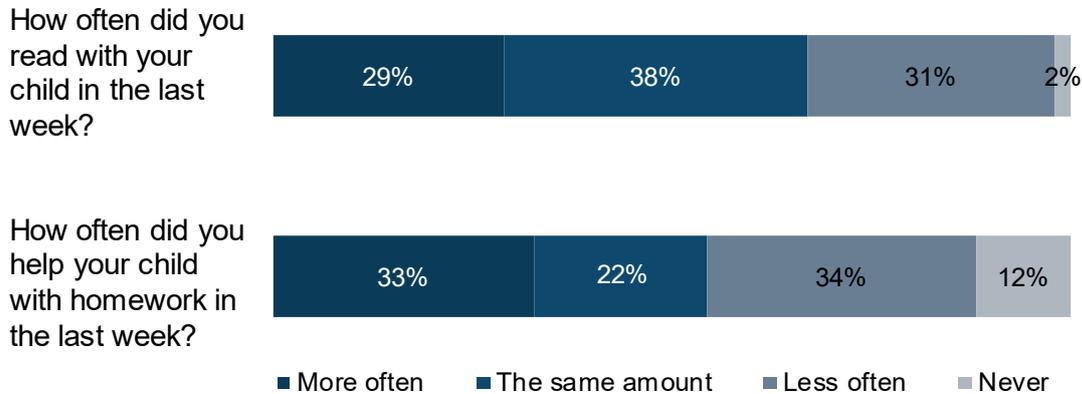
Learners were asked how frequently they read with their child and help with their homework at both wave 2 and wave 3. Figure 7.2 shows changes in the reported frequency of English learners reading with their child or helping with their homework. Similar proportions of individual learners reported reading with their child with a higher level of frequency, the same amount and with a lower level of frequency at wave 3 when compared to wave 2. Only 2% said that they never read with their child at both wave 2 and wave 3.

Conversely, one-tenth of English learners (12%) said that they never helped their child with their homework at wave 2 and wave 3. Similar proportions showed an increase (33%) and a decrease (34%) in the frequency with which they helped their child with their homework.

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<sup>64</sup> Bases: BME = 180, White = 133.

**Figure 7.26 Changes in frequency of reading or helping child with homework amongst English learners<sup>65</sup>**



Base: Learners who gave a response to reading with their child at wave 2 and wave 3 (356); Learners who gave a response to helping their child with their homework at wave 2 and wave 3 (255).

## 7.2 Family outcomes amongst maths learners

### Profile of maths learners with children in the household

Two-fifths of maths learners (38%) had children living with them at home. As we'd expect, learners aged 25 to 34 (54%) and 35 to 44 (64%) were more likely to have children living with them compared with learners under 24 (10%) and over 45 (24%). Women (47%) were more likely than men (24%) to have children living with them. On average, learners had 2 children living with them at home and the average age of their youngest child was 5.

### Reading and helping children with their homework amongst maths learners at wave 3

Learners with children in their household were asked how much they helped their children with reading and homework in the last week (excluding school holiday for homework). Learners with children up to age 9 were asked how often they read with their child. Learners with children aged 5 to 15 were asked how often they help their child with their homework. Figure 7.3 shows a similar pattern of response to English learners.

<sup>65</sup> Data shows derived variable, which compares frequency reported at wave 2 and frequency reported at wave 3 to identify if individual learners read more often, the same, less often or never.

**Figure 7.27 Frequency with which maths learners read with their child and help their child with homework**



■ Did not do any reading/homework ■ On 1 or 2 days ■ On 3 or 4 days ■ On 5 or 6 days ■ Every day

Base: Learners who read with their child (338); Learners who help their child with their homework (251).

### Frequency of reading with child (aged up to 9)

Around half (47%) of maths learners reported that they read with their child every day a year on from the end of their course and only one-tenth (11%) said they had not read with their child in the last week. The findings are comparable to the wave 2 findings when 49% of maths learners read with their child every day and 10% never read with their child.

Women were more likely than men to read with their child every day, with half of women (51%) saying this was the case compared with a third (35%) of men. A higher proportion of maths learners whose first language is English read with their child every day (52%) compared with those who have English as a second language (39%).

There were no significant differences based on employment status, age, level of previous course or improvement in numeracy skills.

### **Frequency of helping child with homework (aged 5 to 15)**

In comparison with reading with their children, a lower proportion of maths learners (27%) helped their child with homework every day (for comparison, 47% of maths learners reported they read with their child every day). This compares to 22% who said they helped their child with homework every day in wave 2 (this difference is not statistically significant).

One-fifth (22%) said they had not helped their child with their homework in the last week, one year after course completion. This compares with 32% of learners who had not helped their child with homework in the last week at wave 2, which shows a decrease in the proportions of learners who say they never helped their child with homework.

Learners for whom English was a second language were more likely to help their children with their homework every day (37%) compared with 21% of learners who had English as a first language.

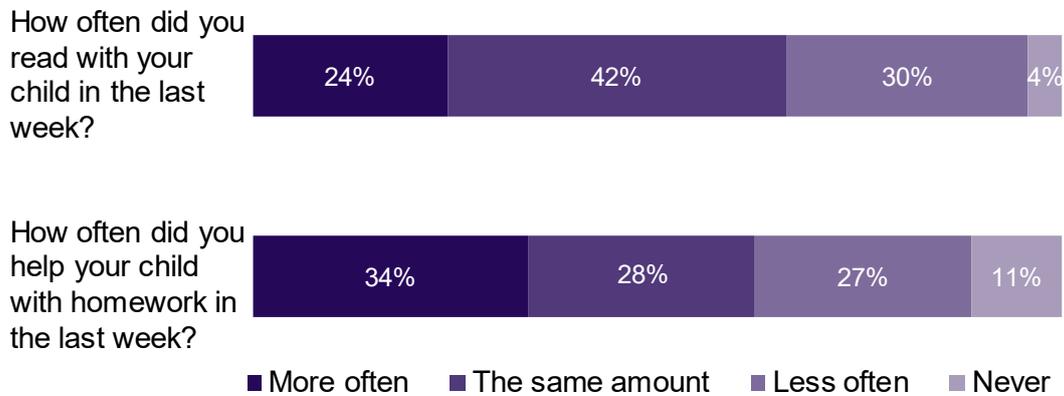
A higher proportion of learners who had been on a course between wave 2 and 3 said they helped their child with homework every day (28%) compared with learners who had not been on additional courses (12%).

There were no significant differences based on gender, employment status, age, level of course or improvement in their numeracy skills.

### **Changes in frequency of reading with child and helping them with homework between wave 2 and wave 3**

Learners were asked about the frequency with which they read with their child and helped them with homework at both wave 2 and wave 3. Figure 7.4 shows the changes in frequency reported between wave 2 and wave 3. A quarter of individual maths learners (24%) showed an increase in the frequency with which they read with their child and a third (34%) increased how often they helped their child with homework. Only 4% said they never read with their child at both waves and 11% said they never helped their child with homework, which indicates that a majority of parents supported their child in some way.

**Figure 7.28 Changes in frequency which maths learners read with their child and help with their homework<sup>66</sup>**



Base: Learners who gave a response to reading with their child at wave 2 and wave 3 (308); and, Learners who gave a response to helping their child with their homework at wave 2 and wave 3 (196).

One year after course completion, learners with English as an additional language were more likely to be reading less often with their child (40%) compared with 23% of learners with English as a first language.

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<sup>66</sup> Data shows derived variable, which compares frequency reported at wave 2 and frequency reported at wave 3 to identify if individual learners read more often, the same, less often or never.

## Chapter 8: Learners' wellbeing

In this study we took a measure of participants' general level of wellbeing using a happiness scale at wave 1, wave 2 and wave 3. There are a range of complex and inter-relating factors on an individual's happiness so it should not be inferred that any changes between these points are the direct result of attendance on courses, or subsequent learning or economic activity. However, it is still interesting to explore patterns, given the findings of previous studies that show the positive impact courses have on learners' wellbeing.<sup>67</sup>

### Summary

A comparison of scores at each of the 3 study points shows on aggregate higher levels of happiness amongst learners at course completion compared to the start, with consistent levels of happiness one year on. However, it should be highlighted that across English and maths learners there was little indication of an association between skills progression - or lack of - and changes in happiness.

**Table 8.1 Change in levels of happiness amongst learners**

	Happiness scores in wave 1 compared to wave 2			Happiness scores in wave 2 compared to wave 3		
	Lower	Same <sup>68</sup>	Higher	Lower	Same	Higher
English learners	30%	26%	43%	36%	26%	37%
Maths learners	29%	21%	50%	39%	24%	38%

Base: Wave 2 learners (860 English, 719 Maths), Wave 3 learners (1073 English, 1018 Maths).

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<sup>67</sup> For example see - Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses - final report NIESR and BMRB - and previous studies discussed within it.

<sup>68</sup> Note that learners who used the top end of the scale, 10, at the start of the course would not have been able to give a higher rating at the end of the course – 10% of English learners and 8% of maths learners gave a rating of 10 in both surveys.

**Table 8.2 Mean happiness score across the study**

	<b>Wave 1</b>	<b>Wave 2</b>	<b>Wave 3</b>
English learners	7.0	7.5	7.6
Maths learners	7.0	7.6	7.6

Base: Wave 3 learners (English 1077, maths 1022); wave 2 learners (English 1889, maths 1798); wave 1 learners (English 2029, maths 1825), excluding don't know and refused.

## **8.1 English learners' happiness outcomes**

Learners were asked to rate their happiness yesterday on a scale of 0 to 10 with 0 being 'not at all happy' and 10 being 'completely happy'.

Across all English learners, the most common response given by learners was 10 (25%) and the mean response was 7.6 suggesting on the whole learners are fairly happy with their lives.

### **Changes in happiness amongst English learners between wave 2 and wave 3**

Learners were also asked how happy they were at wave 2 which allows comparison of learners' happiness at the end of their course and a year on. Looking at changes in reported happiness, close to two-fifths of all English learners (37%) gave a higher happiness score. However, the same proportion have a lower happiness score, leaving 26% who reported the same level of happiness.

Learners who did not improve their writing skills between these 2 points were more likely to give a lower happiness score (43%) compared with learners who did improve their writing skills (32%). Women were also more likely to give a lower happiness score (40%) compared with men (32%).

There were no significant differences in changes of happiness by employment status, age, improvement in reading skills, English as a first language, level of previous course or presence of children in the household.

## 8.2 Maths learners' happiness outcomes

To offer a measure of subjective wellbeing maths learners were also asked to rate their happiness yesterday. The most common happiness rating given by maths learners was 10 (24%) with the mean response being 7.6, suggesting learners are as happy with their lives on the whole as with English learners.

Learners who were in work were more likely to give a higher rating of their happiness on average (7.8) compared to learners who were not in work (7.3). Women were also more likely to give a higher rating of their happiness on average (7.7) compared to men (7.4).

There were no significant differences in happiness ratings based on improvement in maths skills, age, ethnicity, English as a first language, level of previous course or presence of children in the household.

### Changes in happiness amongst maths learners between wave 2 and wave 3

As with English learners, there were similar proportions of maths learners who have a higher happiness score at wave 3 compared with wave 2 (38%) and those who gave a lower score (39%), with 24% reporting the same level of happiness between waves. The most common response was 10 (24%) and the mean response was 7.6.

Learners who improved in the maths assessment were more likely to report an increase in their happiness (46%) compared with those who did not improve (36%). Learners who had studied a Level 2 course were also more likely to report an increase in happiness (42%) compared with a third (36%) of Level 1 learners and, although not significantly different, 35% of Entry Level learners.

There were no significant changes in happiness amongst maths learners based on employment status, age, gender, ethnicity, English as a first language or presence of children in the household.

## Conclusions

The objective to improve adult skills in English and maths remains as pertinent now as it was when the government introduced the Skills for Life strategy in 2001 and when this programme of research was commissioned 4 years ago. The latest available data for the Survey of Adult Skills (PIACC) shows that England still has a large gap between its lowest and highest skills performers, and that young people's skills are particularly concerning.<sup>69</sup>

The evaluation of Skills for Life courses (2002-2006) showed a range of positive impacts<sup>70</sup> and this longitudinal research supports these findings. Many learners felt courses helped various aspects of their lives: their skills, confidence, home-life, and work-life. These softer outcomes are important as they illustrate a link between learning and greater wellbeing.

The independent assessment of skills showed a mixed picture, as not every learner made progress during the study. However, as noted earlier in this report, not all learners shared the same reasons for attending courses, and the desire to improve their skills was not necessarily their primary objective. Even so, it is encouraging to see many learners progressing their skills during and beyond their course, particularly those on Entry Level courses. This illustrates the importance of using functional skills on a day to day basis.

A small proportion of learners changed their work status during the study. However, it has not been possible to identify a clear relationship between learners' skills progression, learning and their work status or economic activity during the year following their course.<sup>71</sup> Establishing a relationship between learning and embedded behavioural change, such as changing work status, would really require a longer timeframe.

The Skills for Life initiative exceeded its targets in terms of the number of learners achieving a Skills for Life qualification. This study has added value by exploring the experiences of learners who were studying for these qualifications. However, further research would be required to identify whether the initiative reached adults with the lowest skills levels, and what the barriers were to attending courses in the first place.

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<sup>69</sup> PIACC 2012 <http://www.oecd.org/skills/piaac/>

<sup>70</sup> Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses - final report, NIESR and BMRB.

<sup>71</sup> Multivariate analysis to explore the effect of attending subsequent courses in the year following learners' original Skills for Life funded courses suggested it did not have a significant effect on learners' wave 3 measured skills or labour market outcomes for either English or maths learners.



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