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# **The impact of Skills for Life on adult literacy, language and numeracy learners, ii: analysis of new quantitative data**

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March 2013

## **Project team and authorship for this report**

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Greg Brooks directed the project, wrote the main text of this report in 2008 and updated it slightly in 2013, when he also added Appendix A.

Mark Pilling carried out all the statistical analyses, and provided all the Figures, and the Tables in Appendix B.

## **Acknowledgements**

'The Impact of Skills for Life on Adult Literacy, Language and Numeracy Learners' project, informally known as the Learner Study, was funded by the Skills for Life Strategy Unit within the Department for Education and Skills (DfES; now Department for Business, Innovation and Skills, BIS), via the National Research and Development Centre for Adult Literacy and Numeracy (NRDC). NRDC is based at the Institute of Education, University of London.

All the data were gathered by a team of interviewers from the market research organisation GfK NOP (formerly NOP World). GfK NOP personnel also scored the numeracy tests. All of this was managed by Claire Ivins and Samantha Spencer of GfK NOP Social Research, both of whom provided helpful information at many stages.

The reading assessments were marked by Anne Kispal of the National Foundation for Educational Research (NFER); she was the appropriate colleague for this task since she had scored almost all the reading tests from NRDC's Effective Practice in Reading project.

The writing assessments were marked by a small team overseen by Bill Meyer of LSN (the Learning and Skills Network, formerly LSDA, the Learning and Skills Development Agency); colleagues at LSN were the appropriate people for this task since they had experience with the assessment instrument from other NRDC projects on writing.

Some earlier but superseded statistical analyses were carried out by Dr Sam Roberts (now at the University of Chester) and Dr Sammy Rashid (University of Sheffield), both of whom helped induct Mark Pilling into the mysteries of the datasets.

**Above all, thanks are due to all the adult learners who agreed to take part and have their skills assessed. Without them the project could not have been carried out, and we hope that their co-operation and the findings will benefit their successors in learning.**

## **Independent peer review**

The report was independently peer-reviewed by Claire Ivins, John Doherty, Janette King, Jane Hurry and John Vorhaus.

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## **Executive Summary**

### **Headline findings**

This second project strand was specifically aimed at estimating how much progress adult literacy, language and numeracy (ALLN) learners made in numeracy, reading or writing during the course of an academic year.

There were modest but statistically significant and worthwhile average gains:

- in numeracy for numeracy learners, from the upper end of Entry level 3 to Level 1
- in reading for literacy learners who took the less easy of two reading assessments, from near the upper end of Level 1 almost to the top of Level 1
- in reading for literacy learners who took the easier of two reading assessments, from the upper end of Entry level 3 to just over the threshold of Level 1
- in reading for English for Speakers of Other Languages (ESOL) learners (who all took the less easy assessment), from the upper end of Entry level 3 to just into Level 1, and
- in writing for ESOL learners, from within Entry level 2 almost to the threshold for Entry level 3, but not in writing for literacy learners.

Literacy learners' overall attitudes to literacy and self-confidence improved, as did ESOL learners' self-confidence.

There was only one statistically significant difference in amount of progress made by different subgroups – ESOL learners aged 16-19 made significantly more progress in reading than other age groups. On the whole, this means that provision was working equally well for many different groups of learners, and few groups were being left behind.

### **Method**

Data were gathered from 1,649 adult literacy, ESOL and numeracy learners during 2004-06. All completed a background characteristics Profile, an attitudes questionnaire and an assessment during a first interview (pre-test). Those who agreed to be, and were, re-contacted completed an attitudes questionnaire and an assessment during a second interview (post-test) some months later.

Data from the Learner Profiles were analysed to provide details of the samples of learners. Data from the questionnaires and assessments of those learners who were interviewed twice were used to estimate whether their skills and/or attitudes had improved.

## Characteristics of the samples

Distinctly more than half of the ALLN learners in the sample were female, despite the numbers of men and women in the adult population being almost equal. Over half the learners were under 30, and only a quarter were over 39. ESOL learners, and a small subset of numeracy learners, had a wide range of first languages other than English; within this, the proportions with first languages from the Indian sub-continent were smaller than would have been the case a few years earlier, while European and Middle Eastern languages featured more prominently. The great majority of literacy and numeracy learners, and a quarter of ESOL learners, were white; the largest other groups were those of black and Pakistani ethnicity. A third of the learners were employed, a seventh were unemployed, and the rest were unwaged. Only about a quarter had left education before 16. A third of the sample overall had no educational qualifications, with a further 6 per cent having only Entry level qualifications; a third of the ESOL learners had qualifications above Level 2. Two-thirds of the sample overall were attending their first ALLN course. Three-quarters of literacy and numeracy learners, but only a fifth of ESOL learners, had seen the government's 'Get On' Gremlins advertising campaign. Rates of self-reported dyslexia were highest for literacy learners (24 per cent), lower for numeracy learners (11 per cent), and very low for ESOL learners (1 per cent).

## Conclusions

This project has shown that the basic skills of ALLN learners attending Skills for Life provision in 2004-06 improved (except for the average writing level of literacy learners), and that the overall attitudes and the self-confidence of literacy learners and the self-confidence of ESOL learners also improved. However, given the host of other influences and variables at work in that period it would be unwise to infer that Skills for Life alone **caused** these improvements. What can be said (negatively) is that there is no evidence that Skills for Life was ineffective and (more positively) that the improvements were consistent with policy-makers' intentions. The almost complete absence of significant differences in progress between subgroups means that provision was working equally well for many different groups.

Comparisons with results from other studies which had used the same tests suggested that:

- in numeracy, the gain was smaller than in the only fully comparable study, but probably because the average interval between pre- and post-test was shorter;
- in reading, the gains for both literacy and ESOL learners were in the upper part of the range;
- in writing the gains were smaller than in some other studies;
- no clear reasons for the differences in reading and writing outcomes suggested themselves.

# 1 Structure and aims of the project

## 1.1 The three strands

This project began in October 2003 and ran until March 2007. It had three strands:

- quantitative analysis of existing national data on adult literacy, language and numeracy (ALLN) learners in the (then) Learning and Skills Council (LSC)'s databases for 2000/01 to 2004/05<sup>1</sup>
- quantitative analysis of new data on ALLN learners gathered by the market research organisation GfK NOP between 2004 and 2006<sup>2</sup>
- qualitative fieldwork involving interviewing stakeholders, including large numbers of ALLN learners, between 2004 and 2006<sup>3</sup>.

## 1.2 Aims

The aim of all three strands was to provide converging evidence on the question 'What impact has the Skills for Life strategy had on learners?' The whole project, together with the parallel and linked study of the impact of Skills for Life on teachers<sup>4</sup>, was intended to inform the government's 'refreshing' of the strategy in 2007. Summary reports of the whole project have been published in Rhys Warner *et al.* (2008) and Vorhaus *et al.* (2009).

This report is concerned only with the second strand. The specific aim of that strand was to estimate how much progress ALLN learners made in numeracy, reading or writing during the course of an academic year. Because there were no non-Skills for Life learners in the two years in which data were gathered, it was not possible to compare the progress made by Skills for Life learners with any simultaneous 'control group'; and because no parallel data had been gathered before Skills for Life began there was also no possibility of a 'historic control group'. It therefore had to be assumed that the progress made by the learners who formed the samples in 2004/05 and 2005/06 was influenced by Skills for Life.

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<sup>1</sup> Work on the first strand was carried out by Prof. Ann-Marie Bathmaker (University of Sheffield to December 2006; University of the West of England from January 2007, now at University of Birmingham), and Dr Mark Pilling (University of Sheffield, from August 2006; now at University of Manchester). See Bathmaker and Pilling (2013).

<sup>2</sup> Work on the second strand, i.e. this report, was carried out by Greg Brooks and Mark Pilling.

<sup>3</sup> Work on the third strand was carried out by Yvon Appleby, Paul Davies, Ann-Marie Money and Linda Pearce (Lancaster University), and Ann-Marie Bathmaker and Pam Cole (University of Sheffield). See Appleby *et al.* (2013)

<sup>4</sup> See Cara *et al.* (2008, 2010).

### **1.3 Structure of this report**

This report covers:

- the design of the 'new data' quantitative strand (Chapter 2)
- the characteristics of the samples of learners (Chapter 3)
- full results on the numeracy, reading and writing assessments (Chapter 4)
- summary data on attitudes to numeracy and literacy (Chapter 5)
- conclusions (Chapter 6).

Appendix A presents comparisons with the results of other projects which used the same assessment instruments, and Appendix B presents the full data on learners' attitudes from this study.

## 2 The design of the ‘new data’ quantitative strand

### 2.1 Data-gathering

The gathering of data for this strand was carried out under sub-contract by GfK NOP. Data were gathered in the academic years 2004/05 and 2005/06. The learners who took part were all contacted via teachers who were taking part in the parallel NRDC study of the impact of Skills for Life on teachers and trainers (‘the Teacher Study’). The sample of teachers in that study was an opportunity sample recruited through contacts and networks. Each of the 1,027 teachers who provided a complete interview in the first sweep of the Teacher Study was asked to nominate some of his/her learners to take part in this study. A total of 321 (31 per cent) did so, and provided an average of just over 5 learners each. The sample of learners recruited for this study was therefore also an opportunity sample; comparisons with national data in Chapter 3 allow an estimate of how representative the samples of learners in this study were of all ALLN learners. The link with the Teacher Study was intended to provide insights about what factors in the impact of Skills for Life on teachers might correlate with progress made by their learners<sup>5</sup>.

Each learner who took part in the ‘new data’ strand of the Learner study was asked to provide data in two interviews. In 2004/05 the first interview took place well into the academic year and the second towards the end of the academic year, so that the average interval between the two interviews was just under three months. In 2005/06 the second interview also took place towards the end of the academic year, but the first interviews were close to the beginning of the academic year; here, the average interval between the two interviews was six months.

Learners were asked to provide background details about themselves in the initial interview, and to complete both an attitudes questionnaire and an assessment(s) in both interviews. The samples included literacy, ESOL (English for Speakers of Other Languages) and numeracy learners.

The learners were not seen between the two interviews, and were not asked to provide any information on their attendance, so that this cannot be correlated with their progress. They were also not asked to provide any information on the provision in the classes they attended; information on this was gathered in the Teacher Study, and was analysed as part of it (see Cara et al., 2008, 2010).

For the purposes of this study, participants (other than those pursuing a numeracy course) were counted as either literacy or ESOL learners on the basis of their first language: those who said it was English were counted as literacy learners, those who said it was any other language were counted as ESOL learners. This is admittedly unusual: it would have been more usual to classify them according to the nature of the courses they were on – and this is what was done in this study for numeracy learners since there was never any doubt about whether a particular learner was on a numeracy course. However, it was not possible to do the same for literacy and ESOL because information gathered on these courses turned out to be patchy: among the 1,220 non-

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<sup>5</sup> For analysis of the correlations, for numeracy teachers and learners only, see Cara and de Coulon (2008, 2009).

numeracy learners, information on the nature of their course was missing in 390 cases (32 per cent), and we had no other way of obtaining it. There was also no way to tell whether its absence was due to the learners themselves not knowing what sort of course they were on or not knowing its description, or to their descriptions not being codable by the GfK NOP interviewers. Whatever the reasons may have been, we used learners' own statements about their first language to arrive at the literacy/ESOL classification. Using this means of categorising the 830 learners for whom both their statement of their first language and a course description were available, we found that it was accurate for all but 33 learners (4 per cent), so we are confident that very little violence has been done to our calculations.

## **2.2 The instruments used with literacy and ESOL learners**

In their first interview, literacy and ESOL learners completed a Learner Profile, an attitudes to literacy questionnaire and a literacy assessment; in their second interview they completed the same attitudes to literacy questionnaire again and a different literacy assessment.

The Learner Profile, which was the same for literacy and ESOL learners, gathered their background details. It was devised collaboratively by researchers working on other NRDC literacy and numeracy projects, and based on instruments used in those projects. The items were those against which findings are reported in section 3.

The attitudes to literacy questionnaire (reproduced in Appendix B with detailed results on each item) was also devised by researchers working on other NRDC literacy projects, and based on questionnaires used in those projects.

The literacy assessment used was that developed for NRDC by the National Foundation for Educational Research (NFER) in 2003 and known as *Go!* It is a secure instrument, in the sense that its use is restricted to NRDC projects and it is not publicly available. However, it consists of:

- a Locator booklet containing six reading comprehension items based on a short passage contained in the booklet
- two parallel writing assessments (Forms 1 and 2), each based on a simulated glossy magazine
- two parallel reading assessment instruments (Forms 1 and 2) based on the simulated glossy magazines and each having both an easy version designed for learners at Entry level (version a), and a less easy version designed for learners at Levels 1 and 2 (version b).

Each form of the writing assessment contains three tasks: (i) writing two or three sentences giving an opinion about the magazine, (ii) writing a letter requesting further information about a career mentioned in it, and (iii) stating an opinion about an issue featured in it. A table supplied by NFER can be used to convert raw writing scores to levels of the (then) National Qualifications Framework (NQF).

Each form of the reading assessment contains either 30 questions (the (a) versions) or 39 questions (the (b) versions) based on passages in the relevant magazine. Some are common to the (a) and (b) versions, others are unique to one or the other. A table supplied by NFER and based on data from the piloting of the tests is used to convert raw scores (= number of questions answered correctly) on all four versions to a common scale so that they can be validly compared. This scale runs from zero to 100, and has an average of 50 and a standard deviation of  $\pm 10$  – that is, in the pilot data two-thirds of all scores fell between 40 and 60. Another table supplied by NFER can be used to convert raw reading scores to levels of the NQF.

### **2.3 Allocation of literacy and ESOL learners**

All literacy and ESOL learners in the study completed the Locator booklet and then the attitudes to literacy questionnaire. Approximately one-third were allocated in a quasi-random manner to complete a writing assessment, and the rest a reading assessment; these proportions were intended to allow for the fact that there were two parallel versions of the reading assessment. While each learner completed the attitudes questionnaire, the GfK NOP interviewer marked the Locator booklet, and then allocated those who were to complete a reading assessment to either the easy or the less easy version, based on their score on the Locator booklet.

However, ESOL learners whose scores on the Locator booklet would have indicated allocation to the easier (a) version of the reading assessment were not in fact asked to attempt it. It was felt that many would have been overfaced by it, and it would have been impossible to establish whether low scores on it were due to lack of understanding of the reading passages or to lack of fluency in spoken English. Also, some learners who were said to be below Entry level 1 were not asked to attempt the reading assessment. No such exemption was applied for the writing assessments or to the less easy (b) versions of the reading assessments: all those allocated to complete these were asked to do so, whether English was their first or an additional language.

In the first interview, literacy and ESOL learners were allocated in equal numbers to complete Form 1 or Form 2 of the reading or writing assessment (though, as stated above, some ESOL learners did not actually complete a reading assessment). Then at the second interview each learner who was seen again and who had completed an assessment at the first interview completed the other Form; for example, learners who completed writing Form 1 at the first interview completed writing Form 2 at the second interview, and vice versa. The position for those who completed a reading assessment was similar, but somewhat more complex because of the (a) and (b) levels; learners who had completed Form 1(a) at the first interview completed Form 2(a) at the second interview, those who first did Form 1(b) did Form 2(b) the second time, and vice versa in both cases.

## **2.4 The instruments used with numeracy learners**

In their first interview, all numeracy learners completed a Learner Profile, an attitudes to numeracy questionnaire and a numeracy assessment; in their second interview they all completed the same attitudes to numeracy questionnaire and same numeracy assessment again. There was no allocation of sub-samples of numeracy learners to different instruments, and all numeracy learners completed the same assessment at both interviews because only one instrument was available for numeracy.

The Learner Profile gathered learners' background details. It contained all the items contained in the Profile used with literacy and ESOL learners, plus a few extra items which were included at the request of researchers on other NRDC numeracy projects, to enable comparisons between projects. Findings are reported against all the items in Chapter 3.

The attitudes to numeracy questionnaire (reproduced in Appendix B with detailed results on each item) was also devised by researchers working on other NRDC numeracy projects, and based on questionnaires used in those projects.

The numeracy researchers also devised the numeracy assessment, which consisted of the 20 most statistically reliable numeracy items from the Skills for Life needs survey of 2002-03 (Williams et al., 2003). The items covered several curriculum areas of numeracy, and there were four items at each of the five levels from Entry level 1 to Level 2.

## **2.5 Data analysis**

The assessment results for numeracy, reading and writing were processed by different routes:

- The numeracy instrument contained all objective items requiring only a marking key to score, with no judgements about correctness of answers being required of the markers. These tests were scored by GfK NOP staff, and the data were then sent to the University of Sheffield for analysis;
- The reading test forms were collected by GfK NOP's interviewers and sent to Anne Kispal at NFER for scoring. She used the detailed marking guide supplied with the assessment instrument by NFER, supplemented by findings from the NRDC project on Effective Practice in Reading (Brooks et al., 2007a, b), and then sent all the raw scores to the University of Sheffield, where they were converted to scaled scores for analysis;
- The writing scripts were collected by GfK NOP's interviewers and sent to colleagues at the Learning and Skills Network (LSN, formerly the Learning and Skills Development Agency, LSDA) for scoring. Each script was marked independently by two members of a small panel using a detailed guide based on

that supplied with the assessment instrument by NFER, supplemented by LSN colleagues' experience of using it in other NRDC projects. When all the scores were available, small corrections were made to the scores of a couple of markers, to moderate excessive severity/leniency, and the two scores for each script for each occasion were averaged. All the scores were then sent to the University of Sheffield for analysis.

All the statistical analyses were carried out at the University of Sheffield.

### 3. Characteristics of the samples of learners

This chapter presents information on the samples of learners: the Skills for Life sectors they were attending, which subject they were studying, numbers of men and women, their ages, first language, ethnicity, occupational status, age of leaving full-time education, highest qualification, whether it was their first time on such a course, how long it had been since they attended a course of any sort, whether they had seen the 'Gremlins' advertisements<sup>6</sup>, how many reported having dyslexia, and (for numeracy learners only) their reasons for enrolling and any medical factors that might have affected their learning.

#### 3.1 Skills for Life sectors

A total of 1,649 learners were recruited into the study. Table 3.1 (which is based on linked data from the Teacher Study) shows how they were distributed across Skills for Life sectors.

**Table 3.1: Distribution of learners by Skills for Life sectors**

<b>Sector</b>	<b>Number</b>	<b>%</b>
Further Education	1,352	82
Adult and Community Learning	180	11
Work-based Learning	51	3
Learndirect	39	2
Job Centre Plus	27	2
<b>Total</b>	<b>1,649</b>	<b>100</b>

Given that about 80 per cent of all Skills for Life provision is provided by further education (FE) Colleges, the FE percentage in this sample seems representative. The other figures are less so; in particular, for practical and logistic reasons there were no learners in prisons in our samples, although about 10 per cent of all Skills for Life provision occurs there.

Unlike the data reported in the rest of this chapter it was not possible to break these figures down by subject of study, or to provide detailed comparisons with national data.

#### 3.2 Subject of study

The rest of the findings in this chapter are based on the details provided by learners in their initial interviews. Of the 1,649 learners, 429 were following numeracy courses, 519 had English as their first language and were therefore considered as literacy learners, and 701 had English as an additional language and were therefore considered as ESOL

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<sup>6</sup> As part of the Skills for Life Strategy, the government launched the Get On campaign in 2001. The campaign featured television, press and radio advertising in which adults with poor skills were encouraged to face up to their 'Gremlins' and get on with their lives.

learners – for the explanation of this classification see section 2.1. Where numbers in the tables below are smaller than these, it is because some items of information were not gathered. Except where that is the case, the figures in this section refer to all the learners in the study, whether or not they were interviewed a second time.

In Tables 3.2, 3.3 and 3.5 national data are given for comparison alongside the figures for the samples in this project. The columns headed ‘SfL’ give, for the relevant categories of learners, the percentages of learning aims<sup>7</sup> among all Skills for Life (SfL) learners registered in the national LSC’s database for 2004/05 (that being the year in which the first wave of data for this project was gathered; figures for 2005/06 were not available at the original time of writing). The figures are for learning aims rather than for individual learners because that is the way the data were recorded in the LSC’s databases, and extracting data for individual learners was not possible at the time of writing.

### 3.3 Gender

The numbers of men and women in the samples are shown in Table 3.2.

**Table 3.2: Numbers of men and women in the samples**

	Literacy			ESOL			Numeracy			Total		
	sample		SfL	sample		SfL	sample		SfL	sample		SfL
	N	%	%	N	%	%	N	%	%	N	%	%
Men	245	47	47	230	33	39	162	39	46	637	39	44
Women	274	53	53	466	67	61	249	61	54	989	61	56
Total	519	100	100	696	100	100	411	100	100	1626	100	100

N=number

Women outnumber men among SfL learners, particularly in ESOL. Our samples were also predominantly female. The proportions within literacy learners in this study were quite similar to the SfL figures, but in numeracy and especially ESOL women greatly outnumbered men, and more so than in SfL generally.

<sup>7</sup> A more detailed discussion of learning aims and individual learners can be found in the report of the first strand by Bathmaker and Pilling (2013): see especially Chapter 2 and Appendix 2: Technical background.

### 3.4 Age

The age-distributions in our samples are shown in Table 3.3.

**Table 3.3: Age-distributions of the samples**

	Literacy			ESOL			Numeracy			Total		
	sample		SfL	sample		SfL	sample		SfL	sample		SfL
	N	%	%	N	%	%	N	%	%	N	%	%
16-19	213	41	45	60	9	9	162	39	57	435	27	40
20-29	81	16	19	269	39	42	77	19	19	427	26	25
30-39	78	15	14	226	32	29	76	18	11	380	23	17
40-49	87	17	11	96	14	13	49	12	8	232	14	11
50-59	39	8	6	35	5	5	34	8	3	108	7	5
60+	19	4	5	10	1	2	13	3	2	42	3	3
Total	517	100	100	696	100	100	411	100	100	1624	100	100

N=number

Over half the learners in this study were aged under 30, and only a quarter were over 39. The age-distributions of our literacy and ESOL learners were very similar to those in SfL nationally. The large percentages of literacy and numeracy learners under 20 in these samples reflected the recruitment of substantial numbers of FE teachers for the Teacher Study and therefore of their learners for this study, although the proportion of numeracy learners in this age group was much smaller than the national figure – this was the largest difference between these samples and SfL.

The age-distribution of ESOL learners, with the great majority falling into the 20-39 band, presumably reflected adult immigration, whether from the traditional sources in the Indian sub-continent or from more recent sources in the Horn of Africa, the Middle East, and the new member states of the EU. Some support for this interpretation comes from the data on first languages.

### 3.5 First language

Of the 429 numeracy learners, 387 (90 per cent) had English as their first language, and 42 (10 per cent) had a first language other than English. As already explained, all other learners who declared a first language other than English were classified as ESOL learners. Hence the proportions of English-speakers among our ESOL sample and of speakers of other languages among our literacy sample were both zero. Table 3.4 therefore gives data only on the other languages declared by ESOL and numeracy learners and listed in the coding frame; the languages are grouped into European languages (British Sign Language to Spanish), South Asian languages and Chinese (the principal minority languages in England), and languages of the Middle East and Horn of Africa (Arabic to Turkish).

**Table 3.4: First languages other than English of ESOL and numeracy learners**

	ESOL		Numeracy	
	N	% *	N	% **
British Sign Language	3	<1	0	0
French	32	5	2	1
Italian	11	2	1	<1
Polish	41	6	0	0
Portuguese	23	3	0	0
Russian	18	3	0	0
Spanish	41	6	0	0
Bengali	37	5	6	1
Punjabi	42	6	8	2
Urdu	54	8	6	1
Chinese	31	4	1	<1
Arabic	39	6	4	1
Farsi	19	3	0	0
Kurdish	29	4	1	<1
Somali	46	7	1	<1
Turkish	30	4	0	0
Other	198	28	12	3
No answer	7	1	0	0

N=number \* Of 701 ESOL learners \*\* Of 429 numeracy learners

We had no information on the 'Other' languages spoken by 198 ESOL and 12 numeracy learners as the interviewers' coding frame contained only the languages listed. However, the 163 who reported languages from Arabic to Turkish reflected a recent change in the population requesting ESOL tuition, and the same was probably mainly true of those reporting European languages, especially Polish and Russian.

### 3.6 Ethnicity

The data on ethnicities of the learners in the samples are shown in Table 3.5.

**Table 3.5: Ethnicities of learners in the samples**

	Literacy			ESOL			Numeracy			Total		
	sample		SfL	sample		SfL	sample		SfL	sample		SfL
	N	%	%	N	%	%	N	%	%	N	%	%
White	478	92	81	181	26	34	359	84	82	1,018	62	70
Black	19	4	7	113	16	15	24	6	7	156	9	9
Chinese	0	0	1	32	5	4	2	<1	<1	34	2	1
Bangladeshi	0	<1	1	36	5	4	5	1	1	41	2	2
Indian	3	1	2	22	3	6	11	3	2	36	2	3
Pakistani	6	1	3	84	12	9	15	3	3	105	6	4
Mixed heritage	5	1	2	32	5	3	7	2	2	44	3	2
Other	5	1	3	199	28	25	6	1	2	210	13	8
Total	516	100	100	699	100	100	429	100	100	1,644	100	100

N=number

As might be expected, the great majority of literacy and numeracy learners in our sample were of white ethnicity (92 per cent and 84 per cent respectively), while the great majority of ESOL learners (74 per cent) were of other ethnicities; the figure for white literacy learners was higher than in SfL, while that for white numeracy learners was in line with SfL.

Again, the coding frame contained only the categories listed, and this appears to have led to considerable difficulty for some learners. A total of 210 learners, including 199 ESOL learners, ended up in the 'Other' category. Detailed analysis of these cases showed almost a third declaring their ethnicity to be the same as their first language: 20 Somali-speakers with Somali ethnicity, 26 Turkish-speakers with Turkish ethnicity, 15 Russian-speakers with Russian ethnicity. The most likely explanation is that these learners took 'ethnicity' to mean 'nationality'. Given the uncertainty this possibility causes, no attempt was made to re-assign learners to ethnicities on the basis of language, even where this might have seemed straightforward (e.g. the Somali-speakers would almost certainly all have been of black ethnicity), because many languages provide no clue to this. The data on ethnicity quoted above need to be treated with some caution, and for that reason have not been cross-tabulated with the information on first language.

### 3.7 Occupational status

The data on the learners' occupational statuses are shown in Table 3.6.

**Table 3.6: The three samples by occupational status**

	Literacy		ESOL		Numeracy		Total	
	N	%	N	%	N	%	N	%
Employed: Full-time	94	18	112	16	52	12	258	16
Employed: Part-time	86	17	125	18	76	18	287	17
Full-time education	160	31	128	18	139	32	427	26
Part-time education	129	25	181	26	109	25	419	25
Looking after home/family	62	12	180	26	47	11	289	18
Retired	16	3	10	1	13	3	39	2
Unable to work through sickness/disability	40	8	8	1	32	7	80	5
Unemployed	64	12	115	16	53	12	232	14
No answer	1	<1	1	<1	0	0	2	<1
<b>Total</b>	<b>519</b>	<b>126</b>	<b>701</b>	<b>123</b>	<b>429</b>	<b>121</b>	<b>1,649</b>	<b>123</b>

N.B. Percentages total to more than 100% because multiple responses were possible.

N=number

The numbers engaged in full- or part-time education again reflected the large FE segment of the sample. In the ESOL sample, the larger than average subgroup was of those looking after home/family – presumably mainly mothers improving their English.

For the purposes of further analysis, the categories in Table 3.6 were simplified into three: employed (full- and part-time), unemployed, and unwaged – the last category covering those in education (full- and part-time), looking after home/family, retired, or unable to work through sickness or disability.

Using these categories, a third of the learners were employed, a seventh were unemployed, and the rest were unwaged.

### 3.8 Age of leaving full-time education

The data on the learners' age of leaving full-time education are shown in Table 3.7.

**Table 3.7: Age of leaving full-time education**

	Literacy		ESOL		Numeracy		Total	
	N	%	N	%	N	%	N	%
Never in f/t ed.	5	1	26	4	7	2	38	2
Under 16	103	20	120	18	85	20	308	19
16	188	37	69	10	182	43	439	27
Over 16	213	42	469	69	152	36	834	52
Total	509	100	684	100	426	100	1619	100

N=number

Only about a fifth of these learners had left school before the age of 16. Some of those in the literacy and numeracy samples who left school before age 16 would have been born before 1956, the year of birth of the first cohort in England whose minimum leaving age was 16 – but comparison with the age-distribution table above shows that the numbers of older people in our samples are much too small for this to be the complete explanation. It may well be that some respondents answered in terms of when they actually stopped attending, rather than when they should have. The proportion who left school before age 16 seems quite low, but is consistent with the greater tendency in recent decades to stay on in education (at the original time of writing the proportion of 16-year-olds not in employment, education or training was 13 per cent) and with the large FE segment of the sample.

At the other end of the scale, the high proportion of those in the ESOL sample who left full-time education after age 16 is consistent with people with even more years of education feeling a need to improve their English.

### 3.9 Highest qualification

The data on the learners' highest qualifications are shown in Table 3.8.

About a third of the sample had no educational qualifications, with a further 6 per cent having only Entry-level qualifications. Those numbers come as no surprise; nor do the numbers of ESOL learners with high qualifications seeking to improve their English, or the numbers of literacy and numeracy learners with intermediate levels of qualifications – they may well have wanted to improve their qualifications in these areas. What is surprising are the numbers (even though small) of literacy and numeracy learners with high qualifications in the samples – had they missed out earlier on a qualification they now found they needed? Some were probably determined to prove something to themselves (for this as a motive for at least some numeracy learners, see section 3.13).

**Table 3.8: Learners' highest qualifications**

	Literacy		ESOL		Numeracy		Total	
	N	%	N	%	N	%	N	%
Level 5 (Doctorate, Masters, Postgraduate Diploma/Cert.)	1	<1	39	6	3	1	43	3
Level 4 (Degree, PGCE, Cert. Ed., HND, NVQ L4)	7	1	108	16	8	2	123	8
Level 3 (A level, AS levels, GNVQ Adv., BTEC Nat., NVQ L3)	26	5	83	12	22	5	131	8
Level 2 (GCSE A-C, GCE O Level CSE Grade 1, GNVQ Int., BTEC)	118	23	71	10	126	29	315	19
Level 1 (GCSE D-G, CSE 2 or under, GNVQ Found., BTEC First)	133	26	64	9	118	28	315	19
Entry level (e.g. City & Guilds cert.)	34	7	30	4	26	6	90	6
No educational qualifications	184	36	221	32	126	29	531	33
Don't know/Not stated	12	2	71	10	0	0	83	5
<b>Total</b>	<b>515</b>	<b>100</b>	<b>687</b>	<b>100</b>	<b>429</b>	<b>100</b>	<b>1631</b>	<b>100</b>

N=number

### 3.10 First time on such a course

Quite high proportions of learners said this was the first time they had undertaken such a course: in literacy, 352 (68 per cent); in ESOL, 407 (58 per cent); in numeracy, 296 (69 per cent); overall, 1,055 (64 per cent). Very small proportions said they were also doing another course on the same subject: in literacy, 42 (8 per cent); in ESOL, 75 (11 per cent); in numeracy, 48 (11 per cent); overall, 165 (10 per cent).

### 3.11 Length of time since last course of any sort

The data on the length of time since the learners had taken a course of any sort are shown in Table 3.9.

**Table 3.9: Length of time since last course of any sort**

	Literacy		ESOL		Numeracy		Total	
	N	%	N	%	N	%	N	%
Never taken any course apart from current one	127	24	145	21	71	17	343	21
Over 10 years	42	8	75	11	23	5	140	8
6-10 years	16	3	44	6	16	4	76	5
2-5 years	41	8	99	14	38	9	178	11
Less than 2 years	184	35	277	40	195	45	656	40
Still in full-time ed.	108	21	56	8	81	19	245	15
No answer	1	<1	5	1	5	1	11	1
Total	519	100	701	100	429	100	1649	100

Comparison of Table 3.9 and the data in the previous section suggests two inferences:

- Most of those who were on an ALLN course for the first time may well have consisted of those who had never previously taken a course of any sort and those who were still in full-time education;
- Providers were having considerable success in attracting new learners into provision, but not into doing more than one course.

### 3.12 Learners who had seen advertising featuring ‘Gremlins’

One hypothesis about what brought learners into provision is that they had seen one or more of the advertisements featuring ‘Gremlins’ and thought they should do something about theirs. The Learner Profiles included a question asking if learners had seen such advertising, and the proportions who said they had were: in literacy, 404 (78 per cent); in ESOL, 123 (18 per cent); in numeracy, 326 (76 per cent); overall, 853 (52 per cent).

The figures for literacy and numeracy learners are consistent with government-commissioned polls estimating the brand recognition of the Gremlins campaigns, and indirectly suggest those campaigns were one factor in people’s decisions to enrol. The balance of literacy and numeracy learners might well include many younger students in the FE sector.

However, the Gremlins campaign seems to have failed to reach most of the ESOL learners. It may be that the great majority of them enrolled because they knew they needed to improve their English. Also, some ESOL learners may watch less English-language television; others may have arrived in this country too recently to have seen the advertisements.

### 3.13 Reasons for doing this course (numeracy learners only)

The question ‘Why did you decide to do this course?’ was put to numeracy learners because it had been asked in other NRDC numeracy projects, and not put to literacy and ESOL learners because there would have been no comparative data. The numeracy learners’ responses are summarised in Table 3.10.

Table 3.10 shows that the 429 numeracy learners gave an average of 1.8 responses each. Classifying the responses into those which seem external to the learners (‘extrinsic’) and those which can be considered self-motivations (‘intrinsic’) revealed that the two categories were almost equal.

The number of what have been called ‘non-voluntary’ learners (those on a course as a condition of receiving benefits; see O’Grady and Atkin, 2005) seems tiny given the policy emphasis there was, at the time our data were being gathered, on steering jobseekers towards literacy and numeracy provision.

**Table 3.10: Numeracy learners’ reasons for enrolling**

	Numeracy	
	N	%*
To gain a qualification	177	23
To get a better job	121	16
Part of BTec course	10	1
No choice/put on course as condition of receiving benefits	9	1
Subtotal ‘extrinsic’	317	41
To help me improve/work things out quicker	113	15
To become more confident	88	12
To prove something to myself	57	7
To help the children with their school work	36	5
To help with everyday things (e.g. shopping)	27	4
Enjoy it	4	1
Subtotal ‘intrinsic’	325	44
Other	119	16
No answer	1	<1
Total of responses	762	100

\*Percentages are out of responses, not learners

N=number

### 3.14 Dyslexia

Two questions were asked: ‘Do you have dyslexia?’ and ‘Have you been formally assessed as having dyslexia?’ Responses to the two questions are summarised in Tables 3.11 and 3.12 respectively.

**Table 3.11: Numbers of learners stating they had dyslexia**

	Literacy		ESOL		Numeracy		Total	
	N	%	N	%	N	%	N	%
Yes	122	24	9	1	55	13	186	11
No	340	66	586	84	339	79	1,265	77
Don’t know/not sure	41	8	26	4	22	5	89	5
Term ‘dyslexia’ not understood	16	3	80	11	13	3	109	7
Total	519	100	701	100	429	100	1,649	100

N=number

Regardless of the theoretical and academic controversies around ‘dyslexia’ (see Rice with Brooks, 2004), over 85 per cent of the learners in our samples were confident enough of their understanding of the term to give a definite answer. It is no surprise that almost a quarter of the literacy learners considered themselves to have a specific difficulty with reading and/or writing – indeed, the figure could easily have been higher – or that a smaller proportion of numeracy learners answered Yes here. The very small proportion of ESOL learners answering Yes cannot be entirely due to the somewhat higher proportion who did not understand the term; the major reason would be that this sample contained more people with high qualifications.

**Table 3.12: Numbers of learners stating they had been formally diagnosed as having dyslexia**

	Literacy		ESOL*		Numeracy		Total	
	N	%	N	%	N	%	N	%
Yes	86	71	6		41	75	133	72
No	33	27	2		14	26	49	26
No answer	3	3	1		0	0	4	2
Total of those reporting dyslexia	122	100	9		55	100	186	100

N.B. In each case, those having a formal diagnosis were a subset of those who reported having dyslexia. The percentages are based only on learners in each sample who reported having dyslexia.

\*Given the tiny number of ESOL learners who reported having dyslexia, giving percentages in the ESOL column above would not be meaningful.

It is remarkable that almost three-quarters of those self-reporting dyslexia had a formal diagnosis.

### 3.15 Medical factors affecting learning (numeracy learners only)

The NRDC colleagues who devised the numeracy instruments for this study were interested to know about other medical factors which might affect learning – they had investigated this in several other projects – and their questions on this area were included in the questionnaire for our numeracy learners. However, these questions were not copied over into the questionnaire for the literacy and ESOL learners because there would have been no comparative data from other studies. The results for numeracy learners are shown in Table 3.13.

**Table 3.13: Medical factors affecting learning reported by numeracy learners**

	Numeracy	
	N	%*
Long-term/serious illness	24	5
Epilepsy	10	2
Partially hearing	17	4
Partially sighted	11	3
Serious accident	3	1
Other	28	6
Personal factors	17	4
Subtotal	110	25
None/nothing	329	75
No answer	1	<1
Total of responses	440	100

\*Percentages are out of responses, not learners  
N=number

The number of responses (440) was slightly greater than the number of numeracy learners (429) because a few learners gave more than one response. Allowing for this, these figures show that (110 – 11 =) 99 (23 per cent) of the numeracy learners reported at least one medical factor which might affect their learning. Both this and the figures for dyslexia reinforce the need for teachers to take account of individual circumstances, as they routinely do.

### 3.16 Summary

- Distinctly more than half of the ALLN learners in the sample were female.
- Age-wise, over half the learners were under 30, and only a quarter were over 39.
- ESOL learners, and a small subset of numeracy learners, had a wide range of first languages other than English; within this, the proportions with first languages from the Indian sub-continent were smaller than they would have been a few years earlier, while European and Middle Eastern languages featured more prominently than a few years earlier.
- The great majority of literacy and numeracy learners, and a quarter of ESOL learners, were white; the largest other ethnic groups were those of black and Pakistani ethnicity.
- A third of the learners were employed, a seventh were unemployed, and the rest were unwaged.
- Only about a quarter had left education before 16. A third of the sample overall had no educational qualifications, with a further 6 per cent having only Entry-level qualifications; a third of the ESOL learners had qualifications above Level 2.
- Two-thirds of the sample overall were attending their first ALLN course.
- Three-quarters of literacy and numeracy learners, but only a fifth of ESOL learners, had seen the Gremlins advertising.
- Rates of self-reported dyslexia were highest for literacy learners (24 per cent), lower for numeracy learners (11 per cent), and very low for ESOL learners (1 per cent).

## 4 Assessment results

The main part of this chapter presents the assessment results, first for numeracy, then for reading, and finally for writing. Within reading and writing results for literacy learners are given first, then those for ESOL learners. To begin with, however, some technical issues are discussed; another technicality is explained before the section on reading results. The chapter ends with a summary.

### 4.1 Differences between returners and non-returners

In order to have confidence that the results for learners who took the assessments at both stages ('returners') were reliable, and that any gains they made were not due solely to their being different from the non-returners to start with, it was necessary to check that the two groups did not differ significantly on their pre-assessment scores (i.e. on the test taken at the first interview). This check was conducted separately for numeracy, reading and writing scores: in all cases there was no statistically significant difference. It was concluded that the returners were sufficiently representative of the full original samples.

#### Note on statistical significances and standard deviations

The statistical significance of the difference between two scores is expressed as a p (probability) value. For example,  $p < 0.05$  means that the result could have occurred by chance only once in 20 times at most ( $0.05 = 5$  per cent = 1 in 20). This is usually taken as the minimum level of statistical significance that is considered reliable. The other two levels often indicated are  $p < 0.01$  (less than 1 chance in 100 that the result was due to chance), often described as 'very significant', and  $p < 0.001$  (less than 1 chance in 1,000 that the result was due to chance), often described as 'highly significant'.

A 'standard deviation' is a measure of how far the individual scores contributing to an average score are dispersed around that average score. Arithmetically, the standard deviation of a set of scores is equal to the square root of {(the total of all the squared differences of individual scores from the average score) divided by the number of individual scores}.

### 4.2 Numeracy

Pre- and post-test scores on the numeracy assessment were available for 239 learners (56 per cent of those pre-tested) across the two cohorts. The average scores are given in Table 4.1, and Figures 4.1 and 4.2 show the distributions of their scores pre and post. It should be noted that the scale in Figure 4.2 extends to higher scores than that in Figure 4.1. A statistical test showed that the gain was highly significant ( $p < 0.001$ ).

However, statistical tests of differences in average gain between subgroups (e.g. men/women; those with English as first/additional language) showed that none of those differences were statistically significant.

For a comparison of the overall finding with results from other studies which used the same assessment instrument see Appendix A.

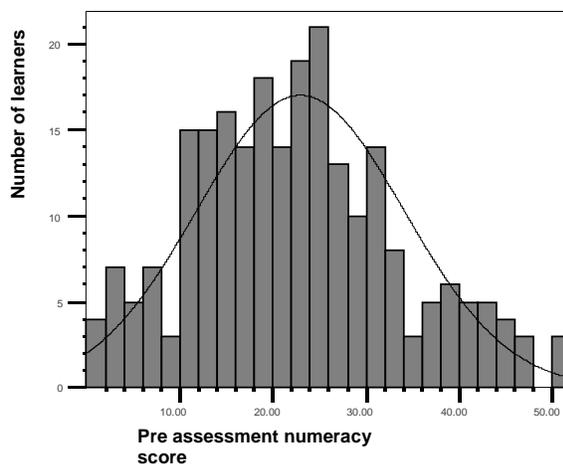
**Table 4.1: Numeracy learners' average scores**  
(N=239)

pre		post		gain	
average	(s.d.)	average	(s.d.)	average	(s.d.)
22.9	(11.0)	26.2	(12.4)	3.3	(8.1)

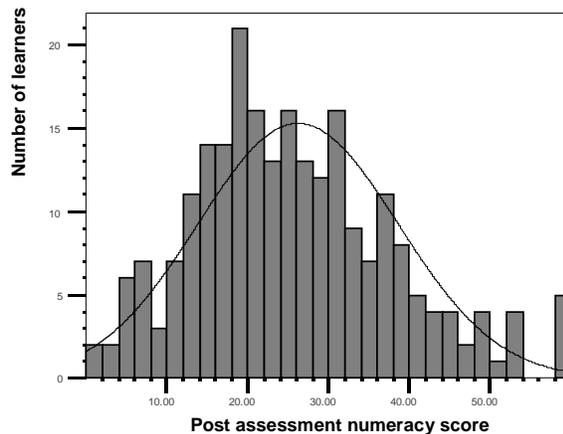
N=number, s.d.=standard deviation

The average gain of 3.3 score points was equivalent to about 5 per cent of the maximum score of 60. The pre-test average score would put a learner with this score towards the upper end of Entry level 3, and the post-test average score would put a learner with that score just over the threshold into Level 1. Though modest, the average gain therefore seems worthwhile.

**Figure 4.1: Distribution of numeracy scores, pre**



**Figure 4.2: Distribution of numeracy scores, post**



### 4.3 Note on effect sizes

An effect size is a statistical measure of the impact of a programme based on the gain, that is the difference between a group of learners' average scores at pre- and post-test (here, the first and second interviews), and is expressed as a decimal. Ideally, calculation of this statistic also requires data from a control or comparison group of learners who did not receive the teaching. In this study this was impossible: there were no such learners. Alternatively, where a standardised test is used, data from the standardisation exercise can be used, on the assumption that the people who provided those data can be treated as an 'unseen' control group. In this study this was possible for the scaled scores on the reading assessment (see the next section), which was standardised by NFER during development, but not possible for the numeracy and writing assessments or for the raw scores for reading.

The usual rule of thumb for interpreting effect sizes is that those below 0.25 are very small and possibly not educationally significant; those between 0.25 and 0.5 are small; those between 0.5 and 0.8 are medium; and those above 0.8 are large. In the following section, the effect sizes have been calculated by dividing the average gain in scaled reading scores (= average post-test score minus average pre-test score) by the standard deviation of the standardisation sample, which is 10.

### 4.4 Reading

The analyses and interpretations reported in this section are based as appropriate on either the learners' raw scores or the scaled scores and NQF levels derived from them by using the NFER conversion tables (see section 2.2). Analysis for the full sample is based on the scaled scores because using raw scores for this would have failed to account for the fact that a particular score on the easier, (a), versions of the assessment indicates less competent reading than the same score on the less easy, (b), versions. However, interpretation against NQF levels can only be based on the raw scores and those are therefore presented for the (a) and (b) Forms of the assessment separately.

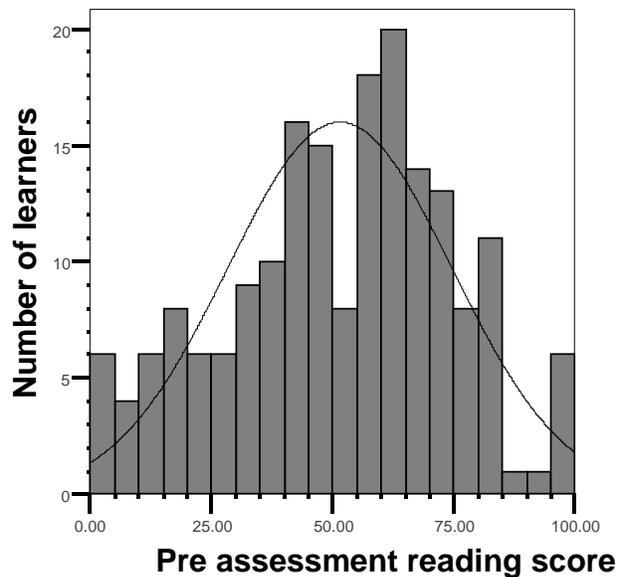
Pre- and post-test scaled scores on the reading assessment were available for 186 literacy learners (65 per cent of the 284 pre-tested on reading) and 123 ESOL learners (50 per cent of the 245 pre-tested on reading) across the two cohorts. The average scaled scores for literacy learners and ESOL learners are shown in Tables 4.2 and 4.4 respectively, and their average raw scores in Tables 4.3 and 4.4 respectively. Figures 4.3 and 4.4 show the distributions of the literacy learners' scores pre and post, and Figures 4.5 and 4.6 the distributions of the ESOL learners' scores pre and post.

**Table 4.2: Literacy learners' average scaled scores for reading (N=186)**

pre		post		gain		effect size
average	(s.d.)	average	(s.d.)	average	(s.d.)	
51.4	(23.2)	55.4	(20.6)	4.0	(13.5)	0.40 (small)

N=number, s.d.=standard deviation

**Figure 4.3: Distribution of literacy learners' scaled scores for reading, pre**



**Figure 4.4: Distribution of literacy learners' scaled scores for reading, post**

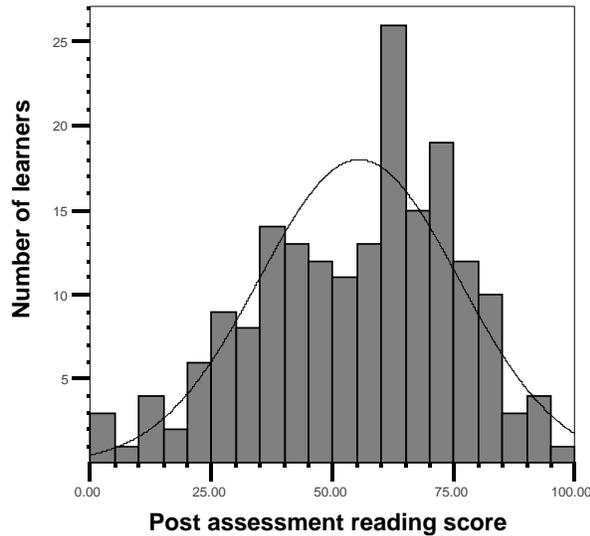


Table 4.2 shows that the literacy learners' pre and post average scaled scores were both slightly above the national average of 50.0 derived from the piloting of the assessments. A statistical test showed that the gain was highly significant ( $p < 0.001$ ). However, statistical tests of differences in average gain between subgroups showed that none of those differences were statistically significant for literacy learners. Also, the effect size was not very large because the average gain was just 4 score points. This does not contradict the statistical significance of the gain – a small difference can be highly statistically significant if the sample size is large, as here.

More important is the question of what the gain implies for these learners' ability in reading. This can be judged better from the average raw scores, which are shown in Table 4.3 separately for literacy learners who took the two Forms of the assessment.

**Table 4.3: Literacy learners' average raw scores for reading**

Assessment Form	N	pre		post		gain	
		average	(s.d.)	average	(s.d.)	average	(s.d.)
b (less easy)	128	22.9	(8.4)	24.2	(7.3)	1.3	(5.8)
a (easy)	57	19.7	(8.1)	22.3	(6.7)	2.6	(4.8)

N=number, s.d.=standard deviation

**Both gains in raw score were statistically significant:** Form (b),  $p = 0.015$ ; Form (a),  $p < 0.001$ . The average gains of 1.3 and 2.6 raw score points were equivalent to about 3 per cent and 9 per cent of the maximum scores of 39 and 30 respectively. The pre-test average raw score for the literacy learners who took Form (b) would put a learner with

this score quite near to the upper end of Level 1, and the Form (b) post-test average score would put a learner with that score almost at the top of Level 1. The pre-test average raw score for the literacy learners who took Form (a) would put a learner with this score towards the upper end of Entry 3, and the Form (a) post-test average score would put a learner with that score just over the threshold into Level 1. Though modest, the average gains therefore seem worthwhile.

A further implication of these figures is that the Locator booklet functioned as intended, for these literacy learners. Scores on this booklet were used to determine which learners appeared to be below Level 1 and should therefore take the Form (a) assessment, while those who appeared to be already at Level 1 would take the Form (b) assessment.

In the Effective Practice in Reading study (Brooks et al., 2007a, b), very few of the learners had English as an additional language, so that they are mainly comparable to the literacy learners in this study. Also, the NFER instrument was used in that study, so that scores are directly comparable. The learners in the second cohort of that study (2004/05) also showed a modest but worthwhile gain in reading which was statistically significant ( $p < 0.05$ ): 6.5 scaled score points (effect size = 0.65, medium). This was slightly larger than the gain by literacy learners measured here. (A contrary result for the first cohort in the Effective Practice in Reading study was deemed possibly unreliable because the instrument used in the first assessment was a pilot version.)

In the Effective Practice in ICT study (Mellar et al., 2007a, pp.45-47; 2007b, pp.20-21), 56 learners also attempted the NFER reading assessment. Their average gain of 10 scaled score points (effect size = 1.00, large) was statistically significant ( $p < 0.05$ ) and distinctly larger than in this study, but the sample size was rather small, and it cannot therefore be robustly inferred that the addition of technology enabled these learners to make more progress than those in this study (some of whom will also have had access to computers).

For more comparisons of the findings just mentioned with results from other studies which used the same assessment instrument see Appendix A.

It is possible to show both scaled and raw reading scores for the ESOL learners in one table because they all took the same Form of the assessment, the (b) Form, for the reasons explained in section 2.3 – see Table 4.4.

**Table 4.4: ESOL learners' average scaled and raw scores for reading**  
(N=123)

	pre		post		gain		effect size
	average	(s.d.)	average	(s.d.)	average	(s.d.)	
scaled	32.7	(15.3)	38.9	(18.3)	6.1	(14.3)	0.61 (medium)
raw	11.4	(6.7)	14.1	(8.2)	2.7	(6.0)	n/a

N=number, s.d.=standard deviation

The pre and post average scaled scores were both well below the national average of 50.0; indeed, the pre average score was almost two standard deviations below the norm, and therefore within the bottom 5 per cent of the distribution. Statistical tests showed that **both measures of the gain were highly significant** ( $p < 0.001$ ). Statistical tests of differences in gain between subgroups showed that only one such difference was statistically significant: ESOL learners aged 16-19 made significantly more progress than other age groups. The average gain of 2.7 raw score points was equivalent to about 7 per cent of the maximum score of 39. The pre-test average raw score for these ESOL learners would put a learner with this score near to the upper end of Entry level 3, and the post-test average score would put a learner with that score just into Level 1. Again, this suggests that the modest gain was worthwhile. However, these figures also suggest that the Locator booklet had not worked as well for ESOL learners as for literacy learners: it had suggested that these ESOL learners were in Level 1 when their scores on the main assessment showed that many were not.

No comparison was possible with data from the Effective Practice in ESOL study (Baynham et al., 2007a, b), which assessed the spoken English proficiency of the learners, and not their literacy. However, a comparison was carried out between the literacy and ESOL learners in this study – but this had to take account of the fact that no ESOL learners took the easier, (a), versions of the reading assessments. The comparison could therefore be carried out validly only between the ESOL learners and those literacy learners who had taken the less easy, (b), versions of the assessment. The relevant data for the 128 literacy learners in this group are shown in Table 4.5 and Figures 4.7 and 4.8. The distributions are, as would be expected, slightly skewed towards the high end of the scale.

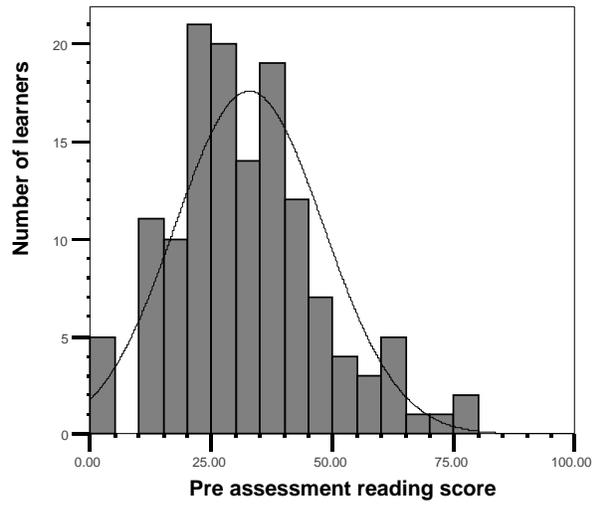
**Table 4.5: Level 1 and 2 literacy learners' average scaled scores for reading**  
(N=128)

pre		post		gain		effect size
average	(s.d.)	average	(s.d.)	average	(s.d.)	
59.3	(20.2)	62.4	(17.5)	3.1	(13.8)	0.31 (small)

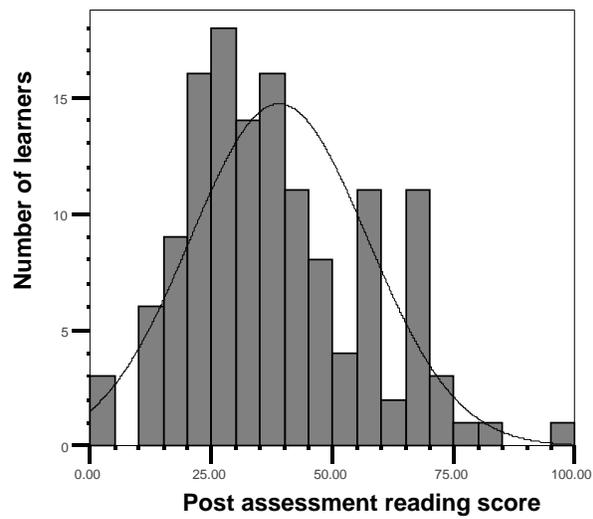
N=number, s.d.=standard deviation

This gain was also highly statistically significant ( $p = 0.011$ ). However, the difference in gains between this group and the ESOL learners fell somewhat short of statistical significance ( $p = 0.07$ ). Thus it is not possible to say that either group made significantly more progress than the other.

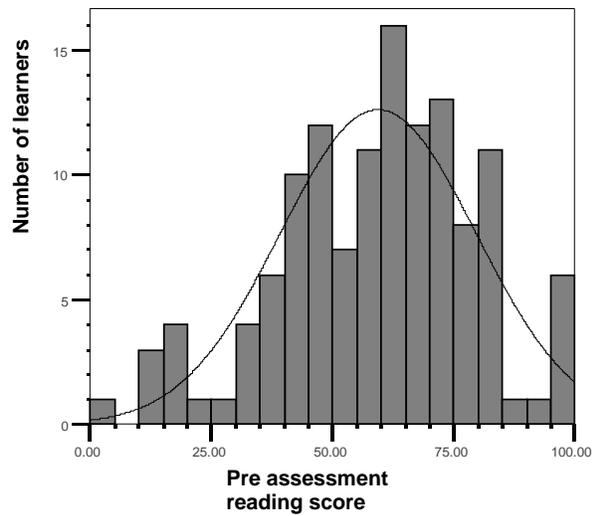
**Figure 4.5: Distribution of ESOL learners' reading scores, pre**



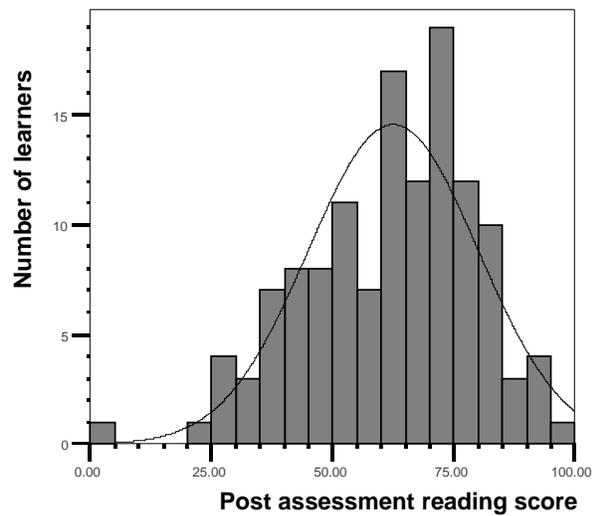
**Figure 4.6: Distribution of ESOL learners' reading scores, post**



**Figure 4.7: Distribution of Level 1 and 2 literacy learners' scaled scores for reading, pre**



**Figure 4.8: Distribution of Level 1 and 2 literacy learners' scaled scores for reading, post**



## 4.5 Writing

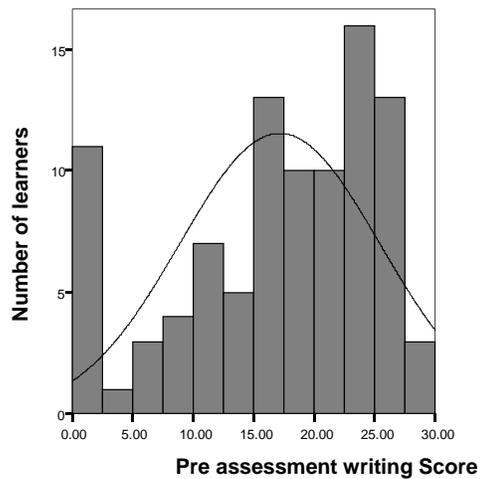
Across the two cohorts, 96 literacy and 119 ESOL learners completed a writing assessment both pre and post. The average scores for the literacy learners are shown in Table 4.6 and the distributions in Figures 4.9 and 4.10. (For the ESOL learners see below.)

**Table 4.6: Literacy learners' average writing scores (N=96)**

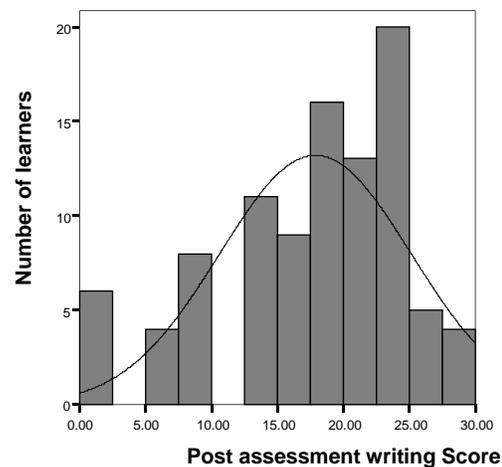
pre		post		gain	
average	(s.d.)	average	(s.d.)	average	(s.d.)
17.1	(8.3)	17.8	(7.3)	0.7	(4.9)

N=number, s.d.=standard deviation

**Figure 4.9: Distribution of literacy learners' writing scores, pre**



**Figure 4.10: Distribution of literacy learners' writing scores, post**



The maximum score is 29, so the average pre and post scores were just above half marks. The gain was only about 2.5 per cent of the maximum score, and was not statistically significant ( $p=0.15$ ). The pre and post average scores were both just into Entry level 3.

The writing results for ESOL learners are shown in Table 4.7, and the distributions in Figures 4.11 and 4.12.

**Table 4.7: ESOL learners' average writing scores**  
(N=115)

pre		post		gain	
average	(s.d.)	average	(s.d.)	average	(s.d.)
13.2	(7.4)	14.4	(6.8)	1.2	(4.8)

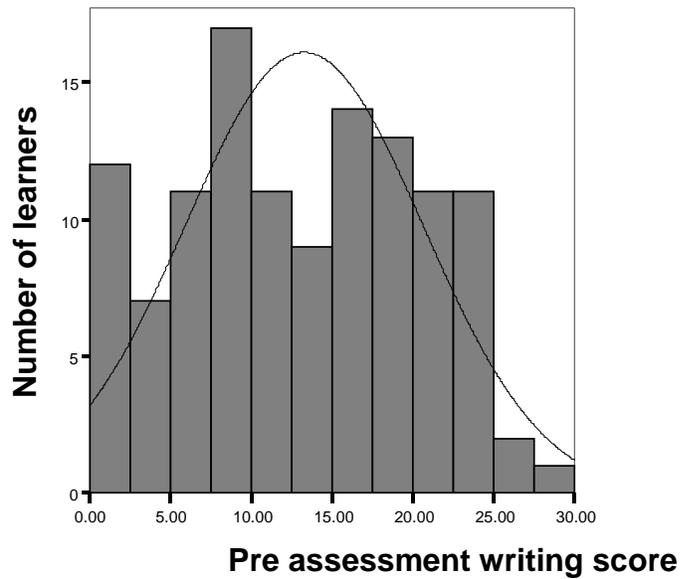
N=number, s.d.=standard deviation

Here both average scores were slightly below half marks. The gain was about 4 per cent of the maximum score, and **was statistically significant** ( $p=0.01$ ). None of the subgroup differences were statistically significant. The pre and post average scores were both within Entry level 2; the post average score was only slightly below the threshold for Entry level 3.

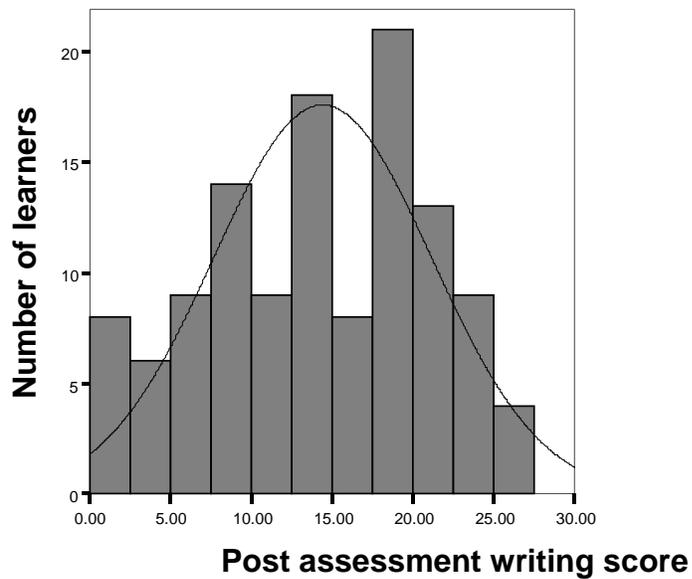
The ESOL and literacy learners' writing scores were compared statistically. Both pre and post the literacy learners' average scores were significantly higher than the ESOL learners' scores ( $p<0.001$ ), but the difference in the gains was not statistically significant ( $p=0.52$ ).

For comparison of the overall findings above with results from other studies which used the same assessment instrument see Appendix A.

**Figure 4.11: Distribution of ESOL learners' writing scores, pre**



**Figure 4.12: Distribution of ESOL learners' writing scores, post**



## 4.6 Summary

There were modest but statistically significant and worthwhile average gains:

- in numeracy for numeracy learners, from the upper end of Entry level 3 to Level 1
- in reading for literacy learners who took the less easy assessment, from near the upper end of Level 1 almost to the top of Level 1
- in reading for literacy learners who took the easy assessment, from the upper end of Entry level 3 to just over the threshold of Level 1
- in reading for ESOL learners (who all took the less easy assessment), from the upper end of Entry level 3 to just into Level 1, and
- in writing for ESOL learners, from within Entry level 2 almost to the threshold for Entry level 3, but not in writing for literacy learners.

The only significant subgroup difference was that ESOL learners aged 16-19 made more progress in reading than other age groups.

## 5. Attitudes

All participating learners completed an attitudes questionnaire at the pre interview, and all those who could be re-contacted did so again at the post interview. In this section results are given only for those learners who completed the questionnaires at both stages. Also, only aggregated responses are reported; there are detailed Tables giving results for each item in Appendix B. Results are also reported for subgroup analyses, e.g. employed vs unwaged vs unemployed. The findings are presented in the order numeracy learners – literacy learners – ESOL learners.

### 5.1 Attitudes to numeracy

Pre and post attitudes responses were available from 237 numeracy learners. Overall results for attitudes to numeracy are shown in Table 5.1 and Figures 5.1 and 5.2.

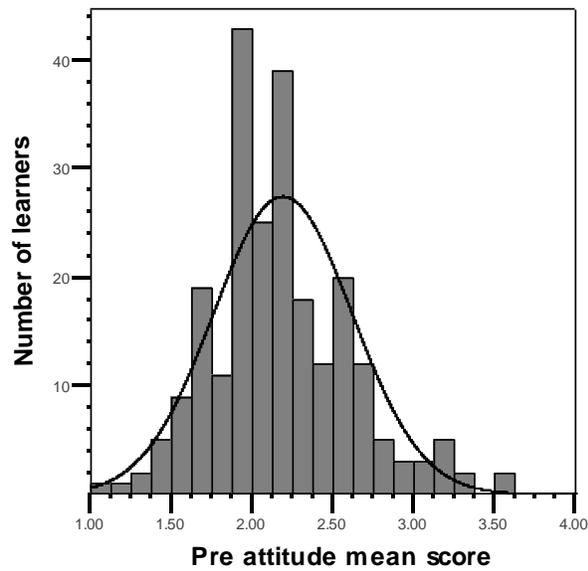
**Table 5.1: Numeracy learners' overall attitudes to numeracy**  
(N=237)

pre		post		change	
average	(s.d.)	average	(s.d.)	average	(s.d.)
2.18	(0.43)	2.20	(0.43)	0.02	(0.34)

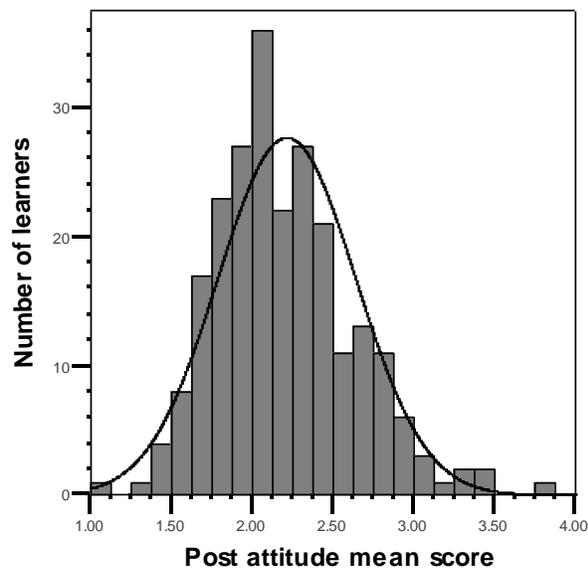
N=number, s.d.=standard deviation

The mid-point of the response scale was 2.5. Both mean scores were below this, and show relatively low self-confidence on the part of numeracy learners. A statistical test showed that the overall difference between the pre and post average attitude scores was not statistically significant ( $p=0.27$ ). All but one of the subgroup analyses were also non-significant. The exception involved occupational status: the attitudes of the unemployed became less positive, and those of the employed and unwaged became more positive, and the difference between the unemployed and the other subgroups was statistically significant ( $p=0.02$ ).

**Figure 5.1: Distribution of numeracy learners' attitudes to numeracy, pre**



**Figure 5.2: Distribution of numeracy learners' attitudes to numeracy, post**



## 5.2 Literacy learners' attitudes to literacy

Pre and post attitudes responses were available from 358 literacy learners. Overall results for their attitudes to literacy are shown in Table 5.2 and Figures 5.3 and 5.4; Table 5.2 also gives results for the three sections of the questionnaire. These dealt respectively with learners' confidence in themselves as literacy users and learners; the frequency with which they undertook certain literacy activities; and their enjoyment of certain literacy-related activities. Figures 5.5 and 5.6 show the distributions of the figures for their self-confidence in themselves as literacy users and learners.

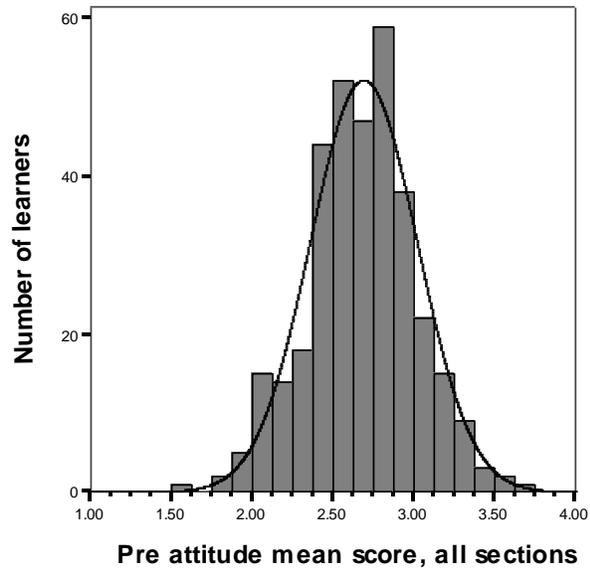
**Table 5.2: Literacy learners' attitudes to literacy**  
(N=358)

	pre		post		change	
	average	(s.d.)	average	(s.d.)	average	(s.d.)
Whole questionnaire	2.58	(0.42)	2.62	(0.41)	0.05	(0.29)
Section 1 (self-confidence)	2.76	(0.59)	2.86	(0.58)	0.09	(0.44)
Section 2 (frequency of literacy activities)	2.27	(0.48)	2.29	(0.49)	0.02	(0.39)
Section 3 (enjoyment of literacy)	2.59	(0.48)	2.61	(0.45)	0.02	(0.35)

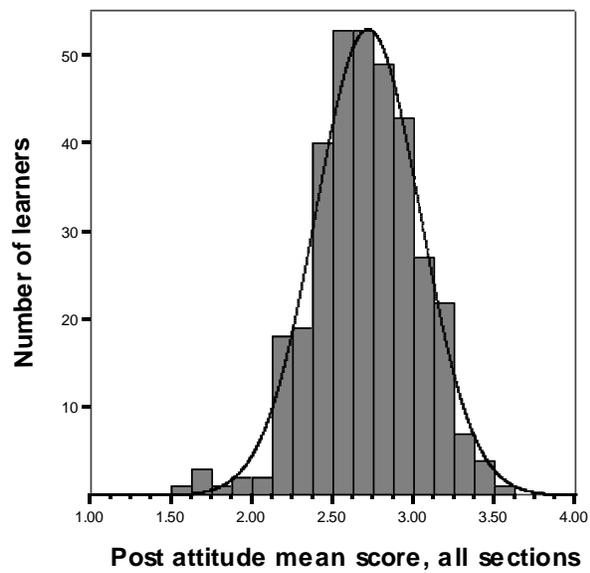
N=number

The mid-point of the response scale was 2.5. Both average scores for frequency of literacy activities were below this, which may be a realistic self-report on the part of these learners. The average scores for enjoyment of literacy and the whole questionnaire were close to the mid-point. Those for the first section appear to show relatively high self-confidence on the part of literacy learners. Statistical tests showed that the differences between the pre and post average scores were statistically significant both overall ( $p=0.003$ ) and on section 1 of the questionnaire ( $p<0.001$ ), and showed a positive change in both cases. All but one of the subgroup analyses were non-significant. The exception again involved occupational status and was essentially the same as for numeracy learners: the attitudes of the employed and unwaged improved, while those of the unemployed worsened, and the difference between the unemployed and the other subgroups was statistically significant ( $p=0.015$ ).

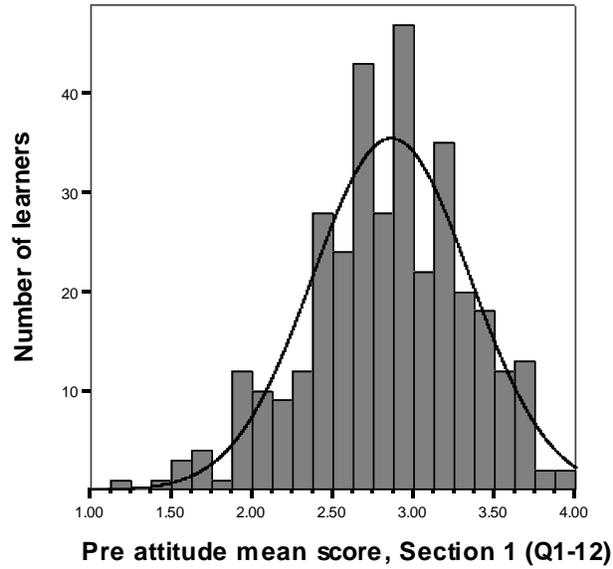
**Figure 5.3: Distribution of literacy learners' overall attitudes to literacy, pre**



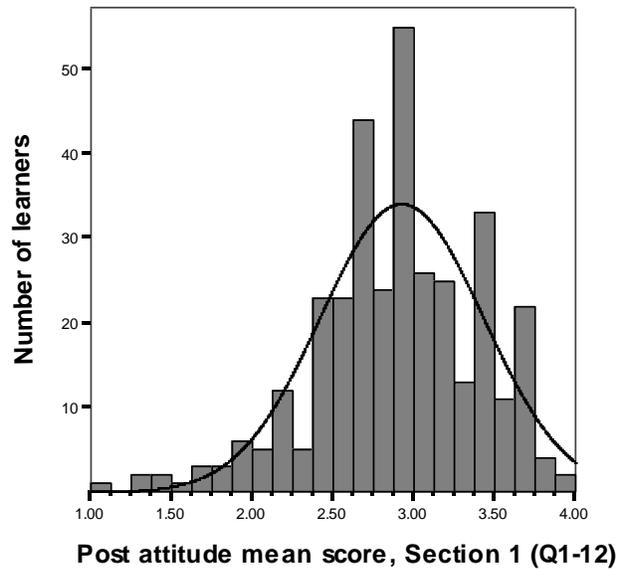
**Figure 5.4: Distribution of literacy learners' overall attitudes to literacy, post**



**Figure 5.5: Distribution of literacy learners' self-confidence, pre**



**Figure 5.6: Distribution of literacy learners' self-confidence, post**



### 5.3 ESOL learners' attitudes to literacy

Pre and post attitudes responses were available from 347 ESOL learners. Overall results for their attitudes to literacy are shown in Table 5.3 and Figures 5.7 and 5.8; Table 5.3 also gives results for the three sections of the questionnaire. Figures 5.9 and 5.10 show the distributions of the figures for their self-confidence in themselves as literacy users and learners.

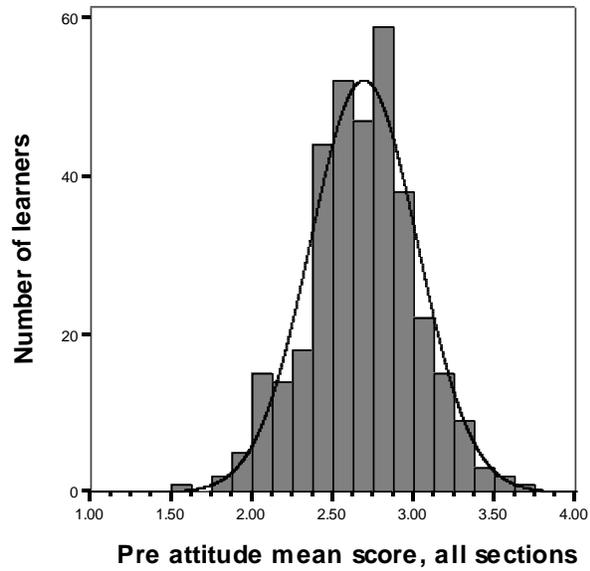
**Table 5.3: ESOL learners' overall attitudes to literacy**  
(N=347)

	pre		post		change	
	average	(s.d.)	average	(s.d.)	average	(s.d.)
Whole questionnaire	2.68	(0.33)	2.71	(0.32)	0.03	(0.32)
Section 1 (self-confidence)	2.85	(0.49)	2.92	(0.51)	0.07	(0.50)
Section 2 (frequency of literacy activities)	2.40	(0.49)	2.42	(0.44)	0.02	(0.43)
Section 3 (enjoyment of literacy)	2.69	(0.35)	2.68	(0.33)	-0.01	(0.34)

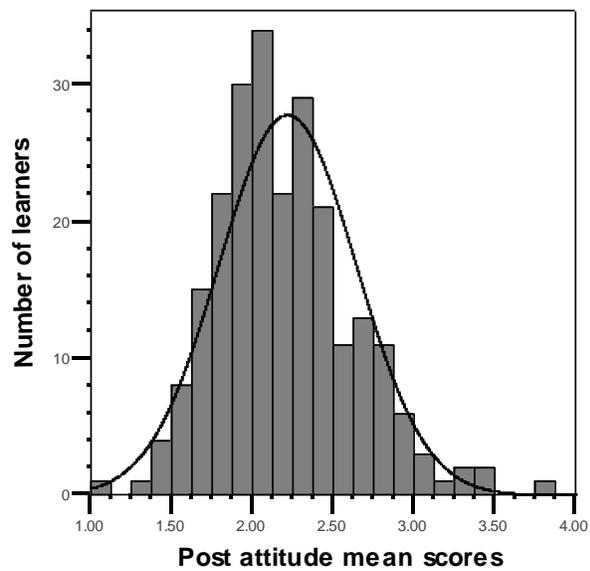
N=number

The mid-point of the response scale was 2.5. The average scores for frequency of literacy activities were only slightly below this. All other average scores were above the mid-point, those for section 1 particularly so – this seems to show relatively high self-confidence on the part of these ESOL learners. Statistical tests showed that the differences between the pre and post average attitude scores were non-significant both overall ( $p=0.13$ ) and on sections 2 and 3 of the questionnaire. However, there was a statistically significant difference on section 1 ( $p=0.012$ ), showing that these learners' self-confidence had grown. None of the subgroup differences were statistically significant.

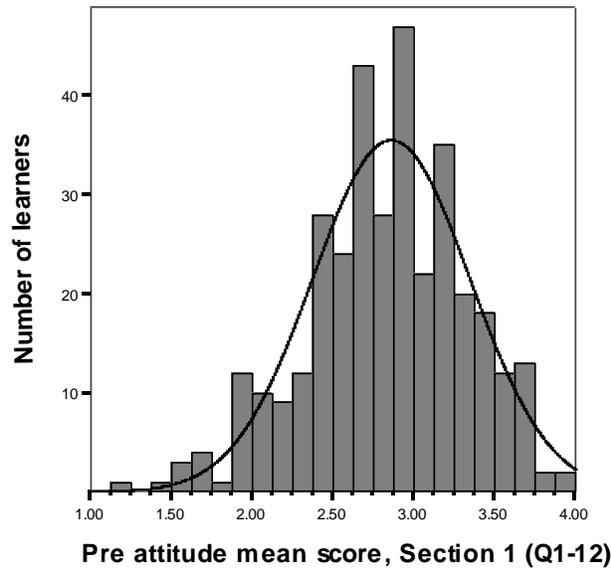
**Figure 5.7: Distribution of ESOL learners' overall attitudes to literacy, pre**



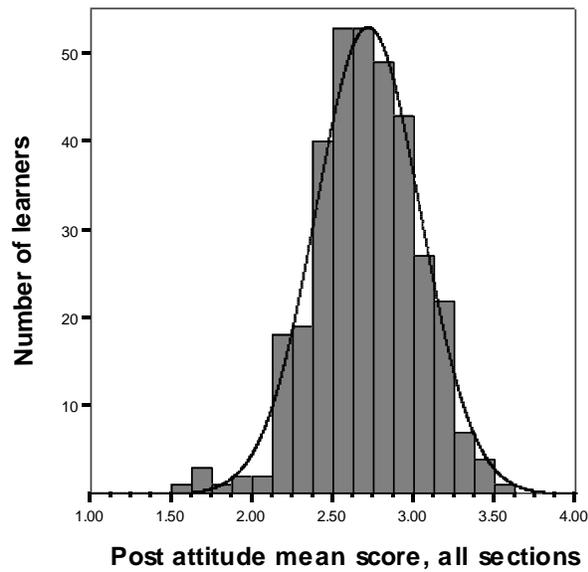
**Figure 5.8: Distribution of ESOL learners' overall attitudes to literacy, post**



**Figure 5.9: Distribution of ESOL learners' self-confidence, pre**



**Figure 5.10: Distribution of ESOL learners' self-confidence, post**



#### 5.4 Summary

Numeracy and ESOL learners' attitudes barely altered, overall. However, literacy learners on average improved their attitudes in general, and in particular gained in self-confidence. ESOL learners also gained in self-confidence.

Almost all subgroup differences were non-significant, except that among both numeracy learners and literacy learners the attitudes of the employed and unwaged became more positive, whereas those of unemployed learners worsened.

## 6. Conclusions

This project has shown that the basic skills of ALLN learners attending Skills for Life provision in 2004-06 improved (except for the writing level of literacy learners), and that the overall attitudes of literacy learners and their self-confidence, and the self-confidence of ESOL learners, also improved. However, given the host of other influences and variables at work in that period it would be unwise to infer that Skills for Life alone caused these improvements. What can be said (negatively) is that there is no evidence that Skills for Life was ineffective and (more positively) that the improvements were consistent with policy-makers' intentions. Also, the fact that most subgroup differences were non-significant means that provision was working equally well for many different groups of learners and hardly any were being left behind. The exceptions were that

- ESOL learners aged 16-19 made more progress in reading than other age groups
- the attitudes of unemployed numeracy and literacy learners worsened. Though this did not affect their progress on the relevant skill within the life of this study it may not bode well for the future.

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## Appendix A: Comparisons with results of other studies

Between 2003 and 2012 the assessment instruments used in this project were also used in several other studies. This Appendix (added in 2013) brings together and compares the results of almost all the relevant studies.

### A.1 Numeracy

As stated in section 2.4, the numeracy assessment used in this strand of the Learner study consisted of the 20 most statistically reliable numeracy items from the Skills for Life needs survey of 2002-03 (Williams *et al.*, 2003). (All the items, for literacy as well as numeracy, were used again in the repeat Skills for Life needs survey of 2011 – see BIS, 2011.) The 20-item numeracy assessment had already been used in the NRDC Effective Practice in Numeracy study of 2003-06, and was used again in the Progress study mounted by the Department for Business, Innovation and Skills (BIS) in 2012 (results not yet publicly available). The results of the two NRDC studies are shown in Table A.1.

**Table A.1: Results from projects using the NRDC numeracy test**

Name of study	Reference(s)	Sample size	Average gain
Effective Practice in Numeracy	Coben <i>et al.</i> (2007a, b)	250	5.6
The Learner Study	Rhys Warner <i>et al.</i> (2008); Vorhaus <i>et al.</i> (2009); Brooks and Pilling (2013, this report)	239	3.3

Notes: 1) The gains are expressed in raw score points; the test has a maximum score of 60.  
2) Both gains were statistically significant.

Though both gains were statistically significant, they differed in size. A possible reason is a difference in the average amount of time between pre- and post-test: in the Effective Practice study this was about 6 months, and in the Learner Study about 4.5 months.

Slightly different numeracy tests, also derived from the *Skills for Life* survey, were used in the 2004 age 34 sweep of the British Cohort Study 1970 (Bynner *et al.*, 2005; Bynner and Parsons, 2006), and in a study for the Ministry of Defence of basic skills of Armed Forces personnel (results not yet available; for background see <http://www.nrdc.org.uk/content.asp?CategoryID=1538&ArticleID=1294>).

In 2013 new tests of basic mathematics for adults were being developed, and were intended to replace both the Skills for Life instrument and those derived from it by NRDC.

## A.2 Reading

The *Go!* reading tests have been used in several projects, including the 2012 BIS Progress study (results not yet publicly available). Table A.2 brings together data from all the other projects in which those tests have been used.

**Table A.2: Results from projects using the *Go!* reading tests**

Name of study	Reference(s)	Language status	Sample size	Average gain	Effect size
Effective Practice in Reading	Brooks <i>et al.</i> (2007a, b)	mainly L1	179	6.5	0.65
Effective Practice in Using ICT	Mellar <i>et al.</i> (2007a, b)	L1	10	7.6	0.40
		L2	46	10.7	1.07
The Learner Study	Rhys Warner <i>et al.</i> (2008); Vorhaus <i>et al.</i> (2009); Brooks and Pilling (2013, this report)	L1	186	4.0	0.4
		L2	123	6.1	0.61
Progress for Adult Literacy Learners	Burton <i>et al.</i> (2010)	mainly L1	74	5.9	0.59
Improving Literacy at Work	Wolf and Evans (2011)	L1	153	0.6	0.06
		L2	108	3.5	0.35
Learning Literacy Together	Swain <i>et al.</i> (forthcoming)	L1	295	-1.5	-0.15
		L2	73	9.3	0.93

- Notes: 1) L1 = native speakers of English; L2 = non-native speakers of English (= ESOL learners)  
 2) The gains are expressed in standardised score points; the test has a range of 0-100, mean of 50 and standard deviation of  $\pm 10$ .  
 3) The figures for Improving Literacy at Work are not directly stated in Wolf and Evans (2011) but were supplied, on request, by a colleague of theirs.  
 4) The effect sizes were calculated by dividing the average gain by the standard deviation of the test.  
 5) All gains were statistically significant except those for L1 learners in the Improving Literacy at Work study (probably due to the maximum length of course being 30 hours) and Learning Literacy Together study (probably due to a ceiling effect – many of the learners scored close to full marks).

The gains in reading made by the participants in the Learner Study were statistically significant and, though not the largest in Table A.2, were comfortably within the upper part of the range.

As for numeracy, in 2013 new tests of basic reading for adults were being developed, and were intended to replace both the Skills for Life instrument and the *Go!* reading tests.

### A.3 Writing

The *Go!* writing tests have also been used in several projects. Table A.3 brings together data from all the other projects in which those tests have been used.

**Table A.3: Results from projects using the *Go!* writing tests**

Name of study	Reference(s)	Language status	Sample size	Average gain
Effective Practice in Writing	Grief <i>et al.</i> (2007a, b)	mainly L1	199	1.5
The Learner Study	Rhys Warner <i>et al.</i> (2008); Vorhaus <i>et al.</i> (2009); Brooks and Pilling (forthcoming)	L1	96	0.7
		L2	115	1.2
Progress for Adult Literacy Learners	Burton <i>et al.</i> (2010)	mainly L1	17	2.4
Learning Literacy Together	Swain <i>et al.</i> (forthcoming)	L1	99	1.4
		L2	18	0.3

Notes: 1) L1 = native speakers of English; L2 = non-native speakers of English (= ESOL learners)

2) The gains are expressed in raw score points; the test has a maximum score of 29.

3) All gains except those for L1 learners in the Learner Study and L2 learners in the Learning Literacy Together study were statistically significant.

Unlike those in reading, the gains in writing made by the participants in the Learner Study were modest and only statistically significant for ESOL learners. No clear reasons for these differences suggest themselves.

There appeared to be no plans in 2013 for new writing tests (which in any case do not feature in the Skills for Life surveys).

## Appendix B: Attitudes questionnaires with detailed results

'Switched' means that the values on negative items have been reversed so that they have the same 'polarity' as positive items and can be analysed in the same way.

### 1. Attitudes to numeracy

Attitudes to numeracy	Pre		Post		Post-Pre		p
	Mean	s.d	Mean	s.d.	Mean	s.d.	
Mean score (with switched variables)	2.18	0.43	2.20	0.43	0.025	0.344	0.265
1. I enjoy learning maths	1.85	0.79	1.89	0.83	0.047	0.692	0.302
2. The more you learn about maths, the more interesting it becomes	1.93	0.78	1.97	0.79	0.034	0.737	0.481
3. Maths helps you to understand today's world	1.89	0.74	1.91	0.76	0.021	0.810	0.687
4. I find learning maths boring	3.03	0.85	2.92	0.88	-0.110	0.853	<b>0.049</b>
5. It is difficult to find a good job unless you have passed your maths exams	2.05	0.80	2.11	0.77	0.065	0.834	0.238
6. I use maths a lot in my everyday life, including at home and/or work	2.01	0.79	1.95	0.73	-0.055	0.800	0.291
7. Most people only use maths when they're dealing with money	2.54	0.89	2.48	0.83	-0.064	0.998	0.329
8. I find lots of areas of maths difficult to understand	2.23	0.83	2.35	0.81	0.123	0.912	<b>0.040</b>
9. I don't know how to use the maths that I learn in class in my everyday life	2.87	0.72	2.79	0.79	-0.070	0.831	0.204
10. I only want to learn maths if it's going to be useful to me	2.41	0.88	2.39	0.83	-0.018	0.859	0.757
11. I find learning maths quite easy	2.48	0.85	2.49	0.80	0.022	0.804	0.679
12. Many things we do in maths do not make sense to me	2.71	0.77	2.64	0.75	-0.070	0.907	0.244
13. I can use the maths I learn in class to help me solve everyday problems	1.97	0.66	2.05	0.75	0.092	0.777	0.075
14. Learning maths can make me feel that I'm a bit of failure	2.95	0.85	2.98	0.80	0.039	0.961	0.537
15. I don't see a lot of point in having to learn maths	3.24	0.75	3.08	0.80	-0.154	0.928	0.013
16. I usually get most of my maths questions right	2.20	0.73	2.19	0.74	0.018	0.721	0.711
17. I often forget things that I have learnt in maths	2.30	0.85	2.42	0.79	0.132	0.896	0.028

Note on the literacy questionnaire (next two pages):

- in items 1-12, the words 'I feel ...' were followed by this response scale: Not at all confident – Not very confident – Quite confident – Very confident
- in items 13-20 the response scale indicated frequency, with appropriate wording for different subsets of items
- for items 21-29 the response scale was: Strongly disagree – Disagree – Agree – Strongly Agree.

## 2. Literacy learners' attitudes to literacy

Literacy learners' attitudes to literacy	Pre		Post		Post-Pre		
	Mean	s.d	Mean	s.d.	Mean	s.d.	p
Attitude mean score, Section 1 (Q1-12)	2.76	0.59	2.86	0.58	0.09	0.44	<b>0.000</b>
Attitude mean score, Section 2 (Q13-20)	2.27	0.48	2.29	0.49	0.02	0.39	0.287
Attitude mean score, Section 3 (Q21-29, switched)	2.59	0.48	2.61	0.45	0.02	0.35	0.367
Attitude mean score, all sections (Q1-29, switched)	2.58	0.42	2.62	0.41	0.05	0.29	<b>0.003</b>
1. When I think about speaking in front of a group of people, I feel	2.53	0.95	2.72	0.87	0.19	0.81	<b>0.000</b>
2. When I need to use a telephone, I feel	3.19	0.83	3.18	0.80	-0.01	0.77	0.891
3. When I have to do some reading, I feel	2.90	0.88	2.96	0.89	0.06	0.82	0.139
4. If I have to read something out loud, I feel	2.37	1.00	2.49	0.94	0.12	0.79	<b>0.004</b>
5. If I have to read a set of instructions, I feel	2.77	0.85	2.82	0.86	0.05	0.85	0.263
6. When I have to write in class, I feel	2.98	0.87	3.03	0.87	0.05	0.80	0.232
7. When I have to write at home, I feel	3.12	0.88	3.23	0.78	0.12	0.81	<b>0.005</b>
8. When I have to fill in forms, I feel	2.62	0.96	2.72	0.94	0.10	0.83	<b>0.029</b>
9. When I have to write at work or in public places, I feel	2.52	0.94	2.66	0.90	0.15	0.95	<b>0.003</b>
10. When I think about myself as a learner, I feel	2.98	0.75	3.03	0.71	0.06	0.82	0.193
11. If I have to take a test, I feel	2.39	0.91	2.57	0.84	0.19	0.90	<b>0.000</b>
12. When I think about going on a another course, I feel	2.80	0.86	2.88	0.80	0.07	0.89	0.120
13. I look at a newspaper	2.73	0.94	2.74	0.91	0.01	0.80	0.894
14. I read a book/magazine	2.76	0.90	2.70	0.86	-0.06	0.89	0.206
15. I borrow a book from a library	1.79	0.80	1.75	0.76	-0.04	0.78	0.376
16. I write a letter or postcard	1.84	0.69	1.90	0.73	0.05	0.80	0.230
17. I fill in a form	2.03	0.55	2.16	0.67	0.14	0.73	<b>0.000</b>
18. I send an e-mail	2.03	1.07	2.08	1.09	0.05	0.76	0.233
19. I send a text message	2.70	1.26	2.79	1.26	0.08	0.75	<b>0.046</b>
20. I take notes on something I hear	2.27	0.97	2.21	0.95	-0.05	1.04	0.330
21. I enjoy reading	2.96	0.86	2.95	0.79	-0.01	0.78	0.891
22. I seldom see a book I want to read	2.45	0.83	2.43	0.84	-0.01	0.97	0.825
23. I like reading non-fiction	2.52	0.92	2.57	0.90	0.05	0.99	0.328
24. I prefer watching television to reading	2.96	0.94	2.96	0.92	0.00	0.91	1.000
25. I only read what I have to	2.56	0.93	2.53	0.90	-0.03	0.86	0.492
26. I like reading fiction (stories)	2.59	0.94	2.57	0.93	-0.01	0.96	0.911
27. I only write if I really have to	2.63	0.93	2.58	0.87	-0.05	0.95	0.366
28. I enjoy writing	2.89	0.93	2.92	0.82	0.03	0.89	0.503
29. Writing on a computer is easier than writing on paper	2.91	0.97	2.97	1.00	0.04	0.96	0.432

### 3. ESOL learners' attitudes to literacy

ESOL learners' attitudes to literacy	Pre		Post		Post-Pre		p
	Mean	s.d	Mean	s.d.	Mean	s.d.	
Attitude mean score, Section 1 (Q1-12)	2.85	0.49	2.92	0.51	0.07	0.50	<b>0.013</b>
Attitude mean score, Section 2 (Q13-20)	2.40	0.49	2.42	0.44	0.02	0.43	0.313
Attitude mean score, Section 3 (Q21-29, switched)	2.69	0.35	2.68	0.33	-0.01	0.34	0.429
Attitude mean score, all sections (Q1-29, switched)	2.68	0.33	2.71	0.32	0.03	0.32	0.132
1. When I think about speaking in front of a group of people, I feel	2.68	0.79	2.83	0.73	0.15	0.88	<b>0.002</b>
2. When I need to use a telephone, I feel	2.80	0.84	2.86	0.78	0.06	0.90	0.258
3. When I have to do some reading, I feel	3.03	0.79	3.09	0.79	0.06	0.88	0.181
4. If I have to read something out loud, I feel	2.73	0.81	2.81	0.77	0.09	0.91	0.085
5. If I have to read a set of instructions, I feel	2.87	0.83	2.97	0.78	0.12	0.84	<b>0.012</b>
6. When I have to write in class, I feel	2.87	0.86	2.93	0.83	0.06	0.89	0.226
7. When I have to write at home, I feel	3.19	0.81	3.18	0.83	0.00	0.90	1.000
8. When I have to fill in forms, I feel	2.84	0.82	2.91	0.82	0.07	0.88	0.141
9. When I have to write at work or in public places, I feel	2.41	0.78	2.54	0.79	0.12	0.95	<b>0.017</b>
10. When I think about myself as a learner, I feel	3.06	0.75	3.13	0.75	0.06	0.88	0.242
11. If I have to take a test, I feel	2.74	0.77	2.79	0.77	0.05	0.92	0.316
12. When I think about going on a another course, I feel	2.97	0.84	2.97	0.77	0.00	0.99	1.000
13. I look at a newspaper	2.84	0.80	2.90	0.80	0.06	0.81	0.156
14. I read a book/magazine	2.78	0.82	2.74	0.80	-0.03	0.93	0.517
15. I borrow a book from a library	2.14	0.73	2.13	0.72	0.00	0.78	0.944
16. I write a letter or postcard	1.99	0.66	2.05	0.68	0.06	0.74	0.156
17. I fill in a form	2.22	0.60	2.20	0.54	-0.04	0.69	0.337
18. I send an e-mail	2.11	1.03	2.18	1.03	0.06	0.81	0.176
19. I send a text message	2.47	1.10	2.56	1.09	0.08	0.90	0.101
20. I take notes on something I hear	2.59	0.98	2.61	0.89	0.02	1.06	0.715
21. I enjoy reading	3.15	0.68	3.18	0.66	0.01	0.78	0.780
22. I seldom see a book I want to read	2.60	0.71	2.64	0.70	0.05	0.90	0.377
23. I like reading non-fiction	2.71	0.78	2.69	0.76	-0.05	0.91	0.358
24. I prefer watching television to reading	2.85	0.86	2.83	0.85	-0.02	0.94	0.642
25. I only read what I have to	2.47	0.83	2.43	0.83	-0.03	0.96	0.527
26. I like reading fiction (stories)	2.83	0.83	2.77	0.82	-0.06	0.92	0.259
27. I only write if I really have to	2.58	0.81	2.64	0.78	0.05	0.90	0.299
28. I enjoy writing	3.25	0.70	3.24	0.69	-0.01	0.74	0.712
29. Writing on a computer is easier than writing on paper	2.76	0.89	2.78	0.94	0.02	0.95	0.774

