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for adult literacy and numeracy

Time to Progress within *Skills for Life*:

An analysis for the Learning and Skills Improvement Service

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Summary

Background and context

This report is based on *Skills for Life* data for the FE sector only, in the period 2000/01-2006/07, and is principally concerned with those *Skills for Life* learners whose first enrolments and achievements in the period were at Entry level or Level 1, and who progressed to enrolments and achievements at a higher level.

This work originated from a previous Quality Improvement Agency project, *Motivating Skills for Life Learners to Persist, Progress and Achieve*. A question raised in that project was how long, on average, it takes a *Skills for Life* learner to gain a level in literacy, numeracy or ESOL. Within the constraints of that project it was impossible to add to an estimate drawn from research in the US that 100 hours of instruction is the minimum required to progress by one General Education Development (GED) Test level.¹ On the basis of the US finding, NRDC and its (since dissolved) US counterpart, the National Center for the Study of Adult Learning and Literacy, estimated that this implied learners require on average at least 150 hours of time on task (including not only instruction but all learning-related activity) to progress one level within the SFL qualifications framework.²

In order to improve our understanding of this estimate, it was agreed with both LSIS and the Department for Innovation, Universities and Skills (now the Department for Business, Innovation and Skills) that we should use records from the Individual Learner Record (ILR) databases covering the years 2000/01 to 2006/07 and 'fuzzy matching' techniques to gain some insights into how long *Skills for Life* learners in the UK take to gain a level of skill.

Limitations of Individual Learning Record (ILR) data

The ILR captures data from learning for their funder, which at the time of this project was the Learning and Skills Council (LSC). The information recorded reflects the changing nature of the funding regime. In order to use the database for research purposes we had to be aware of the limitations which arise from the nature of the database. For example:

- each learner can have more than one learning aim and complete some and not others;
- the quality of data is variable (many fields are not mandatory at the point of completion)

¹ The GED curriculum is sufficiently analogous to the Skills for Life curriculum to license limited inferences in respect of time required to progress by one level.

² This estimate (it is only that at present), and the application of the US finding to a UK context, require further research – *at all levels* of the SFL framework.

- the reliability of some fields is dependent on the accuracy of their completion by providers.

For this research results were aggregated across seven years. During this period there were differences in recording ILR information from year to year:

- regulations for mandatory and optional fields changed
- changes were made to the format and variables attached to fields
- courses changed in nature and name
- requirements changed regarding which learners were to be recorded on the ILR.

Furthermore, because there were not separate learning aims for each of the three sub-divisions of Entry level, i.e. Entry level 1, Entry level 2 and Entry level 3, the ILR data could not provide information relating to progression from one Entry level to another. The data only allowed us to examine progression from Entry level as a whole to Level 1 or Level 2 and from Level 1 to Level 2.

For some of the seven years covered by this analysis, diagnostic assessments (3- or 6-hour courses fundable through *Skills for Life*) were recorded as learning aims on the ILR. In order to avoid these assessments having a distorting impact on the data, all short learning aims with guided learning hours (GLH) of 10 or fewer hours were excluded from the analysis.

It should also be noted that ILR data cannot of themselves provide an answer to the question of how long it takes a learner to move from one level to another in terms of hours of study, but only in terms of number of months between enrolment (or achievement) at one level and enrolment (or achievement) at a higher level. Even much more detailed work on the ILR to investigate the numbers of guided learning hours (GLH) used on average across courses would only tell us the number of teacher/learner contact hours offered by providers across the sector. This would be the limit of what the ILR can tell us. It simply does not contain the information needed to arrive at a picture of how much 'time on task' learners need to commit to move their skills from one level to the next.

Research methodology

The project methodology is described in detail in Appendix A1. To summarise, we were aware that we could not simply look at achievement data and calculate from start and end dates how long it took to achieve: this would not address the question of whether learners moved up a level, because the ILR does not record learners' skill levels at enrolment.

In order to answer the question of the time taken to move up a level in *Skills for Life* learning, given the ILR limitations, this study takes as its starting point an enrolment or an achievement at Entry level or Level 1, and looks for subsequent enrolment or achievement by the same learner in the same skill at a higher level. This very strict definition of progression allows us to examine clear examples of progression from one skill level to another over the seven-year period covered. To calculate the length

of time taken we have used the learning start and achievement dates as consistent indicators.

In reviewing the ILR data and using the fuzzy matching process referred to above, we have, within a subject area, accumulated all enrolments onto single learning aims related to a unique learner, in order to identify progression. We have used the same process with the achievement data.

Summary of findings

Just under 3.4 million adults enrolled for at least one *Skills for Life* learning aim in the FE sector in the period 2000/01-2006/07. Of these, almost 1.6 million (47 %) enrolled only once.

Over 2 million adults achieved at least one *Skills for Life* learning aim in the FE sector in the period. Of these 1.2 million (60%) achieved only one aim.

The analysis showed that just under 150,000 learners in numeracy, 160,000 in literacy and 90,000 in ESOL progressed to a higher-level **enrolment** in the same skill in the period analysed. In terms of achievements, around 50,000 learners in numeracy, 60,000 in literacy and 45,000 in ESOL gained a higher-level **achievement** in the same skill. In addition, some ESOL learners (18,000/8,000) who first enrolled/achieved at *ESOL* Entry level progressed to a higher-level enrolment or achievement in *literacy*. It is the groups of learners described in this paragraph who were used as the basis for further analysis in this study.

In both numeracy and literacy the greatest number of learners who moved from one level to a higher level progressed from Level 1 to Level 2, but in ESOL the greatest number of those who progressed started at Entry level. This reflects the differences between the ESOL, literacy and numeracy cohorts and the fact that much demand for ESOL provision is at Entry levels 1 and 2.

When we examined the time intervals between enrolments/achievements at particular levels and enrolments/achievements at higher levels we found a huge range. This shows that for some learners progression takes years rather than months. As an example we found that learners who first achieved numeracy Level 1 and subsequently achieved numeracy Level 2 took between 1 month and 78 months (i.e. over 6 years) to do this. More reassuringly, the modal value tells us that the biggest group took 12 months to move from achieving at Level 1 to achieving at Level 2.

This pattern is repeated for all three skills and for those moving from Entry level to Level 1 and from Level 1 to Level 2.

It is easier to understand those who took more than a year to progress to a higher level achievement than those who apparently did so in 1 or 2 months. The former will have simply taken several years to achieve their second qualification. We may

wonder how the latter group achieved in such a short length of time. Our experience suggests there were a number of ways in which this might occur. One reason might be the popularity of 'brush up' courses aimed at accrediting those who have no LLN qualifications, or perhaps only outdated ones. A short course might well bring these learners up to the required standard in a short time.

There were some findings from the ESOL analysis which were not easy to interpret. We might not be surprised to find that those learners progressing from Entry level to Level 1 take an average of 9.2 months with a modal frequency of 12 months, but that those progressing from Entry level directly to Level 2 have a modal value of 4 months seems difficult to understand (Table 10).

Finally, we note that, although almost 3.4 million learners enrolled for a *Skills for Life* course at least once in the period, just 30% of them re-enrolled in the same skill at a higher level. Looking at achievements, just under 500,000 learners achieved twice in the same skill, approximately 15% of those who initially enrolled. To achieve government aims for upskilling the adult population, funders and providers in the FE sector will need to find ways of encouraging more adults to enrol, and more learners to progress to higher levels.

The Research Questions

This project aimed to determine evidence-based estimates of the amount of time adult learners take to progress from one *Skills for Life* (SfL) level to a higher SfL level in numeracy, literacy and ESOL (English for speakers of other languages).

More specifically, the research focused on answering the following questions:

How long (in months) on average does it take adult learners who have *enrolled* for an Entry level learning aim to enrol for a Level 1 learning aim (or a Level 2 learning aim, if they skip Level 1)? How long does it take learners who have enrolled for a Level 1 learning aim to enrol for a Level 2 learning aim? What is the range of time (in months) for these transitions?

How long (in months) on average does it take adult learners who have *achieved* an Entry level learning aim to achieve a Level 1 learning aim (or a Level 2 learning aim, if they skip Level 1)? How long does it take learners who have achieved a Level 1 learning aim to achieve a Level 2 learning aim? What is the range of time (in months) for these transitions?

The research findings will help to enable accurate predictions to be made of expected learner progress, and inform strategies for curricula and workforce development.

The methods by which these questions were tackled are outlined in section A.1 of the Appendix (section A.2 contains supplementary statistical findings). Briefly, we used the Individual Learner Records for the academic years 2000/01-2006/07, and reached answers to the main research questions stated above via the following sub-questions:

Q1 How many individual adult learners enrolled for a *Skills for Life* learning aim at least once in the period 2000/01-2006/07?

Q2 How many of those learners enrolled only once?

Since these individuals did not move up a level, we needed to identify them and exclude them from the main analyses.

Q3 Of those who enrolled more than once in the same skill, how many enrolled first at Level 2?

Since these individuals could not move up a level and still be within *Skills for Life*, we needed to identify them and exclude them from the main analyses also.

- Q4** How many learners progressed from an Entry level enrolment to a Level 1 and/or Level 2 enrolment, and from a Level 1 enrolment to a Level 2 enrolment?
- Q5** What was the range of intervals between these enrolments, and what was the average interval?
- Q6** How many individual adult learners achieved at least one *Skills for Life* learning aim in the period 2000/01-2006/07?
- Q7** How many of those learners achieved only one aim?

Excluded – cf. question 2.

- Q8** Of those who achieved more than one aim in the same skill, how many achieved first at Level 2?

Also excluded – cf. question 3.

- Q9** How many learners progressed from an Entry level achievement to a Level 1 and/or Level 2 achievement, and from a Level 1 achievement to a Level 2 achievement?
- Q10** What was the range of intervals between these achievements, and what was the average interval?

For most of the analysis we separated the data for numeracy, literacy and ESOL.

Analysis of *Skills for Life* Enrolments

This section gives evidence on the enrolment of learners across the period of this study, and is presented in terms of research questions 1-5 above.

Q1 How many individual adult learners enrolled for a *Skills for Life* learning aim at least once in the period 2000/01-2006/07?

3,380,211

This figure represents unique individuals, i.e. each person is counted only once even if they enrolled more than once.

Q2 How many of those learners enrolled only once?

1,578,190 (47%)

(For a breakdown of this group, see Table A3 in the Appendix.)

By exclusion, the other 1,802,021 learners (53%) enrolled at least twice.

Among these, 1,024,305 learners (30% of all who enrolled) enrolled at least twice in the same skill.

Q3 Of those who enrolled more than once in the same skill, how many enrolled first at Level 2?

Among the learners who enrolled more than once in the same skill, we need to identify those who first enrolled at Level 2 since they were not able to progress to a higher *Skills for Life* level, and therefore were not included in any further analysis.

Table 1 below gives the total number of learners enrolling more than once in a skill, for numeracy, literacy and ESOL. The number (and percentage) of learners first enrolling at Level 2 and those first enrolling at Entry level or Level 1 are also provided³.

³ It is not possible to sum the number of learners for numeracy, literacy and ESOL as these are not mutually exclusive. A learner may be counted in more than one skill in the analysis.

Table 1: Learners who enrolled more than once in a skill, and the level of their first enrolment

Skill	Level of first enrolment	N	%
Numeracy	Total	401,597	100
	Enrolled at Level 2 first	156,817	39
	Enrolled at Entry level or Level 1 first	244,780	61
Literacy	Total	499,122	100
	Enrolled at Level 2 first	157,463	32
	Enrolled at Entry level or Level 1 first	341,659	68
ESOL	Total	372,643	100
	Enrolled at Level 2 first	28,695	8
	Enrolled at Entry level or Level 1 first	343,948	92

Within numeracy and literacy learners, 39% and 32% respectively enrolled first at Level 2, while only 8% of ESOL learners enrolled initially at that level. This illustrates the different pattern of enrolment of ESOL learners compared to numeracy and literacy learners.

Q4 How many learners progressed from an Entry level enrolment to a Level 1 and/or Level 2 enrolment, and from a Level 1 enrolment to a Level 2 enrolment?

We have now reduced the sample to those who enrolled more than once in the same skill, and whose first enrolment was at Entry level or Level 1. We then went on to identify which of these individual learners subsequently enrolled on a higher level course in the same skill.

Table 2: Numbers of learners whose first enrolment was at Entry level or Level 1 and who progressed to a higher-level enrolment in the same skill

Skill	No. of learners who progressed to a higher-level enrolment	% of learners who enrolled <i>more than once</i> & enrolled first at Entry level or Level 1	% of all learners who first enrolled at Entry level or Level 1
Numeracy	143,776	59%	17%
Literacy	162,516	48%	14%
ESOL	86,726	25%	10%

The learners who first enrolled at Entry level or Level 1 but did not progress to a higher-level enrolment are not relevant to this project and are not analysed further. However, it is interesting to note the different trends seen for numeracy and literacy compared with that for ESOL. While ESOL had the greatest proportion of learners enrolling more than once in the skill and first enrolling at Entry level or Level 1 (92% - see Table 1), only 25% of these learners progressed to a higher level within ESOL. Learners in ESOL were more likely to have multiple enrolments only within the same (or lower) level.

Conversely (by subtracting the percentages in the third column of Table 2 from 100%), we can also see that for numeracy and literacy 41% and 52% respectively of the totals in Table 1 (learners enrolling more than once whose first enrolment was at Entry level or Level 1) were not reflected in progression to Levels 1 and 2. The likelihood is that these numbers represent people progressing between Entry levels: Entry level 1 to Entry level 2 or 3, or Entry level 2 to Entry level 3. And for ESOL this rises to 75% of the learners enrolling first at Entry level or Level 1.

Q5 What was the range of intervals between these enrolments, and what was the average interval?

Having identified the learners who enrolled more than once in the same skill, with their first enrolment at Entry level or Level 1 and a subsequent enrolment at a higher level, we can then identify the length of time between these enrolments.

First for numeracy:

Table 3: Intervals between enrolments for numeracy learners

Transition path to higher-level enrolment in numeracy	Number of learners	%	Range of Intervals (months)	Average interval (months)	
				mean ⁴	mode ⁵
Entry level → Level 1	29,941*	21	1-79	11.6	12
Entry level → Level 2	10,991	8	1-78	10.6	12
(Subtotal)	40,932	(28)			
Level 1 → Level 2	102,844	72	1-82	13.2	12
Total	143,776	100			

* A small number of these learners (4,930, 16% of those who progressed from Entry level to Level 1; 3% of numeracy learners who progressed overall) also went on to enrol at Level 2 in numeracy following their Level 1 enrolment. The range of intervals between their Level 1 and 2 enrolments was 1-68 months, mean 10.1 months and mode 12 months. These figures have not been included in the main calculations for Level 1 to Level 2.

The great majority (approximately 72%) of those who progressed to a higher-level enrolment in numeracy were those who moved up from Level 1 to Level 2. The smallest groups were those who reached Level 2 from Entry level, either direct or via level 1. Only 8% ‘jumped’ directly from Entry level to Level 2.

The intervals tell a plausible story: most intervals were in the range 1-12 months⁶, and the largest number of learners re-enrolled one year after their first relevant enrolment. A graph would show a very long and very thin tail of longer intervals – and this is true of each of Tables 3-5 and 8-11.

⁴ The mean is the arithmetical average (sum of all intervals divided by the number of learners).

⁵ The mode is the most frequent interval.

⁶ The 75th percentile values were used to identify the time interval within which 75% of the learners progressed.

We can now do the same analysis for literacy:

Table 4: Intervals between enrolments for literacy learners

Transition path to higher-level enrolment in literacy	No of learners	%	Range of intervals (months)	Average interval (months)	
				mean	mode
Entry level → Level 1	36,433*	22	1-80	12.5	12
Entry level → Level 2	10,217	6	1-72	13.2	12
(Subtotal)	46,650	(29)			
Level 1 → Level 2	115,866	71	1-82	13.9	12
Total	162,516	100			

* A small number of these learners (5,344, 15% of those progressing from Entry level to Level 1, 3% of literacy learners who progressed overall) also went on to enrol at Level 2 in literacy following their Level 1 enrolment. The range of intervals between their Level 1 and 2 enrolments was 1-72 months, mean 11.3 months and mode 12 months. These figures have not been included in the main calculations for Level 1 to Level 2.

The great majority of those who progressed to a higher-level enrolment in literacy were again those who moved up from Level 1 to Level 2. The smallest groups were those who reached level 2 from Entry level, either direct or via Level 1.

Most intervals were in the range 1-16 months, and the largest number of learners re-enrolled one year after their first relevant enrolment.

And for ESOL:

Table 5: Intervals between enrolments for ESOL learners

Transition path to higher-level enrolment in ESOL	No of learners	%	Range of intervals (months)	Average interval (months)	
				mean	mode
Entry level → Level 1	52,150*	60	1-75	9.0	1
Entry level → Level 2	11,182	13	1-60	8.5	4
(Subtotal)	63,332	(73)			
Level 1 → Level 2	23,394	27	1-82	11.5	12
Total	86,726	100			

* A small number of these learners (7,471, 14% of those progressing from Entry level to Level 1, 9% of ESOL learners who progressed overall) also went on to enrol at Level 2 in ESOL following their Level 1 enrolment. The range of intervals between their Level 1 and 2 enrolments was 1-68 months, mean 7.1 months and mode 1 month. These figures have not been included in the main calculations for Level 1 to Level 2.

In contrast to numeracy and literacy, the great majority of ESOL learners who progressed to a higher-level enrolment did so from Entry level. However, the smallest groups were again those who reached Level 2 from Entry level, either direct or via Level 1.

Most intervals were in the range 1-13 months and the most frequent interval between Levels 1 and 2 was a year.

Analysis of *Skills for Life* Achievements

The following section concentrates on the evidence we have on the achievements of learners during the period of the study.

Q6 How many individual adult learners achieved at least one *Skills for Life* learning aim in the period 2000/01-2006/07?

2,016,574 (60% of those who enrolled at least once)

Q7 How many of those learners achieved only one aim?

1,200,912 (60% of those who achieved at least one aim)

(For a breakdown of this group, see Table A6 in the Appendix.)

By exclusion, the other **815,662** learners (40%) achieved at least two aims.

Of these, **497,652** learners (25% of those who achieved at least one aim) achieved at least twice in the same skill.

Q8 Of those who achieved more than one aim in the same skill, how many achieved first at Level 2?

Of these learners who achieved more than once in the same skill, we need to identify those whose first achievement was at Level 2 since they were not able to progress to a higher *Skills for Life* level, and therefore were not included in any further analysis.

Table 6 gives the total number of learners achieving more than once in a skill. The number (and percentage) of learners who first achieved at Level 2 and those who first achieved at Entry level or Level 1 are also provided⁷.

Table 6: Learners who achieved more than once in a skill, and the level of their first achievement

Skill	Level of first achievement	N	%
Numeracy	Total	136,591	100
	Achieved at Level 2 first	39,992	29
	Enrolled at Entry level or Level 1 first	96,599	71
Literacy	Total	199,762	100
	Achieved at Level 2 first	36,415	18
	Enrolled at Entry level or Level 1 first	163,347	82
ESOL	Total	223,378	100
	Achieved at Level 2 first	12,245	5
	Enrolled at Entry level or Level 1 first	211,133	95

⁷ Again, it is not possible to sum the number of learners achieving in numeracy, literacy and ESOL as they are not mutually exclusive. A learner may have achieved in more than one skill.

As with enrolments, we see a very small number of ESOL learners achieving initially at Level 2.

Q9 How many learners progressed from an Entry level achievement to a Level 1 and/or Level 2 achievement, and from a Level 1 achievement to a Level 2 achievement?

Table 7 looks at the number of learners who progressed in the same skill across the period of this study.

Table 7: Numbers of learners whose first achievement was at Entry level or Level 1 and who progressed to a higher-level achievement in the same skill

Skill	No. of learners who progressed to a higher-level achievement	% of learners who achieved more than once with an initial achievement at Entry level or Level 1 (base figures from Table 6)	% of all learners who first enrolled in the same skill at Entry level or Level 1 (base figures from Table 1)
Numeracy	51,792	54%	12%
Literacy	60,870	37%	9%
ESOL	45,513	22%	8%

The figures in Table 7 suggest a similar trend to that seen for enrolments, where ESOL learners who achieved at least twice in the skill (and first at Entry level or Level 1) were less likely to go on to achieve a higher-level aim than numeracy and literacy learners in the same position (22% compared to 54% and 37% respectively).

The number of learners who first achieved at *ESOL* Entry level and progressed to a higher-level achievement in *literacy* was 7,899. They represented 51% of the 17,814 learners who first enrolled at *ESOL* Entry level and progressed to a higher-level enrolment in literacy. Though the absolute numbers were small, this is a higher proportion than any of those in Table 7.

Q10 What was the range of intervals between these achievements, and what was the average interval?

Having identified those individual learners who achieved more than once in the same skill, and who progressed to a higher level achievement in the same skill, we can identify the interval of time between these achievements.

The following tables look at the numbers who achieved at higher levels as a percentage of all those who progressed to a higher level, and as a percentage of those who enrolled at higher levels. So, for example, we can see that 28% of those who progressed in numeracy achievements did so by achieving first at Entry level

and then at Level 1, and that these learners represented 57% of those who enrolled at level 1 following an achievement at entry level.

Table 8: Intervals between achievements for numeracy learners

Transition path to higher-level achievement in numeracy	No of learners	%	Transition in achievements as a percentage of transition in enrolments*	Range of intervals (months)	Average interval (months)	
					mean	mode
Entry level → Level 1	14,748**	28	49	1-79	11.0	12
Entry level → Level 2	5,569	11	51	1-78	10.2	12
(Subtotal	20,317)	(35)	(50)			
Level 1 → Level 2	31,475	61	31	1-80	11.5	12
Total	51,792	100	(n/a)			

* For the base figures for these percentages, see Table 3.

** A small number of these learners (2,007, 14% of those who progressed from Entry level to Level 1, 4% of numeracy learners who progressed overall) also went on to achieve at Level 2 in numeracy following their Level 1 achievement. The range of intervals between their Level 1 and 2 achievements was 1-60 months, mean 9.5 months and mode 12 months. These figures have not been included in the main calculations for Level 1 to Level 2.

The majority (61%) of those who progressed to a higher-level enrolment in numeracy did so from Level 1 to Level 2, and the smallest groups were those who reached Level 2 from Entry level, either direct or via Level 1.

It seems that numeracy learners who progressed to a higher level enrolment from Entry level were more likely to also progress to a higher level achievement than those who had progressed to a higher level enrolment from Level 1 (50% compared to 31%).

Most intervals were in the range 1-12 months, and the most frequent interval between achievements was a year.

Table 9: Intervals between achievements for literacy learners

Transition path to higher-level achievement in literacy	No of learners	%	Transition in achievements as a percentage of transition in enrolments *	Range of intervals (months)	Average interval (months)	
					mean	mode
Entry level → Level 1	17,680**	29	49	1-77	12.4	12
Entry level → Level 2	4,874	8	48	1-72	13.6	12
(Subtotal	22,554)	(37)	(48)			
Level 1 → Level 2	38,316	63	33	1-82	13.3	12
Total	60,870	100	(n/a)			

* For the base figures for these percentages, see Table 4.

** A small number of these learners (2,137, 12% of those who progressed from Entry level to Level 1, 4% of literacy learners who progressed overall) also went on to achieve at Level 2 in literacy following their Level 1 achievement. The range of intervals between their Level 1 and 2 achievements was 1-60 months, mean 10.6 months and mode 12 months. These figures have not been included in the main calculations for Level 1 to Level 2.

Three-fifths of those who progressed to a higher-level enrolment in literacy did so from Level 1 to Level 2, and the smallest groups were again those who reached Level 2 from Entry level, either direct or via Level 1.

It seems that literacy learners who had progressed to a higher level enrolment from Entry level were more likely to also progress to a higher level achievement than those who had progressed to a higher level enrolment from Level 1 (48% compared to 33%).

Most intervals were in the range 1-18 months, and the most frequent interval between achievements was a year.

Table 10: Intervals between achievements for ESOL learners

Transition path to higher-level achievement in ESOL	No of learners	%	Transition in achievements as a percentage of transition in enrolments *	Range of intervals (months)	Average interval (months)	
					mean	mode
Entry level → Level 1	28,083**	62	54	1-77	9.6	12
Entry level → Level 2	5,433	12	49	1-60	9.5	4
(Subtotal	33,516)	(74)	(53)			
Level 1 → Level 2	11,997	26	51	1-81	11.9	12
Total	45,513	100	(n/a)			

* For the base figures for these percentages, see Table 5.

** A small number of these learners (2,703, 10% of those who progressed from Entry level to Level 1, 6% of ESOL learners who progressed overall) also went on to achieve at Level 2 in ESOL following their Level 1 achievement. The range of intervals between their Level 1 and 2 achievements was 1-68 months, mean 8.3 months and mode 12 months. These figures have not been included in the main calculations for Level 1 to Level 2.

In contrast to literacy and numeracy trends, three-quarters of those who progressed to a higher-level enrolment in ESOL did so from Entry level (rather than Level 1). The smallest groups were again those who reached Level 2 from Entry level, either direct or via Level 1.

It seems that ESOL learners who had enrolled first at Entry level and skipped to Level 2 were the least likely to go on to achieve at a higher level.

Most intervals were in the range 1-14 months and the most frequent interval between levels 1 and 2 was a year.

Conclusions

Approximately 50,000 numeracy learners, 60,000 literacy learners and 45,000 ESOL learners progressed to a higher achievement in the terms defined by this study. Although there was a very wide variety of intervals between their two achievements (generally from 1 month to 80 months) the greatest number of learners took 12 months from the completion of their first qualification to achieve their second qualification.

This same pattern is found for the analysis of enrolments, with the largest group taking 12 months between an initial enrolment and a subsequent enrolment at a higher level.

Most of the learners whose data were analysed for this report either enrolled and achieved only once, or did not progress from an enrolment or achievement at one level to an enrolment or achievement at a higher level. Their personal learning goals may have been met by this level of participation. However, to achieve government aims for upskilling the adult population, funders and providers in the FE sector will need to find ways of encouraging more adults to enrol, and more learners to progress to higher levels.

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Appendix

A.1 METHOD

In order to answer the research questions, a number of datasets were required:

- the LSC's Individual Learner Records (ILRs) for years 2000/01 to 2006/07 (limited to FE data);
- the LSC's Learning Aims Database (LAD) files for the same years; and
- the current HEFCE 'fuzzy matched' file (July 2009), which enabled individual learners within the ILRs to be identified through 'fuzzy matching' with 90+% accuracy.

Preparation of the data involved a number of steps. For each ILR year file, the following processes were carried out: limiting the variables on the ILR file to those of interest; selecting only aims that started in the given academic year; identifying and removing duplicate aims (based on learner ID, provider, learning aim reference and start date); merging with the HEFCE fuzzy-matched file to add the unique longitudinal learner ID; and merging in key variables about the learning aims from the relevant LAD files. Aims on the ILR file that did not match with a HEFCE unique longitudinal ID were removed. Variables were re-named for some of the years so that they were consistent in each file. All ILR files with unique longitudinal IDs were then merged together for analysis.

As the SfL strategy includes learning aims from Entry level to Level 2 only, all aims above Level 2 on the merged dataset were removed. The level of the learning aim was determined by the LAD fields 'A_BSTYPA' or 'A_BSTYPD'.

In analysing the learning aims, a number of counting rules were applied:

- Short learning aims (with 10 or fewer guided learning hours) were excluded from the analysis
- Multiple learning aims in the same skill area with the same start month were identified for individuals, and only the highest level aim was included in the progression analysis.
- The analysis of achievements also took into consideration the outcome status of the aims if aims were of the same level in the same skill area and same start month. Aims with known outcomes and those achieved were given preference.
- Individuals who re-enrolled in a learning aim in the same skill area but lower level within one month of their previous enrolment were identified and their initial enrolments at the higher level were excluded from the progression analysis, on the grounds that the first enrolment was probably a diagnostic measure to establish the most appropriate level for a learner to start from.

The analysis of progression was carried out in two phases within each of the subject areas (numeracy, literacy and ESOL). The first phase examined all learning aims within the subject area (enrolments), while the second looked only at those aims which were achieved. Both analyses involved identifying learners' first enrolled (or achieved) learning aim and tracking through their following enrolments (or achieved aims) to identify their first subsequent higher-level learning aim. The levels of their first learning aim and their first subsequent higher-level learning aim were analysed, along with the time interval (in months) between them.

In addition to analysing transitions within the three subject areas, transitions from ESOL learning aims at entry level to literacy learning aims at a higher level were also identified and analysed for the period.

These methods are essentially the same as those used in previous NRDC projects in which SfL data were analysed (see Bathmaker and Pilling, forthcoming; Brooks and Pilling, forthcoming; Brooks *et al.*, forthcoming; Rhys Warner *et al.*, 2008; Vorhaus *et al.*, 2009) and, at levels above *Skills for Life*, in University of Sheffield projects on transition to HE (see Bathmaker *et al.*, 2008a, b, c; Rashid and Brooks, 2008).

A.2 SUPPLEMENTARY STATISTICS

Some of the data in this section are not directly relevant to the research questions, but were generated during the project while pursuing the most efficient way of arriving at answers.

Table A1: Numbers of learners by number of SfL enrolments during the period

Number of SfL enrolments from 2000/01 to 2006/07	Number of learners	%
1	1,578,190	47
2	1,085,576	32
3	304,296	9
4+	412,149	12
TOTAL	3,380,211	100

Almost half the learners had only one enrolment during this time, and the vast majority (87%) had between one and three enrolments.

Table A2: Numbers of learners by number of SfL enrolments during the period and by skill

Subject area	Number of enrolments	Number of learners
Numeracy	1	1,285,815
	2	306,003
	3	68,443
	4+	27,151
	Total	1,687,412
Literacy	1	1,535,089
	2	355,927
	3	86,861
	4+	56,334
	Total	2,034,211
ESOL	1	608,342
	2	191,044
	3	83,297
	4+	98,302
	Total	980,985

It should be noted that these are counts of learners' enrolments within the subject area specified only. Many had enrolments in more than subject during the period; hence the numbers here do not total to those in Table A1.

Table A3: Numbers of learners who enrolled only once in the period, by skill and level

	Numeracy	Literacy	ESOL	TOTAL
Entry level	39,775	133,274	312,256	485,305
Level 1	88,931	245,053	161,519	495,503
Level 2	264,241	258,974	74,167	597,382
TOTAL	392,947	637,301	547,942	1,578,190

Table A4: Number of learners by number of SfL aims achieved during the period

Number of SfL aims achieved from 2000/01 to 2006/07	Number of learners
1	1,200,912
2	518,179
3	146,935
4+	150,548
TOTAL	2,016,574

Table A5: Number of learners by number of aims achieved in the period, and by skill

Subject area	Number of aims achieved	Number of learners
Numeracy	1	680,883
	2	105,868
	3	20,827
	4+	9,896
	Total	817,474
Literacy	1	865,585
	2	136,123
	3	34,503
	4+	29,136
	Total	1,065,347
ESOL	1	415,434
	2	120,466
	3	49,894
	4+	53,018
	Total	638,812

It should be noted that these are counts of learners' achievements within the subject area specified only. Many achieved other learning aims in other subjects during the period; hence the numbers here do not total to those in Table A4.

Table A6: Number of learners who achieved only once in the period, by skill and level

	Numeracy	Literacy	ESOL	TOTAL
Entry level	39,473	99,551	213,706	352,730
Level 1	85,653	193,789	119,971	399,413
Level 2	192,786	209,254	46,729	448,769
TOTAL	317,912	502,594	380,406	1,200,912