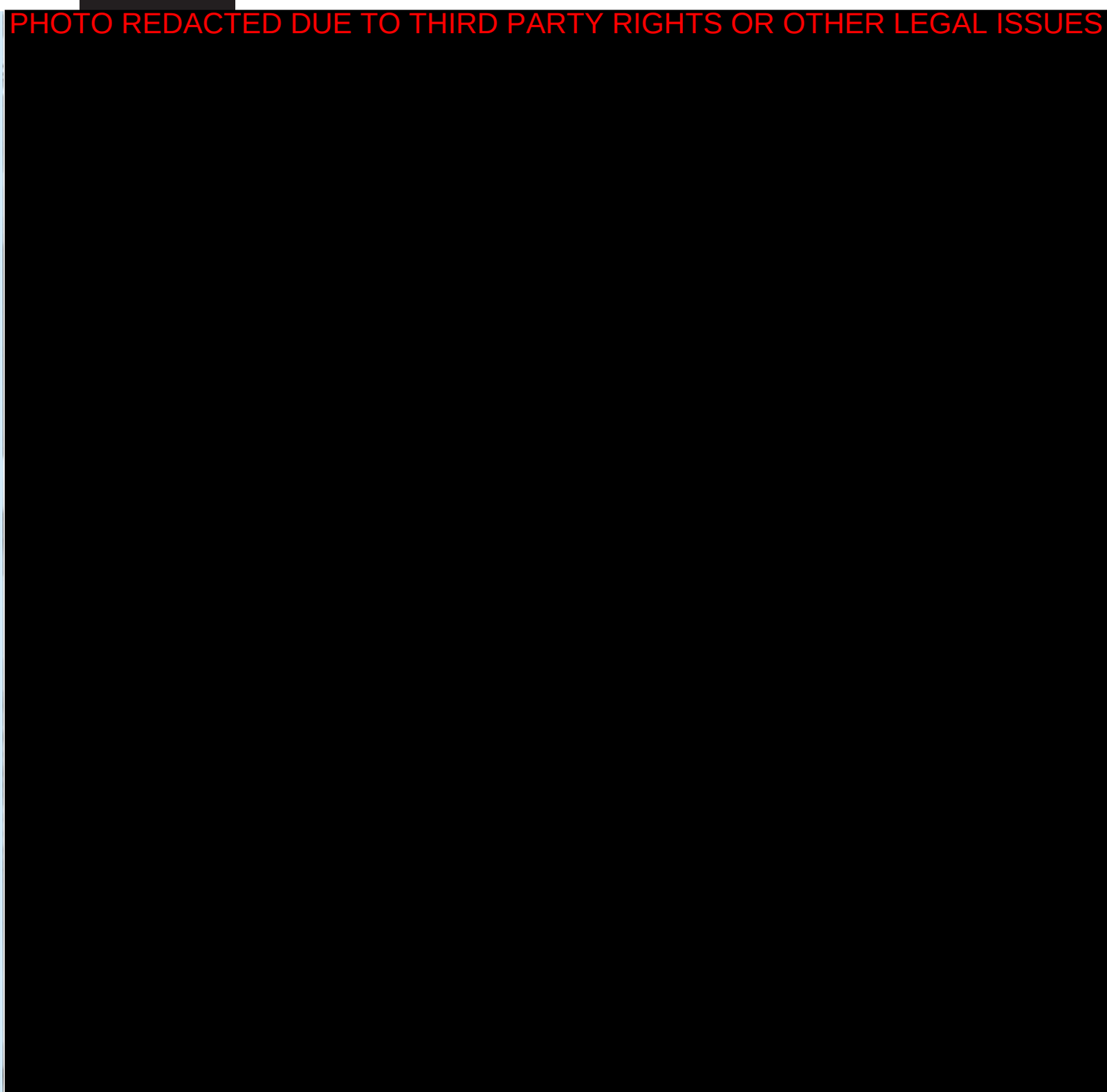
The national literacy and numeracy strategies and the primary curriculum



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Introduction and evidence base

1. The implementation of the National Literacy Strategy (NLS) began in English primary schools at the start of the autumn term 1998 and that of the National Numeracy Strategy (NNS) in 1999. The two national strategies (NLNS), now subsumed into the Primary National Strategy (PNS), were intended to bring about a dramatic improvement in standards of English and mathematics. Since their inception, the two national strategies have had a significant positive effect on teaching practice and on pupils' achievement. Although the most recent targets for English and mathematics have still not been met, there is evidence of a slight improvement in attainment in the 2004 national tests after a period where results remained static.

2. In May 2003, through the publication of *Excellence and enjoyment*, the government further developed its vision of a PNS.[1] The document emphasises the continuing important focus on raising standards while making learning enjoyable. The goal is for every primary school to combine excellence in teaching with enjoyment of learning.

3. This report concludes the second year of a two-year evaluation of the NLNS from 2002 to 2004 and it looks at the early stages of the implementation of the PNS. Ofsted, through Her Majesty's Inspectors (HMI), visited a nationally representative sample of 120 schools for each strategy during 2003/04 to inspect the teaching of English and mathematics. HMI held discussions with school staff and pupils, read documentation and examined pupils' work. In addition, HMI made a second visit to 48 of the schools in order to evaluate the impact of the two strategies on other subjects in the primary curriculum. On the second visits, just over 100 lessons were seen in all National Curriculum subjects (including English and mathematics) and religious education (RE). Ofsted also inspected the first year of the primary leadership programme (PLP), as well as training related to the two national strategies.[2]

4. As part of the evaluation, the Qualifications and Curriculum Authority (QCA) arranged to provide data on pupils' attainment and progress in English and mathematics in Years 3, 4 and 5 in the schools in the national samples. This was done through using the QCA optional tests, which most of the schools administered. These data, collected and analysed by the National Foundation for Educational Research (NFER), augment those already available through the National Curriculum tests of Year 2 and Year 6 pupils. An annex to this report summarises the results of the tests taken by the pupils in Years 3, 4 and 5. A fuller version is available on the QCA website.[3]

5. This report provides evidence of schools' implementation of the PNS, focusing on progress in the NLNS and their impact on the primary curriculum. It summarises the standards attained by pupils in English and mathematics, reports on teaching and curriculum organisation and suggests the areas where further work is needed.

1 *Excellence and enjoyment: a strategy for primary schools*, DfES, 2003.
2 *The primary leadership programme 2003–04*, Ofsted, 2004.
3 www.qca.org.uk

Main findings

- The quality of teaching in the literacy hour and the daily mathematics lesson continues to improve. Despite this, in both subjects, the teaching in one in three lessons is no better than satisfactory, and this holds back further improvements in standards.
- Headteachers have welcomed the vision for primary education set out in *Excellence and enjoyment*. Many have begun to consider more flexible and creative ways of managing the curriculum, although few have made any significant changes so far.
- Schools' focus on the literacy hour and daily mathematics lesson has been largely unaffected by the publication of *Excellence and enjoyment*.
- The best schools have responded well to the PNS and, to some extent, the broader aims of *Excellence and enjoyment* through lessons in science, the foundation subjects and RE, which engage pupils positively. For most subjects, however, considerable inconsistencies exist in pupils' experiences in terms of depth and richness of subject coverage.
- In some local education authorities (LEAs), the significant workload of the primary strategy manager and weak links across different aspects of LEA services create problems for the development of the PNS.
- Leadership and management in schools have improved. More schools now monitor and evaluate their performance and are more aware of what they need to do to raise standards further. The collection and analysis of data show the greatest improvement, but too many schools still do not use the information they gather effectively enough.
- Subject leaders continue to play an important role in improving quality and standards, although their impact is less in subjects other than English and mathematics. Many schools underestimate the complexity of the role of subject leaders for English.
- In English, teachers' planning focuses too much on covering the many objectives in the NLS *Framework for teaching*, instead of meeting pupils' specific needs. This inflexibility hinders improvements in the quality of English teaching.
- Day-to-day assessment to improve pupils' learning continues to be too weak in all subjects, although it is slightly better in mathematics than in English. Too many pupils are given work that is not matched well enough to their needs.
- The subject knowledge of a significant minority of teachers is limited and holds back effective planning, teaching and assessment.
- Teaching assistants' subject knowledge has improved, particularly in English, and this has a positive impact on pupils' progress and attainment.
- Teachers take part in a range of professional development activities in English and mathematics, but schools rarely evaluate its impact on pupils' progress and standards. Training for science, the foundation subjects and RE has been limited.
- Too many pupils receive additional support, or undertake intervention programmes, which do not meet their needs well enough.
- Information and communication technology (ICT) is underused to support teaching and learning in English and mathematics.

Points for action

6. In order to build on the improvements in teaching over the last five years and to make further progress on standards, those with **national responsibility** for the management of the strategies, including the PNS, should:
   - support all subject leaders in carrying out their role more effectively, especially in English
   - consider providing more intensive training, particularly in English, building on the effective model of the mathematics courses and focusing on improving teachers' subject knowledge and their understanding of pupils' progress.

7. Those with responsibility at **LEA level** for the PNS, including the NLNS, should:
   - ensure that primary strategy managers have sufficient authority to exert appropriate influence
   - continue to focus on the schools where leadership and management of the strategies are weak
   - support all schools in continuing to improve the quality of teaching and assessment
   - support subject leaders, especially in English, in managing their role and enhancing their subject knowledge
   - support networks of schools in disseminating good practice and sharing professional development.

8. To achieve the improvements that are needed in **English and mathematics**, all schools should:
   - continue to develop subject leaders' involvement and effectiveness in raising attainments
   - use the nationally produced guidance on assessment for learning to improve the quality of teaching
   - use data more effectively, particularly to focus support and intervention on the pupils who need it most
   - improve planning for English
   - make full use of the recently published national materials on speaking and listening to improve pupils' oral language and its use for learning across the curriculum.

9. To implement the **PNS** and the aims of *Excellence and enjoyment*, all schools should:
   - consider how best to integrate their work on the NLNS with the broader focus within *Excellence and enjoyment* to develop a broad, rich curriculum and improve standards
   - take steps to improve teachers' knowledge of subjects other than English and mathematics, including providing professional development for subject leaders.

Standards of achievement, pupils' progress and trends

English

10. Attainment in English at the end of Key Stage 2, as measured by the National Curriculum test results in 2004, has improved this year for the first time since 2000. The proportion of pupils reaching Level 4 or above rose by two percentage points to 77%. Results in reading improved by two percentage points to 83% and the proportion of pupils gaining a Level 4 in writing rose by three percentage points to 63%. Pupils' attainment in writing still lags behind their attainment in reading by 20 percentage points, and boys continue to do less well than girls.

11. The gap between the performance of boys and girls at Level 4 in English increased this year by 1 point to 11 percentage points. Although the gender gap in reading has widened to eight percentage points, the gap between boys and girls in writing has closed by two points to 15%. Boys' performance in writing improved significantly in 2004 with a four-point gain, which equals the total improvement measured over the previous four years. The improvement in writing, especially for boys, is encouraging, but there are still too many pupils leaving Key Stage 2 below the expected level.

12. The percentage of pupils achieving a Level 5 in English remains at 27%, the same as in 2003. The proportion of pupils gaining a Level 5 in reading fell by three percentage points and now stands at 39%. In contrast, results in writing improved by two percentage points to 17%, the same as in 2002. Girls continue to do better than boys in both reading and writing at Level 5. The proportion of boys gaining a Level 5 in reading fell by 5 percentage points this year and the gap between boys' and girls' performances increased to 13 percentage points: it was only 6 points in 2002. In writing, the gap narrowed by one percentage point to 8%.

    Figures 1 and 2 show the results of the English tests at **Key Stage 2** from 1998 to 2004. Figure 3 shows the results from 1999 to 2004.

Figure 1. Attainment in National Curriculum English tests at Key Stage 2: all pupils.

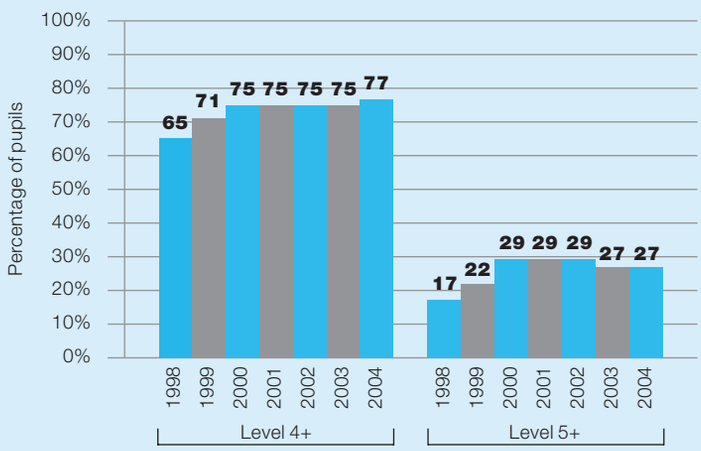


Figure 2. Percentage of pupils achieving Level 4 and above in English tests at Key Stage 2: boys and girls.

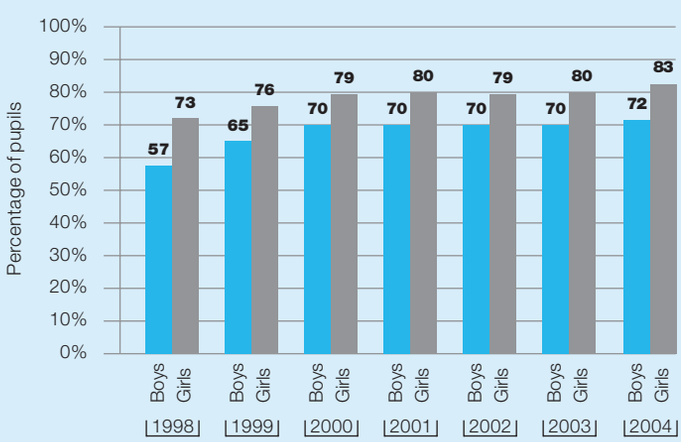
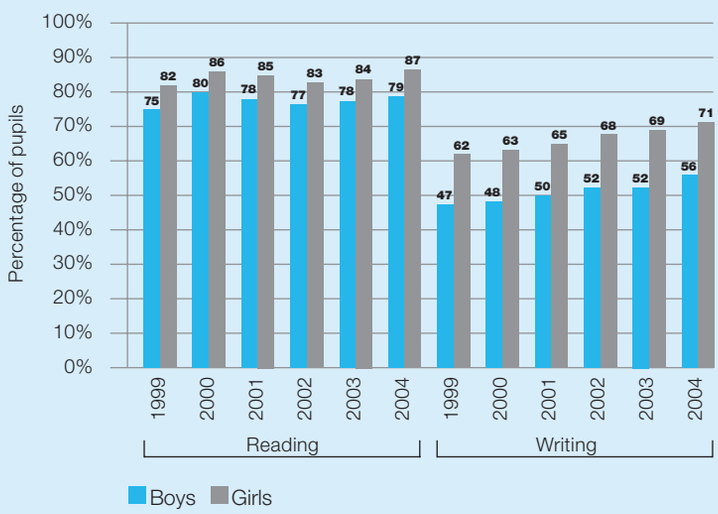


Figure 3. Percentage of pupils achieving Level 4 and above in reading and writing tests at Key Stage 2: boys and girls.



13. At **Key Stage 1**, there was an improvement of one percentage point in reading at Level 2 or above to 85%; the first change in three years. Attainment in writing at this level remained the same as in 2003 at 81%, having fallen five percentage points from 2002. On the 2B benchmark, there was also a one percentage point improvement in reading, but no change in pupils' achievements in writing. The gap between pupils' attainment in reading and writing increased by one percentage point to 8%. The proportion of pupils reaching Level 3 or above in reading at Key Stage 1 rose by one percentage point to 29% this year. Results in writing remained the same at 16% following the very good improvement in 2003.

14. At Level 2 and above, girls continue to outperform boys by 8 percentage points in reading and by 11 percentage points in writing. At Level 2B and above, girls are ahead of boys by 17 percentage points in writing and 11 points in reading. The proportions of boys and girls attaining Level 3 in writing remained the same. In reading, boys' results improved by one percentage point and girls' results improved by two points. There are still around one in six pupils leaving Key Stage 1 with attainment in Level 2 in reading below and around one in five in writing.

Figures 4–7 show the results of the English tests at **Key Stage 1** from 1998 to 2004.

Figure 4. Attainment in National Curriculum reading tests at Key Stage 1: all pupils.

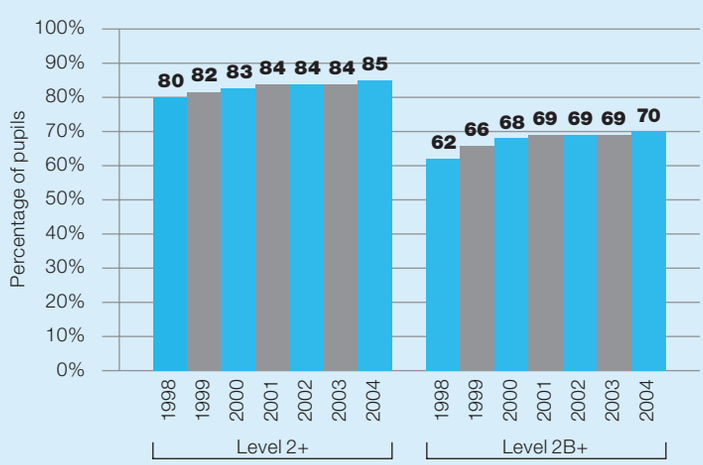


Figure 5. Attainment in National Curriculum writing tests at Key Stage 1: all pupils.

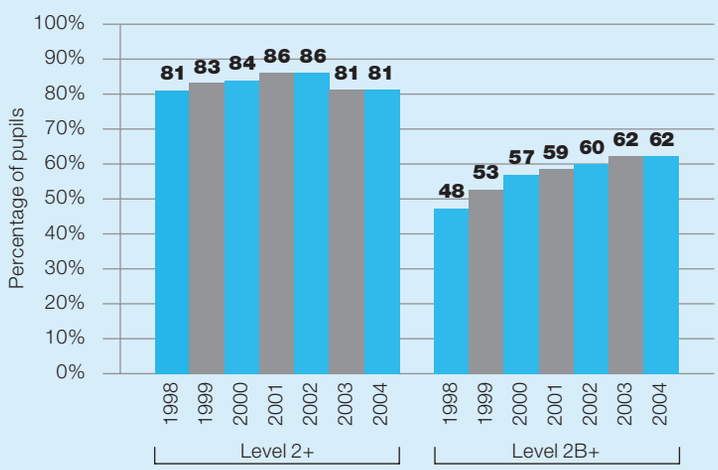


Figure 6. Percentage of pupils achieving Level 2 and above in reading tests at Key Stage 1: boys and girls.

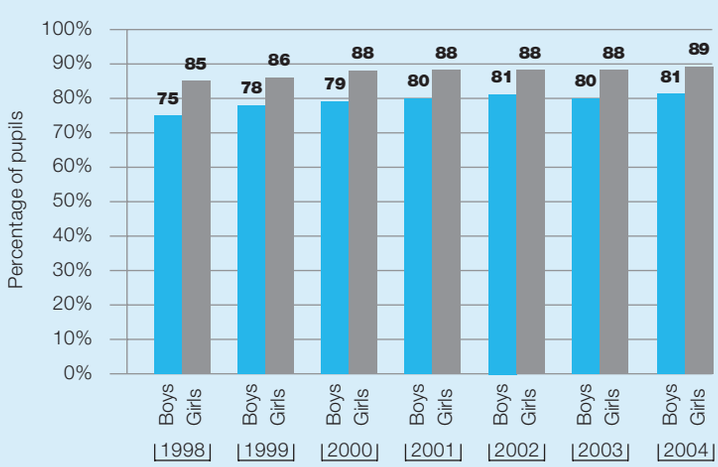
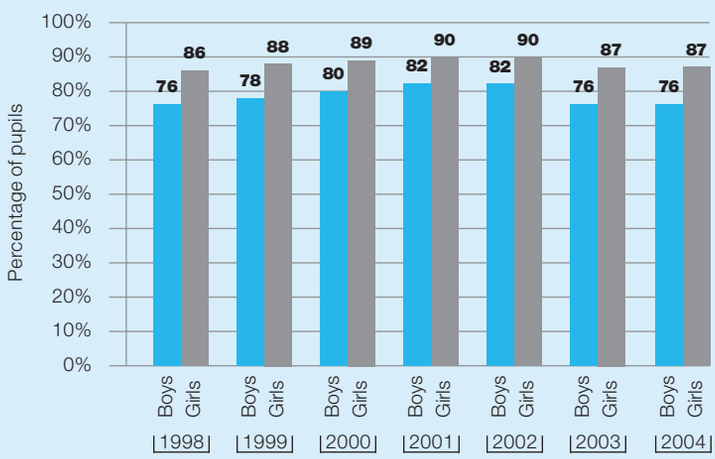


Figure 7. Percentage of pupils achieving Level 2 and above in writing tests at Key Stage 1: boys and girls.



Mathematics

15. **At Key Stage 2**, the proportion of pupils gaining Level 4 or above in mathematics in 2004 increased by one percentage point to 74%. Although there is still a significant gap between this year's results and the target of 85% set for 2006, the small improvement is a positive indication that, despite the plateau, attainment is still capable of improving further.

16. At Level 5 and above, pupils' performance continues to improve. The proportion of pupils gaining Level 5 has improved since the NNS was introduced and now stands at 31%, almost double the figure for 1998. More boys than girls (33% and 29% respectively) reached this higher level, but the gap between boys' and girls' results narrowed to three percentage points, the lowest it has been in the last four years.

    Figures 8 and 9 illustrate the results in mathematics at **Key Stage 2** from 1998 to 2004.

Figure 8. Attainment in National Curriculum mathematics tests at Key Stage 2: all pupils.

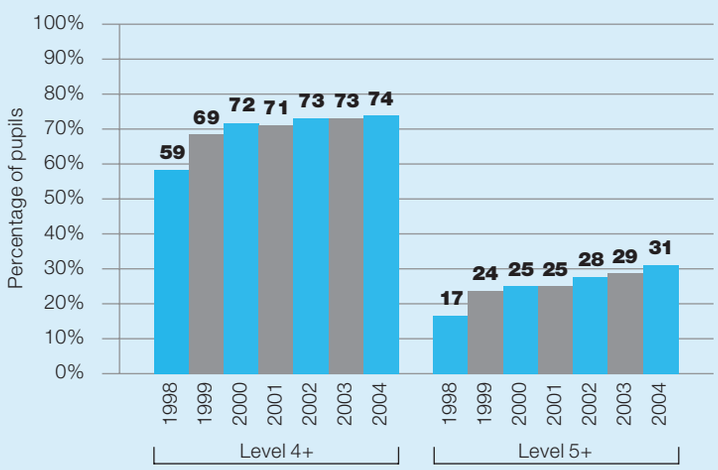
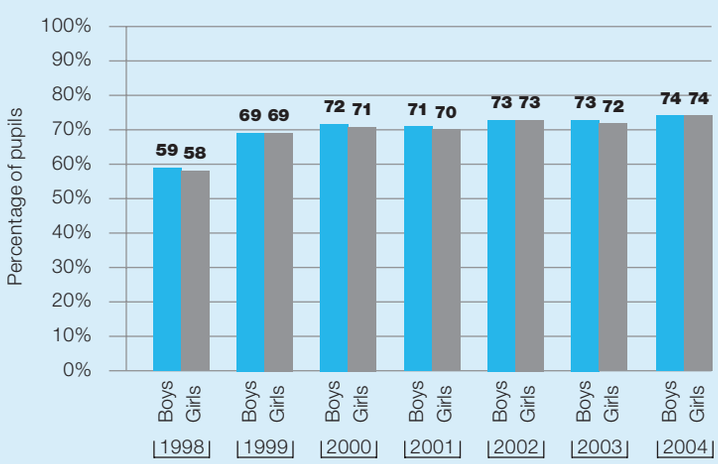


Figure 9. Percentage of pupils achieving Level 4 and above in mathematics tests at Key Stage 2: boys and girls.



17. At **Key Stage 1**, there has been no change since last year in the proportion of pupils achieving Level 2 or above, which remains at 90%. The proportion of pupils in Key Stage 1 reaching Level 2 has changed little since 2000. The proportion of pupils reaching Level 2B has risen by two percentage points to 76% this year. This is equal to the proportion for 2002 and the highest level since the NNS was introduced. Three in every four pupils are leaving Key Stage 1 on track to achieve Level 4 or higher by the end of Key Stage 2. The overall proportion of pupils reaching Level 3 is the same as in 2003 at 29%, although boys increased their lead over girls at this level to six percentage points. At Level 2 and Level 2B, girls continue to perform better than boys.

Figures 10 and 11 illustrate the results in mathematics at **Key Stage 1** from 1998 to 2004.

Figure 10. Attainment in National Curriculum mathematics tests at Key Stage 1: all pupils.

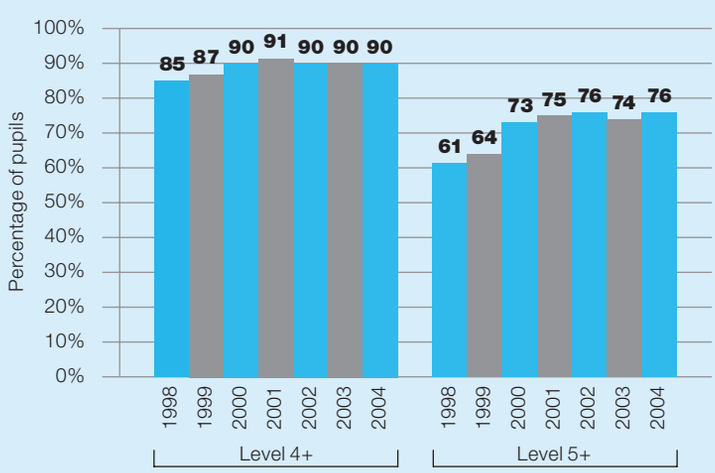
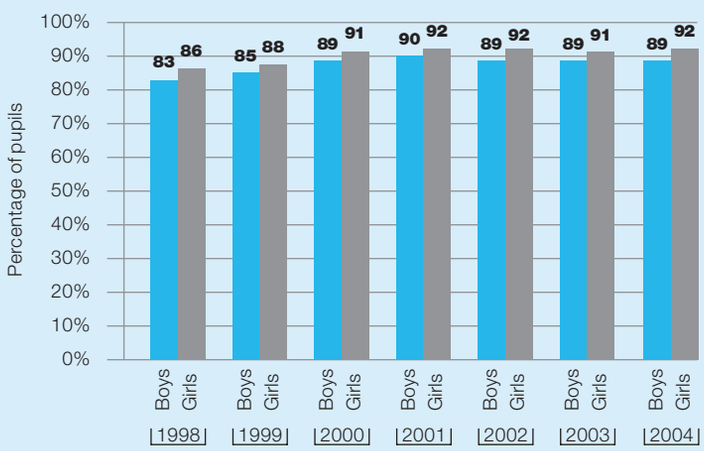


Figure 11. Percentage of pupils achieving Level 2 and above in mathematics tests at Key Stage 1: boys and girls.



18. Taken overall, those leading the strategies can take some comfort from the fact that the standstill in results at Key Stage 2 has at last shifted upwards. However, the improvements in attainment in English and mathematics are modest rather than substantial and there is some way to go to reach the targets originally set for 2004, even by 2006. There is still too much fluctuation in the results for reading and writing, and for boys and girls. At Key Stage 2, two sets of results have shown an annual improvement over the life of the strategies; girls' writing at Level 4 and above and mathematics at Level 5. The latter is the most notable as the results for both boys and girls have improved annually. It remains to be seen whether the PNS and initiatives such as the primary leadership programme will help LEAs and schools to build further on the gains made this year to achieve and sustain high standards for all pupils.

The implementation of the Primary National Strategy

Key outcomes

- Nearly all schools have welcomed the PNS and the vision expressed in *Excellence and enjoyment*, but many have adopted a cautious approach to the broader aims within the latter, mainly as a result of concerns not to lose the gains from the NLNS.
- The Department for Education and Skills' (DfES) concept of the primary strategy manager acting as a 'one-stop shop' for primary education has not been fully realised so far.
- LEA support is too variable and reflects some uncertainty about how to proceed.
- Although time for most foundation subjects has been squeezed, many schools are beginning to give more time to creative arts subjects.
- There is too much variability in the depth and richness of the way subjects are approached, for example practical work and field visits are often not given enough time.
- Moves towards a more integrated curriculum are risking pupils' understanding of the distinctive concepts within each subject.

The Primary National Strategy in schools

19. Most headteachers attended the conferences held between July and December 2003 and, in addition, all schools received copies of *Excellence and enjoyment*, which sets out the government's vision for primary education: 'The goal is for every primary school to combine excellence in teaching with enjoyment of learning.'

20. *Excellence and enjoyment* encourages schools to take a fresh look at their curriculum, their timetable and the organisation of the school day and week. Schools are encouraged to develop their distinctive character and take greater responsibility for the curriculum through creative and innovative approaches. Central to this is a re-thinking of how they might develop and enrich what they offer to their pupils. Not all schools have responded in practical ways to this challenge, but many have discussed the implications of *Excellence and enjoyment* and have considered how they might improve the design and organisation of the curriculum.

21. Some schools have become more flexible and have made organisational and curricular changes, either before or as a consequence of *Excellence and enjoyment*. These have included:

    - extending the morning session or reorganising the timetable to make time for additional lessons
    - timetabling other subjects between the literacy hour and daily mathematics lesson so that pupils can experience a greater range of activities
    - adding subjects such as a modern foreign language (MFL)
    - seeking ways to link subjects so that pupils have opportunities to use literacy and mathematics across the curriculum
    - introducing subject-specific theme days and activity weeks
    - introducing a more thematic approach by integrating a number of subjects, especially at Key Stage 1
    - using specialist teaching across a number of classes, thus using teachers' expertise more effectively

- increasing the time allocated to a particular subject, to enable pupils to undertake extended activities
- as part of workforce remodelling, employing additional teachers and coaches to teach specialist subjects such as music and physical education (PE).

22. These changes are usually judicious adjustments rather than reconstruction. A small number of schools have introduced more innovative solutions, their confidence usually stemming from the leadership of a new headteacher or from already having established high standards in the core subjects. In one school, changes included maintaining a day each week for specialist teaching based upon teachers' own subject strengths and reducing the number of literacy hour and daily mathematics sessions from five to four each week. Another school introduced philosophy lessons for all pupils to improve their thinking, speaking and listening.

23. Many schools, however, have not yet made any significant changes. Although committed to introducing greater flexibility, headteachers are determined, rightly, that curriculum reorganisation will not result in a return to an incoherent and unco-ordinated approach to planning, and most have responded cautiously. Some schools see little need for change, either because they already have a suitably broad and balanced curriculum or because they do not understand the government's proposals sufficiently. Some schools are reluctant to move away from established methods because of the risk to raising or maintaining high standards in English and mathematics.

24. In almost all schools, the literacy hour and daily mathematics lesson remain unaffected by the implementation of the PNS and the broader aims within *Excellence and enjoyment*. Rightly, headteachers do not want to lose the gains they have already made through the NLNS. Some, however, have introduced more time for teaching speaking and listening, drama and extended writing, believing that it is legitimate to give more time to English beyond the daily literacy hour. However, this reduces the time available for other subjects and few schools monitor the impact of this on standards in the foundation subjects. Although many headteachers aim to establish more effective teaching of literacy and mathematics in other subjects, this has rarely happened.

25. Teachers are generally less well informed about the PNS than headteachers. Many have taken part in staff meetings to discuss it and they continue to look for opportunities to plan links between subjects. They support the broad ideas set out in *Excellence and enjoyment*, but few have really grasped the implications for their own practice.

26. The majority of Year 6 pupils believe that the amount of time spent on learning English and mathematics is about right, but they would like to spend more time on creative arts and active subjects such as art and PE. Very few schools ask for pupils' views on the structure and suitability of the curriculum and only one or two have involved pupils in discussing curriculum changes deriving from the strategy's implementation.

The Primary National Strategy in LEAs

27. Most LEAs have committed themselves to the strategy through their educational development plans. All have introduced the strategy's leadership programmes and are taking steps towards workforce remodelling. Many headteachers, however, report that they have received little guidance from their LEA on implementing the strategy. Although most LEAs have begun to consider sharing the work of leading practice schools through creating networks, few have established working models. Overall, the quality of LEA support is a mixed picture and reflects some uncertainty about how best to proceed.

28. In the best LEAs, the PNS is at the heart of their work with primary schools. They have led additional conferences and briefing sessions on *Excellence and enjoyment* and creativity to support headteachers and governors and to encourage schools to share ideas. One LEA appointed an adviser to support creativity in the curriculum and led training to embed ICT in cross-curricular teaching and learning. A very useful ICT portal enabled teachers to access valuable resources. Many LEAs are involved in pilot projects focused on behaviour and attendance, teaching modern foreign languages or ICT. Some of the most successful work involves the development of work with interactive whiteboards.

29. The government's idea of an LEA's primary strategy manager acting as a 'one-stop shop' for primary education has not yet been fully realised. In some, a lack of coherence across LEA teams weakens the strategy's leadership and management. Opportunities for primary strategy managers to influence strategic decision-making are also limited when they do not hold a senior position. The better-organised LEAs ensure that their primary strategy managers have sufficient authority to push through improvements.

30. Although many LEAs have renamed their literacy and numeracy consultants 'primary consultants', in practice some are reluctant to move away from the established responsibilities for English and mathematics. This is partly a reflection of their caution not to lose the focus on standards in these two subjects.

31. However, new consultants and reallocated responsibilities have led to additional support for ICT, assessment for learning and other important areas of the strategy. Many LEAs have become more flexible in the way they support schools, focusing on improving generic aspects of teaching and learning. The primary leadership programme also helps to ensure that consultants work closely with schools. At present, however, support for subjects other than English and mathematics is limited.

The impact of the strategies on the primary curriculum

32. The NLNS have had a generally positive impact on the teaching of all subjects and have contributed clearly to sharpening teaching skills. Lesson structures involving a lively introduction, a main teaching sequence, group or individual activities and a final plenary to assess and consolidate learning are now common. The focus in English and mathematics on clarifying objectives for pupils and developing subject-specific vocabulary has also influenced other subjects. The training provided by the NLNS has helped teachers to develop their questioning skills.

33. In the most effective lessons, teachers balance the teaching of the subject with appropriate development of pupils' reading, writing and oral language.

In an outstanding Year 6 geography lesson on travel and transport, the teacher consolidated pupils' recent work on formal letter-writing in English when they wrote letters of complaint to the head of the local transport authority about problems with transport in their area. Excellent use of presentational software and digital photographs prepared pupils for the task. This gave them ideas for their writing and the language with which to express them. Their writing gained credibility and impact from their detailed knowledge of the topic as well as from their effective use of the written genre.

In a Year 4/5 English lesson, the teacher drew on the class's work on Tudor explorers. Pupils wrote newspaper articles or reports that drew accurately on the information learned in history. The teacher crucially stressed the distinction between the creativity involved in adopting their stance towards the events and the need to stick closely to the known facts. The approach enabled pupils to understand the distinctiveness of each subject as well as their interdependence.

34. Links between English and other subjects are generally better than those for mathematics. Teachers draw on approaches to teaching English by, for example, introducing scientific concepts or historical narrative to younger pupils through the use of a big book or deliberately choosing a story read in the literacy hour to introduce ideas from the Agreed Syllabus in an RE lesson. However, they rarely use open-ended writing in any subject to assess pupils' grasp of key concepts. Although pupils need to use some mathematical skills in science, geography or design and technology, teachers refer little, if at all, to explicit mathematical skills, thus losing opportunities to reinforce and consolidate them.

35. Despite positive links across subjects, there is still much to do to plan these productively. In some foundation subjects, teachers' excessive and inappropriate emphasis on English or mathematical objectives reduces time for the subject itself. In one music lesson, the teacher treated song lyrics as a text without referring to the musical aspects. This squeezed out proper attention to the musical objectives of the lesson and curtailed the time for singing. Further, using the lesson structures from the literacy hour or daily mathematics lesson in practical subjects sometimes reduces the time for pupils to practise and improve important skills.

36. The great majority of schools have maintained curricular breadth, but the depth and richness of the subjects are more variable. The time for science, foundation subjects and RE is generally adequate and within DfES/QCA guidelines. The widespread use of the DfES/QCA schemes of work also ensures at least a basic coverage of the National Curriculum. However, teachers sometimes use these schemes inappropriately, giving too little attention to developing knowledge, skills and understanding or meeting pupils' particular needs. Confident subject leaders overcome this by carefully adapting the scheme of work.

37. Most schools find it difficult to give full attention to the distinctive knowledge, skills and understanding required in each subject and, even more importantly, to make learning engaging for all pupils. In some schools, the blurring of subject boundaries through, for example, topic work has resulted in pupils failing to have a sufficient grasp of the distinctiveness of art and design or design and technology, or the differences between geography, history and RE, because they do not understand each subject's core concepts fully enough.

38. How schools allocate time is often a significant factor in the quality of the curriculum. In general, a rich curriculum correlates well with high standards and high levels of enthusiasm for learning. However, work that needs longer blocks of time and the greatest expertise is at risk of being squeezed out, such as three-dimensional work in art, complex science investigations and geography fieldwork. Although timetabling art alternately with design and technology allows for longer practical sessions for each subject, it sometimes leads to discontinuity: pupils make insufficient progress in important skills in the subject, for example drawing, or miss out on the depth of experience in designing and making. Yet these are the very aspects most likely to engage pupils and promote excellence and enjoyment.

39. Most leaders of foundation subjects consider their subject is still short of time, although others consider theirs is gaining importance. This is particularly so for the creative arts. Several successful schools have found additional time through arts weeks, sometimes arranged through clusters of schools or through extra-curricular activities in drama, PE, art and music, which enrich the experience of significant numbers of pupils.

Teaching and learning

Key outcomes

- The quality of teaching in the literacy hour and the daily mathematics lesson has improved and fewer lessons are now unsatisfactory.
- The teaching in around one in three lessons in English and mathematics is no better than satisfactory.
- Teachers' inflexibility in using the NLS framework hinders improvements in teaching English.
- Assessment is better in mathematics than in English, but is still too weak across all subjects.
- Many schools give assessment too low a priority in subjects beyond English and mathematics.
- Limited subject knowledge restricts the effectiveness of teaching, planning and day-to-day assessment at Key Stage 2 in most foundation subjects and RE, and particularly in science.
- ICT is underused to support teaching and learning in English and mathematics.

40. The quality of teaching in English and in mathematics has improved slightly since last year. There are fewer unsatisfactory lessons, leading to an overall upward shift in quality. Teaching is at least good in just over a half of all literacy hour and daily mathematics lessons and it is at least satisfactory in the vast majority. However, around one in three lessons in English and mathematics is no better than satisfactory, the same proportion as last year. Teaching of this quality, while having no significant weaknesses, is not effective enough to improve the quality of pupils' learning and what they know, understand and can do.

41. Weaknesses in teachers' subject knowledge, assessment and their organisation of lessons have been reported previously and continue to detract from the quality of teaching.

    In a mixed-age Year 5/6 class, the teacher's weak subject knowledge of factors and partitioning confused pupils who were asked to complete some simple calculations. Pupils used their mini-whiteboards to complete the calculations, but some did so incorrectly. The teacher recorded their answers on the whiteboard, but did not discuss why the pupils had reached different answers. Her failure to tackle pupils' misconceptions left some confused and hindered their learning. Although the teacher used the NNS unit plan as a script for her teaching throughout the lesson, it could not make up for her lack of confidence in the subject.

42. Many teachers use the NNS unit plans effectively to support their planning and use the structure and key questions for assessment. In English, however, teachers' concern to teach all the objectives for word-, sentence- and text-level work in the NLS framework prevents sensible thinking about whether they are relevant. In one school, pupils in Year 1 were being taught how to structure a letter and set out the address. However, some of the low-attaining pupils were barely able to write a sentence independently and the work became a copying task that did very little to improve their writing.

43. Word-level work is frequently a weak element in the literacy hour. Teachers give it insufficient attention and do not link it directly enough to pupils' needs. Further, because they do not always know enough about pupils' skills and knowledge, they teach material that pupils already know. In some cases, teachers do not always build sufficient opportunities for pupils to consolidate and apply their word-level work at other points in the lesson.

44. Inspectors saw examples of very good teaching in all subjects, in lessons often taught by the relevant subject leader. The majority of the teaching was good. However, there was considerable unevenness in the quality overall, with more unsatisfactory teaching in geography and design and technology than elsewhere.

45. The best teaching reflects the principles outlined in *Excellence and enjoyment*. It is enriched by carefully chosen artefacts; pupils explore and devise solutions to problems, or create their own designs, artwork or music. In one science lesson, pupils' interest in teeth was stimulated by the examination of an animal skull, followed by the use of mirrors so that pupils could examine their own teeth. In a Key Stage 1 geography lesson, pupils improved their understanding of maps and directions by using a 3D model.

46. Where teachers were observed teaching English or mathematics as well as another subject, their knowledge of either English or mathematics, and the associated teaching approaches, was frequently better than that for the other subject observed. Consequently, there was often a difference in quality between the same teacher teaching the literacy hour or daily mathematics lesson and a lesson in a foundation subject.

Teachers' subject knowledge

47. One of the main differences between the most and least effective English and mathematics lessons is the quality of teachers' subject knowledge. Good assessment of pupils' understanding, the judicious selection of objectives and the careful match of tasks to what pupils need contribute significantly to the progress they make. Poor assessment is a key indicator of teachers' weak subject knowledge and often leads to pupils being given work that is either too easy or too difficult.

48. Almost all teachers know the objectives in the NLS and NNS *Frameworks for teaching* in some detail. In too many lessons in English, however, they see the framework as a set of requirements to be ticked off; they try to cover too many objectives in a single lesson and, almost inevitably, pupils make less progress than they should. Teachers lack the confidence and subject knowledge to focus on the objectives that will help pupils to learn the most.

49. Many teachers still lack confidence in some specific areas of mathematics, although their response to the five-day or 'three-plus-two' courses in mathematics has been very positive. Teaching pupils how to use and apply mathematics is a particular weakness.

50. The low priority given to training in science, the foundation subjects and RE has led to continuing insecurities in teachers' subject knowledge and day-to-day assessment. Unsatisfactory teaching stems from their poor understanding of learning objectives and a lack of confidence about what the National Curriculum requires. Weak subject knowledge is frequently seen in basic mistakes in terminology, inappropriate use of resources and misunderstandings about the subject, for example in music and in science. Teachers frequently rely too heavily on inappropriate and commercially produced worksheets, particularly in geography. They are often uncertain about standards and expectations within the subject and lack the expertise to challenge the most able pupils. Insecure knowledge of the subject and of the National Curriculum requirements also leads to gaps in teaching the full programme of study or scheme of work.

Assessment

51. Day-to-day assessment is at least good in around half of all lessons in English and mathematics. It is unsatisfactory in slightly more than one in ten, although it is better in mathematics than in English.

52. Plenary sessions continue to be weak – nearly one in five in English and one in seven in mathematics. In English, teachers give too much emphasis to reviewing content, reminding pupils of the lesson's objectives, or providing an audience for pupils to show what they have done rather than what they have learned. The most effective teachers use the plenary flexibly, sometimes with mini-plenaries undertaken at key points, either during the week or within lessons.

    The teacher often has a 'revisiting' day midway through the week to pick up on aspects of mathematics that she has recognised as a particular weakness for the class. She also reviews what she has taught at the beginning of the week to check that pupils have understood and can apply their learning. She is not afraid to slow down to provide extra time for aspects that pupils have found difficult or where they are still uncertain, frequently revisiting to check that all pupils understand.

53. More broadly, effective day-to-day assessment is underpinned not just by good plenary sessions but also by:

    - clear and measurable objectives that provide a sound basis for assessing progress
    - teachers' good knowledge of the achievement of different groups to inform future teaching
    - questioning that focuses on checking that pupils understand
    - pupils' own knowledge of their strengths and weaknesses.

    Effective evaluation of previous learning also helps to ensure that work is well matched to pupils' needs.

54. Good practice in assessment includes marking undertaken with pupils, mini-plenaries and the use of simple matrices of assessment criteria, for example in art, which encourage pupils' self-assessment. Some schools involved in the School Sport Partnerships Programme use planning sheets, with teachers noting pupils' achievements against key objectives. This helps them to understand the importance of using assessment to modify lessons according to pupils' needs.

55. Weak assessment in science and the foundation subjects often reflects the low priority it is given in some schools. Systems for assessment are often too heavily focused on what pupils have been taught, or their attitudes and effort, rather than on assessing what they have learned. Teachers' weak subject knowledge often contributes to ineffective or unreliable assessment because they do not have a sufficiently clear view of what successful learning and assessment should look like.

56. Pupils are increasingly being encouraged to evaluate their own work to identify areas for improvement. Some teachers discuss with older or higher-attaining pupils the criteria for achieving Level 4 and Level 5 in English and mathematics. It is less common, however, for lower-attaining pupils to have similar discussions. But, even if pupils know the targets that have been set with them, or for them, they are often unclear about how to go about meeting them.

Speaking and listening

57. The quality of adults' explanations, questioning and discussion with pupils is good or better in nearly two thirds of English and mathematics lessons. It is slightly better in mathematics than in English: teachers generally question pupils effectively to encourage them to explain their answers to mathematical problems and the methods and calculations they have used.

58. Discussion and collaboration in English are often more limited than in mathematics. Although shared texts and word- and sentence-level work provide opportunities for the exchange of ideas between the teacher and pupils, such dialogue seldom continues in the rest of the lesson. Questions often offer little challenge and need only limited responses, and tasks often require pupils to work on their own, even in so-called group work. Consequently, opportunities are limited for them to listen to others' views; clarify, adjust and expand their own ideas; and learn the important skills of working co-operatively and productively.

59. In the most successful lessons in all subjects, teachers use questions effectively to encourage pupils' ideas and explanations and to assess their understanding, for example of technical vocabulary. They ask questions at different levels of difficulty to ensure that all pupils are involved. Although they persist to get to the heart of pupils' understanding, they also provide time for them to consider and construct their responses. In some cases, the pace of teachers' questioning is sometimes still too brisk. Although the most able pupils usually respond well, low-attaining pupils become frustrated and lose interest when a further question is asked before they have had sufficient time to consider an answer to the previous one.

60. Schools have been sent the DfES materials, *Speaking, listening and learning in Key Stages 1 and 2*. Increasingly, they recognise the need to improve pupils' speaking and listening skills, but few schools have begun to use the materials to improve the quality and range of planned opportunities for speaking and listening.

Independent work in English and mathematics

61. The quality of teaching in independent work has not improved since last year. It is good or better in around six in ten lessons in mathematics and just under a half in English. Previous reports have set out the characteristics of effective teaching in independent work:

- tasks that build on the work introduced in the main part of the lesson
- a small number of common activities, matched well to pupils' needs
- clear explanations and routines that enable pupils to work independently and with understanding
- high expectations of pupils' behaviour.

62. Some of the most effective independent and group work includes speaking and listening activities in pairs and small groups. For instance, in a Year 5 lesson, a newspaper simulation enhanced the quality of pupils' writing. They worked together to compose different stories for consideration by their 'editor'. In such lessons, pupils are able to choose roles in group work, decide what to write about and learn to take responsibility for their own learning. In mathematics too, collaborative work enables them to discuss methods and provides time to clarify their thinking.

63. The less effective lessons rely too frequently on work sheets or inappropriate tasks that do not challenge pupils sufficiently. At Key Stage 2, some independent work in English continues to focus too heavily upon word- and sentence-level objectives at the expense of developing speaking and listening skills or oral composition to support writing. Even if teachers set text-level work, they often do not give pupils enough time to complete it successfully. Low-attaining pupils sometimes struggle because they cannot read and write independently and are unable to sustain their interest in the work.

64. In mathematics, teachers sometimes place too much emphasis on pupils' recording and presentation of their calculations, deflecting their attention from the necessary mathematical reasoning.

65. Overall, too many teachers still believe that independent work means that pupils should work on their own rather than simply independently of the teacher. Further, they do not assess what pupils are doing, so that, by the end of the lesson, they do not know enough about their progress.

The use of ICT

66. Overall, too few teachers use ICT as an integral part of their teaching. Six in ten daily mathematics lessons and literacy hours make little or no use of it. Where it is used, its contribution to teaching and learning is good or better in nearly half of the lessons. It is very good and occasionally excellent in over one lesson in eight. Last year, the overall picture of ICT was mixed, with a widening gap between the best and the weakest provision. There is little change this year.

67. Schools that use ICT most effectively give it a high profile. Staff use laptop computers for planning and teaching, as well as to access web-based resources. Subject leaders use them to select resources. Most of these schools have good access to computer hardware in more than one place, such as in ICT suites, classrooms and via mobile units. However, the effectiveness of ICT is still heavily dependent on teachers' confidence in using it.

68. The training teachers have received has had a positive impact on their use of interactive whiteboards, which are most effective in the introductory and closing sessions of English and mathematics lessons for demonstration and review. When used skilfully, interactive whiteboards improve the quality of teaching and stimulate pupils' concentration and positive responses. They also enhance teachers' explanations and demonstrations, for example, of calculation methods and shared writing, such as showing improvements to writing using the computer's 'track changes' facility.

Pupils worked in pairs at their computers, refining and developing simple sentences and phrases using adverbs, conjunctions and a broader vocabulary. They saved their individual files on to the network and the teacher drew examples together on the interactive whiteboard for them to consider, refine and improve. As suggestions were made, the examples were edited and redrafted together. Pupils could see how the changes were improving the work. The lesson captured their attention and the process provided a very clear model for them to use.

Such work exploits fully the power of ICT to promote learning rather than simply to present material in alternative formats.

69. Some staff use interactive teaching programs effectively to support pupils, but the potential of ICT is sometimes missed. Unimaginative software for number, spelling or tasks that are unrelated to pupils' needs or to work in the rest of the lesson contributes little.

Pupils' views

70. The majority of pupils understand the importance of English and mathematics and most enjoy the literacy hour and daily mathematics lesson. However, there are aspects they dislike, particularly the pressure of timed writing activities: 'Time limits for writing make us anxious and we don't do our best.'

71. The majority of pupils believe that the time spent on English and mathematics is 'about right', but some feel that insufficient time is given for the work to be completed. This is particularly the case in English when pupils are asked to write stories. Lower-attaining pupils often feel that they have to catch up, at break times or at home, with the work others do in the classroom. In mathematics, the confidence of some lower-attaining pupils is undermined by insufficient time to consolidate learning. One pupil said, 'I'd prefer to stay on one topic for longer, not jump around so much. You just get the hang of it and then we move on.'

72. Pupils value clear explanations that enable them to work independently, but some are critical of what they see as unnecessary and lengthy explanations. This bears out the findings elsewhere in this report, that there is sometimes too much talk from the teacher and not enough by the pupils.

73. Pupils find homework most helpful when it is explained clearly, is directly relevant to work undertaken in the lesson and is marked immediately. Some pupils, particularly the most able, find some homework too easy. This happens when all pupils receive the same homework task, irrespective of their level of understanding. Pupils are more positive about homework when their parents are required to check it.

74. Intervention programmes, especially 'booster' classes taught by teachers, help to build pupils' confidence and self-esteem. Pupils supported in this way feel that it helps them with their class work. The vast majority of pupils are positive about the way in which schools prepare them to take the National Curriculum tests. Many see the tests as an enjoyable challenge and, as a result of good teaching, approach them confidently. They value revision, practice tests and constructive feedback, which enable them to improve.

75. Although more schools now try to ensure that pupils are aware of their targets, not all pupils are involved in setting them, are clear about what targets mean or what they need to do to improve.

    I don't think we have targets. We have a journal and we write down what we think we need to do to get better.

    Some pupils talked of having 'goals' in mathematics that matched lesson objectives. However, some older pupils know exactly within which National Curriculum level they are working and what they need to do to move to the next one.

Inclusion

Key outcomes

- Too many pupils receive additional support or undertake intervention programmes that do not meet their needs well enough.
- The subject knowledge of teaching assistants has improved, particularly in English. This has a positive impact on pupils' progress and attainment.
- Too little attention is given to monitoring the impact of teaching assistants' work on pupils' progress and attainment.

Intervention programmes

76. Most schools report that pupils make good progress and, as a result of their involvement in intervention programmes, have increased their confidence and self-esteem. An increasing number of schools measure the impact of these programmes on pupils' progress and attainment. Schools set unambiguous and appropriate targets for improvement for each pupil at the start of the programme and assess their progress at the end. Such schools use the information judiciously to decide on the deployment of additional resources.

77. Although many pupils benefit from intervention programmes and make significant progress, too many receive support that does not meet their needs well enough, usually because teachers are not clear enough about what pupils know and can do, and what they need to learn next.

78. Some schools consider equal opportunities or the perceived impact upon pupils' self-esteem in identifying which pupils should be supported. This sometimes militates against some pupils receiving the necessary support and wastes the time of others. Examples include schools that run 'booster' sessions for all Year 6 pupils, whether they need them or not, or schools that run intervention sessions at lunchtimes or after school at which attendance is voluntary.

79. Most schools make use of NLS intervention programmes to some extent to support pupils with difficulties. Many schools use Early Literacy Support (ELS) and Further Literacy Support (FLS). Headteachers are confident that the pupils involved have made progress. Several consider that pupils' progress in these programmes is greater than that made by pupils undertaking Additional Literacy Support (ALS).

80. A substantial minority of schools use the Springboard materials as an extra resource for mathematics, rather than teaching the full programme. A small minority of schools cite a lack of time from teaching assistants as a reason for running the programmes in this way.

81. The vast majority of schools continue to run 'booster' sessions for Year 6 pupils, increasingly during school time rather than as provision before or after school. Pupils are organised into groups during English and mathematics lessons in order to deploy extra staff to the best possible advantage. Schools use a variety of resources, including adaptations of FLS, 'booster' and Springboard 6 materials, or commercially produced materials.

Teaching assistants

82. The work of teaching assistants during the daily mathematics lesson and the literacy hour is becoming increasingly effective. The majority of schools feel that the impact of teaching assistants' work on pupils' attainment is positive, although their evidence is largely informal and anecdotal. However, more schools than previously, although still a minority, use assessment information to measure teaching assistants' impact on the attainment of individual pupils. In an increasing number of schools, teaching assistants are part of the school's performance management system, which focuses not only on the tasks they undertake but also on pupils' progress.

83. More schools have improved the professional development of teaching assistants. In English, in particular, teaching assistants have improved their subject knowledge. They ask pertinent questions, demonstrate skills effectively to pupils and use appropriate terminology. They understand clearly the needs of the pupils they support. In the best cases, teachers involve teaching assistants in planning for pupils or, at the very least, ensure that they are briefed fully. This helps them to focus clearly on the objectives that pupils are expected to reach and to provide constructive feedback about progress – to the pupils as well as the teacher. In the most effective schools, the special educational needs (SEN) co-ordinator or the subject leader for English monitor the literacy intervention programmes led by teaching assistants. Springboard programmes for mathematics are seldom monitored in the same way.

Leadership and management

Key outcomes

- The impact of subject leaders on quality and standards has improved.
- Leadership and management of English and mathematics have improved.
- The collection and analysis of school-level data are the most improved areas, but schools still do not act effectively enough on the information.
- Leadership and management in science, the foundation subjects and RE, while generally at least satisfactory, are less secure than in English and mathematics.
- Schools underestimate the complexity of the role of subject leaders for English.
- Not enough schools set numerical targets for pupils at the end of Key Stage 1 or monitor pupils' progress towards them.

Leadership in English and mathematics

84. Leadership and management have improved since last year and are now at least satisfactory in around nine in ten schools and good or better in over a half. They continue to be better in mathematics than in English.

85. Successful leadership teams have:

    - an accurate knowledge of pupils' strengths and weaknesses in English and mathematics, and the attainment profile of pupils
    - a knowledgeable subject leader with authority and influence
    - clear expectations and a collective responsibility for raising and maintaining standards
    - a range of monitoring and evaluation procedures to improve teaching and learning
    - well-established systems for collecting, analysing and using assessment data
    - a shared vision and good collaboration between key staff.

86. Effective headteachers support subject leaders by observing lessons, analysing assessment data and ensuring that they have sufficient time to do their job successfully. The most effective subject leaders have developed a good range of monitoring and evaluation skills. Those who are, or have been, leading teachers frequently provide very good leadership. They are confident, have good subject knowledge and understand recent national developments.

87. The most effective leadership teams maintain their drive for improvement.

One first school had significant success in improving boys' writing over three years, raising it to above the national level. The school set numerical and curricular targets. The latter informed teachers' planning and were discussed with pupils. The leadership team observed teaching and, where weaknesses were identified, they provided focused support. Very good teachers were paired with colleagues in the relevant year groups to provide models of good practice. Following a sustained improvement in writing, senior managers analysed the school's performance to identify the next area for development. They focused on issues linked to attainment in reading, took action and planned monitoring and evaluation to assess the impact of the initiatives.

88. Ineffective leadership teams, however, too frequently give up on projects before an initiative has had time to work. Lines of responsibility are often unclear, particularly where leadership for a subject is shared and English and mathematics subject leaders sometimes have a limited strategic role. Procedures for and expertise in collecting, analysing and using assessment data are weak.

89. A small number of schools struggle in difficult circumstances. Some headteachers, particularly of very small schools, and those who teach part-time, have heavy responsibilities. For example, the headteacher of a school with 85 pupils in 4 mixed-aged classes was subject leader for mathematics, music, ICT and SEN. She taught two days each week and was unable to fulfil her leadership and management role fully.

90. The importance of English and mathematics in the curriculum often means that the subject leaders are part of the leadership team. Occasionally, they find this level of responsibility onerous or unwelcome. Not all schools have sufficient capacity to maintain continuity and leadership is affected adversely when key staff leave and are not replaced quickly enough. Some schools have difficulties in appointing and retaining subject leaders, especially for English; some are without core subject leaders when staff are absent for long periods.

Leadership in other subjects

91. Leadership and management of subjects other than English and mathematics are usually at least satisfactory and often good. As with English and mathematics, good subject leaders know their subject well, are enthusiastic advocates and are supported positively by senior staff. Although personal interest in the subject is often a factor in selecting a subject leader, it is not necessarily associated with expertise: many leaders of foundation subjects have joined teaching recently, some are still in their induction year and some are part-time.

92. Subject leaders' roles are usually clear and their responsibilities include long-term planning, advising colleagues and managing resources. The management of subject resources seldom takes account of the long-term needs of the subject or evaluation of the resources already in use, for example ICT software.

93. Although most subject leaders hold some responsibility for monitoring the subject, this is often done inadequately, although good monitoring can have a marked effect on the quality of work and pupils' achievement. In one school, for example, the subject leader and LEA adviser monitored and evaluated lessons and teachers' planning jointly, helping the school to identify strengths and remedy weaknesses.

94. Some subject leaders provide training and support, but it is infrequent and rarely informed by a development plan. Few subject leaders, other than in English and mathematics, have sufficient time to audit planning or resources or to monitor subject quality across the school. Even if subject leaders have undertaken audits, or provided training and support, they are rarely able to complete the work through monitoring the implementation of initiatives and the impact of training. For example, a scheme of work for geography in one school was not used consistently by all staff. The subject leader was unaware of the inadequate coverage of the subject because too little time was available for monitoring it. In contrast, in another school, three teachers jointly responsible for geography had time allocated every four weeks for meetings and development work. As a result, they were aware of what was happening in the subject throughout the school.

95. Many subject leaders are developing portfolios of pupils' work to help teachers to moderate their assessments. However, these are not always linked effectively to the National Curriculum level descriptions and are, therefore, of limited value in judging pupils' attainment. Data analysis, for example in science, often provides an overview of standards and sometimes helps to identify variations in boys' and girls' attainment. However, analysis is rarely deeper than this.

Improving the quality of teaching

96. In the schools where leadership and management are very good, there is more good and very good teaching. Most leadership teams observe lessons to monitor and improve teaching and learning. However, not all do this rigorously, systematically or regularly. Joint observations of lessons by combinations of headteacher, subject leader, link inspector or consultant improve the consistency of judgements, as well as enhancing expertise in identifying weaknesses.

    The headteacher is aware that improving teaching is not solely concerned with improving unsatisfactory teaching. The system of monitoring and review is linked closely to initiatives identified in the mathematics action plan. Recent training provided by the mathematics subject leader on the oral/mental starter has been followed up by paired observations involving the headteacher and subject leader. This provided a good overview of implementation and helped to improve the subject leader's observation skills. If unsatisfactory teaching is seen, staff receive verbal and written feedback with follow-up support before further monitoring takes place. Subsequent monitoring focuses upon any improvements in the weaknesses identified previously.

    Many subject leaders have only limited opportunities to monitor the quality of teaching and learning. As a result, they are unable to judge the impact of initiatives and are frequently insecure in their knowledge of what pupils know, understand and can do.

97. Effective leadership teams select a focus for their lesson observations, for example an aspect of writing or calculation. Observations are used most successfully when the subject leader and headteacher complement them with other activities, such as discussion with pupils and scrutiny of their work. A small number of schools make good use of the outcomes of lesson observations to identify common issues for staff discussion, leading in the best cases to defining new targets for improvement and a clear focus for staff development.

The primary leadership programme

98. The DfES introduced the primary leadership programme in the autumn term 2003 to raise standards in low-performing schools. Participating schools were required to include English and mathematics subject leaders in their leadership teams to develop the strategic overview and leadership skills required to bring about improvement. The DfES recognises the need for such subject leaders to play a strategic role in raising standards and that they are most effective when they work in partnership with the headteacher. In this respect, the primary leadership programme has been largely successful. A positive feature has been subject leaders' involvement in strategic discussions with senior colleagues from within and outside their own schools.

99. A school where leadership and management of English were unsatisfactory benefited from practical advice on strategies and working with other schools.

A consultant leader linked to the primary leadership programme supported the school in clarifying its priorities. The school acknowledged her practical contributions to help it focus on improving systems. She provided a system to support it in monitoring and tracking pupils' progress and gave advice on ways to improve the monitoring of teaching and learning. She sensibly suggested that the school should form a baseline of observations, involving the headteacher and the subject leader jointly observing each class in the school, comparing notes and identifying generic and key stage weaknesses. The results involved staff in agreeing how to tackle the weaknesses. This approach was received enthusiastically by the management team and staff. The agreed actions were put in place and the leadership team, as a priority, monitored these. The school's action-planning improved and had a positive impact on what happened in classrooms. Through the programme, the headteacher also followed up links with other headteachers, for example to investigate successful systems for setting targets for individual pupils. The LEA supported these links.

100. Not all schools participating in the programme received such useful and comprehensive support. A number of primary strategy consultant leaders who supported schools were confused by conflicting messages during the training and, as a result, their work in schools was focused insufficiently on challenging and supporting leadership teams to raise standards. Consequently, the programme's impact in these schools was limited.

Target-setting

101. Setting numerical targets at the end of Key Stage 2 continues in all schools. However, few schools set targets for pupils for the end of Key Stage 1. Generally, first schools are more likely to have established systems for this at Key Stage 1, whereas primary schools tend to focus more on the end of Key Stage 2.

102. Schools where target-setting for Key Stage 1 is well established and contributing to raising standards use the Foundation Stage profile and standardised data from commercially produced assessment packages to support the process. Although many schools use published tests to monitor progress and set targets in Key Stage 1, few use the NLS and NNS framework objectives for tracking progress and setting targets.

103. More schools now set numerical targets for the end of each year group in Key Stage 2. Although this is not widespread, some headteachers link it with the cycle of performance management, believing that it gives all staff responsibility for pupils' progress. Some schools go further, setting out anticipated rates of progress for groups of pupils, for example that the majority of pupils are expected to progress by one National Curriculum level every two years or that particular groups make progress by part-levels per year. Few schools analyse pupils' progress by ethnic or social group effectively or use data to set targets to improve the achievement of particular groups.

104. Most schools undertake some form of curricular target-setting. However, too many fail to link numerical and curricular targets. In schools that do so, the result is often dramatic. One school improved significantly the way in which targets were developed.

The school introduced a system for tracking pupils' progress, making use of the Foundation Stage Profile, end of Key Stage 1 data and optional test results to produce a baseline at the beginning of the year for each pupil and each class. Assessments undertaken in November were used to set targets for the end of the year. Further assessment took place in February, May and July. Following the setting of numerical targets for each class, teachers identified key pupils and the actions to be taken to support them in meeting their challenging targets. These pupils were generally on the borderline between National Curriculum levels, or those who needed additional support. Teachers focused particularly on these pupils, and the leadership team monitored their progress and the effectiveness of the actions being taken.

Continuing professional development

Key outcomes

- The five-day and three-plus-two mathematics courses have contributed significantly to improving teachers' subject knowledge.
- The leading teacher scheme in both English and mathematics is underused.
- Few schools evaluate the impact of professional development on pupils' progress and standards.
- Many schools give professional development in foundation subjects a low priority.

Current provision

105. Most effective schools use professional development in English and mathematics as part of a planned strategy to raise standards and make informed decisions about training needs. They build on an audit of pupils' needs derived from analysis of data, scrutiny of pupils' work and observations of teaching. Professional development then focuses on meeting the school's priorities. Most schools draw upon a broad range of opportunities to improve teachers' subject knowledge and teaching skills, including training courses, nationally produced guidance and materials, but very few can identify their impact on standards.

106. The five-day and three-plus-two mathematics courses have been particularly successful in improving teachers' knowledge of how to teach aspects of mathematics that pupils find particularly difficult. Using and applying mathematics, however, is still an area that teachers find difficult to teach and which does not receive sufficient emphasis in the training.

107. There is no equivalent training in English, with greater emphasis being given to shorter courses focused on specific aspects such as grammar. Consequently, few teachers have benefited from sustained and comprehensive training in English. Many have attended courses, but in some cases these have not been sufficient to secure the necessary subject knowledge. Staff turnover also creates difficulties and some schools have to repeat training regularly.

108. Few schools use the leading teacher scheme effectively to improve teaching in English and mathematics. Many schools cannot recall when they last used such expertise. Some, however, make good use of networks for exchanging expertise and sharing training events, and some make very good use of their LEA's strategy consultants to work with teachers and lead training.

109. Schools continue to use training for intervention programmes. Many schools illustrate the effectiveness of LEA training in these areas by citing the improved subject knowledge of teaching assistants and the progress made by pupils receiving such support. However, not all those involved in teaching the intervention programmes have benefited from training, and the quality of the implementation and effectiveness of the intervention programmes varies.

110. In 2003/04 LEAs led training for Year 3 teachers in English and mathematics. This new training tackled longstanding weaknesses such as problem-solving, using models and images in mathematics and strategies for spelling. However, attendance was patchy and not all schools received the materials given out at the training. LEAs rarely considered ways to ensure that the key messages and course materials were disseminated beyond those attending.

111. Schools continue to give a low priority to professional development in the foundation subjects, RE and science. This is particularly a concern for teachers whose subject knowledge is weak. In the few cases where training is given a greater priority, improvements in teachers' confidence lead to higher standards. Teachers' subject knowledge in science through Key Stage 2 and assessment across all foundation subjects continue to be weak.

112. Few subject leaders, other than in English and mathematics, have undertaken recent training for subject leadership. In LEAs, specialist support for subjects, excluding English and mathematics, is sporadic at best and many LEAs lack the capacity to provide such professional development. However, some LEAs hold regular meetings for co-ordinators, which provide opportunities for networking and disseminating information.

113. In some LEAs, good links across schools are increasing and are used effectively to provide professional development in subjects other than English and mathematics. They are almost always beneficial and ensure better curricular liaison and transition arrangements. They are often prompted by specialist schools, 'beacon' or 'leading practice' schools.

114. The QCA and other websites are rarely used to support professional development.

Action taken nationally

115. Those responsible at a national level for the PNS have allocated resources to deal with many of the issues that Ofsted has identified in previous reports. The past year has seen the continuation of some previous programmes as well as new initiatives, although their impact is not always evident in the short term. Recent direct support for schools has included:

- the introduction of the primary leadership programme from September 2003
- the expansion, from its pilot phase in 2002–03, of the intensifying support programme, focused on low-attaining schools
- the publication of *Learning and teaching in the primary years* to help schools with self-evaluation
- training materials to support teachers in:
  - teaching guided reading in Years 2 and 3
  - developing pupils' speaking and listening skills
  - teaching phonics in the Foundation Stage
- training for teachers in Year 3 on specific aspects of English and mathematics
- training for Year 6 teachers to meet the needs of able children
- development of the five-day mathematics courses to include school-based work and a focus upon key areas of mathematics such as problem-solving
- the use of ICT.

Headteachers and other senior staff identify similar subject-specific obstacles to progress as those identified by Ofsted, such as guided reading, speaking and listening, and problem-solving in mathematics. However, schools rarely highlight weaknesses in assessment as an area for development, adding weight to its emphasis in the PNS to improve teaching and learning.

Annex A. Executive summary of the technical reports

The National Foundation for Educational Research (NFER) was commissioned by the Qualifications and Curriculum Authority (QCA) to organise the marking, data capture and analysis of optional tests for Years 3, 4 and 5 from two samples of schools. The schools in the samples were selected by Ofsted to take part in their monitoring programme for English and mathematics. The test results in 2003 and 2004, and the progress made by pupils between the two years, were intended to provide assessment data to add value to the observational data collected during HMI visits. Each sample contained around 100 schools; the schools in one sample focused on the assessment of English and the schools in the other on mathematics. The characteristics of the schools in the samples were checked and found to be a good match with the characteristics of the national population of schools. Therefore, it was reasonable to regard the two samples of pupils as providing an indication of pupils' performance in the optional tests at national level.

The optional tests for English and mathematics were used for the first time in 2003 and had been re-designed following QCA's assessment review in 2000. The English tests assess performance in reading, writing and spelling through four separate assessment tasks in each year group and form part of a package of assessment from Key Stage 1 to Key Stage 3. For mathematics, written and mental mathematics are assessed for each year group. In Years 3 and 4, pupils were tested using one tiered written paper and a test of mental mathematics; for Year 5 there were two written papers and a mental mathematics test.

In 2003 and 2004, schools in the samples were asked to administer the optional tests during a two-week period in May and to return all booklets to NFER for marking. At that time, background data on each of the pupils were collected for the analysis. There were around 3,000 pupils for each year group and subject.

In English, there are four outcome measures for the optional tests in each year: National Curriculum levels in reading and writing and age-standardised scores for reading and spelling. The spelling score was incorporated into the overall score and level for writing. In 2004 and 2003 and across all three year groups, pupils' performance was better in reading than in writing. In Year 3, similar proportions of pupils gained Level 2 and Level 3 in reading. In writing, the distribution was not as even with over two thirds of pupils below Level 3. At Year 4 in 2004, the distributions of test levels for reading were towards the higher levels; 45% of pupils gained Level 3 and 30% gained Level 4 or better. In Year 4 writing, however, over 60% of pupils remained at Level 2 or below. By the end of Year 5 in 2004, the proportion of pupils at Level 3 or better was similar for reading and writing (77% for reading and 84% for writing) but, as in 2003, a higher proportion of pupils achieved Level 4 in reading than in writing.

Age-standardised scores in reading and spelling were very slightly below 100 in 2003 and this indicated that the pupils were performing slightly below expectations. This remained so in 2004, in most cases, except for Year 4 reading and Year 5 spelling where the scores increased slightly to over 100, indicating that the pupils in these groups performed as might be expected.

In 2004, progress in English and mathematics could be measured for pupils in the two samples as follows:

- from Key Stage 1 statutory assessments to each Year 3, 4 and 5 optional test
- from Year 3 to Year 4 optional tests
- from Year 4 to Year 5 optional tests.

For progress from the Key Stage 1 tests, comparisons were also made to the progress observed by the previous cohort of pupils in 2003.

For reading in 2004, there was a general increase in progress across the year groups. For example, 37% of Year 3 pupils who achieved Level 2B in their Key Stage 1 tests went on to gain Level 3 or better in the optional tests; an increase of 6% from 2003. In Year 4, just over two thirds of those pupils assessed at Level 3 at Key Stage 1 progressed to Level 4 or better, 3% more than in 2003. Continuing the improvement in progress, in the Year 5 optional tests for reading, 62% of pupils assessed at Level 2A at the end of Key Stage 1 went on to achieve Level 4 in the 2004 optional tests, a 7% increase compared with 2003. About two thirds (67%) of pupils who gained Level 3 or better in the Year 3 optional tests in reading went on to gain Level 4 in 2004, and 30% of all Year 4 pupils who gained Level 4 in reading progressed to Level 5 a year later.

For writing, pupils' progress appeared to be less than that for reading. In Year 3 there was a general fall in progress, at the higher levels, while pupils at the lower levels progressed more than they did in 2003. However, in Year 4 better progress was made in writing when compared with 2003. Of the pupils who were assessed at Level 2B in their Key Stage 1 tests, 42% went on to achieve Level 3 or better in their Year 4 optional tests, an increase of 5% from 2003.

For mathematics, there were two outcome measures in each year: National Curriculum levels and age-standardised scores. In 2004, the pattern of performance in mathematics for Years 3, 4 and 5 was similar to that observed in 2003. In Year 3, just over half the pupils achieved Level 3 or better. By the end of Year 4 in 2004, the proportion of pupils at Level 4 was 18%, the same as in 2003. The similar trend continued into Year 5 with 41% of pupils gaining Level 4 or better and 15% of pupils failing to reach Level 3C; the same proportions as in 2003. In 2003, all average age-standardised scores for the group of pupils in the mathematics samples were below 100. In 2004, all mean scores had improved slightly, and in Years 3 and 4 reached 100, indicating that the pupils in these year groups performed as would be expected.

Pupils assessed at Level 2C and above in mathematics at Key Stage 1 made better progress in their Year 3 optional tests in 2004 than was observed for the 2003 cohort. Of the pupils who achieved Level 2B at the end of Key Stage 1, almost 40% of them achieved Level 2A in Year 3 and over a third of them went on to achieve Level 3. Progress in mathematics from Key Stage 1 to Year 4 was consistent with that observed in 2003 where just over three quarters (76%) of pupils assessed at Level 2B at Key Stage 1 gained Level 3 or better in Year 4. In 2004, a slightly higher proportion of Year 5 pupils progressed from Level 2A at the end of Year 2 to Level 4 or above (49%) than in 2003 (47%).

As for the English sample, in mathematics the performance of the same cohort of pupils was observed between Years 3 and 4, and Years 4 and 5. In 2004, over a third of the pupils who achieved Level 3B in the optional Year 3 test went on to achieve Level 4 in Year 4, and of those who achieved Level 3A, 80% went on to Level 4 or better. The majority of pupils (83%) gained Level 4 or better in Year 5 and 79% of pupils assessed at Level 4A in Year 4 went on to gain Level 5.

For English and mathematics, multi-level modelling techniques were applied to the pupils' data to identify factors that significantly affect pupils' performance. This technique enabled the relationship between each individual factor to be measured independently of all others to determine the strength of the factor to the outcome.
Attainment at Key Stage 1 had the strongest link to pupils' performance; pupils who performed well in their Key Stage 1 tests were more likely to gain higher standardised scores and attain higher levels in all subjects, when compared with those pupils who were lower achieving at Key Stage 1. Once attainment at Key Stage 1 was taken into account, it was found that for all subjects there were common factors that were significantly linked to poorer performance. These were if the pupils were entitled to free school meals, were less fluent in English or had special educational needs.
The multi-level modelling found that gender had a significant effect on pupils' performance. Girls consistently did better than boys in reading, writing and spelling; they were more likely to have higher standardised scores and to reach the higher levels than boys. For mathematics, boys performed significantly better than girls in all years and in all mathematical areas, except in Shape and Space. The change in standardised scores from year to year indicated that the gap in performance widened, with the biggest difference observed in Year 5. For reading and spelling and across all years, there was a higher proportion of boys assessed below the levels of each test, however, for mathematics, there was a broadly even mix of boys and girls.

As in 2003, pupils who had remained in the same school between the end of Key Stage 1 and summer 2004 were more likely to have higher scores. For mathematics, Chinese pupils performed better in 2004 than pupils from other ethnic groups. In English, as in 2003, there were no significant consistent trends observed across all three years to indicate a strong relationship between test performance and ethnic origin.

The mark scheme structure for the optional tests in English meant that it was possible to look at pupils' performance in reading and writing by assessment focus strand. For writing in 2003, pupils in all year groups performed less well in Composition and Effect, and this was observed again in 2004. However, in 2004, average scores increased across all year groups for the majority of the assessment focus strands.

In 2004, pupils' item level data from the reading tests for each year group were available and it was possible to examine pupils' performance by assessment focus strand for this subject. In all assessment focus strands, in all years, girls performed markedly better than boys. Their performance was best in Year 4, where girls were around 10% more likely to provide correct answers than boys.

This summary highlights some of the findings from this two-year evaluation. Further comparisons of performance and patterns of progress between Key Stage 1 and Years 3, 4 and 5 are presented and described within sections of this report.

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