

# Evaluation of the National Literacy Project

**COHORT 1, 1996–1998**

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INVESTOR IN PEOPLE

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## Executive Summary

1. The National Literacy Project was implemented in its first cohort of schools from autumn 1996 to summer 1998. Participating schools introduced a literacy hour, based on specific learning objectives, as the main means of literacy teaching. Specialist consultants provided support in the form of training and advice on the management of literacy within schools. Approximately 250 schools in 18 local education authorities took part.
2. The project was evaluated by the National Foundation for Educational Research, by means of: tests of reading; a survey of children's attitudes to reading; and questionnaires completed by participating headteachers. Project consultants supplied additional information on the characteristics of teaching, learning and management within project schools.
3. The test results revealed a significant and substantial improvement in children's scores in the course of the project. Pupils in participating schools had scores below the national average at the outset. Final test scores had improved by approximately six standardised score points, so that they were still below, but significantly closer to, the national average.
4. Girls had higher average scores than boys and made more progress than boys in the course of the project. Children eligible for free school meals, those with special educational needs and those learning English as an additional language had lower than average scores, although all these groups none the less made significant progress.
5. The role of the headteacher in successful project schools was crucial, in providing committed, engaged and informed leadership in the management of the new initiative. Successful schools gave the implementation of the project a high priority in their development plans.
6. Effective teaching within the literacy hour was characterised by consistency, clear structure, high-quality interaction and good pace, underpinned by thorough planning.
7. Headteachers regarded the introduction of the literacy hour overwhelmingly positively, whilst pointing out that it had major implications in terms of management and resourcing.

8. Children gained in reading confidence in the course of the project, saying that they needed less help with their reading at the end than they had initially. Their levels of enjoyment of reading were high.
9. The project schools offer a valuable model for schools currently implementing the National Literacy Strategy.

# 1 Introduction

This report, produced by the National Foundation for Educational Research, details the findings of the evaluation of the first cohort of the National Literacy Project, which participated in the project from 1996 to 1998. A summary report is also available.

## 1.1 The National Literacy Project

The National Literacy Project (NLP) was set up in the spring of 1996. Its aims were expressed as follows:

- to improve standards of literacy in the participating primary schools in line with national expectations over a five-year period;
- to provide specialist support to schools through teams of consultants in each LEA;
- through the national network, to develop detailed, practical guidance on teaching methods, and to disseminate these to the project schools;
- to evaluate the effectiveness of the programme in terms of the standards achieved and its effects on school improvement.<sup>1</sup>

The project aimed both to support individual teachers and to bring about institutional changes at school level, so that its practices became established and were continued even where key staff had left the school. The means of addressing these issues were set out in the *National Literacy Project Framework for Teaching*, a draft of which was published in March 1997. Essentially, the project consisted of three elements.

The first of these elements was a detailed scheme of term-by-term objectives to cover the range of required work. For each term of the primary years, a range of texts, drawn from the required range in the National Curriculum programmes of study, was specified. Teaching objectives at three levels, text level, sentence level and word level, were set out, for both reading and writing, to match the text types studied.

The second element consisted of common procedures for planning and the use of time. The objectives were taught by means of a daily literacy hour, in which there was a stress on direct instruction by the teacher. The hour started with a 10-15 minute session of

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<sup>1</sup> Taken from the March 1997 draft of *The National Literacy Project Framework for Teaching*



shared reading or writing for the whole class. This was followed by 10-15 minutes of whole-class teaching of word or sentence work.

The children then split into groups and undertook a range of directed activities for 25-30 minutes. Each day, the teacher worked with one or more of the groups. Finally, the whole class came together for a plenary session to report back on achievements and review teaching points. The literacy hour structure was supported by weekly planning sheets, in which the range of whole-class and group activities was specified. There were also half-termly planning sheets, activity planning sheets and weekly evaluation sheets. A pupil assessment sheet recorded a half-termly target for each child in reading and in writing, and progress towards the achievement of these targets.

The third element of the project was training and support through a national network. A national centre was established, linked to the local centres, to support the teaching of literacy and disseminate the work. This centre was responsible for the production of training materials and the *Framework for Teaching*. In each local centre, a team of consultants and teachers was available to provide models of effective literacy teaching, and advice and training for schools. Advice was offered to school managers on auditing and managing their school's literacy provision, to identify needs, set targets, and plan appropriate action to meet them.

The project was established in 14 centres covering 18 local education authorities (LEAs):

Newcastle upon Tyne	Manchester	Sandwell
Sheffield	Liverpool	Bristol
Hampshire, The Isle of Wight, Portsmouth and Southampton	Essex	Southwark and Lambeth
	Norfolk	Islington
Newham	Waltham Forest	Tower Hamlets (associate centre)

In each of these centres, the aim was that a cohort of 20 schools should participate in the project each year, with a five-year rolling programme that would eventually encompass 100 schools in each LEA. Each school would be directly involved in the project for two years, with the expectation that it would continue to implement the project's approaches once the two years had elapsed. The first cohort started the project in the autumn term of 1996, and finished in the summer term of 1998. This is the report on the evaluation of these first cohort schools.

## 1.2 Aims of the Evaluation

The evaluation has already provided feedback to individual schools and to individual LEAs in the project by means of a series of tailored reports. This report, by contrast, addresses the findings for the project as a whole, taken nationally. Its aims are:

- to assess the levels of literacy attainment of children within the project, at its outset and end point, and to report upon the progress made in the course of the project, placing these findings in the context of background factors at pupil level and school level;
- to describe some of the features of successful implementation of the project's approaches within schools, and some impediments to successful implementation, and to estimate how successfully the project was implemented across schools and LEAs;
- to describe some of the features of effective training and support and to gauge how successfully this had been provided across LEAs;
- to investigate children's attitudes to reading and report on any significant changes in the course of the project;
- to assess some specific reading and writing skills amongst children who had taken part in the project, as evidenced in their performance in National Curriculum tests.

## 1.3 Methodology

In order to accomplish these aims, a varied methodology was adopted. This included a programme of testing; attitude questionnaires for pupils; questionnaires for headteachers; and analysis of the reports made by LEAs.

### 1.3.1 The Testing Programme

Children participating in the programme were tested in reading at the beginning and end of their formal involvement with the project, in October 1996 and March 1998. This report therefore covers about a year and a half of participation, not the entire two years. The tests used were published tests intended for the appropriate age group: *Progress in English (PIE)* 8, 9, 10 or 11 for the Key Stage 2 age group; *LARR Test of Emergent Literacy (LARRTEL)* in Reception; and the *Primary Reading Test (PRT)* for Years 1 and 2. Table 1.1 shows the sequence of testing and the tests used.

**Table 1.1: Details of testing programme**

Initial test			Final test		
Date of test	Year group	Test used	Date of test	Year group	Test used
October 96	Reception	LARRTEL	No final test for this group		
October 96	Year 1	PRT	March 98	Year 2	PRT
October 96	Year 3	PIE 8	March 98	Year 4	PIE 9
October 96	Year 5	PIE 10	March 98	Year 6	PIE 11

The *Progress in English* series, although focusing mainly on reading comprehension, also includes an assessment of spelling and punctuation. Scores from the tests were collected at each time point, combined and analysed so that a measure of progress could be obtained.

At the same time as the initial testing programme, schools were asked to provide data at school level, including, for example, the qualifications and experience of the staff and organisational structures within the school. Information was also collected on each individual pupil in the survey, so that background factors such as special educational needs, eligibility for free school meals, ethnic background and whether English was an additional language could be taken into account in the analysis.

### **1.3.2 Pupil Attitude Questionnaires**

At the same time as the testing programme, each child completed a short questionnaire asking about his or her attitude to books and to reading. Responses to these were entered and analysed. Pupil identifiers were assigned which allowed the findings to be linked to test scores and background data for the same children.

### **1.3.3 Headteacher Questionnaires**

Headteachers were surveyed twice as part of the evaluation. One questionnaire, in the spring term of 1998, asked for their views on the value of various aspects of the project. The second questionnaire was sent in the summer term of 1998 and asked headteachers for a confidential assessment of how effectively the project had been implemented in their schools, and for comments on any difficulties they had encountered.

### 1.3.4 LEA Reports

As part of their commitment to the project, all the participating LEAs produced a report at the end of each school year: summer 1997 and summer 1998. These reports included comments on the implementation of the project and a confidential assessment of how effectively the project had been implemented in each school. These reports also formed part of the evaluation data. Their descriptive content was summarised and the school effectiveness ratings entered into the datafile.

## 1.4 The Samples

The evaluation included all participants in the first cohort of the project. The samples were, therefore, selected for participation and did not aim to be nationally representative.

For the pupil sample, children were included in the analysis if they had an initial and a final test score, and complete background data. This gave the following numbers:

Year 1/2	6851
Year 3/4	6898
Year 5/6	7297

Pupil attitude questionnaires were given only to those in the older age groups, Years 3, 4, 5 and 6. The numbers responding to questionnaires were as follows:

Year 3/4	7053
Year 5/6	7559

Headteacher questionnaires were sent to all schools in the project. The numbers of heads responding were:

Spring 1998	186
Summer 1998	154

## 2 Implementation of the Project

### 2.1 Introduction

As Chapter 1 indicated, implementation of the project required action at school level, in managing the introduction of new working practices, and at classroom level, in planning, teaching and evaluating the literacy hour. To underpin this work at school and classroom level, there was a programme of training and support provided by LEAs through specially appointed consultants.

This chapter will draw on the available evidence to discuss the ways in which the project was implemented, to identify features of effective implementation and to assess how well the schools and LEAs in the first cohort of the project put it into practice. It will report in descriptive terms the steps that were taken at LEA, school and classroom level, drawing on evidence from questionnaires and LEA reports. Judgements about aspects of the implementation of the project are based, in this chapter, upon the perceptions of these participants, and not upon evidence from test scores.

In the spring term of 1998, a questionnaire was sent to schools to ask for views on a variety of aspects of the project: the usefulness of preparatory work, training and support; teaching the literacy hour; the framework for teaching; training for specialist teaching assistants; and resources. These questionnaires were addressed to headteachers, but the heads were asked to consult with their staffs and present a shared view, where appropriate. Responses to this questionnaire were received from 186 schools, about three-quarters of the total. A copy of the questionnaire, marked up with percentage responses, is presented in Appendix A5.

The descriptive elements of this chapter are drawn from the reports compiled by participating LEAs in the course of the project. Each LEA, in turn, drew upon feedback from headteachers within participating schools in compiling these reports. The descriptions of the features of successful implementation of the project will consist of a summary of the information provided by LEAs. These reports were required at two time points: summer 1997 and summer 1998. The numbers available for analysis were as follows:

Summer 1997	17 LEAs
Summer 1998	13 LEAs

The sample at the earlier time point therefore included all but one of the participating LEAs, but at the end of the project there were rather fewer.

However, the analysis of the 1997 reports revealed a good deal of common ground between them, and a sample of 13 is enough to allow the main descriptive features to be summarised.

Together with these descriptive reports, the LEA consultants provided confidential ratings of the success with which schools were implementing the project, in terms of 'good', 'satisfactory' or 'unsatisfactory' implementation. The numbers of schools for which such ratings were available were:

Summer 1997	146 schools
Summer 1998	245 schools

In addition to this, headteachers were asked, in summer 1998, to complete a further questionnaire, in which they themselves rated how effectively the project had been implemented within their own schools. The questions addressed different aspects of implementation: ratings of management at school level and effectiveness within each year group were collected separately for each term of the project. Headteachers were also asked to indicate which of a number of areas had been problematic for them. These questionnaires were returned by a total of 154 headteachers, around 60 per cent of the total. A full summary of responses also appears in Appendix A5.

Although the LEA ratings and the headteacher ratings addressed essentially the same questions, the response rates for the headteacher questionnaire and the initial LEA ratings were poor. Because of this, caution should be exercised in interpreting any similarities and differences in ratings attributed by the different samples.

## 2.2 Schools and Classrooms

The LEA reports revealed a number of features that typified those schools in which implementation had been most successful.

The role of the headteacher was generally seen as crucial. One LEA report described the ideal headteacher as 'committed, engaged, informed', which summarises well the comments of others. Headteachers were considered most effective when they managed the initiative themselves, rather than delegating its overall management to a deputy. In successful schools, the project was identified by the head as a clear priority: it occupied a central place in the school development plan, and the head communicated a clear message about its importance. Similarly, successful headteachers set clear timetables and expectations for the implementation of the project, and involved their whole staff in the initiative.

Roles and responsibilities were clearly defined, and in some schools a 'project team' was delegated responsibility for some parts of the initiative, thus spreading the workload beyond the key teachers. One LEA noted in particular the need to involve the whole school early in the project to maximise effectiveness. Headteachers were also responsible for ensuring that timetabling within the school supported the structure of the literacy hour. Often, schools were organised so that the literacy hour took place at different times for different classes, in order to optimise the use of staff and resources.

The choice of key teachers was also identified as a factor in the success of the project. To be most effective, key teachers, too, needed clarity of direction and visible commitment, together with the ability to motivate staff and the authority to influence their colleagues. The key teachers needed to be released regularly to work with colleagues by giving demonstration lessons, leading planning sessions and observing the literacy hour in the classroom.

The monitoring of the implementation of the project within school also emerged as an important feature. LEA reports suggested that, in successful schools, the headteacher was involved in monitoring teachers' planning, and also in classroom observations. The key teacher, too, regularly observed other members of staff as they taught the literacy hour, and gave constructive feedback. One LEA identified, in particular, the need to monitor the link between planning and teaching as the project was introduced. Following on from this systematic monitoring, frequent whole-staff reviews of progress also helped to establish priorities.

Adequate resourcing was clearly necessary for the successful introduction of the project. LEA reports noted that the resourcing implications of the literacy hour were considerable. These consisted mainly of sets of books for guided reading, as well as suitable texts for shared reading and such things as whiteboards, task boards and laminating equipment. As well as the provision of resources, however, the LEA reports identified a need for active and systematic management and review of resources within schools. Some successful schools had organised a central resource area for the project.

At classroom level, the project depended heavily on effective planning. Successful teachers planned consistently and systematically, often using team approaches to share the workload. Within effective schools, individual teachers who showed strengths were recognised and given greater responsibility for leading the planning process. Termly plans were closely linked to weekly plans. The most successful teachers had a good knowledge of a wide range of texts, to help them in their selection of suitable materials for the week's work. To be effective, planning needed to include a clear focus for the independent group work and for the final plenary, as well as the other elements of the

literacy hour. An avoidance of decontextualised work sheets and an encouragement of interactive group activities were identified as important factors. The most successful teachers evaluated each week's work thoughtfully in terms of their teaching objectives, and built this reflection into their planning.

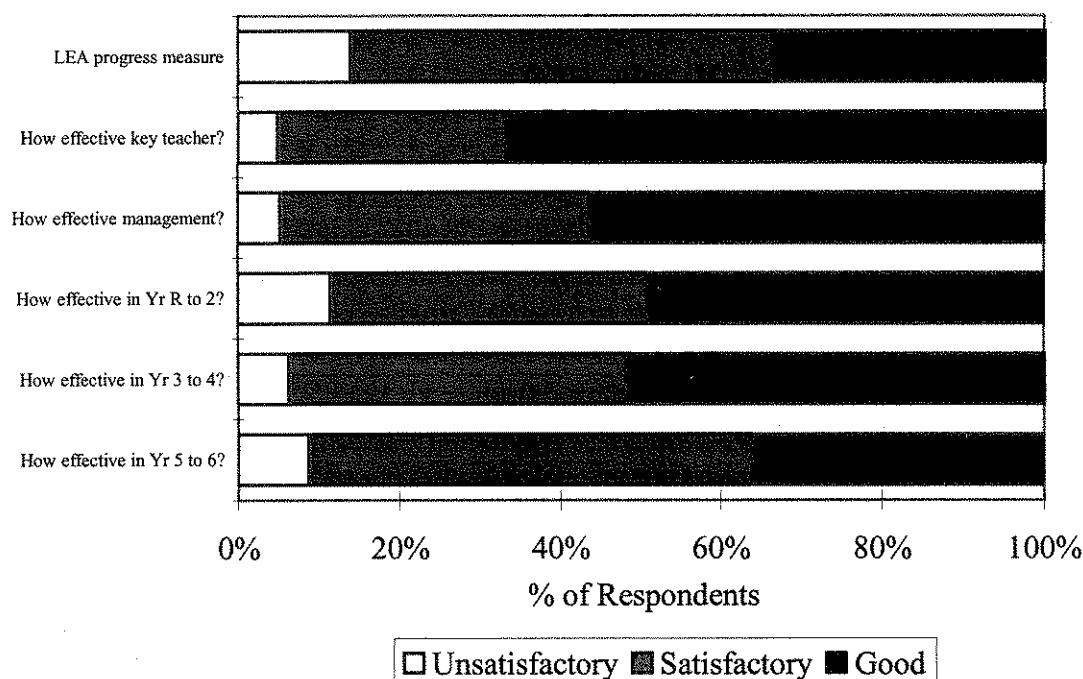
Effective teaching within the literacy hour was characterised by consistency, clear structure, high-quality interaction and good pace. A wide range of texts, and of reading skills, were included. Successful teachers had high expectations of their pupils and based their teaching upon clear learning objectives, not just upon the routines and structures of the literacy hour. Good classroom management skills were important, and teachers needed to have high expectations of children's ability to work independently. Additional adults were often deployed in the classroom during the literacy hour, and the most effective teachers planned their deployment carefully and offered mentoring and support to maximise their effectiveness.

Overall, it is clear from these LEA reports that the project constituted a major initiative, with substantial implications for schools at all levels. The LEA ratings and the responses to the second headteacher questionnaire reveal the extent to which schools were successful in taking on its considerable demands.

Figure 2.1 shows the results of these two surveys in summer 1998. The top bar gives the LEA ratings at school level; the subsequent bars show headteacher ratings for effectiveness of key teachers, overall management, and implementation in each year group separately. It should be borne in mind that the LEA figures include virtually all participating schools, whereas the headteacher ratings include just over half of them.



**Figure 2.1: Effectiveness of project schools, summer 1998**



There is a good deal of consistency in these sets of ratings. All of them show only a small minority of schools where implementation was less than satisfactory. The greater detail in the headteacher ratings indicates that Years 5 and 6 perhaps proved the most difficult years in which to establish the project.

When the same headteacher ratings are compared over the six terms of the project, there is a clear increase in the proportion of effective schools over time. In the autumn term of 1996, the training programme was put in place but schools were not expected to implement the project fully. In terms of the general management of the project within school, 20 per cent of heads identified significant gaps or difficulties in this first term. By the summer of 1997 this had dropped to nine per cent, and by the end of the two years, to five per cent.

Similarly, there was evidence that the project took time to establish itself at first, with a quarter to one-third of headteachers reporting that it had not been implemented in their schools in autumn 1996. With the younger age groups, this dropped to about five per cent by the second term of the project, spring 1997. Years 5 and 6 again emerged as the most difficult, and implementation of the project did not reach 95 per cent until its third term, summer 1997.

The headteachers were also asked to identify which aspects of the introduction of the project had caused problems, if any. For all three year groups, the most frequently cited aspect of the project to cause difficulties, for around half the respondents in each case, was the teaching of the literacy hour. Some headteachers chose to comment further on this. Guided reading, group activities, differentiation and word work were all mentioned as causing some difficulties. Planning the literacy hour was identified as problematic by about a third of respondents, and assessment and target setting by about a quarter.

Further information on the implementation of the literacy hour was provided by responses to the first headteacher questionnaire. Here, instead of being asked how well they had implemented the project, heads were asked how useful they had found it. The literacy hour attracted overwhelming approval. Eighty-six per cent of respondents rated it 'very useful' as a focus for teaching in the classroom, and 77 per cent as a means of managing literacy at school level. Almost all the other respondents regarded it as 'quite useful' in both respects. Each separate aspect of the literacy hour was also rated as either 'quite useful' or 'very useful' by a substantial majority of respondents, with the independent activities attracting slightly lower ratings than the other aspects at both key stages. The termly objectives, termly planners and weekly planners all received overwhelmingly good ratings. The evaluation forms were less well received, however, with about half of the respondents expressing doubts as to their usefulness.

The assessment elements of the project were, on the whole, rated as rather less useful than the literacy hour itself. Although 83 per cent of respondents found setting targets for individuals at least 'quite useful', the target setting forms were less successful, attracting only 57 per cent of favourable ratings. About a third of respondents had doubts about the usefulness of the NLP test results. It is interesting to note that the LEAs, in the summer of 1997, were unanimous in reporting that few schools had come to terms with the assessment implications of the project.

The second headteacher questionnaire also asked respondents to note any other elements of implementation that had caused difficulties. This was an open question, and many heads did not add anything to their previous comments. Of those who did, however, by far the largest number – 13 per cent of the sample – chose to mention resources as a problem. Some were more specific, mentioning funding, or finding texts, or particular problems with Year 6. Other aspects mentioned in this section by at least five headteachers were: children with special educational needs; finding time for extended, high-quality writing; and classes with mixed age groups.

The nature and cause of any problems encountered in implementing the project were also explored in this questionnaire. The least problematic aspect proved to be relationships

with school governors, where 94 per cent of heads reported no difficulties. School management was reported to have caused no problems in 60 per cent of schools. Major problems were relatively rare, with staff turnover proving the most difficult area (27 per cent of heads indicated 'significant' problems). However, majorities of heads reported either major or minor problems with staff turnover (61 per cent), staff absence (53 per cent), staff competence or understanding (71 per cent) and staff resistance to the project (55 per cent). In view of the ambitious scope and considerable challenges represented by the project, the high level of satisfactory implementation in the face of these difficulties would seem to bear witness to the success of the project's support mechanisms and to the commitment of participating schools.

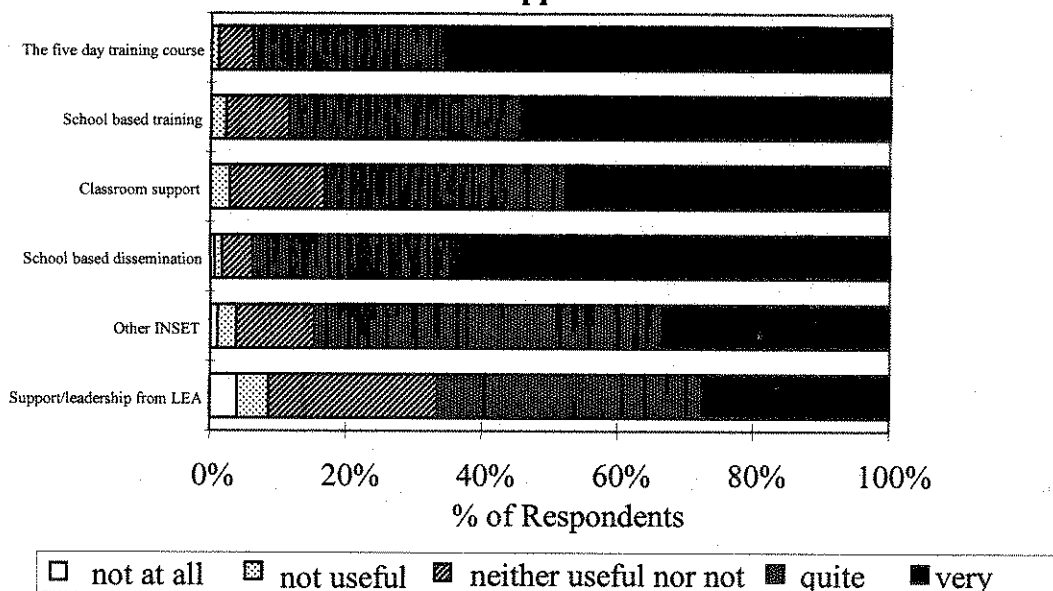
## 2.3 Training and Support

In each area where the project was implemented, two consultants were appointed to coordinate the work and provide support for schools. This support took a number of forms. There were initial visits to the schools, meetings for heads and governors, and assistance in carrying out a literacy audit within school, formulating an action plan and setting targets. A five-day course was held for two staff members from each school, who then disseminated the project within school. Consultants also held further INSET sessions and visited schools to give training and to offer classroom support.

The LEA reports identified the characteristics that seemed to make this support successful. The role of the consultants was generally viewed as crucial. Successful consultants applied their knowledge of the school context to provide practical and realistic support with a degree of flexibility, and thus inspire confidence. Their training input was stimulating and knowledgeable, and they were able to provide constructive feedback on the classroom teaching they observed. School visits also offered the opportunity to talk to heads about management issues. Training consisted of a number of complementary aspects: the five-day course concentrated on developing teachers' knowledge; visits to other schools were offered; and INSET sessions were focused on a variety of aspects of the project.

The spring term questionnaire asked for ratings of various aspects of training and support: the five-day training course; school-based training by consultant; classroom support from consultant; school-based dissemination by designated teachers; other INSET – networks, twilights, etc; and support and leadership from the LEA. These responses are set out in Figure 2.2.

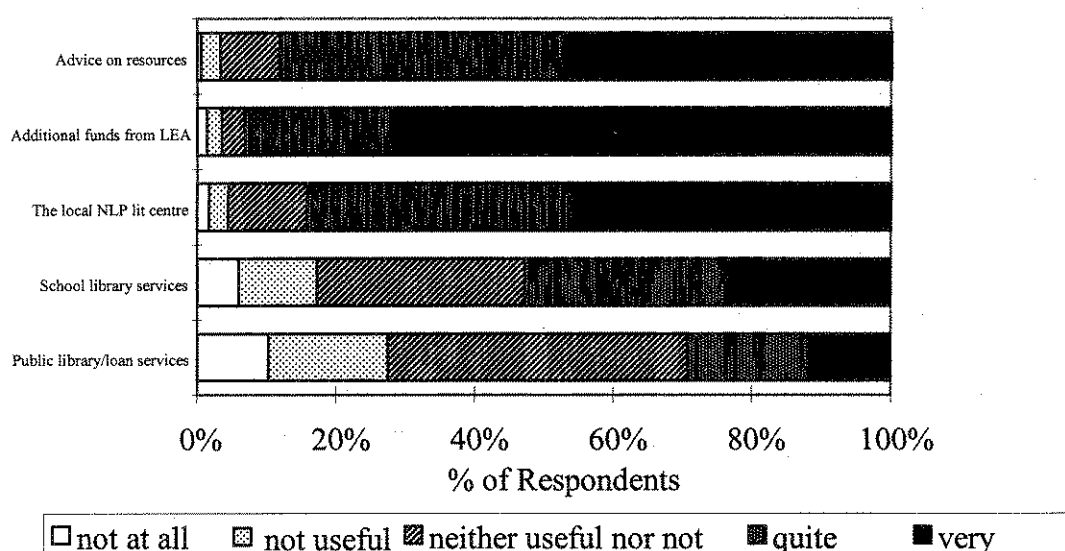
**Figure 2.2: Headteachers' ratings of the usefulness of training and support**



As the figure shows, all these aspects of training and support received positive ratings, with perhaps most doubt about support and leadership from the LEA itself. This latter aspect may have been less visible to schools than their contacts with the appointed consultants.

This questionnaire also asked about resources for the project, and these ratings are shown in Figure 2.3. Again, all kinds of support with resourcing were generally found useful, with extra funding particularly well received.

**Figure 2.3: Headteachers' ratings of the usefulness of resources**



## 2.4 Conclusion

The discussion in this chapter highlights the fact that the implementation of the project in LEAs, schools and classrooms was a major undertaking. Fundamental changes were required in the management of literacy teaching at both school and classroom levels, and training and support mechanisms were put in place in order to make this possible.

The overall picture to emerge is one where, on the whole, the required changes did take place, and the training and support can therefore be judged successful. According to the assessments by headteachers and by LEA consultants, throughout the great majority of schools, the literacy hour was operating reasonably successfully, underpinned by the NLP planning procedures.

### 3 Test Outcomes

#### 3.1 Initial Scores

This section of the report considers the test outcomes and, for the purposes of the evaluation, is concerned mainly with those pupils who took both the initial and final tests. As discussed in Section 1, the tests taken were different for each year group within the cohort, but the initial and final tests were always part of the same series. The tests used were

Year 1/2 Group: *Primary Reading Test* (Entry and Exit)

Year 3/4 Group: *Progress in English 8* (Entry) and 9 (Exit)

Year 5/6 Group: *Progress in English 10* (Entry) and 11 (Exit).

Tables of test scores may be found in Appendix A2. The scores on the initial tests for those pupils with both initial and final information may be compared with those of all pupils taking the initial test. This comparison is shown in Table A2.1.

As the table shows, the mean scores are below average for all three year groups, reflecting the lower attainments of the target group for the literacy project. (The mean score for a national representative sample would be 100.) The initial scores for the Year 1/2 sample are particularly low, but this may be an artefact of the test used. Because the youngest pupils were younger than the lowest age in the published standardisation table, scores had to be estimated. These estimates may have overemphasised the effects of age, leading to reduced standardised scores.

The table also shows that the differences in mean score between the pupils who were retested and all those who were initially tested were not large (always less than one point of standardised score) and so these pupils seem to be representative of the total group of pupils in the National Literacy Project Cohort 1.

#### 3.2 Final Scores and Progress

The final scores for pupils in the three year groups are shown in Table A2.2 in the Appendix. Also shown are the changes in standardised score from the initial to final test. These results are summarised below in Table 3.1.

**Table 3.1: Summary of test scores**

<b>Year group</b>	<b>Average initial standardised score (autumn 96)</b>	<b>Average final standardised score (spring 98)</b>	<b>Increase in standardised score</b>
Year 1/2	85.6	97.0	11.5
Year 3/4	89.2	95.6	6.4
Year 5/6	90.0	96.2	6.2

In all three cases, there was a rise in standardised scores from the initial to final test. This was substantial, at around six points of standardised score for the Year 3/4 and 5/6 groups and over 11 points for the Year 1/2 group. This last figure may, though, have been exaggerated by the possibly artificial low initial score.

With the large sample size involved all of these changes are statistically significant. More importantly perhaps, a rise of six points of standardised score, for these tests, is equivalent to about eight to 12 months progress, depending on the test. Alternatively the changes can be expressed in terms of the standing of the average pupil. For the Year 1/2 group, the average pupil started at a point where they would be ranked 83<sup>rd</sup> out of 100 pupils nationally. This increased to 58<sup>th</sup> out of 100. Similarly the Year 3/4 group increased from 76<sup>th</sup> to 61<sup>st</sup> out of 100. The Year 5/6 pupils increased from 74<sup>th</sup> to 60<sup>th</sup> out of 100 pupils, on average. Hence it does seem that considerable gains have been made by the pupils involved in the project.

### **3.3 Relationship to Background Variables**

Although it is the case that pupils in general made greater than expected progress through their involvement in the National Literacy Project, it remains important to examine whether this is the case for all types of pupil. A full analysis of the interaction of the various background variables and factors involved in the project requires the use of multilevel modelling and such an analysis is reported in Chapter 5. This section will examine the changes in scores for various groups in order to explore any specific effects which seem to occur. These effects must be properly confirmed by the multilevel analysis. All the tables can be found in Appendix A2.

#### **3.3.1 Gender**

The scores of boys and girls may be compared for both the initial and final tests and also in terms of the change in scores. These results are shown in Table A2.3 in Appendix 2.

For all the age groups, the mean scores for girls were higher than those for boys. All differences were statistically significant, and were around two to three points of standardised score, representing around three or four months of development. Both boys and girls benefited from the scheme in the sense that their standardised scores rose. There was some indication that the increase in scores was slightly greater for girls in all three year groups, but this difference was small, at less than one standardised score point.

Differences between boys and girls are explored further using the multilevel model in Chapter 5.

### **3.3.2 Pupils Eligible for Free School Meals**

One approximate measure of social and economic status or of poverty is to ask whether pupils are eligible for free school meals. To fall in this category, pupils' parents must generally be receiving income support.

In England as a whole, 21 per cent of pupils are eligible for free school meals. For this sample of schools involved in the National Literacy Project, the proportions varied from 43 to 45 per cent across the three year group samples. This is considerably greater than the national proportion, reflecting the make-up of the schools and authorities targeted for this project.

The results are shown in Table A2.4 in the Appendix. Pupils eligible for free school meals had lower scores than those not eligible. This was consistent across the three year groups and for both the initial and final test scores. Both groups of pupils made progress in terms of their test results with increases in mean scores. In the Year 1/2 group only, pupils eligible for free schools meals made significantly less progress than those not eligible. For the other year groups, both eligible and non-eligible pupils made similar progress in terms of test scores.

A further exploration of pupils eligible and not eligible for free school meals is made in Chapter 5 using the multilevel modelling.

### **3.3.3 Setting of Pupils**

At the outset of the project, schools were asked to provide information on whether they put their pupils into sets for English, for the year groups involved in the literacy project. This was done at the time of the initial measures and the question was not subsequently repeated. This data was at a year group level rather than about individual pupils.

The results for the pupils who were setted in the first year of the literacy project and those who were not are shown in Table A2.5 in the Appendix. Only the Year 3/4 group showed



significant differences between the setted and non-setted pupils in the initial test scores, with the non-setted pupils having higher scores by about two standard score points on average. For the final standardised scores, all three groups had significant differences, with the non-setted pupils having higher scores. This was then reflected in the changes in scores, which were significantly greater for the non-setted pupils in all three age groups.

Because this variable was collected at the outset of the project, the results do not necessarily reflect what actually occurred over the two-year period. Nor do differences of this type necessarily indicate any causality. Nevertheless, the outcomes are such as to warrant further investigation in the multilevel modelling analysis.

### **3.3.4 Special Educational Needs**

Schools were asked to say whether children had special educational needs and, if so, at which stage of the procedure they were currently, including whether they had a statement. The mean scores and standard deviation of scores for these groups of pupils are shown in Table A2.6 in the Appendix. Children at Stages 3 to 5 of the procedure were combined into one group, because of the small numbers in the separate categories.

For all three year groups, there was a clear hierarchy of scores from those with no special educational needs to those who had statements. This hierarchy was present in the initial scores and remained or, in fact, was increased in the final standardised scores. All groups increased their scores, but there were differences among them in the extent of the change. Statemented children and those at stages 3 to 5 had consistently smaller gains in score than children with no special educational needs or those at stages 1 and 2. For Years 3/4 and 5/6, there is a slight trend for children at Stage 1 to show the most progress, but this was not significantly different from those at Stage 2 or with no special needs.

The project approach is to include all children in the literacy hour. In the whole-class parts of the hour, teachers should adjust their questioning and comments as they interact with individual children. The group work should be planned to provide a close match to the attainments of the children in each group. The positive result of the analysis is that all groups of children benefited from their inclusion in the project, in terms of improved standardised scores. That is, they all, even those with the most severe special needs, made more progress than expected. However, those with the greatest special needs, children with statements or those at stages 3 to 5, benefited to a lesser extent than others. It is not clear whether the performance of these groups of children could be improved still further by fine tuning the teaching within the literacy hour; the project should consider whether further advice is necessary to ensure that individual needs are addressed in the best

possible ways. The multilevel model analysis in Chapter 5 will examine these results further.

### **3.3.5 Ethnic Minorities**

Because of the nature of the areas selected for inclusion in the National Literacy Project, large numbers of pupils were from ethnic minorities. The percentages of the sample were 23 per cent, 28 per cent and 27 per cent for the Year 1/2, Year 3/4 and Year 5/6 groups respectively. This compares with the national figure of nine per cent of children in primary schools as a whole in England.

The data collected used the conventional census categories and hence 'Black' was made up of 'Black African', 'Black Caribbean' and 'Black Other'. 'Asian' was made up of 'Indian', 'Pakistani', 'Bangladeshi' and 'Chinese'. To give reasonable numbers, these categories were collapsed to 'Black' and 'Asian' in order to undertake the analyses. The results are shown in Table A2.7 in the Appendix.

For the initial scores, the Black group had the highest mean and the Asian group the lowest. The Asian group were significantly lower than both the White and Black groups for all three year groups. This remained the case for the final standardised scores, for which the Asian group was the lowest for all three year groups, significantly lower than both the Black and White groups. The Black group continued to have the highest mean score for Years 1/2 and 3/4 for the final standardised scores, but not for the Year 5/6 age group.

All groups made significant progress between the initial and final scores, showing gains of around 11 points of standardised score for Year 1/2 and about six points for Year 3/4 and 5/6. For the Year 3/4 group, the Asian pupils made significantly greater progress than others. However in Year 5/6, they made significantly less progress than the white pupils. At this age group, Black pupils also made significantly less progress in terms of increase in standardised score than white pupils.

This discrete analysis needs to be confirmed by the multilevel modelling analysis. Elements which require further exploration are the lower rate of progress of Asian pupils generally and of Black pupils in the Year 5/6 age group.

### **3.3.6 Pupils with English as an Additional Language**

Schools were asked to provide information on their pupils as to whether their first language was English, or if it was an additional language to them. Those for whom it was additional were further categorised into 'very fluent user of English in most social and

learning contexts', 'becoming confident as a user of English', 'becoming familiar with English' and 'new to English'.<sup>1</sup>

The initial standardised scores followed almost the same pattern for all three age groups. Pupils for whom English was an additional language but who were categorised as very fluent had the highest scores, then came pupils with English as a first language. Pupils becoming confident as users of English scored higher than those who were still becoming familiar, who scored higher than those new to English (except in the Year 5/6 group). These differences were generally statistically significant. This pattern was repeated for the final standardised scores, with no real changes of ordering.

All groups had significant positive changes in average scores from the initial to the final standardised scores. There is some indication that those new to English made the greatest gains, but this was significant only for Year 1/2. For Years 1/2 and Years 5/6, the smallest gains were made by children who were becoming familiar with English. These children are among the lowest scoring and have particular difficulties with English. This suggests that differentiation within the literacy hour may need fine-tuning for those children who are only just becoming familiar with English.

Again, this finding for language proficiency needs validating through the analyses of the multilevel modelling.

### 3.4 Relationship to National Curriculum Outcomes

At the end of the school year, both the Year 1/2 group and the Year 5/6 group took the National Curriculum tests. Data on these was collected from a subsample of schools. This was collated with the data from the National Literacy Project testing. Table A2.9 shows the mean scores for this subsample, which was about 35 per cent of the total sample for Year 1/2 and 24 per cent for Year 5/6.

For both groups, the initial test scores are similar to those for the complete sample. However, the final test scores are slightly higher than the complete sample and, consequently, the gains made are slightly greater, by a half to one point of standardised score. Nevertheless, the scores of this sub-sample are not wildly removed from the average scores for the complete sample and should not change the subsequent analyses to any great extent.

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<sup>1</sup> These categories were developed in: CENTRE FOR LANGUAGE IN PRIMARY EDUCATION (1991). *Patterns of Learning*. London: CLPE.

Table A2.10 indicates the percentage of children who achieved each level in the National Curriculum tests and tasks. This indicates that 73 per cent of the sample achieved Level 2 or higher, the target for this age group. This was slightly less than the 1998 national figures, which had 80 per cent of pupils at or above Level 2. In fact, the proportion attaining Level 2 is around the same as the national picture. However, fewer children in the first cohort of the project obtained Level 3 and slightly more obtained Level 1. Nevertheless, the figures for children in the National Literacy cohort are encouraging, given the low levels of initial achievement of these pupils.

A similar situation holds for the Year 5/6 group. This is shown in Table A2.11. The proportion of pupils at Level 4, the target level, is close to the 1998 national average. However, fewer pupils than nationally were above this level and, consequently, more pupils were below Level 4. The table also shows that the proportion of pupils achieving Level 4 in reading is greater than for writing, for which more pupils are at Level 3. In this respect, the NLP pupils are in accord with the general figures, which consistently show higher levels of attainment for reading than writing.

As with the Year 1/2 group, these results can be seen as encouraging, since the achievement of the National Literacy Project sample, at the end of the project period, are not too far below those of the national population.

### 3.5 Conclusion

The analyses of the test outcomes have indicated that, in terms of the standardised scores on reading tests, the pupils involved in Cohort 1 of the National Literacy Project have made substantial gains. All three year groups showed significant and substantial increases in scores from the beginning to end of the project. These gains in scores were evident for all the various subgroups studied: for both sexes; for pupils eligible for free school meals and those not eligible; for pupils with different styles of class organisation; for children at all stages of special educational need; for all ethnic groups; and for pupils with English as an additional language as well those speaking English at home.

Not all these groups made equal gains. Girls progressed more than boys. Pupils eligible for free school meals made smaller gains than those not eligible. Pupils with greater levels of special educational needs made smaller gains than those with no defined needs. The situation was mixed for ethnic minority groups but it seems that Asian pupils and Black pupils in Year 6 made less progress than other groups.

These types of findings will be explored further using the multilevel modelling analyses in Chapter 5. They do though raise the possibility that teaching within the literacy hour could be fine-tuned for some groups of pupils. It is not the case that those with the lowest

initial scores made the least progress. For all three year groups, there was a negative correlation between initial score and change in scores, that is the lowest initial scores tended to make the greatest gains. However, the reverse was also the case. Pupils with the highest final scores tended to have made most progress, that is, there was a positive correlation for all three year groups between final score and gain. This illustrates the complexity of interpreting changes in scores in relation to underlying levels of attainment. These will be explored further using a multilevel model.

These relationships of initial and final scores with gains make the smaller progress of specialised low-scoring groups such as children with special educational needs or just becoming familiar with English worthy of particular exploration. It may be that more consideration should be given to finding ways of matching teaching within the literacy hour more closely to the needs of these groups. Nevertheless, it should be stressed their progress, though less than that of other groups, was still significantly better than expected.

## 4 Attitudes to Reading

### 4.1 Questionnaire Responses

In order to give the children a voice in the evaluation, a questionnaire was designed, to investigate their attitudes to reading. This consisted of 16 questions. The first 11 of these were statements, in response to which children were invited to agree, disagree, or tick 'not sure'. The statements expressed various aspects of attitude to reading, for example, 'I like reading stories', 'I like watching television better than reading books'. The statements deliberately mixed positive and negative viewpoints, in order to discourage children from simply agreeing with all the statements because they thought it was expected of them. After the 11 statements, there was a question addressing frequency of reading at home, and one addressing taste in reading at home. The final three questions investigated whether children received help with reading from parents or other people at home.

The questionnaires were administered to the children in the Key Stage 2 age groups, at the beginning of Year 3 and the end of Year 4, or the beginning of Year 5 and the end of Year 6, in October 1996 and March 1998 respectively. These times corresponded with the times at which the children were tested. In Appendix A4, the questionnaire is reproduced in full twice, and marked up with the percentage responses at both time points, first of the Year 3/4 age group and then of the Year 5/6 age group.

These responses reveal, overall, a positive attitude to reading, with three-quarters of the children in both age groups enjoying reading stories, a figure which remained stable over the period of the project. Similarly, the proportion who said they liked reading silently by themselves was around three-quarters for both year groups and changed very little. Over half the children in both year groups said that they liked reading poems and information books.

There were some indicators which seemed to reflect the age of the children as they grew through the Key Stage 2 years. The most obvious of these was 'I like reading with a grown-up to help me'. The percentage declined from Year 3 to Year 4. The initial Year 5 figure was similar to the final Year 4 percentage, and there was then a decline from Year 5 to Year 6. This decline in the course of the project may also have been related to progress and greater confidence in reading. This possibility will be discussed later in the chapter.

A further indicator which seemed to change with age was a liking for comics and magazines. This started at 64 per cent with the Year 3 age group and rose to 68 per cent when they were in Year 4.

The Year 5 pupils started with 71 per cent and this had increased to 75 per cent by the end of Year 6. Further investigation of the question addressing choice of home reading showed a movement away from comics and towards magazines as children got older. It appears, however, that this developing liking was not at the expense of reading stories, an indicator that remained high for both groups of children at both time points. The proportion of children reading story books at home was substantially higher than those for comics and magazines, for all age groups. Reading poems and information books did show a small decline over the period, however. This is an interesting finding in the light of the project's careful balance across text types, which might be expected to lead to an improved enjoyment of poems and information texts as children became more familiar with them and skilled at reading them. This was not the case. However, it is impossible to know what would have happened if children had not been involved in the project. These children were getting older and their tastes might be expected to change in any case.

Reading frequency was fairly high, with around three-quarters of children reading at home either 'every day' or 'most days'. The older age groups, however, were rather more likely to read 'most days' and less likely to read 'every day' than the younger ones. Only about five per cent of children said they 'never' read at home.

All the responses to the questions addressing adult help with reading showed a decline in the course of the project.

## 4.2 Attitudes to Reading

In order to summarise children's attitudes to reading and relate them to the other aspects of the evaluation, the questionnaire responses were grouped together. A factor analysis was performed, to find out which questions tended to cluster together in terms of similar responses. Details of the factor analysis are included in Appendix A3. This analysis gave rise to three summary reading factors.

The first of these can be labelled 'enjoyment of reading' and consists of the following:

Positive responses to:

- I like reading stories.
- I like reading poems.
- I like reading silently by myself.

- I like going to the library.
- I like reading information books.
- How often do you read at home?
- Reading story books at home.
- Reading information books at home.
- Reading poems at home.

And negative responses to:

- I am not interested in books.
- I like watching television better than reading.
- I don't like reading at home.

The second factor was designated 'Needing help with reading' and consisted of positive responses to:

- I think reading is difficult.
- I like reading with a grown-up to help me.
- Does any grown-up at home read to you?
- Does any grown-up at home listen to you read?
- Does anyone else at home read with you?

Finally a factor seemed to emerge which encapsulated a liking for non-story reading, especially reading of comics and magazines:

- I like reading comics and magazines.
- Reading comics at home.
- Reading magazines at home.
- Reading information books at home.



Children's questionnaire responses were summarised using these three measures, and the multilevel analysis, which will be described in full in Chapter 5, was used to ascertain which factors emerged as particularly significant when considered alongside the full range of information on these pupils.

This revealed that, on this summary measure, girls were significantly more likely to enjoy reading than boys, and older children than younger children. Greater levels of reading enjoyment were also associated with most ethnic groups as against White. Children with special educational needs and those eligible for free school meals were significantly less likely to enjoy their reading. Reading enjoyment scores were associated with improvements in reading ability: they were more likely to increase the more progress children made in the course of the project.

The second factor, 'Needing help with reading', showed a significant decline in the course of the project for both age groups. That is, children's responses to the questionnaire indicated that they needed significantly less help with reading at the end of the project than at the beginning. This finding is consistent with the fact that children's reading ability increased significantly. It is reasonable to suppose that a greater ability to read independently would be associated with a greater confidence.

This measure also gave rise to some other findings that might be expected. Children with special educational needs, those for whom English was an additional language and those eligible for free school meals were all likely to express themselves less confident on this measure. Less obviously, however, girls reported more need for help than boys, and this was despite the fact that girls' test scores were higher than those of boys. The explanation here may not lie solely with reading ability, but is perhaps a reflection of social factors, such as a greater willingness to admit a need for help, or a greater enjoyment of the social contact that comes with reading with an adult at home.

The third factor, a preference for non-story reading, was markedly greater in boys and in older children. Pupils from the Indian, Pakistani, Bangladeshi and Chinese ethnic groups were less likely to express this preference than those belonging to the White and Black groups.

### 4.3 Conclusions

It is more difficult to draw conclusions about the relationship between involvement in the NLP and children's attitudes to reading than in some other areas of this report. Because there was no control group of pupils, matched in other respects, who were not involved in the project, it is impossible to say whether changes in children's attitudes were to be

expected as a result of their age and other factors, or whether they showed unusual patterns related to the project.

The most significant result from the point of view of the project is undoubtedly the significant decline in the 'Needing help with reading' measure in the course of the project, for both age groups. The test score gains make it clear that pupils made significant progress in their reading, more than would be expected on average. The questionnaire responses show that this improvement tended also to be reflected in a greater confidence in reading amongst these children. They were less likely to find reading difficult, and less likely to feel they needed adult help with their reading.

The reading enjoyment findings are less easy to interpret. The survey showed that children do, on the whole, enjoy their reading, with substantial majorities of both age groups expressing favourable attitudes both before and after involvement in the project. These measures, however, did not change very much, indicating that the systematic introduction of different text types that was a feature of the project did not have any clearly apparent effect on children's enjoyment of reading these varied text types. In the absence of a control group, however, it is difficult to draw any more definite conclusions.

This study has highlighted significant differences between boys and girls in attitudes to reading. Boys were more confident and more likely to enjoy non-story text types. Girls, despite their overall higher levels of performance, tended to be less confident in their abilities. Girls enjoyed their reading more, and their enjoyment increased more than that of boys over their 18 months' involvement with the project. The discrepancy between the performance of boys and girls in English is a matter of national concern, and the findings of this survey have reinforced the causes of concern, rather than revealed any solution to them.

## 5 Multilevel Modelling

### 5.1 Explanation of Technique

Multilevel modelling is a statistical technique, which takes account of data grouped into similar clusters at different levels. For instance, pupils are grouped into classes, which are grouped into schools, which are grouped into local education authorities. In such cases, entities (e.g. pupils, classes, and schools) which are grouped together at any level are assumed to have some degree of similarity not shared by others belonging to different groups. The model used in this evaluation is described in Appendix A3.

Within this hierarchy of levels there is a single measure of interest, the dependent variable, which is related to a number of other variables, known as the 'explanatory' variables. The 'explanatory' variables may be defined at any level of the model. For instance, in the pupil/class/school model, some variables may refer to the pupil, some to the class, and others to the school. In total, the 'explanatory' variables provide a set of measurements that is used to explain the behaviour of the dependent variable. The technique identifies those 'explanatory' variables that have a significant effect, either in a positive or negative sense, and the extent of this effect. It also identifies those 'explanatory' variables that have no significant effect.

In this study, a five-level model was used, with the levels being the **LEAs**, the **schools**, the **year group**, the **pupils** and the **time point**. The time point may be thought of as the assessment occasion, either for the reading tests or for the completion of the *Reading Survey* questionnaire. About 30 'explanatory' variables were used in the model; some of these showed a significant positive effect, some showed a significant negative effect, while the remaining showed no significant effect either way. The level of significance applied was the five per cent level. Further details about these levels and the 'explanatory' variables may be found in the Appendix A3.

### 5.2 Outcomes

The multilevel model offers a more sophisticated analysis of the findings reported in earlier chapters. In Chapter 3, the analysis of average scores for different groups of pupils led to indications that certain groups had significantly higher or lower scores, or made significantly more or less progress, than others. With the help of the multilevel model it is possible to see whether these suggested patterns are confirmed, once other factors are taken into account. This section will therefore have the same structure as Chapter 3.3, and will report what light was shed upon those preliminary findings by the multilevel analysis.

**Progress in the course of the project.** The initial and final testing rounds were examined as part of the model and the analysis confirmed that standardised scores on the final test were significantly higher overall than those at the initial time point. This was true for all three year groups, with larger effect sizes in the Year 1/2 group.

**Boys and girls.** Girls scored significantly more highly than boys, overall and in each year group separately. They also made more progress in the course of the project than did boys, overall and in Years 3/4 and 5/6. Amongst the Year 1/2 group, the difference in progress was not significant.

**Ethnic group.** Ethnic groups that emerged with significantly higher scores (relative to White) were: Black African, Black Other, Indian and Chinese. The examination of mean scores in Chapter 3 suggested that some ethnic groups made more or less progress than others in the course of the project. When this was analysed as part of the multilevel model, however, there proved to be no significant differences between the progress made by different ethnic groups, once other variables had been taken into account.

**Age.** Despite the fact that the scores were age standardised, a technique which is intended to eliminate the effects of age, it nevertheless emerged that older children attained more highly than younger. When each year group was considered separately, this remained true for Years 1/2 and 5/6, but this factor was non-significant in Year 3/4.

**Special educational needs.** Children with special educational needs had lower scores, overall and in each of the three year groups. They also made significantly less progress than children without any special needs. In this analysis, the severity of the special needs in terms of the Code of Practice stage was not included; the analysis simply noted whether children had, or did not have, a special educational need. This analysis is not, therefore, able to add anything further to the discussion in Chapter 3.

**Free school meals.** Pupils eligible for free school meals had lower test scores and made less progress than those not eligible, as suggested by the initial analysis.

**English as an additional language.** Children learning English as an additional language had lower scores than native English speakers. Their scores increased with their level of English fluency. In terms of progress in the course of the project, only the second stage of learning English, 'becoming familiar with English', was associated with less progress than average in the multilevel analysis. All other groups of English learners made average progress.

**School-level variables.** The analysis also revealed some significant factors at whole-school level. As suggested by the initial analysis, those schools which reported at the

outset that classes were taught in sets for English made less progress than others. Schools with voluntary status had higher scores. Schools with higher proportions of children eligible for free school meals had lower scores.

**Attainment of pupils.** The attainment of pupils was defined as their average score from the initial and final test. This avoids spurious correlations with the gain scores. The analysis showed that for all three year groups, higher-attaining pupils tended to make more progress. When school performance (measured as published Key Stage 2 test results) was included in the model, this was not significant. This indicates that overall higher-achieving schools also benefited from the project to the same extent as other schools in terms of the gains made by their pupils.

Some other findings of the multilevel analysis seemed to lack any obvious explanation. Schools with a higher proportion of teachers with English degrees had lower scores. Chapter 2 above described how both the LEAs and the participating headteachers gave a rating of the effectiveness with which each school had implemented the project, but the relationship between these ratings and progress proved non-significant, except in one case: headteacher ratings of the general effectiveness of implementation in Year 6 and progress in that year group.

## 6 Specific Reading and Writing Skills

### 6.1 Introduction

In order to investigate further the performance of NLP pupils, a separate analysis of the 1998 National Curriculum test results for Year 6 was carried out. These assessments consisted of a reading test, a writing test, a spelling test and a handwriting test, and thus incorporated a broader assessment of literacy than the shorter *Progress in English* project tests.

For this analysis, a small sample of schools was selected where, according to the outcomes of the multilevel model, the project had been implemented particularly effectively – that is, the gain in test scores was significantly better than average, once all the background factors had been taken into account. These schools were asked to supply the actual test scripts of their Year 6 pupils, so that a more detailed analysis could be made. For this exercise, the target sample was 500 test scripts, but in the event schools provided only 263.

The aim in this analysis was to compare the performance of the project pupils in schools which had proved effective with that of a different, nationally representative, sample of pupils. This latter sample consisted of the 909 pupils who had taken the 1998 test in its final pre-test in June 1997.<sup>1</sup>

By comparing the question-by-question results of the two samples in reading and spelling, it was possible to investigate whether there were any differences between those typically answered successfully by project pupils and by non-project pupils. For this, an analysis of differential item functioning was conducted. This analysis compares groups of pupils with the same overall performance on the test, and reveals any differences in performance between groups on individual questions. Differences are described as ‘statistically significant’ where there is less than a five per cent probability that they occurred by chance alone.

### 6.2 The Reading Test

The 1998 National Curriculum reading test for Year 6 was entitled *Leaving Home*. It consisted of a reading booklet which contained an extract from an historical novel, letters from children to the author, Adele Geras, and an interview with the author.

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<sup>1</sup> The pre-test data were used with the permission of the Qualifications and Curriculum Authority.

Accompanying this was a reading answer booklet containing questions on each of the texts. The questions covered a wide range of reading skills and understandings: literal comprehension; the use of straightforward inference; the use of more complex inference to describe feelings and motivation; location of textual evidence; comments on authorial style; narrative structure; personal response to text; the difference between fact and opinion; and organisational and presentational features of text. The test carried a total of 50 marks, and individual questions could yield up to three marks each. Overall, the mean score of the project sample was lower than that of the national sample: 23.0 as opposed to 24.6.

The analysis of differential item functioning revealed some variation between the project sample and the national sample in their responses to a small number of questions. Although some of these findings could be linked to specific features of the project, there was no consistent pattern.

The following questions were answered significantly more successfully by the NLP sample:

- |      |  |         |
|------|--|---------|
| A10  | On pages 8 and 9, find and copy three of the words or phrases which show that the train and platform were crowded.   | 3 marks |
| A15  | Explain how you think Clara feels:<br>– the night before she leaves<br>– on the train<br>– when she gets to Holland.   | 3 marks |
| A16a | Look at page 9. Some phrases and sentences on this page help you to see the events from Clara's point of view.<br>Find and copy one phrase or sentence that does this. | 1 mark  |
| A16b | Explain what you think this phrase or sentence adds to the story.  | 1 mark  |

These findings would seem to suggest that the project pupils were better able to find and quote textual evidence than the national sample, as both question A10 and A16a draw on this skill. Question A15 relates clearly to project objectives concerning analysis of characters and their feelings. However, the test also contained several other questions of a similar type, which did not show differential performance. The findings for the two parts of question 16 are particularly interesting. This question, especially part b), proved difficult for all pupils. The greater success of the NLP children can be clearly linked to one of the teaching objectives, situated in Year 5 of the framework, which deals specifically with analysing viewpoint.

There were also some questions which were answered better by the national sample of pupils. These were:

- |     |   |         |
|-----|---|---------|
| A7  | At the beginning of the story on page 7, how do you know that Maxi is younger than Clara?   | 1 mark  |
| A14 | <i>Maxi wanted to stay with her. He clung to her skirts.</i> (page 11)<br>Why do you think Maxi wanted to stay with the Dutch lady?   | 3 marks |
| A17 | Imagine you are making a film with four scenes to tell the story of the passage you have read. For each scene write down the setting, the characters and one main event.                                      | 3 marks |
| A18 | Write down what you think about the <i>Leaving Home</i> story, giving reasons for your ideas.<br>You should include<br>– the setting and events in the passage<br>– the characters<br>– how it made you feel. | 3 marks |
| B2  | Michel's story and Clara's were the same in some ways. How were they similar? Explain as fully as you can.  | 2 marks |

There seems no particular pattern to these findings, as these questions cover a range of the skills and understandings addressed by the test: straightforward inference; narrative structure; response to characters; and overall response to the story.

There were other findings that pointed in no clear direction. Of the multiple-choice questions at the beginning of the test, one favoured the project sample and one other the national sample. The question on the presentational features of text, B7, showed a similarly mixed picture, with project pupils better able to describe the presentation of the bibliography, but the national sample more successful in describing the presentation of the interview. It is not possible to discern any particular pattern in these mixed findings.

### 6.3 The Writing Test

The writing test offered children a choice of four prompts, giving rise to either a narrative or a non-narrative text type. These were: an interview; a newsletter about a school trip; and two stories. After being introduced to these prompts, pupils were given 15 minutes in which to plan their writing and 45 minutes in which to write the entire piece. In this



respect, the writing test differed somewhat from the NLP approaches, as sustained writing was not normally taught within the literacy hour.

The test was marked according to three categories: purpose and organisation; punctuation; and style. The first of these corresponds closely to text level work in the NLP framework, and the second falls within the sentence level objectives. The category 'style' incorporates elements of sentence level work, in that it considers the grammatical complexity of sentences, and word level work, in terms of vocabulary choices.

Performance in each of these categories was compared across the two samples of children. Again, the analysis took into account the fact that the pre-test sample overall showed higher attainment than the NLP sample. This analysis revealed that the performance of project pupils was significantly better in the 'purpose and organisation' category, but less good in the 'punctuation' category. There was no significant difference in terms of 'style'.

The choices made between the four writing prompts were also considered, as it might be surmised that NLP pupils would be more willing to tackle non-narrative text types than other children. This proved not to be the case, however. In fact, one story title *You're in Charge*, a fairly structured narrative prompt, was chosen by almost half of the NLP sample. Only 39 per cent chose to write in non-narrative forms, as opposed to 50 per cent in the national pre-test sample.

The spelling test had several changes made between the pre-test version and the final version, so no such analysis was possible on this test. In handwriting, there was no significant difference between the NLP sample and the national sample.

## 6.4 Conclusion

The evidence from this analysis suggested some possible effects of involvement in the project, but overall was not conclusive. In reading, there was evidence that NLP pupils had learned to locate and quote textual evidence more effectively than the national sample, and were better able to analyse the presentation of viewpoint. In writing, there was a suggestion that text level skills had benefited more from the project than sentence and word level skills. This is an interesting finding, as extended writing is not included in the literacy hour, so if these skills of textual organisation were learned within the literacy hour, they were then applied in a different context.

Overall, these findings can only be tentative. Since the NLP addresses the whole of the National Curriculum programmes of study, the result, over time, should be an overall improvement in test performance, rather than an improvement in some areas at the

expense of others. This analysis has, however, been able to point to some specific skills and understandings which can probably be related to participation in the project.

## 7 Conclusions and Recommendations

A National Literacy Strategy was introduced in all schools from the autumn of 1998. This has a central role in Government policies aimed at meeting the national literacy target in the year 2002. The report of the Literacy Task Force referred to a 'long tail of underachievement' in Britain and the aim of the National Literacy Strategy is to improve this picture by enhancing children's achievements in reading and writing.

The National Literacy Strategy is very similar in its objectives and structure to the National Literacy Project. Support from the Government for this initiative includes the appointment of some 200 literacy consultants nationally, a training programme, additional resourcing and an enhanced role for a literacy co-ordinator within each school. All schools are required to set their own targets and expected to timetable a daily literacy hour as part of the strategy.

The evidence from this evaluation is that pupils who participated in the National Literacy Project made substantial progress in literacy. The children in the Cohort 1 schools, who started below the national average as readers, made significant improvements in reading, as measured by test scores. Their enjoyment of reading was sustained over the two years of the project, and they needed progressively less help with their reading. These improvements took place in schools that were not fully representative of the national picture, as the discussion above has shown. The project schools were selected for participation. They were more likely to be situated in economically deprived areas, and the children's reading scores were below the national average.

The evaluation evidence also showed that involvement in the National Literacy Project proved a major undertaking for these schools. To implement the project properly, it had to be the main priority for the school's development. It necessitated substantial changes at management and at classroom level, and constant monitoring and review. Its resource implications were considerable. These findings echo the advice of the Literacy Task Force to schools implementing the National Literacy Strategy. The evidence is that the overwhelming majority of schools in Cohort 1 of the National Literacy Project were willing to take on this commitment, and were successful in making the project work, often in the face of difficulties of various kinds. These achievements were supported by an intensive programme of training, advice and resources from the project LEAs and their specialist consultants. The project schools therefore offer a valuable model for all those implementing the National Literacy Strategy.

# APPENDIX A1

## The Samples: Breakdown by Background Variables

**Table A1.1: Numbers and percentages by background variables**

Sex	Year 1 / 2		Year 3 / 4		Year 5 / 6	
	Number	Per cent	Number	Per cent	Number	Per cent
Boys	3499	51	3494	51	3713	51
Girls	3352	49	3404	49	3584	49
<b>Eligibility for free school meals</b>						
Eligible	2975	43	2971	43	3262	45
Not eligible	3877	57	3929	57	4029	55
<b>Special educational needs</b>						
No special needs	4956	73	4606	67	5102	70
Stage 1	850	12	824	12	777	11
Stage 2	646	9	897	13	739	10
Stage 3	301	4	430	6	440	6
Stage 4	23	0	24	0	36	0
Stage 5	17	0	37	1	41	1
Statement	34	0	68	1	121	2
<b>Stage of English fluency</b>						
English first language	5740	84	5699	83	5872	81
New to English	151	2	92	1	55	1
Becoming familiar with English	289	4	373	5	273	4
Becoming confident as a user of English	328	5	396	6	526	7
A very fluent user of English	315	5	332	5	566	8
<b>Ethnic background</b>						
White	5254	77	4993	72	5302	73
Black Caribbean	239	4	375	5	371	5
Black African	252	4	267	4	293	4
Black Other	123	2	118	2	152	2
Indian	251	4	172	3	191	3
Pakistani	267	4	265	4	262	4
Bangladeshi	133	2	350	5	342	5
Chinese	33	1	45	1	58	1
Other	292	4	313	5	322	4

In all cases, missing data has been excluded.  
Percentages may not sum to 100 because of rounding.

# APPENDIX A2

## Test Data

Table A2.1: Initial Standardised Scores for Complete Year Group and Follow-up Pupils

Year Group	All Pupils			Pupils with Entry and Exit Data		
	Number of Pupils	Mean Initial Standardised Score	Standard Deviation	Number of Pupils	Mean Initial Standardised Score	Standard Deviation
1/2	8483	85.2	9.3	6851	85.6	9.3
3/4	8509	88.7	15.0	6898	89.2	14.9
5/6	8599	89.3	14.8	7297	90.0	14.7

**Table A2.2: Final Standardised Scores and Change in Standardised Scores for Each Year Group**

<b>Year Group</b>	<b>Number of Pupils</b>	<b>Mean Final Standardised Score</b>	<b>Standard Deviation</b>	<b>Mean Change in Standardised Score</b>	<b>Standard Deviation</b>
1/2	6851	97.0	14.5	11.5	12.4
3/4	6898	95.6	16.0	6.4	10.7
5/6	7297	96.2	15.6	6.2	10.7



**Table A2.3: Initial and Final Standardised Scores for Boys and Girls in the Three Year Groups**

	Boys		Girls	
	Mean	SD	Mean	SD
<b>Year 1/2</b>				
Initial Standardised Score	84.9	9.3	86.3	9.3
Final Standardised Score	96.0	14.6	98.1	14.3
Change in Scores	11.1	12.5	11.8	12.3
Number of Pupils	3499		3352	
<b>Year 3/4</b>				
Initial Standardised Score	87.4	14.7	90.9	14.9
Final Standardised Score	93.5	16.1	97.7	15.6
Change in Scores	6.1	10.7	6.8	10.7
Number of Pupils	3494		3404	
<b>Year 5/6</b>				
Initial Standardised Score	87.6	14.3	92.5	14.8
Final Standardised Score	93.4	15.2	99.1	15.5
Change in Scores	5.8	10.5	6.6	11.0
Number of Pupils	3713		3584	

**Table A2.4: Initial and Final Standardised Scores for Pupils Eligible or Not Eligible for Free School Meals**

	Pupils Eligible for Free School Meals		Pupils Not Eligible for Free School Meals	
	Mean	SD	Mean	SD
<b>Year 1/2</b>				
Initial Standardised Score	83.7	8.8	87.0	9.5
Final Standardised Score	94.0	14.2	99.3	14.3
Change in Scores	10.4	12.7	12.3	12.2
Number of Pupils	2975		3877	
<b>Year 3/4</b>				
Initial Standardised Score	85.3	13.8	92.1	15.0
Final Standardised Score	91.4	15.3	98.8	15.7
Change in Scores	6.1	10.7	6.7	10.7
Number of Pupils	2971		3929	
<b>Year 5/6</b>				
Initial Standardised Score	86.5	13.7	92.8	14.9
Final Standardised Score	92.6	15.0	99.1	15.5
Change in Scores	6.1	10.7	6.3	10.8
Number of Pupils	3262		4029	

**Table A2.5: Initial and Final Standardised Scores for Pupils Setted and Not Setted**

	Setted Pupils		Non-setted Pupils	
	Mean	SD	Mean	SD
<b>Year 1/2</b>				
Initial Standardised Score	85.5	9.0	85.6	9.4
Final Standardised Score	96.0	14.8	97.4	14.4
Change in Scores	10.5	12.4	11.8	12.4
Number of Pupils	1705		5149	
<b>Year 3/4</b>				
Initial Standardised Score	87.6	14.2	89.7	15.1
Final Standardised Score	93.0	15.5	96.5	16.0
Change in Scores	5.4	10.0	6.8	11.0
Number of Pupils	1781		5126	
<b>Year 5/6</b>				
Initial Standardised Score	89.5	14.7	90.2	14.7
Final Standardised Score	95.1	15.6	96.7	15.6
Change in Scores	5.6	10.4	6.5	10.9
Number of Pupils	2150		5150	

**Table A2.6: Initial and Final Standardised Scores for Pupils at Different Stages of Special Educational Needs**

	Initial Standardised Score		Final Standardised Score		Change in Scores		
	Mean	SD	Mean	SD	Mean	SD	Number of Pupils
<b>Year 1/2</b>							
No Special Needs	87.6	9.1	100.2	14.1	12.6	12.6	4956
Stage 1	81.1	7.6	89.8	11.8	8.7	11.3	850
Stage 2	80.2	7.5	89.0	11.8	8.8	11.4	646
Stage 3 to 5	77.8	7.4	85.2	11.9	7.4	12.1	341
Statemented	75.6	9.3	82.1	12.0	7.6	10.0	34
<b>Year 3/4</b>							
No Special Needs	94.7	13.9	101.3	14.3	6.7	11.0	4606
Stage 1	81.2	10.4	88.7	12.4	7.5	10.7	824
Stage 2	77.3	8.7	83.3	11.7	6.0	10.0	897
Stage 3 to 5	74.5	8.6	78.2	10.9	3.2	9.0	461
Statemented	74.0	9.5	75.2	10.1	1.3	7.8	68
<b>Year 5/6</b>							
No Special Needs	94.9	13.6	101.2	14.0	6.3	11.2	5102
Stage 1	81.4	9.8	88.5	11.7	7.1	10.0	777
Stage 2	77.3	9.3	83.4	11.2	6.1	9.7	739
Stage 3 to 5	75.7	9.9	79.6	12.0	3.9	9.1	517
Statemented	74.5	9.3	77.2	9.6	2.7	6.2	121

**Table A2.7: Initial and Final Standardised Scores for Pupils with Different Ethnic Backgrounds**

	Initial Standardised Score		Final Standardised Score		Change in Scores		Number of Pupils
	Mean	SD	Mean	SD	Mean	SD	
<b>Year 1/2</b>							
White	85.6	9.1	97.1	14.3	11.5	12.2	5254
Black	86.8	10.1	98.5	15.4	11.6	13.5	616
Asian	83.1	9.4	94.8	14.8	11.6	13.7	684
Other	87.0	10.7	96.9	14.6	9.8	11.7	292
<b>Year 3/4</b>							
White	89.1	15.0	95.5	16.2	6.4	10.5	4993
Black	91.7	15.0	98.2	15.5	6.3	11.2	760
Asian	86.5	13.7	93.7	15.1	7.2	11.4	832
Other	89.1	15.2	94.8	15.6	5.7	11.7	313
<b>Year 5/6</b>							
White	90.2	14.9	96.7	15.8	6.5	10.6	5302
Black	91.0	14.9	96.6	15.3	5.6	11.8	816
Asian	88.4	13.6	93.5	14.1	5.0	10.2	853
Other	88.6	14.3	94.6	15.9	5.9	10.7	322

**Table A2.8: Initial and Final Standardised Scores for Pupils with English as a First Language or at Different Stages of Learning English as an Additional Language**

Year 1/2	Initial Standardised Score		Final Standardised Score		Change in Scores		Number of Pupils
	Mean	SD	Mean	SD	Mean	SD	
English First Language	85.8	9.2	97.3	14.4	11.5	12.3	5740
EAL – Very Fluent	89.2	10.7	101.4	14.2	12.2	12.3	315
EAL – Becoming Confident	84.4	9.3	95.6	14.5	11.2	13.4	328
EAL – Becoming Familiar	82.2	8.5	91.0	13.5	8.7	13.3	289
EAL – New to English	77.1	6.6	90.8	14.4	13.6	13.6	151
<b>Year 3/4</b>							
English First Language	89.6	15.0	96.0	16.1	6.4	10.6	5699
EAL – Very Fluent	94.5	12.6	100.5	13.6	5.9	10.6	332
EAL – Becoming Confident	88.4	13.7	94.8	15.0	6.4	11.3	396
EAL – Becoming Familiar	81.6	11.1	89.3	14.0	7.7	12.2	373
EAL – New to English	72.6	6.5	79.8	12.7	7.2	12.6	92
<b>Year 5/6</b>							
English First Language	90.4	14.9	96.8	15.7	6.4	10.7	5872
EAL – Very Fluent	94.0	14.3	99.2	14.8	5.2	10.9	566
EAL – Becoming Confident	87.0	12.2	92.7	13.5	5.7	11.2	526
EAL – Becoming Familiar	80.0	10.5	84.3	11.5	4.3	10.1	273
EAL – New to English	82.3	14.5	90.0	15.2	7.7	8.3	55

**Table A2.9: Mean Standardised Scores and Standard Deviation for Sub Sample of Pupils with National Curriculum Data**

	Year 1/2		Year 5/6	
	Mean Score	sd	Mean Score	sd
Initial Test	85.6	9.6	89.6	14.4
Final Test	97.6	14.6	97.0	16.0
Change in Scores	12.0	12.3	7.4	10.9
Number of Pupils	2386		1777	

Table A2.10: Percentage of Pupils at National Curriculum Test Levels for English for Year 1/2 Group

Level	Percentage of Children	1998 National Percentages
W	4	3
1	23	16
2A	20	54
2B	17	
2C	19	
3	16	26
3+	1	0



**Table A2.11: Percentage of Pupils at National Curriculum Test Levels for English for Year 5/6 Group**

Level	Percentage of Children			1998 National Percentages (English)
	Reading	Writing	English	
Below 3	5	10	6	7
3	29	45	38	26
4	48	37	45	48
5	17	7	11	17

# APPENDIX A3

## Technical Appendix on Multilevel Analysis

# Multilevel Analysis of National Literacy Project Cohort 1 Data (Progress), with Additional Background Factors

## Introduction

The second round of data collection for Cohort 1 of the National Literacy Project included background data, and entry and exit scores for pupils in Years 2, 4 and 6. The following types of data were collected:

- raw and standardised scores on reading tests at entry and at the end of the academic year (different tests for each Year);
- pupil background data;
- results from reading attitude questionnaires from pupils at the start and end of the year (for Years 4 and 6 only);
- school background data;
- school-level data on factors such as time devoted to English etc.
- data from headteacher questionnaires relating to the effectiveness of support during the project.

In addition to the above, which were available as part of the standard analysis of the National Literacy Project data, some extra items of information were gathered for this evaluation exercise, which were available for a subset of schools:

- data from a confidential headteacher questionnaire about how effectively the project was implemented;
- data from LEAs judging the effectiveness of their schools in implementing the project.

Table 1 contains details of all the variables derived from the data collection exercise which were used in this phase of multilevel analysis. The aim of the analysis was to investigate factors at the school and pupil levels which might be associated with reading scores, and to see which were apparently statistically significant. It was also possible to carry out an analysis of progress, making use of the fact that standardised scores were available at two different time points for most pupils. This analysis depends critically, of course, on the assumption that the standardisations were carried out in a comparable fashion at the two time points.

## Deriving Factor Scores from the Headteacher Questionnaires

Data from a questionnaire to headteachers was used to derive school-level scores on the effectiveness of support during the course of the project. Thirty-seven questions were rated on a five-point scale, and factor analysis was used to convert these ratings into three overall factor scores. Table 7 shows the detailed factor loadings (only those above 0.3 are shown), and from these the three factors were roughly identified as follows:

- Factor 1:** Overall usefulness of support etc.  
**Factor 2:** Usefulness of KS2-focused aspects.

**Factor 3:** Usefulness of KS1-focused aspects.

For each school, a 'factor score' was derived, each normalised to a mean of 100 and standard deviation of 15, and these values were included in the multilevel models to investigate any relationships they might have with progress.

### **Deriving 'Effectiveness Scores' from the Confidential Headteacher Questionnaire and LEA Evaluations**

In order to collect data on the effectiveness with which individual schools were implementing the National Literacy Project, two different approaches were used. One was to send a confidential questionnaire to headteachers, with a set of detailed questions about issues and problems with different year groups. To guide in converting these responses into measures for multilevel modelling, a factor analysis was carried out. For certain questions, those with responses for each term, a 'mean score' was calculated, averaging over the last three terms. Factor loadings (those of 0.3 or above only) are shown in Table 14.

From this, it was clear that three factors could be identified, with a certain degree of overlap, and these were roughly identified as follows:

- Factor 1:** Effectiveness of implementation in general.
- Factor 2:** Effectiveness of implementing the literacy hour.
- Factor 3:** Planning and management.

Based on this analysis, three different scores were computed for each school, based on the questionnaire responses. These were calculated both for all year groups together, and separately for each year group, and related to the three areas of effectiveness above. It should be noted that this data was only available for 139 schools (out of the total of 246).

In a separate exercise, some LEAs provided assessments of their schools' effectiveness in implementing the National Literacy Strategy. This was a single measure, for the school as a whole, with three categories: 'unsatisfactory', 'satisfactory' and 'good'. These were converted into scores of 0, 1 or 2 respectively. Data was available for 245 schools.

## Setting up Multilevel Models for Test Scores

Multilevel modelling is a development of a common statistical technique known as 'regression analysis'. This is a technique for finding a straight-line relationship which allows us to predict the values of some measure of interest ('dependent variable') given the values of one or more related measures. For example, we may wish to predict schools' average test performance given some background factors, such as free school meals and school size (these are sometimes called 'independent variables').

Multilevel modelling takes account of data which is grouped into similar clusters at different levels. For example, individual pupils are grouped into year groups or cohorts, and those cohorts are grouped within schools, which may themselves be grouped within LEAs. There may be more in common between pupils within the same cohort than with other cohorts, and there may be elements of similarity between different cohorts in the same school, or different schools in the same LEA. Multilevel modelling allows us to take account of this hierarchical structure of the data and produce more accurate predictions, as well as estimates of the differences between pupils, between cohorts, between schools, and between LEAs.

Two different sets of multilevel models were set up:

- a 'unified' model including data for pupils in all Years;
- separate models for each Year.

The first, unified, model assumes that all the relationships between test scores and background variables are the same in all three year groups, and that the only change is a possible overall difference between each Year and some 'reference' year group (in this case taken as Year 2). The main advantage of this model is that it allows us to use all the available data simultaneously and therefore make more precise estimates of the relationships between background variables and test scores.

The second group of models allows us to fit different relationships for the different year groups, which in some cases is more plausible and informative. However, the numbers involved will be smaller and the estimates produced correspondingly less precise. Table 2 shows the numbers of LEAs, schools and pupils involved in fitting each model.

The unified model incorporated five levels:

1. LEA.
2. School.
3. Year group.
4. Pupil.
5. Time point ('round' of assessment).

Thus, within an LEA, there may be variations between schools; within a school there may be variations between the year groups; and within a year group there are almost bound to be variations between pupils in their test scores. Finally, most pupils have been tested twice, and between these different tests scores for the same individual,

there will be random variations. The sizes of these variations at each level of the model are measured in terms of 'random variances', and the relative sizes of these will be of some interest.

When running the models for each year group, only four levels were required. For these models, there was just one group of the given age within each school.

In total, therefore, four separate models were fitted to the literacy data. In each case the outcome variable was an age-standardised score, although the actual test used was different for each year group. For each model, the fitting process was carried out in four stages:

1. The 'base case', with no background variables (except year group differences for the unified model).
2. Controlling for pupil-level background variables only.
3. Controlling for pupil-level and school-level background variables.
4. Controlling for all background variables, and allowing progress from entry to exit to vary from school to school and from LEA to LEA.

In the last stages, only school-level variables which appeared to be significantly related to the outcome variable were included, and others were removed from the model. In some cases, 'borderline significant' variables were not excluded from the model.

### **Results of Multilevel Analysis of Test Scores**

Tables 3 to 6 show some of the detailed results of the multilevel model fitting to various datasets: all years combined, Years 2, 4 and 6. In technical language, these tables show the random variances at each level, plus the coefficients of the background variables in the 'full model'. They also show whether or not variances or coefficients are statistically significant at the five per cent level, as well as 95 per cent confidence intervals for each parameter.

These tables, although they show the full results of all the modelling carried out at this stage, may not be easy to interpret for all readers. To help with this, therefore, the coefficients which express the estimated relationships between test scores and each of the background variables have been converted into 'effect sizes' which represent the 'strength' of each relationship as a percentage, and which allow the different variables to be compared in terms of their apparent influence on the test outcome, when all other variables are simultaneously taken into account.

Effect sizes are plotted in Figures 1 to 4, for the four different models described in Tables 3 to 6. For each variable, the estimated effect size is plotted as a diamond, with a vertical line indicating the 95 per cent confidence interval for the estimate. Any variable whose line intersects the horizontal zero axis can be regarded as not statistically significant (at the five per cent level). Positive values imply a positive relationship with the test score outcome; negative values imply that test scores tend to decrease with higher values of the given background variable.

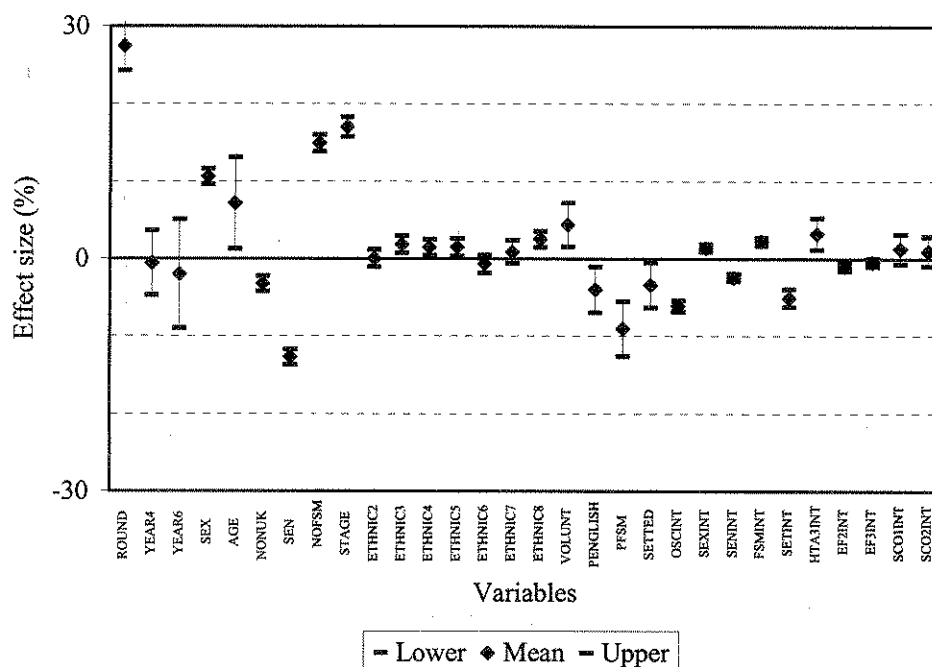
The way in which these models have been set up means that most of the effects relate to overall performance in various aspects of reading, over both testing periods. Thus the strong positive relationship with non-eligibility for free school meals implies that reading scores as a whole are related to this factor, but does not tell us anything about progress from one time point to another. To measure the latter, we need to include 'interaction terms' in the model, which relate background factors to changes over time in scores.

A number of such 'interaction terms' were included in the model, to look at the relationships between background variables and progress:

- **OSCINT**: Relationship between score on entry and progress.
- **SEXINT**: Relationship between females and progress.
- **SENINT**: Relationship between SEN and progress.
- **FSMINT**: Relationship between non-eligibility for free school meals and progress.
- **ETH2INT to ETH8INT**: Relationships between various ethnic groups and progress (relative to whites).
- **SETINT**: Relationship between setted year group and progress.
- **HTA1INT to HTA3INT**: Relationships between various factors from the headteacher questionnaire and progress.
- **EF1INT to EF4INT**: Relationships between English fluency stages 1 to 4 and progress.
- **LSCOINT**: Relationship between LEA effectiveness score and progress.
- **SCO1INT to SCO3INT (Y2SC1INT to Y6SC3INT for separate year groups)**: Relationships between effectiveness scores from confidential headteacher questionnaire and progress.

The interpretation of the model results for these variables is straightforward. If, for example, the coefficient of SEXINT is negative, this implies that girls are making less progress than boys on average. A positive coefficient for SETINT would imply that pupils in setted year groups are making more progress than others, and so forth. Note that we would expect a negative coefficient for OSCINT, as this implies that those starting from a higher score are likely to make less progress on average.

**Figure 1: Effect Sizes from Multilevel Model fitted to Test Scores for All Year Groups**



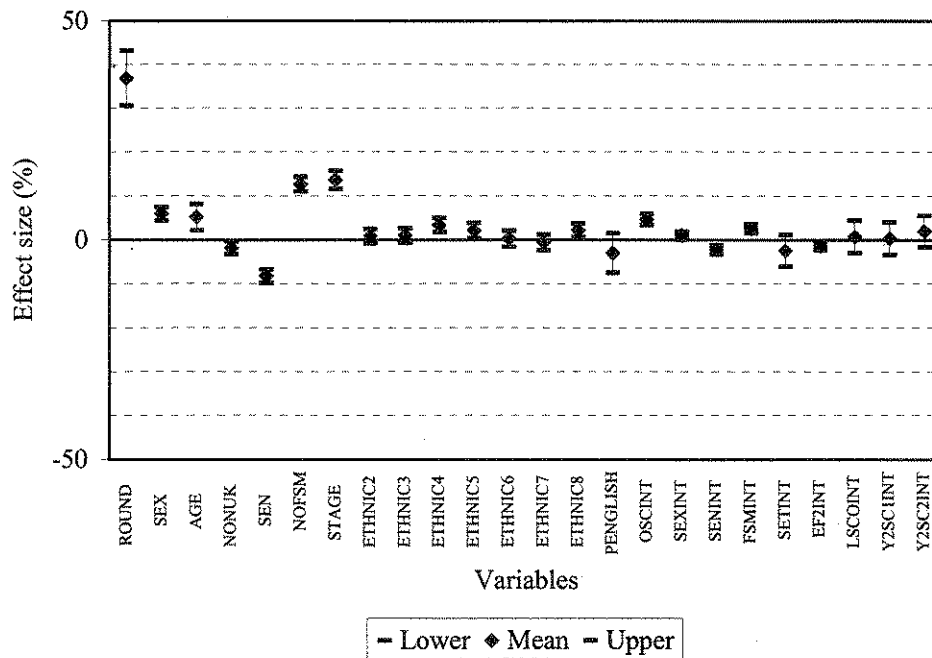
In Figure 1 above, it is clear that the variables with apparently positive relationships with test score as a whole are round of testing (with significantly higher age-standardised scores in Round 2 compared with Round 1), sex (girls outperforming boys), age (despite scores being age-standardised), non-eligibility for free school meals, stage of English fluency, various ethnic groups relative to the white population (Black African, Black Other, Indian, and Chinese), and voluntary school status. Background variables with apparently negative relationships with overall test scores include non-UK education, SEN level, percentage of teachers with an English degree, percentage eligible for free school meals, and setted year groups.

Looking at interaction terms, it seems that progress from Round 1 to Round 2 is positively related to sex (girls make on average more progress than boys), non-eligibility for free school meals, and headteachers' ratings of the usefulness of Literacy Project work in Key Stage 1. Progress appears to be negatively related to entry test score (those with lower entry scores tend to make more progress, not surprisingly), to SEN, to setted year groups and to stage 2 English fluency.

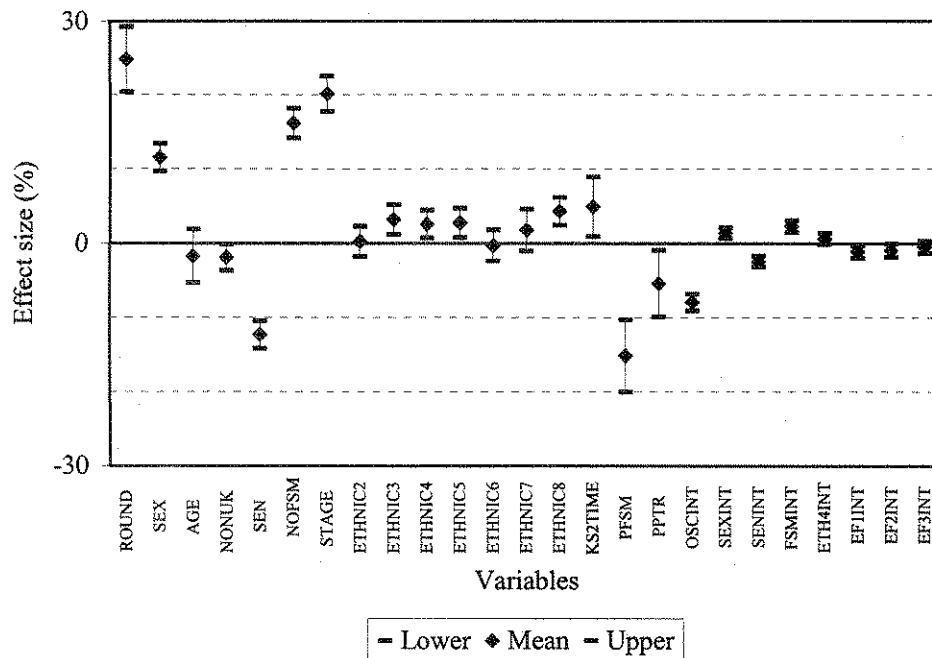
Some of the relationships displayed here will be intuitively reasonable, and others may be less so. Some may be artefacts, or produced through a relationship with a third factor not included in the model. The other three figures, for Years 2 to 5, will show some of the same patterns and some which are different.



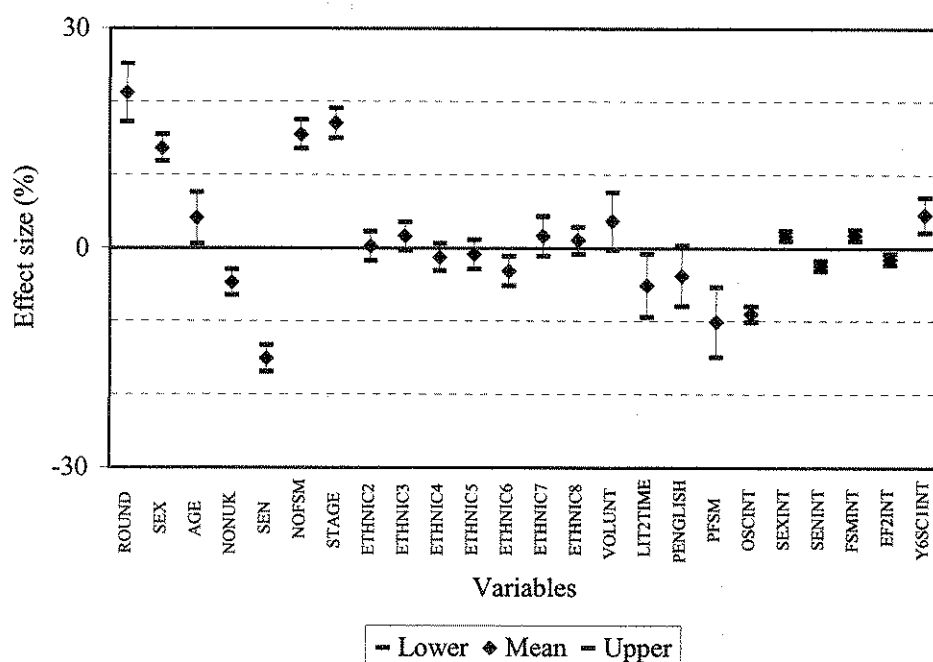
**Figure 2: Effect Sizes from Multilevel Model fitted to Test Scores for Year 2**



**Figure 3: Effect Sizes from Multilevel Model fitted to Test Scores for Year 4**



**Figure 4: Effect Sizes from Multilevel Model fitted to Test Scores for Year 6**

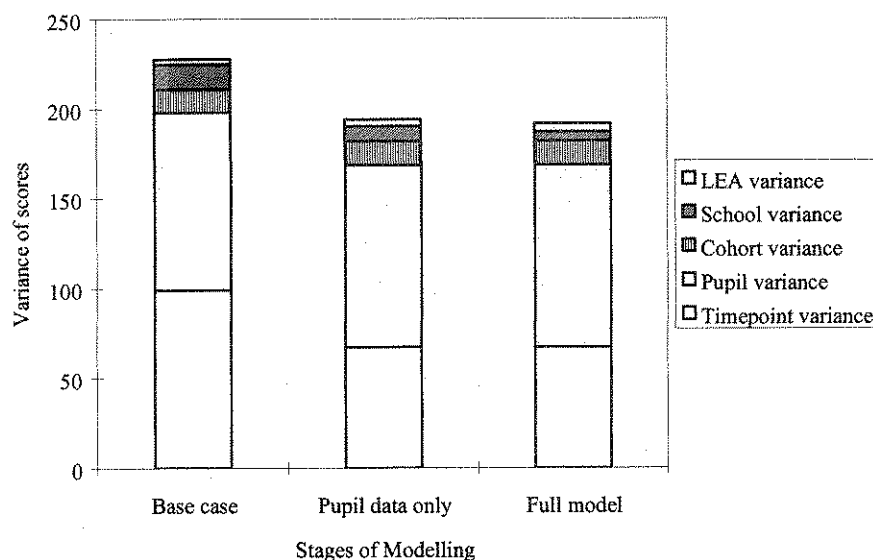


There are a few variant results to be seen when modelling each year group on its own. For example, in Year 2, the relationship between progress and initial score is reversed (see OSCINT). It appears, when all other factors are taken into account, that those with higher starting scores are making more progress, whereas the other two years follow the pattern of more progress from lower starting scores. Interestingly, the only occasion on which any of the LEA or school measures of effectiveness appear to be significantly related to progress is in the Year 6 analysis, where the score for effectiveness in general is positively related to progress.

In addition to the relationships between test scores and a host of background variables described above, the multilevel model provides other information. In particular, it estimates the amount of variation in test scores which can be attributed to different levels in the model. The unified model had five levels: LEA, school, cohort and pupil, and there will in general be measurable differences in average test scores between units at each level. The amount of variation at each level is measured by the 'variance' (basically the square of the standard deviation) at that level, and may change as extra background variables are fitted to the model. For example, some of the differences between schools in average test scores may be eliminated when we take into account school-level variables such as percentage eligible for free school meals.

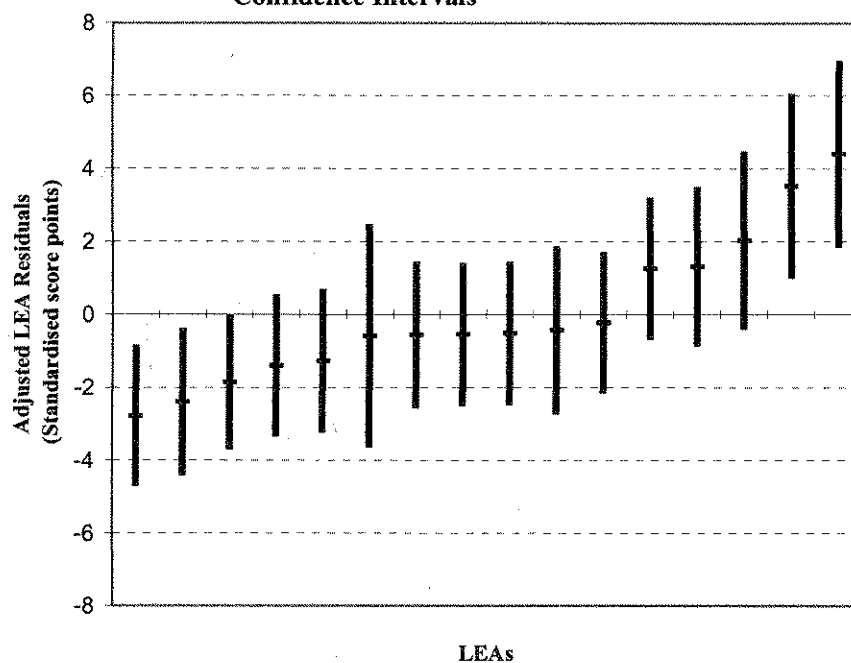
Figure 5 illustrates this effect, using the unified model fitted to all year groups. At each of the stages of modelling, the total variance is divided between the five levels in the model. It is clear from the above figure that in general the variance increases at lower levels: the greatest degree of variation is between pupils, and then between year groups, and then between schools, and lastly between LEA groups of schools. The bottom level, the 'time point variance' is a measure of the amount of 'noise' or measurement error between different assessments of the same pupils.

**Figure 5: Random Variances in Test Score at Different Levels for All Year Groups**

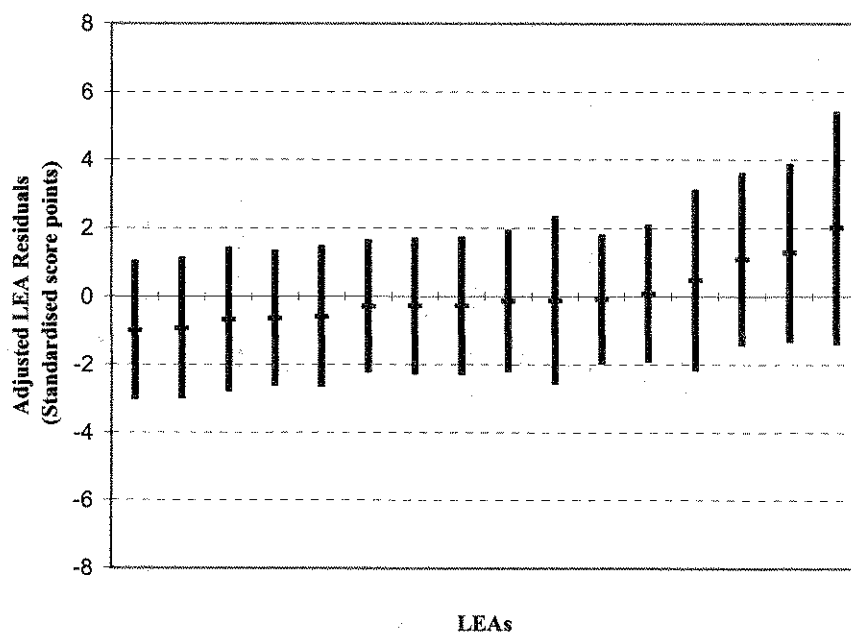


The model allows us to estimate for each school or LEA a 'residual', which is the amount by which its results differ from what might have been expected, given all the pupil and school background data. Figures 6 to 9 show the residuals for all the LEAs with schools in the project for all year groups combined and for Years 2, 4 and 6 separately. The plots indicate by a vertical line the 95 per cent confidence interval for each LEA's residual value. Only those LEAs whose lines do not intersect the horizontal zero axis might be regarded as having results significantly different from expected.

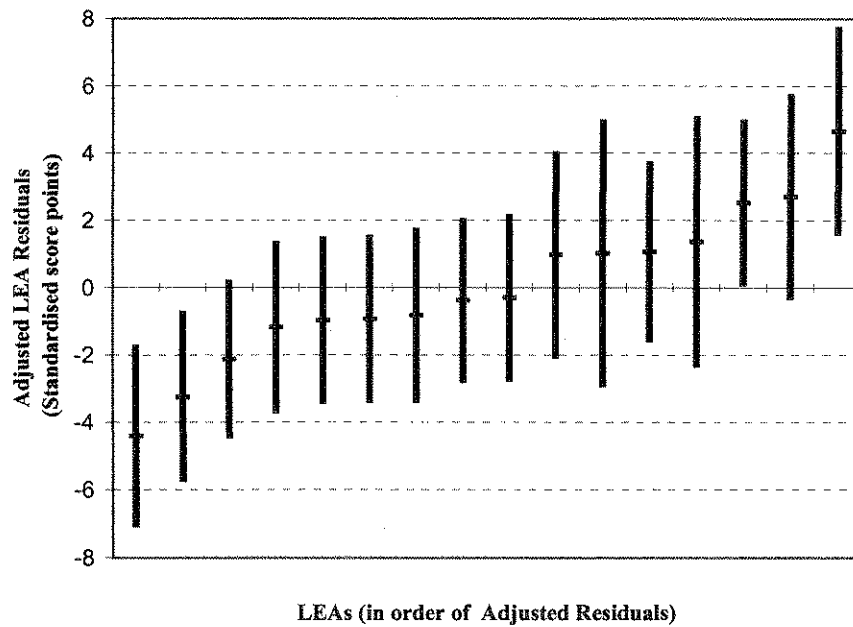
**Figure 6: Adjusted LEA Residuals for All Year Groups, showing 95% Confidence Intervals**



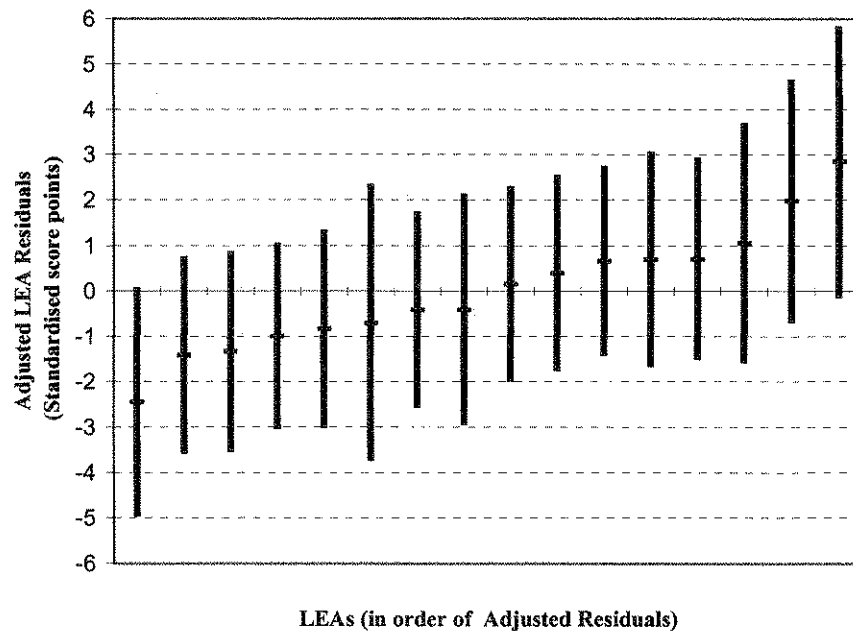
**Figure 7: Adjusted LEA Residuals for Year 2, showing 95% Confidence Intervals**



**Figure 8: Adjusted LEA Residuals for Year 4, showing 95% Confidence Intervals**



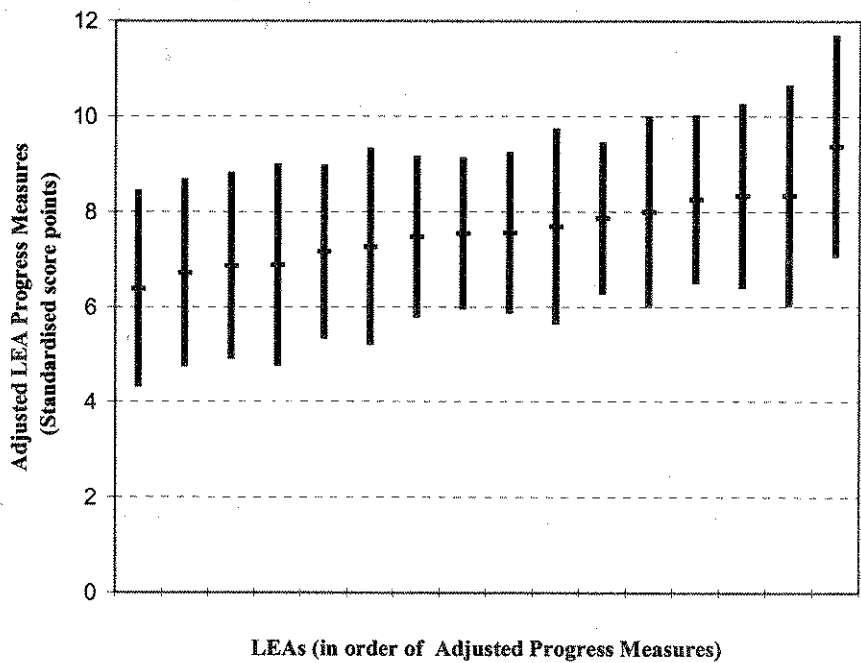
**Figure 9: Adjusted LEA Residuals for Year 6, showing 95% Confidence Intervals**



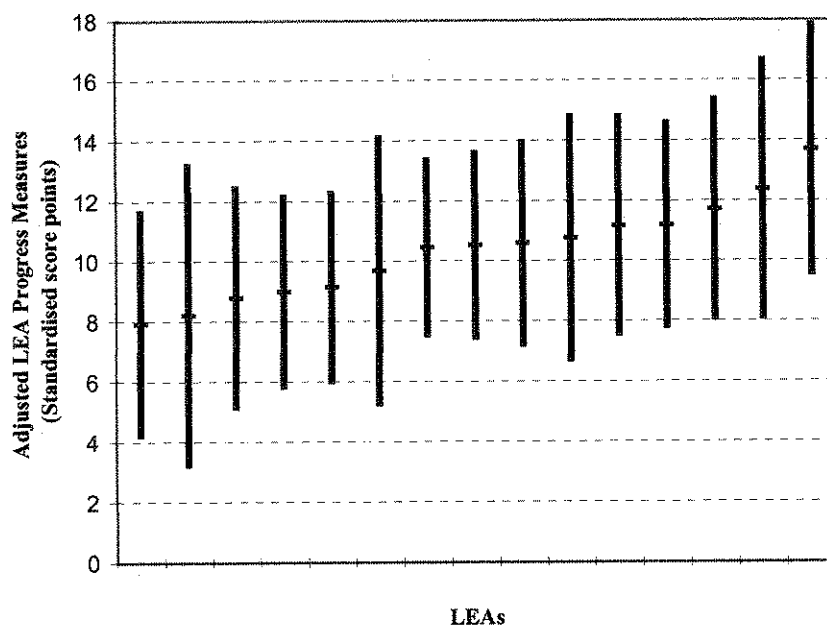
The above plots indicate how LEA results relate to the overall project, **in terms of overall performance averaged over both rounds of testing**, and controlling for a range of background factors. What is also of interest is the amount of progress made between rounds 1 and 2. This can be assessed for each LEA by means of a ‘random

slopes' multilevel model, in which it is assumed that the amount of progress between rounds of testing varies from school to school and from LEA to LEA. The estimated progress measures for the LEAs and their standard errors can be estimated, **in terms of the average change in standardised score from Round 1 to Round 2**, controlling for other factors. These progress measures are plotted in Figures 10 to 13, for all year groups combined and for Years 2,4 and 6 separately (there were no differences between LEAs in progress for Year 6 alone).

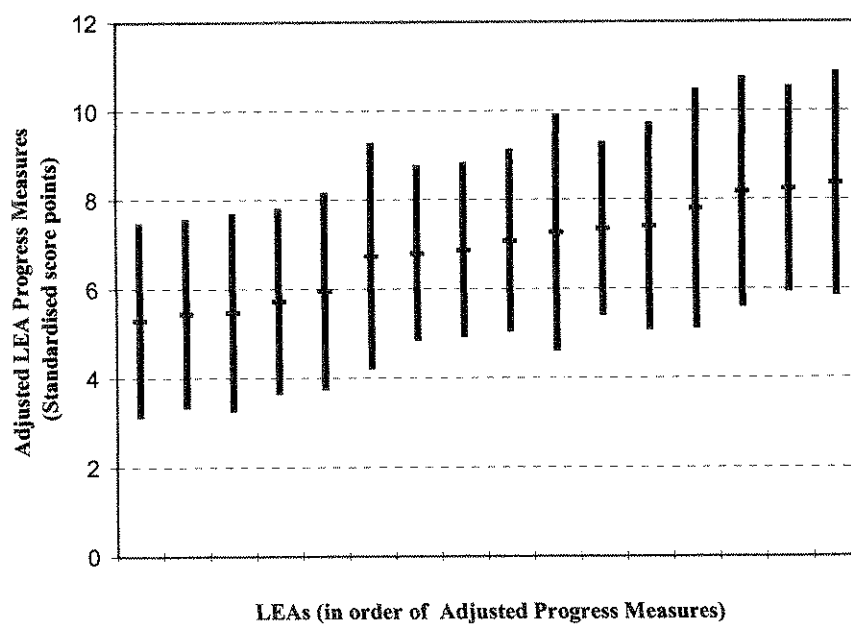
**Figure 10: Adjusted LEA Progress Measures for All Year Groups, showing 95% Confidence Intervals**



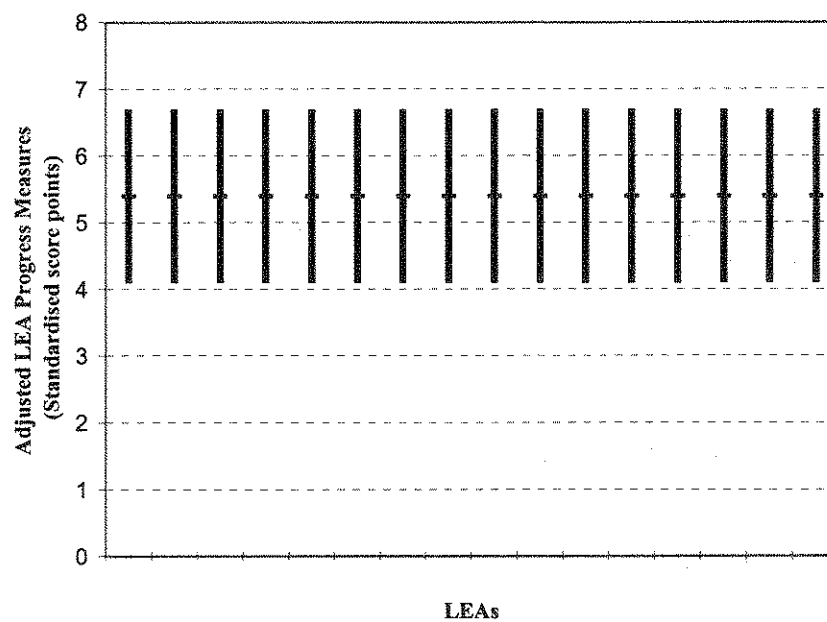
**Figure 11: Adjusted LEA Progress Measures for Year 2, showing 95% Confidence Intervals**



**Figure 12: Adjusted LEA Progress Measures for Year 4, showing 95% Confidence Intervals**



**Figure 13: Adjusted LEA Progress Measures for Year 6, showing 95% Confidence Intervals**





## Reading Attitude Scores from the Pupil Questionnaires

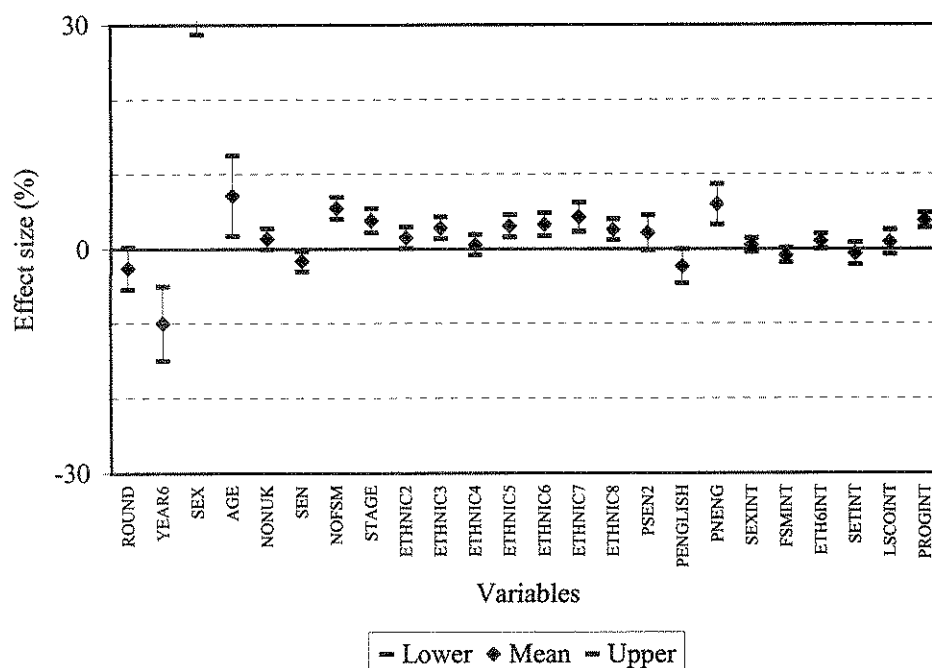
A survey of pupils' attitudes to reading was carried out at two time points (entry and exit) for Years 4 and 6, and a factor analysis was carried out to derive suitable factor scores. Table 10 shows the detailed factor loadings (only those above 0.3 are shown), and the three factors have been roughly identified as follows:

- Factor 1:** Enjoyment of reading.
- Factor 2:** Needing help with reading.
- Factor 3:** Prefer comics, magazines, etc. to stories.

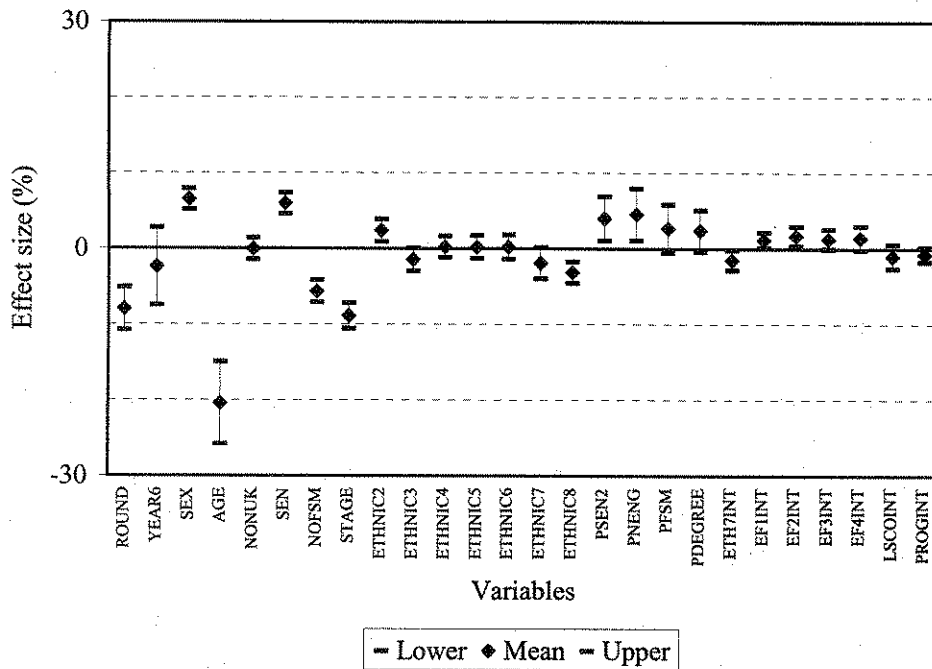
Multilevel modelling was carried out to investigate background variables related to these attitude scores, and any changes over time. An extra interaction term (PROGINT) was included to investigate relationships between test progress scores and changes in attitude scores.

Detailed results are given in Tables 11 to 13, and effect size plots are shown as Figures 14 to 16.

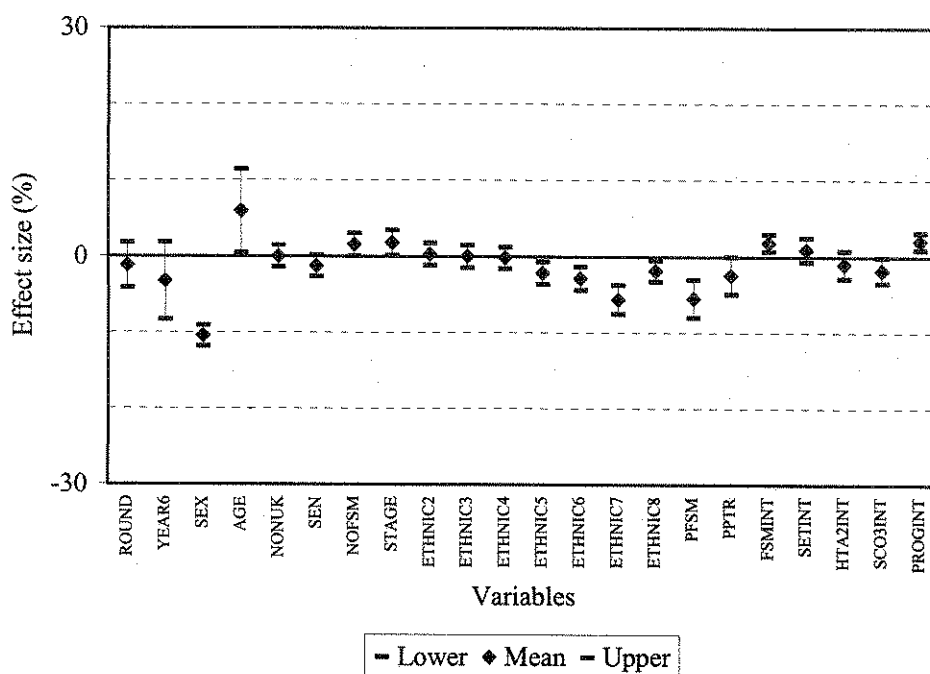
**Figure 14: Effect Sizes from Multilevel Model fitted to Reading Enjoyment Scores**



**Figure 15: Effect Sizes from Multilevel Model fitted to Scores for Needing Help with Reading**



**Figure 16: Effect Sizes from Multilevel Model fitted to Scores for Preferring Comics and Magazines**



Some brief comments may be made about these results. The first factor (reading enjoyment) is positively related to sex (girls much higher than boys), age, non-eligibility for free school meals, stage of English fluency, a number of ethnic groups

relative to whites (all except Black Other), and percentage of pupils in the school whose first language is not English. Year 6 pupils have a significantly lower score than Year 4 pupils, as do SEN pupils relative to non-SEN. The overall change in score from entry to exit is not significant, but this fact should be contrasted with the observed strong decline between the two year groups. It seems that Pakistani pupils have a tendency to increase their scores over the period. There is also a significant positive relationship between increases in test scores and increases in this attitude score.

The second factor (needing help with reading) is positively related to sex (girls are more likely to state this than boys), SEN, the Black Caribbean ethnic group, and the percentages of SEN and English as a second language pupils in the school. It is negatively related to age, non-eligibility for free school meals, stage of English fluency, and the Chinese ethnic group. It is also negatively related to stage of testing, implying a significant decline in this factor over the project, in contrast to the lack of significant difference between the Year 4 and Year 6 cohorts. Looking at interaction terms, there is a significant decline for the Bangladeshi ethnic group and significantly lower than average rates of decrease for English fluency stages 1 and 2.

The third factor (preferring comics and magazines) is positively related to age, non-eligibility for free school meals, and stage of English fluency. It is negatively related to sex (girls are less likely to say this than boys), certain ethnic groups (Indian, Pakistani, Bangladeshi and Chinese), and the percentage of pupils eligible for free school meals. There is no overall significant change over time, or difference between Year 4 and Year 6. Pupils not eligible for free school meals have a slight tendency to increase their scores on this factor over the time of the project, as do those with higher progress scores on the test. There is a slight negative relationship between changes in this factor and the schools' effectiveness score on planning and management.

There are significant variations between schools in the overall levels of the factor scores and in their trends over time.

## **Summary of Results**

In this section, we shall briefly summarise the findings from this initial multilevel analysis of the data collected.

- There is a statistically significant increase in age-standardised test scores between Round 1 (entry) and Round 2 (progress) testing. This applies to all year groups.
- The variables with apparently positive relationships with overall test score are round of testing (with significantly higher age-standardised scores in Round 2 compared with Round 1), sex (girls outperforming boys), age (despite scores being age-standardised), non-eligibility for free school meals, stage of English fluency, various ethnic groups relative to the white population (Black African, Black Other, Indian, and Chinese), and voluntary school status.

- Background variables with apparently negative relationships with overall test scores include non-UK education, SEN level, percentage of teachers with an English degree, percentage eligible for free school meals, and setted year groups.
- It seems that progress from Round 1 to Round 2 is positively related to sex (girls make on average more progress than boys), non-eligibility for free school meals, and headteachers' ratings of the usefulness of Literacy Project work in Key Stage 1. Progress appears to be negatively related to entry test score (those with lower entry scores tend to make more progress), to SEN, and to setted year groups.
- Considering year groups separately, in general the same relationships as above were found, with some variations. In Year 2, the progress, after allowing for all other background factors, appeared to be positively related to entry test score. This would imply that those with higher test scores tended to make more progress, when other factors were taken into account.
- The first reading attitude factor (reading enjoyment) is positively related to sex (girls much higher than boys), non-eligibility for free school meals, stage of English fluency, a number of ethnic groups relative to whites (all except Black Other), and percentage of pupils in the school whose first language is not English. Year 6 pupils have a significantly lower score than Year 4 pupils, as do SEN pupils relative to non-SEN. The overall change in score from entry to exit is not significant, but this fact should be contrasted with the observed strong decline between the two year groups. It seems that Pakistani pupils have a tendency to increase their scores over the period. There is also a significant positive relationship between increases in test scores and increases in this attitude score.
- The second reading attitude factor (needing help with reading) is positively related to sex (girls are more likely to state this than boys), SEN, the Black Caribbean ethnic group, and the percentages of SEN and English as a second language pupils in the school. It is negatively related to age, non-eligibility for free school meals, stage of English fluency, and the Chinese ethnic group. It is also negatively related to stage of testing, implying a significant decline in this factor over the project, in contrast to the lack of significant difference between the Year 4 and Year 6 cohorts. There is a significant decline for the Bangladeshi ethnic group and significantly lower than average rates of decrease for English fluency stages 1 and 2.
- The third factor (preferring comics and magazines) is positively related to age, non-eligibility for free school meals, and stage of English fluency. It is negatively related to sex (girls are less likely to say this than boys), certain ethnic groups (Indian, Pakistani, Bangladeshi and Chinese), the percentage of pupils eligible for free school meals, and the pupil-teacher ratio. There is no overall significant change over time, or difference between Year 4 and Year 6. Pupils not eligible for free school meals have a slight tendency to increase their scores on this factor over the time of the project, as do those with higher progress scores on the test. There is a slight negative relationship between changes in this factor and the schools' effectiveness score on planning and management.

**Table 1: Details of Variables Used in Multilevel Modelling**

No.	Name	Range		Description
		Min.	Max.	
1	LEA	206	926	LEA identifier
2	SCHOOL	1	267	School ID
3	YEAR	2	6	Year Group
4	PUPILID	10001	73254	Pupil ID
5	ROUND	1	2	Round of testing
6	SSCORE	69	141	Standardised reading test score
7	VOLUNT	0	1	Voluntary school
8	GM	0	1	GM school
9	KS1TIME	21	24	KS1- Hours of lessons per week
10	KS2TIME	22	25	KS2- Hours of lessons per week
11	KS1ETIME	5	8	KS1- Hours of English lessons per week
12	KS2ETIME	5	8	KS2- Hours of English lessons per week
13	LIT1TIME	1	6	Time dedicated to Literacy at KS1
14	LIT2TIME	1	6	Time dedicated to Literacy at KS2
15	PSEN2	1	9	Percentage of SEN pupils
16	PENGLISH	0	50	Percentage of teachers with English degree
17	PNENG	0	99	Percentage of pupils whose first language
18	PFSM	2	100	Percentage of pupils receiving Free scho
19	PPTR	11	42	Pupil teacher ratio
20	PDEGREE	0	100	Percentage of teachers with degree
21	PUNQUAL	0	19	Percentage of teachers unqualified
22	NOR	25	615	Number on roll
23	TEACCLASS	1	2	Teachers per class
24	SEX	0	2	Sex (0 = male, 2 = female, 1 = unknown)
25	AGE	72	144	Age in months
26	NONUK	0	1	Received Non-UK Education?
27	SEN	0	1	Special Educational Needs level
28	NOFSM	0	2	Does not receive Free School Meals
29	STAGE	1	5	Stage of Learning English
30	ETHNIC2	0	1	Black Caribbean
31	ETHNIC3	0	1	Black African
32	ETHNIC4	0	1	Black Other
33	ETHNIC5	0	1	Indian
34	ETHNIC6	0	1	Pakistani
35	ETHNIC7	0	1	Bangladeshi
36	ETHNIC8	0	1	Chinese
37	SETTED	0	1	Year group is setted
38	CONS	1	1	Constant term
39	YEAR2	0	1	Year 2 indicator
40	YEAR4	0	1	Year 4 indicator
41	YEAR6	0	1	Year 6 indicator

**Table 1 (continued)**

42	OSCINT	-39	39	Interaction term: original score
43	SEXINT	-1	1	Interaction term: sex
44	SENINT	0	0	Interaction term: SEN
45	FSMINT	0	1	Interaction term: FSM
46	ETH2INT	0	0	Interaction term: ethnic 2 (Black Caribbean)
47	ETH3INT	0	0	Interaction term: ethnic 3 (Black African)
48	ETH4INT	0	0	Interaction term: ethnic 4 (Black Other)
49	ETH5INT	0	0	Interaction term: ethnic 5 (Indian)
50	ETH6INT	0	0	Interaction term: ethnic 6 (Pakistani)
51	ETH7INT	0	0	Interaction term: ethnic 7 (Bangladeshi)
52	ETH8INT	0	0	Interaction term: ethnic 8 (Chinese)
53	SETINT	0	0	Interaction term: setted
54	HTA1INT	-29	29	Interaction term: Head factor 1 (support etc.)
55	HTA2INT	-18	18	Interaction term: Head factor 2 (KS2 help)
56	HTA3INT	-17	17	Interaction term: Head factor 3 (KS1 help)
57	EF1INT	-0.49	0.49	Interaction term: English fluency stage 1
58	EF2INT	-0.48	0.48	Interaction term: English fluency stage 2
59	EF3INT	-0.47	0.47	Interaction term: English fluency stage 3
60	EF4INT	-0.41	0.41	Interaction term: English fluency stage 4
61	LSCOINT	-0.66	0.66	Interaction term: LEA score on effectiveness
62	SCO1INT	-4.71	4.71	Interaction term: General effectiveness (school)
63	SCO2INT	-1.04	1.04	Interaction term: Literacy hour (school)
64	SCO3INT	-4.02	4.02	Interaction term: Planning etc. (school)
65	Y2SC1INT	-4.67	4.67	Interaction term: General effectiveness (Yr 2)
66	Y2SC2INT	-1.00	1.00	Interaction term: Literacy hour (Yr 2)
67	Y2SC3INT	-4.01	4.01	Interaction term: Planning & management (Yr 2)
68	Y4SC1INT	-5.32	5.32	Interaction term: General effectiveness (Yr 4)
69	Y4SC2INT	-1.07	1.07	Interaction term: Literacy hour (Yr 4)
70	Y4SC3INT	-4.01	4.01	Interaction term: Planning & management (Yr 4)
71	Y6SC1INT	-4.74	4.74	Interaction term: General effectiveness (Yr 6)
72	Y6SC2INT	-1.19	1.19	Interaction term: Literacy hour (Yr 6)
73	Y6SC3INT	-3.88	3.88	Interaction term: Planning & management (Yr 6)
74	RAQFAC1	44	128	Reading attitude factor (reading enjoyment)
75	RAQFAC2	65	134	Reading attitude factor (needing help)
76	RAQFAC3	62	124	Reading attitude factor (comics & magazines)
77	PROGINT	-63.5	63.5	Interaction term: progress score

**Table 2: Numbers of LEAs, Schools and Pupils in Each Model**

Model	LEAs	Schools	Pupils
All years (unified)	16	246	28,718
Year 2	16	191	9692
Year 4	16	194	9586
Year 6	16	195	9440

**Table 3: Detailed Results of Multilevel Analysis of Test Scores for All Year groups**

Level	Parameter	Estimate	S.E.	Sig.	95% Confidence int.	
					Min.	Max.
	<b>Base case</b>					
LEA	Variance	2.905	1.570		-0.172	5.982
School	Variance	13.850	2.101	*	9.732	17.968
Cohort	Variance	12.830	1.331	*	10.221	15.439
Pupil	Variance	98.850	1.502	*	95.906	101.794
Timepoint	Variance	99.130	0.962	*	97.244	101.016
	<b>Full model</b>					
LEA	Variance	6.619	3.587		-0.412	13.650
	Slope/int. covar.	-1.606	1.567		-4.677	1.465
	Slope variance	1.005	0.908		-0.775	2.785
School	Variance	39.560	4.764	*	30.223	48.897
	Slope/int. covar.	-27.710	3.019	*	-33.627	-21.793
	Slope variance	21.830	2.182	*	17.553	26.107
Cohort	Variance	12.970	1.304		10.414	15.526
Pupil	Variance	110.400	1.334	*	107.785	113.015
Timepoint	Variance	55.220	0.540	*	54.161	56.279
	<b>Fixed coefficients</b>					
	CONS	59.230	1.797	*	55.708	62.752
	ROUND	8.274	0.484	*	7.326	9.222
	YEAR4	-0.176	0.681		-1.510	1.158
	YEAR6	-0.623	1.133		-2.844	1.598
	SEX	1.591	0.078	*	1.438	1.744
	AGE	0.052	0.022	*	0.009	0.094
	NONUK	-3.747	0.580	*	-4.883	-2.611
	SEN	-13.710	0.562	*	-14.812	-12.608
	NOFSM	2.259	0.085	*	2.092	2.426
	STAGE	3.965	0.150	*	3.670	4.260
	ETHNIC2	0.034	0.403		-0.755	0.823
	ETHNIC3	1.422	0.433	*	0.574	2.270
	ETHNIC4	1.615	0.582	*	0.475	2.755
	ETHNIC5	1.338	0.523	*	0.314	2.362
	ETHNIC6	-0.528	0.465		-1.439	0.384
	ETHNIC7	0.690	0.585		-0.458	1.837
	ETHNIC8	4.716	0.995	*	2.767	6.665
	VOLUNT	1.898	0.623	*	0.678	3.118
	PENGLISH	-0.093	0.035	*	-0.163	-0.024
	PFSM	-0.070	0.014	*	-0.097	-0.043
	SETTED	-1.150	0.502	*	-2.134	-0.166
	OSCINT	-0.073	0.004	*	-0.081	-0.064
	SEXINT	0.416	0.073	*	0.274	0.558
	SENINT	-5.227	0.535	*	-6.275	-4.179
	FSMINT	0.680	0.080	*	0.524	0.836

	SETINT	-3.362	0.392	*	-4.131	-2.593
	HTA3INT	0.072	0.023	*	0.027	0.117
	EF2INT	-1.422	0.394	*	-2.194	-0.650
	EF3INT	-0.577	0.339		-1.241	0.086
	SCO1INT	0.154	0.119		-0.080	0.388
	SCO2INT	0.253	0.261		-0.259	0.765



**Table 4: Detailed Results of Multilevel Analysis of Test Scores for Year 2**

Level	Parameter	Estimate	S.E.	Sig.	95% Confidence int.	
					Min.	Max.
	<b>Base case</b>					
LEA	Variance	0.068	0.893		-1.682	1.817
School	Variance	28.010	3.277	*	21.587	34.433
Pupil	Variance	14.870	1.950	*	11.048	18.692
Timepoint	Variance	144.900	2.437	*	140.123	149.677
	<b>Full model</b>					
LEA	Variance	4.781	4.817		-4.660	14.222
	Slope/int. covar.	-5.007	3.971		-12.790	2.776
	Slope variance	4.464	3.358		-2.118	11.046
School	Variance	94.610	11.320	*	72.423	116.797
	Slope/int. covar.	-64.040	7.904	*	-79.532	-48.548
	Slope variance	53.610	6.123	*	41.609	65.611
Pupil	Variance	57.130	1.498	*	54.194	60.066
Timepoint	Variance	55.480	0.957	*	53.605	57.355
	<b>Fixed coefficients</b>					
	CONS	55.300	2.207	*	50.974	59.626
	ROUND	10.070	0.869	*	8.366	11.774
	SEX	0.806	0.107	*	0.596	1.015
	AGE	0.101	0.030	*	0.042	0.159
	NONUK	-3.032	1.188	*	-5.360	-0.704
	SEN	-10.490	0.994	*	-12.438	-8.542
	NOFSM	1.739	0.116	*	1.512	1.966
	STAGE	2.766	0.216	*	2.343	3.189
	ETHNIC2	0.592	0.612		-0.608	1.792
	ETHNIC3	0.662	0.605		-0.524	1.848
	ETHNIC4	3.371	0.829	*	1.745	4.997
	ETHNIC5	1.507	0.660	*	0.213	2.801
	ETHNIC6	0.133	0.650		-1.141	1.407
	ETHNIC7	-0.598	0.897		-2.357	1.161
	ETHNIC8	4.167	1.554	*	1.121	7.213
	PENGLISH	-0.062	0.047		-0.154	0.030
	OSCINT	0.053	0.008	*	0.038	0.068
	SEXINT	0.258	0.127	*	0.009	0.507
	SENINT	-5.815	1.222	*	-8.210	-3.420
	FSMINT	0.692	0.140	*	0.419	0.966
	SETINT	-1.543	1.120		-3.738	0.652
	EF2INT	-1.761	0.675	*	-3.084	-0.438
	LSCOINT	0.277	0.776		-1.244	1.798
	Y2SC1INT	0.025	0.179		-0.325	0.375
	Y2SC2INT	0.404	0.395		-0.371	1.179

**Table 5: Detailed Results of Multilevel Analysis of Test Scores for Year 4**

Level	Parameter	Estimate	S.E.	Sig.	95% Confidence int.	
					Min.	Max.
	<b>Base case</b>					
LEA	Variance	6.480	3.321		-0.029	12.989
School	Variance	25.850	3.324	*	19.335	32.365
Pupil	Variance	142.200	3.072	*	136.179	148.221
Timepoint	Variance	78.410	1.331	*	75.801	81.019
	<b>Full model</b>					
LEA	Variance	6.002	4.022		-1.881	13.885
	Slope/int. covar.	-1.558	1.983		-5.445	2.329
	Slope variance	2.019	1.410		-0.745	4.783
School	Variance	49.070	6.464	*	36.401	61.739
	Slope/int. covar.	-26.190	3.612	*	-33.270	-19.110
	Slope variance	19.570	2.390	*	14.886	24.254
Pupil	Variance	144.600	2.757	*	139.196	150.004
Timepoint	Variance	44.110	0.761	*	42.619	45.601
	<b>Fixed coefficients</b>					
	CONS	46.930	10.810	*	25.742	68.118
	ROUND	7.880	0.713	*	6.482	9.278
	SEX	1.828	0.149	*	1.536	2.120
	AGE	-0.039	0.042		-0.120	0.043
	NONUK	-2.036	0.987	*	-3.970	-0.102
	SEN	-14.220	1.094	*	-16.364	-12.076
	NOFSM	2.576	0.163	*	2.257	2.895
	STAGE	4.862	0.295	*	4.283	5.441
	ETHNIC2	0.175	0.717		-1.231	1.581
	ETHNIC3	2.590	0.813	*	0.996	4.184
	ETHNIC4	3.096	1.133	*	0.875	5.317
	ETHNIC5	2.815	1.032	*	0.792	4.838
	ETHNIC6	-0.231	0.873		-1.941	1.479
	ETHNIC7	1.286	1.039		-0.750	3.322
	ETHNIC8	8.458	1.877	*	4.779	12.137
	KS2TIME	1.022	0.426	*	0.187	1.857
	PFSM	-0.123	0.020	*	-0.162	-0.083
	PPTR	-0.227	0.096	*	-0.416	-0.039
	OSCINT	-0.094	0.007	*	-0.107	-0.081
	SEXINT	0.444	0.115	*	0.220	0.669
	SENINT	-5.626	0.863	*	-7.317	-3.935
	FSMINT	0.727	0.125	*	0.481	0.972
	ETH4INT	1.523	0.891		-0.224	3.270
	EF1INT	-2.903	1.107	*	-5.073	-0.733
	EF2INT	-1.264	0.637	*	-2.513	-0.015
	EF3INT	-0.643	0.551		-1.723	0.438

**Table 6: Detailed Results of Multilevel Analysis of Test Scores for Year 6**

Level	Parameter	Estimate	S.E.	Sig.	95% Confidence int.	
					Min.	Max.
	<b>Base case</b>					
LEA	Variance	3.010	2.069		-1.045	7.065
School	Variance	27.440	3.452	*	20.674	34.206
Pupil	Variance	135.900	2.907	*	130.202	141.598
Timepoint	Variance	76.840	1.272	*	74.347	79.333
	<b>Full model</b>					
LEA	Variance	3.701	1.954		-0.129	7.531
	Slope/int. covar.	0.000	0.000		0.000	0.000
	Slope variance	0.000	0.000		0.000	0.000
School	Variance	63.950	7.719	*	48.821	79.079
	Slope/int. covar.	-36.890	4.562	*	-45.832	-27.948
	Slope variance	28.130	3.133	*	21.989	34.271
Pupil	Variance	137.000	2.570	*	131.963	142.037
Timepoint	Variance	41.690	0.699	*	40.320	43.060
	<b>Fixed coefficients</b>					
	CONS	55.440	4.622	*	46.381	64.499
	ROUND	6.571	0.628	*	5.340	7.802
	SEX	2.118	0.143	*	1.838	2.398
	AGE	0.091	0.040	*	0.012	0.169
	NONUK	-4.829	0.937	*	-6.665	-2.993
	SEN	-14.150	0.864	*	-15.843	-12.457
	NOFSM	2.419	0.156	*	2.114	2.724
	STAGE	4.359	0.267	*	3.836	4.882
	ETHNIC2	0.192	0.709		-1.198	1.582
	ETHNIC3	1.260	0.776		-0.261	2.781
	ETHNIC4	-1.325	1.005		-3.295	0.645
	ETHNIC5	-0.831	1.000		-2.791	1.130
	ETHNIC6	-2.594	0.852	*	-4.263	-0.925
	ETHNIC7	1.194	1.008		-0.782	3.170
	ETHNIC8	1.869	1.667		-1.398	5.136
	VOLUNT	1.631	0.889		-0.112	3.374
	LIT2TIME	-0.481	0.209	*	-0.890	-0.071
	PENGLISH	-0.093	0.052		-0.194	0.009
	PFSM	-0.081	0.020	*	-0.120	-0.043
	OSCINT	-0.110	0.007	*	-0.123	-0.096
	SEXINT	0.537	0.109	*	0.323	0.750
	SENINT	-4.528	0.678	*	-5.857	-3.199
	FSMINT	0.553	0.118	*	0.321	0.785
	EF2INT	-2.370	0.610	*	-3.566	-1.174
	Y6SC1INT	0.543	0.146	*	0.256	0.830

**Table 7: Headteacher Questionnaire Factor Loadings**

<b>Question</b>	<b>Description</b>	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>
Q1.1	Prelim consultants visit	0.57		
Q1.2	Prelim meetings	0.44		
Q1.3	Audit form	0.42		
Q1.4	School target-setting	0.32		
Q1.5	Setting out/following lit action plan	0.50		0.31
Q2A.1	Focus for teaching	0.39		
Q2A.2	A means of managing literacy	0.42	0.33	
Q2B.1	Shared KS1			0.82
Q2B.2	Shared KS2		0.82	
Q2B.3	Word level work KS1			0.84
Q2B.4	Word/sentence level work KS2		0.83	
Q2B.5	Guided KS1			0.79
Q2B.6	Guided KS2		0.82	
Q2B.7	Independent KS1			0.70
Q2B.8	Independent KS2		0.76	
Q2B.9	Plenary sessions		0.36	
Q3.1	Working to termly objectives	0.31		0.30
Q3.2	Using termly planner	0.43		
Q3.3	Using weekly planner			
Q3.4	Using weekly evaluation form	0.35		
Q4.1	The five day training course	0.39		
Q4.2	School based training	0.71		
Q4.3	Classroom support	0.66		
Q4.4	School based dissemination	0.31		
Q4.5	Other INSET	0.53		
Q4.6	Support/leadership from LEA	0.37		
Q5.1	Setting targets for pupils	0.37		
Q5.2	Using NLP pupil target setting form	0.33		
Q5.3	NLP test results KS1			
Q5.4	NLP test results KS2		0.46	
Q6.1	Value of STA training:individuals			
Q6.2	Value of STA training:school			
Q7.1	Advice on resources	0.31		
Q7.2	Additional funds from LEA			
Q7.3	The local NLP lit centre	0.43		
Q7.4	School library services			
Q7.5	Public library/loan services	0.35		
	<b>% Variance explained</b>	<b>11.90</b>	<b>10.06</b>	<b>9.01</b>

**Table 10: Reading Attitude Questionnaire Factor Loadings**

<b>Question</b>	<b>Description</b>	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>
Q1	I like reading stories	0.62		
Q2	I am not interested in books	-0.35		
Q3	I like reading comics and magazines			0.59
Q4	I like reading poems	0.45		
Q5	I think reading is difficult		0.36	
Q6	I like reading silently by myself	0.37		
Q7	I like watching TV better than reading	-0.44		
Q8	I don't like reading at home	-0.31		
Q9	I like going to the library	0.40		
Q10	I like reading information books	0.33		
Q11	I like reading with a grown-up to help me		0.62	
Q12	How often do you read at home?	0.49		
Q13.1	Read story books	0.52		
Q13.2	Read comics			0.58
Q13.3	Read magazines			0.60
Q13.4	Read newspapers			
Q13.5	Read information books	0.33		0.34
Q13.6	Read poems	0.41	0.24	
Q14	Does any grown-up at home read to you?		0.56	
Q15	Does grown-up at home listen to you read?		0.47	
Q16	Does anyone else at home read with you?		0.53	
	<b>% Variance explained</b>	<b>10.93</b>	<b>7.32</b>	<b>6.40</b>

**Table 11: Detailed Results of Multilevel Analysis of Reading Enjoyment Scores**

					95% Confidence int.	
Level	Parameter	Estimate	S.E.	Sig.	Min.	Max.
	<b>Base case</b>					
LEA	Variance	2.177	1.005	*	0.207	4.147
School	Variance	2.241	0.888	*	0.500	3.982
Cohort	Variance	3.855	0.929	*	2.035	5.675
Pupil	Variance	85.660	2.139	*	81.468	89.852
Timepoint	Variance	131.400	1.683	*	128.101	134.699
	<b>Full model</b>					
LEA	Variance	0.360	0.304		-0.235	0.955
School	Variance	15.860	3.112	*	9.760	21.960
	Slope/int. covar.	-9.924	1.794	*	-13.440	-6.408
	Slope variance	6.869	1.157	*	4.601	9.137
Cohort	Variance	3.527	0.820	*	1.921	5.133
Pupil	Variance	65.620	1.868	*	61.959	69.281
Timepoint	Variance	127.200	1.641	*	123.984	130.416
	<b>Fixed coefficients</b>					
	CONS	83.700	2.620	*	78.565	88.835
	ROUND	-0.778	0.433		-1.627	0.070
	YEAR6	-3.004	0.766	*	-4.505	-1.503
	SEX	4.521	0.104	*	4.317	4.725
	AGE	0.076	0.029	*	0.019	0.134
	NONUK	1.592	0.834		-0.043	3.227
	SEN	-1.874	0.799	*	-3.439	-0.309
	NOFSM	0.831	0.112	*	0.611	1.051
	STAGE	0.937	0.204	*	0.537	1.337
	ETHNIC2	1.031	0.506	*	0.039	2.023
	ETHNIC3	2.206	0.581	*	1.067	3.345
	ETHNIC4	0.617	0.778		-0.909	2.142
	ETHNIC5	2.865	0.701	*	1.491	4.239
	ETHNIC6	2.595	0.624	*	1.372	3.818
	ETHNIC7	2.987	0.702	*	1.611	4.363
	ETHNIC8	4.607	1.237	*	2.182	7.032
	PSEN2	0.164	0.090		-0.012	0.340
	PENGLISH	-0.053	0.027	*	-0.106	-0.001
	PNENG	0.041	0.009	*	0.022	0.059
	SEXINT	0.159	0.145		-0.126	0.444
	FSMINT	-0.260	0.155		-0.564	0.044
	ETH6INT	1.660	0.832	*	0.030	3.290
	SETINT	-0.409	0.499		-1.388	0.569
	LSCOINT	0.411	0.375		-0.324	1.147
	PROGINT	0.087	0.011	*	0.064	0.109

**Table 12: Detailed Results of Multilevel Analysis of Scores for Needing Help with Reading**

Level	Parameter	Estimate	S.E.	Sig.	95% Confidence int.	
					Min.	Max.
	<b>Base case</b>					
LEA	Variance	0.369	0.522		-0.654	1.392
School	Variance	0.000	0.000		0.000	0.000
Cohort	Variance	20.290	1.914	*	16.539	24.041
Pupil	Variance	68.490	1.981	*	64.607	72.373
Timepoint	Variance	136.600	1.749	*	133.172	140.028
	<b>Full model</b>					
LEA	Variance	0.494	0.450		-0.388	1.376
School	Variance	16.080	3.133	*	9.939	22.221
	Slope/int. covar.	-8.614	1.682	*	-11.911	-5.317
	Slope variance	6.336	1.078	*	4.223	8.449
Cohort	Variance	3.942	0.883	*	2.212	5.672
Pupil	Variance	71.920	1.886	*	68.223	75.617
Timepoint	Variance	120.700	1.557	*	117.648	123.752
	<b>Fixed coefficients</b>					
	CONS	133.800	2.730	*	128.449	139.151
	ROUND	-2.374	0.433	*	-3.222	-1.526
	YEAR6	-0.717	0.779		-2.244	0.810
	SEX	0.978	0.106	*	0.771	1.185
	AGE	-0.218	0.030	*	-0.276	-0.160
	NONUK	-0.057	0.847		-1.717	1.604
	SEN	6.803	0.809	*	5.217	8.389
	NOFSM	-0.855	0.116	*	-1.082	-0.628
	STAGE	-2.173	0.209	*	-2.583	-1.763
	ETHNIC2	1.603	0.518	*	0.588	2.618
	ETHNIC3	-1.130	0.592		-2.291	0.031
	ETHNIC4	0.229	0.791		-1.322	1.780
	ETHNIC5	0.185	0.716		-1.217	1.587
	ETHNIC6	0.169	0.637		-1.081	1.418
	ETHNIC7	-1.342	0.735		-2.783	0.099
	ETHNIC8	-5.548	1.257	*	-8.012	-3.084
	PSEN2	0.299	0.113	*	0.078	0.520
	PNENG	0.031	0.012	*	0.007	0.054
	PFSM	0.020	0.012		-0.004	0.045
	PDEGREE	0.023	0.014		-0.004	0.050
	ETH7INT	-2.095	0.934	*	-3.926	-0.264
	EF1INT	3.603	1.650	*	0.369	6.837
	EF2INT	2.364	0.929	*	0.543	4.185
	EF3INT	1.544	0.814		-0.050	3.138
	EF4INT	1.098	0.623		-0.124	2.320
	LSCOINT	-0.449	0.361		-1.156	0.259
	PROGINT	-0.017	0.011		-0.039	0.004

**Table 13: Detailed Results of Multilevel Analysis of Scores for Preferring Comics and Magazines**

					95% Confidence int.	
Level	Parameter	Estimate	S.E.	Sig.	Min.	Max.
	<b>Base case</b>					
LEA	Variance	0.584	0.434		-0.267	1.436
School	Variance	3.106	0.876	*	1.388	4.824
Cohort	Variance	3.157	0.798	*	1.592	4.722
Pupil	Variance	53.840	2.041	*	49.840	57.840
Timepoint	Variance	162.600	2.083	*	158.517	166.683
	<b>Full model</b>					
LEA	Variance	0.000	0.000		0.000	0.000
School	Variance	15.260	3.230	*	8.929	21.591
	Slope/int. covar.	-9.707	1.929	*	-13.488	-5.926
	Slope variance	7.127	1.286	*	4.606	9.648
Cohort	Variance	3.185	0.789	*	1.639	4.731
Pupil	Variance	52.730	1.995	*	48.820	56.640
Timepoint	Variance	158.400	2.044	*	154.394	162.406
	<b>Fixed coefficients</b>					
	CONS	97.640	2.899	*	91.958	103.322
	ROUND	-0.348	0.450		-1.230	0.534
	YEAR6	-0.966	0.771		-2.476	0.544
	SEX	-1.561	0.105	*	-1.767	-1.355
	AGE	0.063	0.030	*	0.005	0.121
	NONUK	0.028	0.842		-1.622	1.679
	SEN	-1.410	0.807		-2.991	0.171
	NOFSM	0.235	0.115	*	0.009	0.461
	STAGE	0.437	0.205	*	0.035	0.839
	ETHNIC2	0.216	0.504		-0.772	1.203
	ETHNIC3	0.018	0.579		-1.116	1.153
	ETHNIC4	-0.187	0.784		-1.723	1.349
	ETHNIC5	-1.980	0.694	*	-3.340	-0.620
	ETHNIC6	-2.243	0.613	*	-3.445	-1.041
	ETHNIC7	-3.894	0.670	*	-5.208	-2.580
	ETHNIC8	-3.260	1.250	*	-5.710	-0.810
	PFSM	-0.042	0.010	*	-0.060	-0.023
	PPTR	-0.098	0.050		-0.197	0.000
	FSMINT	0.561	0.172	*	0.224	0.899
	SETINT	0.611	0.531		-0.429	1.651
	HTA2INT	-0.028	0.026		-0.080	0.023
	SCO3INT	-0.297	0.142	*	-0.576	-0.018
	PROGINT	0.046	0.013	*	0.021	0.071



**Table 14: Confidential Headteacher Questionnaire Factor Loadings**

<b>Question</b>	<b>Description</b>	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>
MEAN1.1	How effective key teacher? (Mean)	0.62		
MEAN1.2	How effective management? (Mean)	0.70		
MEAN2.2	How effective in Yr R to 2? (Mean)	0.53		
Q2.31	Planning/evaluating literacy hour			0.55
Q2.32	Assessment & target setting			0.46
Q2.33	Teaching literacy hour		0.81	
Q2.34	Other	0.55		
MEAN2.5	How effective in Yr 3 to 4? (Mean)	0.56		
Q2.61	Planning/evaluating literacy hour		0.35	0.55
Q2.62	Assessment & target setting			0.52
Q2.63	Teaching literacy hour		0.91	
Q2.64	Other	0.56		
MEAN2.8	How effective in Yr 5 to 6? (Mean)	0.55		
Q2.91	Planning/evaluating literacy hour		0.38	0.52
Q2.92	Assessment & target setting			0.42
Q2.93	Teaching literacy hour		0.81	
Q2.94	Other	0.46		
Q3.1	Problems with staff turnover	0.40		
Q3.2	Problems with staff absence	0.38		
Q3.3	Problems with staff competence			0.44
Q3.4	Problems with staff resistance			0.37
Q3.5	Problems with school management	0.32		0.40
Q3.6	Problems with school governors.			
	<b>% Variance explained</b>	<b>13.90</b>	<b>11.19</b>	<b>9.80</b>

# **APPENDIX A4**

## **Reading Survey Questionnaires**

*nfer*

## Reading Survey

Name: Year 3/4 Before (1996) and after (1998)

In this booklet, there are some questions to find out what you think about reading. You should answer truthfully, saying what you think about each question. There are no right or wrong answers.

For most of the questions, you answer by ticking a box. Here are some examples.

For each of these questions, tick **yes** if you agree, tick **no** if you disagree, and tick **not sure** if you are not sure.

a) I like ice cream.

yes	not sure	no
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) I am not interested in computers.

yes	not sure	no
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For this question, you can tick more than one box.

c) Which of these do you like to do at home?

watch television

☐

play computer games

☐

play with friends

☐

do jobs to help at home

☐

For each of these questions, tick **yes** if you agree, tick **no** if you disagree, and tick **not sure** if you are not sure.

		yes	not sure	no
1.	I like reading stories.	1996 (before): 74	14	12
		1998 (after): 75	15	11
2.	I am not interested in books.	22	15	62
		21	15	64
3.	I like reading comics or magazines.	64	16	20
		68	15	18
4.	I like reading poems.	68	15	17
		67	16	17
5.	I think reading is difficult.	28	22	51
		17	25	58
6.	I like reading silently by myself.	73	13	15
		73	13	14
7.	I like watching television better than reading books.	55	20	25
		48	24	28
8.	I don't like reading at home.	30	17	53
		25	19	57
9.	I like going to the library.	74	13	13
		69	16	15
10.	I like reading information books.	58	20	22
		58	22	20
11.	I like reading with a grown-up to help me.	57	13	30
		45	18	37

12. How often do you read at home?

*please tick one box*

every day	<div>34</div> <div>28</div>	most days	<div>40</div> <div>48</div>	not often	<div>20</div> <div>21</div>	never	<div>6</div> <div>4</div>
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13. Which of these do you read at home?

*tick as many boxes as you need*

story books	<div>84</div> <div>83</div>
comics	<div>63</div> <div>58</div>
magazines	<div>62</div> <div>66</div>
newspapers	<div>43</div> <div>41</div>
information books	<div>62</div> <div>59</div>
poems	<div>74</div> <div>70</div>
none ticked	<div>2</div> <div>2</div>

14. Does any grown-up at home read to you?

yes	no
<div>60</div> <div>47</div>	<div>41</div> <div>53</div>

15. Does any grown-up at home listen to you read?

yes	no
<div>86</div> <div>80</div>	<div>14</div> <div>20</div>

16. Does anyone else at home read with you?

yes	no
<div>58</div> <div>49</div>	<div>43</div> <div>52</div>



# Reading Survey

Name: Year 5/6 Before (1996) and after (1998)

In this booklet, there are some questions to find out what you think about reading. You should answer truthfully, saying what you think about each question. There are no right or wrong answers.

For most of the questions, you answer by ticking a box. Here are some examples.

For each of these questions, tick **yes** if you agree, tick **no** if you disagree, and tick **not sure** if you are not sure.

a) I like ice cream.

yes	not sure	no
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) I am not interested in computers.

yes	not sure	no
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For this question, you can tick more than one box.

c) Which of these do you like to do at home?

watch television	<input type="checkbox"/>	play computer games	<input type="checkbox"/>
play with friends	<input type="checkbox"/>	do jobs to help at home	<input type="checkbox"/>

For each of these questions, tick **yes** if you agree, tick **no** if you disagree, and tick **not sure** if you are not sure.

	yes	not sure	no
1. I like reading stories.	74	15	11
1996 (before):	74	15	11
1998 (after):	75	16	10
2. I am not interested in books.	20	15	64
	19	16	66
3. I like reading comics or magazines.	71	12	16
	75	12	13
4. I like reading poems.	65	17	18
	56	22	22
5. I think reading is difficult.	18	26	57
	12	26	63
6. I like reading silently by myself.	74	11	15
	75	13	13
7. I like watching television better than reading books.	52	25	24
	49	30	21
8. I don't like reading at home.	25	18	57
	22	20	58
9. I like going to the library.	67	16	17
	60	20	21
10. I like reading information books.	52	24	24
	50	26	24
11. I like reading with a grown-up to help me.	44	18	38
	31	19	50

12. How often do you read at home?

*please tick one box*

every day	<input type="checkbox"/> 25	most days	<input type="checkbox"/> 48	not often	<input type="checkbox"/> 23	never	<input type="checkbox"/> 4
	24		51		22		3

13. Which of these do you read at home?

*tick as many boxes as you need*

story books	<input type="checkbox"/> 82
	82
comics	<input type="checkbox"/> 58
	49
magazines	<input type="checkbox"/> 69
	75
newspapers	<input type="checkbox"/> 40
	46
information books	<input type="checkbox"/> 53
	52
poems	<input type="checkbox"/> 66
	56
none ticked	<input type="checkbox"/> 2
	1

14. Does any grown-up at home read to you?

yes	no
<input type="checkbox"/> 42	<input type="checkbox"/> 58
33	67

15. Does any grown-up at home listen to you read?

yes	no
<input type="checkbox"/> 79	<input type="checkbox"/> 21
69	31

16. Does anyone else at home read with you?

yes	no
<input type="checkbox"/> 47	<input type="checkbox"/> 53
39	61





# **APPENDIX A5**

## **Headteacher Questionnaires**

# National Literacy Project

## QUESTIONNAIRE FOR HEADTEACHERS

The NFER has been asked by the National Literacy Project to collect your comments about the usefulness of particular aspects of the work. The questionnaire is very short and should not take long to complete. It may be helpful to consult other key staff in your school who have been involved in the training, management and dissemination of the work, eg the language/literacy co-ordinator and the second teacher who attended the five-day training course, so that the questionnaire responses reflect all your views. Each item simply requires a box to be ticked.

Your views will be very much appreciated and will contribute to the evaluations and future development of the project. No individual or school will be identified in any report of this survey.

# NATIONAL LITERACY PROJECT

## SURVEY OF SCHOOLS' VIEWS ON THE EFFECTIVENESS OF SUPPORT

	1 <i>not at all useful</i>	2 <i>not useful</i>	3 <i>neither useful nor not useful</i>	4 <i>quite useful</i>	5 <i>very useful</i>	N/A	<i>For Office Use Only</i>
<b>1. PREPARATORY WORK IN SCHOOLS</b>							
1.1 Preliminary consultants' visits to assist school audit	-	1	9	44	45	2	10
1.2 Preliminary meetings for Heads and governors	2	3	10	50	27	8	11
1.3 The audit/self-evaluation form	1	3	10	55	29	3	12
1.4 School target-setting	1	3	7	54	34	2	13
1.5 Setting out and following aliteracy action plan	1	2	7	43	45	2	14
<b>2. THE LITERACY HOUR</b>							
<b>2.1 STRUCTURE AND ORGANISATION</b>							
2.1.1 As a focus for teaching in the classroom	-	1	2	12	86	-	15
2.1.2 As a means of managing literacy at school level	-	1	3	19	77	-	16
<b>2.2 STRUCTURE AND ORGANISATION</b>							
2.2.1 Shared reading/writing (whole class) KS1	-	1	1	19	68	13	17
2.2.2 Shared reading/writing (whole class) KS2	-	1	5	20	64	11	18
2.2.3 Word level work (whole class) KS1	-	-	2	25	61	12	19
2.2.4 Word and sentence level work (whole class) KS2	-	1	5	26	57	11	20
2.2.5 Guided reading/writing (group work) KS1	-	3	5	24	57	12	21
2.2.6 Guided reading/writing (group work) KS2	1	-	7	20	62	11	22
2.2.7 Other independent group work KS1	1	4	9	41	32	13	23
2.2.8 Other independent group work KS2	1	3	8	39	37	12	24
2.2.9 Plenary sessions (whole class)	1	2	9	37	50	1	25

	1 <i>not at all useful</i>	2 <i>not useful</i>	3 <i>neither useful nor not useful</i>	4 <i>quite useful</i>	5 <i>very useful</i>	N/A	<i>For Office Use Only</i>
<b>3. THE NLP FRAMEWORK FOR TEACHING</b>							
3.1 Working to the termly objectives	-	1	2	34	63	-	26
3.2 Using the termly planner	1	1	7	33	57	1	27
3.3 Using the weekly planner	3	2	8	28	60	-	28
3.4 Using the weekly evaluation form	8	12	31	24	20	6	29
<b>4. TRAINING AND SUPPORT</b>							
4.1 The five-day training course	-	1	5	28	66	-	30
4.2 School-based training by consultant	-	2	9	34	54	1	31
4.3 Classroom support from consultant	-	3	14	34	46	4	32
4.4 School-based dissemination by designated teachers	1	1	4	30	62	2	33
4.5 Other INSET - networks, twilights etc	1	3	11	50	33	2	34
4.6 Support and leadership from your LEA	4	5	24	38	26	3	35
<b>5. ASSESSMENT</b>							
5.1 Setting targets for individuals or groups of pupils	1	4	12	49	28	6	36
5.2 Using the NLP pupil target setting form	6	15	23	31	13	13	37
5.3 NLP test results KS1	5	11	17	31	19	18	38
5.4 NLP test results KS2	2	10	18	32	24	15	39
<b>6. SPECIALIST TEACHING ASSISTANT (STA) TRAINING</b> If your school has not been involved, tick the N/A box							
6.1 Value of STA training to individuals	2	2	3	12	37	44	40
6.2 Values of STA training to school	3	2	7	12	31	45	41
<b>7. RESOURCES</b>							
7.1 Advice on resources from consultants	1	3	8	40	46	3	42
7.2 Additional funds from LEA (if applicable to your school)	1	2	3	18	60	17	43
7.3 The local NLP literacy centre	2	3	11	36	44	4	44
7.4 School library services	5	9	24	24	19	19	45
7.5 Public library or other loan services	7	12	30	12	8	31	46

**COMMENTS**

Please use this space to add any other comments you may have.



## Evaluation of National Literacy Project

### **CONFIDENTIAL** **HEADTEACHER QUESTIONNAIRE**

The purpose of the National Literacy Project evaluation is to draw conclusions about the effectiveness of the Project. Much of this information will be drawn from the children's test results.

However, there may be a number of reasons why schools who agreed to participate in the project may not have been able to implement it fully. We need to collect this information, in order to make better sense of the analysis of test results. It is for this purpose that we are asking you to complete this short additional questionnaire. **The school-level information from these questionnaires will be kept confidential to NFER researchers. There will be a report of the analysis to the National Literacy Project, but no individual school will be identifiable in this report.**

**Thank you for your help in completing this questionnaire.**

Please return it, using the pre-paid label provided, by **Friday 12 June.**

If you have any concerns, please do not hesitate to contact Mary Minnis on 01753 574123, ext 271.

**Field Research Services  
National Foundation for Educational Research  
The Mere, Upton Park, Slough, SL1 2DQ**

# 1 SCHOOL LEVEL IMPLEMENTATION

1.1 How effective do you think the key teacher has been, over the six terms of the project?

Please circle one number, as follows:

0 – not in post, absent, or not functioning for any other reason

1 – significant gaps or problems in effectiveness

2 – generally effective

3 – very effective

Autumn 96	Spring 97	Summer 97	Autumn 97	Spring 98	Summer 98
0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
11 7 28 42	7 7 32 51	3 4 34 56	3 3 29 63	6 2 31 60	9 4 25 59
NR: 12	3	3	2	1	2

(No response)

1.2 Overall, how effective do you think the management of the project has been, within your school?

1 – significant gaps or problems in effectiveness

2 – generally effective

3 – very effective

Autumn 96	Spring 97	Summer 97	Autumn 97	Spring 98	Summer 98
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
20 38 29	17 43 38	9 41 48	6 39 53	4 40 57	5 38 55
NR: 13	2	2	2	-	2



## 2. IMPLEMENTATION IN EACH YEAR GROUP

### Implementation in Years R to 2

2.1 Do you have these year groups in your school? (please tick) Yes  No

If 'yes':

How effectively do you think the project has been implemented in this age-group?

0 – not implemented

1 – significant gaps or problems in effectiveness

2 – generally effective

3 – very effective

Autumn 96	Spring 97	Summer 97	Autumn 97	Spring 98	Summer 98
0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
25 13 34 14	5 28 42 23	2 17 52 27	- 12 47 39	- 10 44 46	- 11 39 49
NR: 14	3	3	2	-	1

2.3 If you have identified any problems, were these mainly with:  
(please tick all that apply)

Planning and evaluation of the literacy hour using the objectives

Assessment and target setting

Teaching the literacy hour

Other (please specify)

None ticked

## Implementation in Years 3 to 4

2.4 Do you have these year groups in your school? Yes  No

If 'yes':

2.5 How effectively do you think the project has been implemented in this age-group?

0 – not implemented

1 – significant gaps or problems in effectiveness

2 – generally effective

3 – very effective

Autumn 96	Spring 97	Summer 97	Autumn 97	Spring 98	Summer 98
0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
29 15 32 13	6 27 45 20	1 13 61 23	- 8 48 43	- 6 43 50	- 5 41 51
NR: 11	2	2	1	1	2

2.6 If you have identified any problems, were these mainly with:  
(please tick all that apply)

Planning and evaluation of the literacy hour using the objectives

Assessment and target setting

Teaching the literacy hour

Other (please specify)

None ticked

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## Implementation in Years 5 to 6

2.7 Do you have these year groups in your school? Yes  No

2.8 If 'yes':

How effectively do you think the project has been implemented in this age-group?

0 – not implemented

1 – significant gaps or problems in effectiveness

2 – generally effective

3 – very effective

Autumn 96	Spring 97	Summer 97	Autumn 97	Spring 98	Summer 98
0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
34 12 33 10 10	14 26 37 19 5	5 15 55 22 4	1 12 54 31 2	1 8 55 35 2	- 8 54 35 4

NR:

2.9 If you have identified any problems, were these mainly with:  
(please tick all that apply)

Planning and evaluation of the  
literacy hour using the objectives

Assessment and target setting

Teaching the literacy hour

Other (please specify)

None ticked

\_\_\_\_\_

### 3. NATURE OF PROBLEMS

If you have had any problems in implementing the project, please indicate their nature and extent, and comment further if you wish.

Please tick one box in each case

#### 3.1 Staff turnover

no problems ☐ 39    minor problems ☐ 35    significant problems ☐ 27

#### 3.2 Staff absence

no problems ☐ 47    minor problems ☐ 38    significant problems ☐ 16

#### 3.3 Staff competence / understanding of project

no problems ☐ 29    minor problems ☐ 62    significant problems ☐ 10

#### 3.4 Staff resistance to aims or methods of project

no problems ☐ 46    minor problems ☐ 45    significant problems ☐ 10

#### 3.5 Problems with school management

no problems ☐ 62    minor problems ☐ 32    significant problems ☐ 7

#### 3.6 Problems with school governors

no problems ☐ 94    minor problems ☐ 6    significant problems ☐ -

**You have already completed a questionnaire about the support provided by your LEA. These results will also be analysed.**

**Thank you for your help in completing  
this questionnaire.**





## Evaluation of the National Literacy Project

### COHORT 1, 1996–1998

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This is the full technical report of the evaluation of the National Literacy Project, conducted by the National Foundation for Educational Research (NFER), under contract to the Department for Education and Employment (DfEE). The report details the findings for the first cohort of schools, around 250 in number, which participated in the National Literacy Project from 1996 to 1998.

The report describes the implementation of the project, drawing on evidence from local consultants and from participating headteachers. It presents an analysis of test results from a sample of around 21,000 children in participating schools, indicating the progress they made in the course of the project and relating the results to background factors. Other chapters address the pupils' attitudes to reading, and their specific reading and writing skills.

A National Literacy Strategy was introduced in all schools from the autumn of 1998. This is very similar in its objectives and structure to the National Literacy Project, and the schools in this evaluation provide a valuable model for all those implementing the strategy.

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