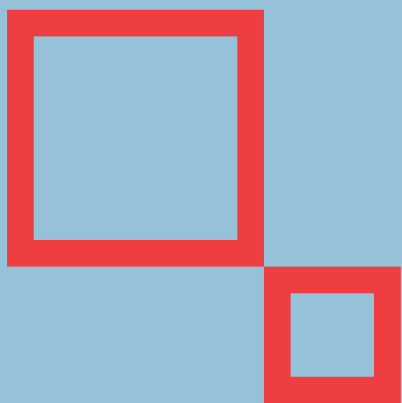




Independent review of the teaching of early reading

Final Report, Jim Rose, March 2006

Contents

Letter to the Secretary of State	Paragraph
1. Summary	
2. The remit for the review	1
3. Evidence gathering	5
4. Background	6
5. Aspect 1: what best practice should be expected in the teaching of early reading and synthetic phonics	30
6. Aspect 2: how this relates to the development of the birth to five framework and the development and renewal of the National Literacy Strategy Framework for teaching	89
7. Aspect 3: what range of provision best supports children with significant literacy difficulties and enables them to catch up with their peers, and the relationship of such targeted intervention programmes with synthetic phonics teaching	131
8. Aspect 4: how leadership and management in schools can support the teaching of reading, as well as practitioners' subject knowledge and skills	163
9. Aspect 5: the value for money or cost effectiveness of the range of approaches the review considers	173
10. Evidence from practice	204
11. Recommendations	240
Appendix 1: The searchlights model: the case for change	
Appendix 2: Glossary of terms	
Appendix 3: Sources of evidence	

Dear Secretary of State,

This is the final report of the Reading Review, which you invited me to undertake in June 2005. It builds on the interim report that was published on 1st December 2005.

In fulfilling its remit, the Review has drawn upon three main sources of information: the findings of research and inspection; wide-ranging consultation, including practitioners, teachers, trainers, resource providers and policy makers, and visits to settings, schools and training events.

It is no surprise to find that the main ingredients for success in the teaching of beginner readers are: a well trained teaching force; well designed, systematic programmes of work that are implemented thoroughly; incisive assessment of teaching and learning, and strong, supportive leadership.

At best, our settings and schools draw upon these factors and embody the principles of high quality phonic work within a language-rich curriculum that gives rise to high standards of reading and writing. It follows that the challenge now is to ensure that, in all settings and schools, the teaching and learning of early reading and writing in general, and phonic work in particular, measure up to this best practice.

As with the interim report, this report marshals findings and comments under the aspects set out in the remit for the Review. Given the nature of the task, it is hardly surprising that genuinely held views differed, sometimes widely, about aspects of the remit. However, all respondents united around the aim of securing reading as an entitlement for every child. I hope that the findings and outcomes of the Review will inform the means to that end.

I wish to thank the many respondents, including those who have contributed so helpfully to visits by the Review. I am also grateful to the advisory group and Ofsted for their valuable contributions and to my support team whose application and hard work throughout the exercise have been quite outstanding.

Yours sincerely

A handwritten signature in blue ink that reads "Jim Rose". The signature is written in a cursive, flowing style.

Jim Rose CBE

Summary

Over the first nine years of the National Curriculum (1989 to 1998) very little impact was made on raising standards of reading. Despite the content of phonic work being a statutory component of the National Curriculum over that time, reports from Her Majesty's Inspectors show that it was often a neglected or a weak feature of the teaching. That changed markedly with the advent of the National Literacy Strategy in 1998. The Strategy engaged schools in developing a structured teaching programme of literacy that included not only what phonic content should be taught but also how to teach it, with a subsequent rise in standards.

The forthcoming Early Years Foundation Stage and the renewal of the Primary National Strategy framework for teaching literacy provide powerful opportunities to reinvigorate and build upon these achievements and greatly reduce arbitrary boundaries between the Foundation Stage and Key Stage 1, without compromising the hard won, distinctive merits of the areas of learning and experience in the early years.

In so doing, the new Early Years Foundation Stage and the renewed framework should make sure that best practice for beginner readers provides them with a rich curriculum that fosters all four interdependent strands of language: speaking, listening, reading and writing. The indications are that far more attention needs to be given, right from the

start, to promoting speaking and listening skills to make sure that children build a good stock of words, learn to listen attentively and speak clearly and confidently. Speaking and listening, together with reading and writing, are prime communication skills that are central to children's intellectual, social and emotional development. All these skills are drawn upon and promoted by high quality, systematic phonic work.

Engaging young children in interesting and worthwhile pre-reading activities paves the way for the great majority to make a good start on systematic phonic work by the age of five. Indeed, for some, an earlier start may be possible and desirable. This is because it ill serves children to hold them back from starting systematic phonic work that is matched to their developing abilities and enables them to benefit from the wealth of opportunities afforded by reading from an early age. All that said, the introduction of phonic work should always be a matter for principled, professional judgement based on structured observations and assessments of children's capabilities.

The term 'formal' in the pejorative sense in which phonic work is sometimes perceived in early education is by no means a fair reflection of the active, multi-sensory practice seen and advocated by the review for starting young children on the road to reading.

Despite uncertainties in research findings, the practice seen by the review shows that the systematic approach, which is generally understood as 'synthetic' phonics, offers the vast majority of young children the best and most direct route to becoming skilled readers and writers. When thinking about phonic work, what most people have in mind is the teaching and learning of reading. However, phonic work is also essential for the development of writing, especially spelling. The teaching of beginners must lead them to understand how reading and writing are related.

It is widely agreed that reading involves far more than decoding words on the page. Nevertheless, words must be decoded if readers are to make sense of the text. Phonic work is therefore a necessary but not sufficient part of the wider knowledge, skills and understanding which children need to become skilled readers and writers, capable of comprehending and composing text. For beginner readers, learning the core principles of phonic work in discrete daily sessions reduces the risk, attendant with the so-called 'searchlights' model, of paying too little attention to securing word recognition skills. In consequence, the review suggests a reconstruction of the searchlights model for reading.

Notwithstanding differences in presentation and aspects of content, well designed programmes, including those from commercial sectors, for teaching and learning phonics systematically, tend to converge around a small number of core

principles. It is implementing the principles which define high quality phonic work that should engage settings and schools, rather than debating entrenched views about less important aspects of phonics teaching.

Obviously, developing children's positive attitudes to literacy, in the broadest sense, from the earliest stage is very important. In the best circumstances, parents and carers, along with settings and schools, do much to foster these attitudes. For example, they stimulate children's early interest in literacy by exploiting play, story, songs and rhymes and provide lots of opportunities, and time, to talk with children about their experiences and feelings. For the youngest children, well before the age of five, sharing and enjoying favourite books regularly with trusted adults, be they parents, carers, practitioners or teachers, is at the heart of this activity. Parents and carers should be strongly encouraged in these pursuits and reassured that, in so doing, they are contributing massively to children's literacy and to their education in general.

However, there are significant numbers of children who, for one reason or another, do not start with these advantages. Some children also have neuro-developmental disorders and other special educational needs that may present formidable obstacles to learning to read and write. Providing effectively for all such children is an ever-present challenge that is being met with different degrees of success by various intervention programmes. The leading edge interventions and associated training

observed in the time available for the review were very good indeed and should continue to be exemplified in guidance to show how the best provision and practice are matched to different types of special educational needs.

It is important for schools to offer a coherent reading programme in which 'quality first teaching' as defined by the Primary National Strategy and intervention work are closely linked. While interventions for children with reading difficulties will always be necessary, the need for them is likely to be much reduced by 'quality first teaching'. This is because such teaching identifies incipient reading difficulties and this enables appropriate support to be provided quickly, thus minimising the risk of children falling behind. It follows that investment in 'quality first teaching' not only brings greatest benefit to children, but is also likely to yield the greatest value for money.

It is hardly surprising that training to equip those who are responsible for beginner readers with a good understanding of the core principles and skills of teaching phonic work, including those responsible for intervention programmes, has emerged as a critical issue. Not all the training considered by this review was of a quality that is likely to achieve these ends. In short, the quality of training for phonic work is patchy and requires urgent attention. While these observations apply largely to in-service training, reports from newly qualified teachers and practitioners suggest that there is room for improvement in these

respects in initial training.

As with most other aspects of the curriculum, a distinction needs to be made between teaching content and its delivery in the case of phonic work. While such work, from the standpoint of those who teach beginner readers, may not be 'rocket science', it does require practitioners and teachers to have a detailed knowledge and understanding of its teaching content so that they can plan and implement a high quality programme. Imaginative and skilful teaching that engages and motivates children does not happen by chance: it relies upon well trained adults, who are skilled in observing and assessing children's learning, good planning and preparation. The maxim 'plan, do, review' from early years education holds true for phonic work. Headteachers and school governors should ensure that this process informs the setting of realistic and ambitious targets for English.

The review, therefore, highlights the importance of training at all levels. It provides a timely opportunity to consider how to strengthen training to secure competencies that are of direct benefit to the learners, their settings and schools. Making sure that the benefits of training are exploited fully and provide value for money is an obvious priority for those in positions of leadership.

Importantly, these findings show that we have a workforce of practitioners, teachers and support staff who are more than capable, with appropriate support and

training, of meeting the recommendations of this review. In addition we have a well established infrastructure for training and development programmes. The findings also strongly suggest that our settings and schools have at least sufficient and often good material resources for teaching reading, including phonic work.

The review, therefore, not only suggests ways forward and pinpoints areas where change is called for, it also endorses those which are worthwhile and should be sustained in existing provision. These include support for children learning English as an

additional language, and those with special educational needs: areas which already benefit from sound guidance from national policies and strategies. Within the scope of the remit, the review refers to, and commends, such guidance rather than seeking to reinvent it.

In consequence, the issues underlying the recommendations of the review are very largely to do with building quality rather than capacity. Improving the quality of what is already in place rather than introducing lots of new elements is likely to yield the greatest benefits for beginner readers.

The remit for the review

1. In keeping with its remit, the review examines and comments upon:
 - Aspect 1*
 - what best practice should be expected in the teaching of early reading and synthetic phonics
 - Aspect 2*
 - how this relates to the development of the birth to five framework and the development and renewal of the National Literacy Strategy *Framework for teaching*¹
 - Aspect 3*
 - what range of provision best supports children with significant literacy difficulties and enables them to catch up with their peers, and the relationship of such targeted intervention programmes with synthetic phonics teaching.
2. It also deals with:
 - Aspect 4*
 - how leadership and management in schools can support the teaching of reading, as well as practitioners' subject knowledge and skills
 - Aspect 5*
 - the value for money or cost
- effectiveness of the range of approaches the review considers.
3. Virtually all those who have given evidence to this review agreed that children should have a secure grasp of phonics which should be sufficient for them to be fluent readers and confident writers by the age of seven at the latest. This review therefore concentrates upon provision and practice up to the end of Key Stage 1.
4. The Secretary of State accepted all the recommendations of the interim report of the review and, in addition to the aspects of the remit noted here, asked what the implications of the recommendations might be for initial teacher training.

¹ The birth to five framework is now known as the Early Years Foundation Stage. This is the term used in the rest of the report.



Evidence gathering

5. The review draws upon a wide range of information from the following sources:
 - research on the teaching of reading and other aspects of literacy
 - written evidence and oral accounts of effective practice from contributors with acknowledged expertise and an interest in one or more aspects of the remit, including the views of parents
 - papers submitted by respondents to the Education and Skills Committee report, *Teaching children to read*. Respondents were invited to comment further on their papers if they so wished
 - a small scale survey by Her Majesty's Inspectors of Schools (HMI), involving visits to an illustrative sample of schools
 - reports and data from Ofsted, particularly on the evaluation of the NLS and the Primary National Strategy
 - visits by the review team, including to high profile, researched projects where good achievement in reading is related to a particular phonic programme
 - early findings from the Primary National Strategy Early Reading Development Pilot (ERDP)
 - responses to the review from correspondence and contributors to the review's website (www.standards.dfes.gov.uk/rosereview/).

A list of sources of evidence is at Appendix 3.

Background

Education and Skills Committee report

6. In commissioning this review the Government took account of the publication of *Teaching children to read*, a report from the House of Commons Education and Skills Committee in April 2005.² The Committee acknowledged that ‘the acquisition of reading is an extremely complex subject’ and that a thorough examination of the factors which contribute to it was not possible in the time available to them. This review has therefore taken account of the Committee’s findings but has widened considerably the evidence base.
7. For example, the review has drawn on direct observations of work in practice, as well as the views of practitioners and teachers who teach reading to young children regularly in settings and schools. This is because, like all else in the curriculum, the quality of phonic work relies on the expertise, understanding and commitment of those who teach it.

Development and renewal

8. The Department for Education and Skills (DfES) announced its intention that the renewal of the NLS framework
9. The renewal of these frameworks is taking place in tandem with the development of the new Early Years Foundation Stage, which aims to create a single coherent framework for children’s care, learning and development from birth until the end of August following a child’s fifth birthday. It will also incorporate elements of the national standards for day care and childminding. The new Stage will be introduced from 2008, following consultations that began in 2005.
10. Ahead of introducing the new Stage, in response to developing communication skills across the

will ensure that this can continue to meet expectations for supporting schools and settings in the teaching of literacy, and to respond to themes in the ten-year strategy for childcare and the 2005 Schools White Paper.³ The Primary National Strategy is conducting a consultation that will help to shape the framework’s renewal; it plans to make the revised framework, and supporting guidance, available from September 2006. (The *Framework for teaching mathematics* is also being renewed on the same timescale.)

² *Teaching children to read*, House of Commons Education and Skills Committee, The Stationery Office, 2005.

³ H M Government, *Higher standards, better schools for all* (Cm 6677), The Stationery Office, 2005.

curriculum, the DfES commissioned the project *Communicating Matters*⁴. This is a useful set of training materials for practitioners working with young children in early years settings. Other government communication strategies aimed at boosting language and literacy include Bookstart and the Parental Community Support Project (to be known as Parents, Early Years and Learning).

The National Curriculum and the National Literacy Strategy

11. A distinction needs to be made between literacy and English. Literacy skills, that is, reading and writing (and the skills of speaking and listening on which they depend), are essential cross-curricular skills: they are not *subjects* and are not confined to English lessons. However, for the purpose of securing these skills for beginner readers and writers, they are set out in the National Curriculum Orders for English from Key Stage 1.
12. All maintained schools with primary aged pupils are required to teach phonics, the content of which is prescribed as knowledge, skills and understanding in the statutory National Curriculum programmes of study for English, for pupils from the age of five.⁵ All three programmes of study – for speaking and listening,

reading, and writing (including spelling and handwriting) – in some measure relate to teaching phonics.

13. In the programme of study for Key Stage 1 for speaking and listening, pupils should be taught to:

- identify and respond to sound patterns in language (for example, alliteration, rhyme, word play).

The programme of study for reading includes work on ‘phonemic awareness and phonic knowledge’. Pupils should be taught to:

- hear, identify, segment and blend phonemes in words
- sound and name the letters of the alphabet
- link sound and letter patterns, exploring rhyme, alliteration and other sound patterns
- identify syllables in words
- recognise that the same sounds may have different spellings and that the same spellings may relate to different sounds

and in writing, should be taught to:

- write each letter of the alphabet
- use their knowledge of sound-symbol relationships and phonological patterns (for example, consonant clusters and vowel phonemes)

⁴ *Communicating matters: an introduction to communication and language in early years settings* (1771-2005DOC-EN), DfES, 2005.

⁵ *The National Curriculum: handbook for primary teachers in England* (QCA/99/454), DfEE/QCA, 1999.

as well as to:

- write familiar words and attempt unfamiliar ones.

14. In other words, the National Curriculum treats phonic work as essential content for learning, not a method of teaching. How schools should teach that content is a matter of choice, which may, or may not, be guided by the non-statutory *Framework for teaching* and any other materials that the Primary National Strategy publishes. Many schools also choose to use commercial programmes for phonic work. Some use them in place of the NLS materials; others, simply to complement the NLS, particularly in teaching letter-sound correspondences.

15. The Foundation Stage, as a distinct stage of learning, was introduced in September 2000 and is a statutory part of the National Curriculum for England, alongside Key Stages 1 to 4. The Foundation Stage begins when children reach the age of three and is a stage in its own right. It fosters children's developing abilities and prepares them for learning in Key Stage 1.

16. The *Curriculum guidance for the foundation stage* sets out the principles and aims for this stage of

learning and provides guidance for practitioners in all early years settings on how they might support children to 'make progress towards, and where appropriate, beyond' the early learning goals.⁶ These goals are described as 'expectations that are achievable for most children who have followed a relevant curriculum'. They include within 'communication, language and literacy':

- hearing and saying initial and final sounds in words, and short vowel sounds within words
- linking sounds to letters, naming and sounding the letters of the alphabet
- using phonic knowledge to write simple regular words and make phonetically plausible attempts at more complex words.

17. The National Literacy Strategy, which is now part of the Primary National Strategy, has been in place for seven years. When it was introduced in 1998, only 65% of 11-year-olds reached the target level in English, i.e. level 4, at the end of Key Stage 2. By 2005, after seven years of the NLS, nearly 80% of them reached that level. These Year 6 pupils were the first cohort to have been part of the NLS from the beginning, i.e. when they were in the Reception year.

18. It is interesting to note that, over the first nine years of the National

⁶ *The curriculum guidance for the foundation stage* (QCA/00/587), DfEE/QCA, 2000.

Curriculum (1989 to 1998), very little impact was made on raising standards of reading. Despite the content of phonic work being a statutory component of the National Curriculum over that time, HMI reports show that it was often a neglected or weak feature of the teaching. However, that changed markedly with the advent of the NLS, which engaged schools not only with what phonic content should be taught but also how to teach it.

19. From its inception, the NLS focused strongly on the teaching of reading. A memorandum submitted by the DfES to the Education and Skills Committee set out the context of the NLS and its achievements, including:

a Framework for teaching which schools delivered through the Literacy Hour ... subject specific training for teachers, intervention in schools that were failing their pupils and the setting of clear targets at school, local and national levels. The National Year of Reading, and the continuing Reading Campaign which accompanied the National Literacy Strategy, had a significant impact on raising the profile of reading not just with schools but also with families and the wider community.⁷

20. As part of this focus on teaching reading, the NLS published extensive

guidance on the teaching and learning of phonic work, which began with the word-level elements of the *Framework for teaching* and the accompanying initial training in 1998. *Progression in Phonics* was introduced in 1999, in response to evaluation by HMI of the first year of the NLS.

21. Reflecting upon the conditions that have led to improved standards of work in recent years, it is apparent that including phonic content in the National Curriculum did not, of itself, shift standards of reading and writing significantly. The literacy hour introduced better planned, more structured and systematic work in many schools than had previously applied to teaching literacy in general – and to phonics in particular. The bold undertaking of the NLS, despite its non-statutory remit, was to match teaching methodology with curriculum content, thus appearing to ‘tell teachers how to teach’. The fact that so many teachers have come to embed within their own practice the guidance offered by the NLS reflects that they welcome the support it provides.
22. While there is considerable debate about some aspects of the guidance from the NLS, such as the speed of coverage of the letter-sound correspondences (the alphabetic code)

⁷ Quoted in Education and Skills Committee, *Teaching children to read*, Ev 33.

at the earliest stages, and the degree of emphasis given to blending, there is wide acceptance of the basic description of phonics given in the NLS's guidance, *Progression in phonics* (PiPs):

*Phonics consists of the skills of segmentation and blending, knowledge of the alphabetic code and an understanding of the principles which underpin how the code is used in reading and spelling.*⁸

23. PiPs set out seven steps for the teaching of phonic knowledge and skills and an extensive programme of training for teachers in the Reception year and Year 1 was undertaken to embed this in practice in these year groups. PiPs was updated further for schools and early years settings in 2004 in the publication *Playing with sounds*.⁹
24. As part of its evaluation of the implementation and development of the NLS (and, later, the Primary National Strategy) since its inception, Ofsted has reported on the extent and quality of phonic work. In evaluating the first four years of the NLS, it concluded:

After a very uncertain start, there has been a marked shift in teachers'

*understanding of and attitudes towards the place of phonics in teaching reading and spelling.*¹⁰

25. That shift is very largely the result of the NLS. There is certainly more phonic work taught in primary schools now than in the last decade. However, the quality of that teaching needs to improve if standards are to continue to rise. The visits made by HMI for this review provide evidence of where improvements are needed and, indeed, are possible.
26. Despite improvements made overall, there are particularly urgent concerns nationally about the comparatively weak performance of the 15% of children who do not reach the target level for their age in reading by the end of Key Stage 1, and the 16% of children who do not reach it by the end of Key Stage 2 – around 85,000 and 95,000 children respectively. There are concerns, too, about the generally weaker performance of boys compared to that of girls. The figures of 15% of seven year olds and 16% of 11 year olds who do not reach level 2 and level 4 respectively thus mask a considerable range of performance, even within those groups.
27. In its annual analyses of the national tests over a number of years, the

⁸ *Progression in Phonics* (DfEE 0 19 312237 5), DfEE, 1999.

⁹ *Playing with sounds: a supplement to Progression in Phonics* (DfES 0280-2004), DfES, 2004.

¹⁰ *The national literacy strategy: the first four years 1998 – 2002* (HMI 555), Ofsted, 2002.

Qualifications and Curriculum Authority (QCA) has also drawn attention to where improvements might be made, and has emphasised the importance of phonic knowledge. Its analysis of the 2005 Key Stage 1 tests showed that teachers could raise attainment in children's reading and spelling further at Key Stage 1 if, among other things, they taught phonic knowledge and skills more thoroughly than at present. For example, to move from level 2C to level 2B in reading, children should read the text carefully rather than relying on illustrations¹¹

review, therefore, fully supports and reflects the intentions of the *Every child matters* agenda.

29. As pointed out by a former president of the United Kingdom Literacy Association, this will mean establishing a common understanding of communication, language and literacy, particularly reading, among all the agencies involved in implementing that agenda. This will include non-educational ones such as the health service as well as the wide range of practitioners with varying levels of qualifications and experience in the early years sector.

Every child matters

28. The review comes at a time when early years settings, schools and local authorities are acting on their responsibilities under the Children Act 2004, the *Every child matters* agenda. The five outcomes are well known: being healthy, staying safe, enjoying and achieving, making a positive contribution, and achieving economic well-being. Literacy must be seen as a fundamental part of that agenda and crucial in 'narrowing the gap in outcomes between those who do well and those who do not'.¹² Without the ability to communicate effectively in speech and through reading and writing, children and young people are seriously disadvantaged for life. This

¹¹ The full text of the QCA's leaflet for teachers on the implications of the 2005 tests can be found at: <http://www.qca.org.uk/downloads/qca-05-1789-ks1-en.pdf>

¹² *Every child matters: change for children* (DfES-1110-2004), H M Government, 2004.

Aspect 1: what best practice should be expected in the teaching of early reading and synthetic phonics

Defining 'best practice'

30. The interim report defined best practice as that which results in the greatest benefit to the learner. Three questions, therefore, that might be asked when seeking to promote best practice are:
 - Is it replicable across the broad range of settings and schools?
 - Can it be resourced and sustained at reasonable cost?
 - What knowledge, skills and understanding are needed by practitioners, teachers and others who are responsible for securing it?
31. Research, inspection and leading edge work of settings and schools may inform best practice. However, findings from different research programmes are sometimes contradictory or inconclusive, and often call for further studies to test tentative findings.¹³ While robust research findings must not be ignored, developers of national strategies, much less schools and settings, cannot always wait for the results of long-term research studies. They must take decisions, based on as much firm evidence as is available from a range of sources at the time, especially from replicable and sustainable best practice.
32. It is important, too, that those working directly in settings and schools do not feel they are at the mercy of 'rows of back seat drivers pointing in different directions'. Practitioners and teachers who have contributed to the review were clearly looking for consistent guidance that offered them structure, simplicity and some flexibility.
33. An important test of best practice must be how well the teaching methods secure optimum progress and high achievement for all beginner readers and writers. It was clear from responses to the interim report that some believed its recommendations ran counter to the view that 'children learn in different ways'. These views were often expressed as 'one size does not fit all'.

¹³ Torgerson, C. J., Brooks, G., Hall, J. *A systematic review of the research literature on the use of phonics in the teaching of reading and spelling* (Research Report RR711), DfES, 2006.

34. However, all beginner readers have to come to terms with the same alphabetic principles if they are to learn to read and write. In the daily work of settings and classrooms this means finding the line of best fit for the great majority of children, underpinned with additional learning support for those who need it. Moreover, leading edge practice bears no resemblance to a 'one size fits all' model of teaching and learning, nor does it promote boringly dull, rote learning of phonics.
35. The findings of this review argue strongly for the inclusion of a vigorous, programme of phonic work to be securely embedded within a broad and language-rich curriculum: that is to say, a curriculum that generates purposeful discussion, interest, application, enjoyment and high achievement across all the areas of learning and experience in the early years and progressively throughout the key stages which follow.
36. In practice, this means teaching relatively short, discrete daily sessions, designed to progress from simple elements to the more complex aspects of phonic knowledge, skills and understanding. The best teaching seen during the review was at a brisk pace, fired children's interest, often by engaging them in multi-sensory activities, drew upon a mix of stimulating resources, and made sure that they received praise for effort and achievement. Children's response to these sessions was, overwhelmingly, one in which success was its own reward. For example, they took pride in demonstrating phonic skills, were becoming confident communicators, and showed positive attitudes to reading and writing. Such practice fell well within what the Primary National Strategy has described as 'quality first teaching'.
37. It is widely agreed that phonic work is an essential part, but not the whole picture, of what it takes to become a fluent reader and skilled writer, well capable of comprehending and composing text. Although this review focuses upon phonic work, it is very important to understand what the rest of the picture looks like and requires. For example, nurturing positive attitudes to literacy and the skills associated with them, across the curriculum, is crucially important as is developing spoken language, building vocabulary, grammar, comprehension and facility with ICT.
38. A wide range of contributors and inspection evidence variously suggest that settings and schools need to give considerably more attention to developing these skills, especially speaking and listening, across the curriculum:

Too little attention has been given to

*teaching the full National Curriculum programme of study for speaking and listening and the range of contexts provided for speaking and listening remains too limited.*¹⁴

39. This argues strongly for making sure that young children benefit fully from all the areas of learning and experience of the Foundation Stage and all subjects of the Key Stage 1 curriculum that follow. It is self-evident that work in music, drama, art, science and mathematics and so forth is valuable not only in its own right but also rich in opportunities for children to listen, speak, read, write and rapidly increase their stock of words.
40. How to raise the profile and quality of the kinds of classroom talk 'likely to exert the greatest leverage on children's learning and understanding' is an important question that has considerable implications for training practitioners and teachers. This is being addressed by the Primary National Strategy in work on the new and revised frameworks, taking account of seminal work such as that at Cambridge University by Professor Robin Alexander.¹⁵

The case for systematic phonic work

41. Eminent researchers in this country

¹⁴ *English 2000 – 2005: a review of inspection evidence* (HMI 2351), Ofsted, 2005.

¹⁵ Alexander, R. *Towards dialogic teaching: rethinking classroom talk*, 2nd edition (ISBN 0 9546943 17), Dialogos, 2005.

¹⁶ Appendix 2 provides a glossary of terms.

have conducted important studies that are relevant to this review. Their findings, together with robust studies from other English-speaking countries, notably the United States of America and, more recently, Australia, highlight the crucial importance of systematic phonic teaching for beginner readers.

42. In a paper presented at a seminar on phonics conducted by the DfES in March 2003, Linnea Ehri wrote:

*What is Systematic Phonics Instruction? Phonics is a method of instruction that teaches students correspondences between graphemes in written language and phonemes in spoken language and how to use these correspondences to read and spell words. Phonics instruction is systematic when all the major grapheme-phoneme correspondences are taught and they are covered in a clearly defined sequence.*¹⁶

In summarising the findings of the Reading Panel in the United States, she concluded:

These findings show that systematic phonics instruction produced superior performance in reading compared to all types of unsystematic or no

phonics instruction.¹⁷

43. The recent Australian report, *Teaching Reading*, came to much the same conclusion:

*In sum, the incontrovertible finding from the extensive body of local and international evidence-based literacy research is that for children during the early years of schooling (and subsequently if needed), to be able to link their knowledge of spoken language to their knowledge of written language, they must first master the alphabetic code – the system of grapheme-phoneme correspondences that link written words to their pronunciations. Because these are both foundational and essential skills for the development of competence in reading, writing and spelling, they must be taught explicitly, systematically, early and well.*¹⁸

44. It will be important in the renewal of the NLS Framework for teaching to make certain that all four strands of language development are fully recognised. When thinking about phonic work, what most people have in mind is the teaching and learning of reading. However, as these findings show, phonic work is also essential for the development of writing, especially

spelling. The teaching of beginner readers must lead them to understand how reading and writing are related. The existing NLS framework recognises this relationship, but it would be beneficial to practitioners and teachers to make this more explicit so that they are clear about how these strands come together for teaching phonic work.

Synthetic phonics

45. Because our writing system is alphabetic, beginner readers must be taught how the letters of the alphabet, singly or in combination, represent the sounds of spoken language (letter-sound correspondences) and how to blend (synthesise) the sounds to read words, and break up (segment) the sounds in words to spell. They must learn to process all the letters in words and 'read words in and out of text'.¹⁹ Phonic work should teach these skills and knowledge in a well defined and systematic sequence.
46. Furthermore, it is generally accepted that it is harder to learn to read and write in English because the relationship between sounds and letters is more complex than in many other alphabetic languages. It is therefore crucial to teach phonic work systematically, regularly and explicitly,

¹⁷ Ehri, Linnea C., 'Systematic phonics instruction: findings of the National Reading Panel'. Paper presented at the seminar on phonics convened by the DfES in March 2003.

¹⁸ *Teaching Reading*, the final report of the national inquiry into the teaching of literacy, Rowe, K., on behalf of the Australian Government, 2005.

¹⁹ Ehri, Linnea C., 'Systematic phonics instruction: findings of the National Reading Panel'. Paper presented at the seminar on phonics convened by the DfES in March 2003.

because children are highly unlikely to work out this relationship for themselves. It cannot be left to chance, or for children to ferret out, on their own, how the alphabetic code works.

47. The review's remit requires a consideration of 'synthetic' phonics in particular, including both the content and the pace of teaching, and that this should be done 'through examination of the available evidence and engagement with the teaching profession and education experts'. Having followed those directions, and notwithstanding the uncertainties of research, there is much convincing evidence to show from the practice observed that, as generally understood, 'synthetic' phonics is the form of systematic phonic work that offers the vast majority of beginners the best route to becoming skilled readers. Among other strengths, this is because it teaches children directly what they need to know, i.e. the principles set out below, whereas other approaches, such as 'analytic' phonics, expect children to deduce them.²⁰
48. However, that children learn to read by other approaches to *systematic* phonic work was noted by Professor Rhona Johnston, who said that 'analytic phonics is good but synthetic phonics is better'. It is not surprising, moreover, that even the best systematic programme poorly

taught will not yield the intended benefits for beginner readers.

49. Experienced practitioners and teachers point out that, in the course of phonics teaching, as children 'start to get the hang of it', they begin to self-teach and 'need to read a lot to consolidate their skills', that is, to develop effortless reading and focus more and more on comprehending the text. At this point, children may appear, some would say, to be 'barking at print' without fully understanding what they are reading. Although this is often levelled as a criticism of phonic work, such behaviour is usually transitional as children hone their phonic skills. Given that even skilled adult readers may find themselves 'barking at print' when they are faced at times with unfamiliar text, it is hardly surprising that children may do so in the early stages of reading.
50. Good practice showed that planning and other key elements that support the teaching and learning of phonic work, such as assessment, were invariably 'formalised'. That is to say, they were explicit, well defined and mapped the progress expected of the children. However, formality, in this sense, should not be confused with the formality some early years educators see as a threat to child development, as if planning and delivery were one

²⁰ See definitions of analytic and synthetic phonics in Torgerson, C. J., Brooks, G., Hall, J. A *systematic review of the research literature on the use of phonics in the teaching of reading and spelling* (Research Report RR711), DfES, 2006.

and the same. In other words, appropriate formal planning does not underwrite inappropriate formal practice. The best work was formalised in design but taught creatively and with due regard for individual differences in, for example, children's rates of learning.

High quality phonic work

51. Having considered a wide range of evidence, the review has concluded that the case for systematic phonic work is overwhelming and much strengthened by a synthetic approach, the key features of which are to teach beginner readers:

- grapheme/phoneme (letter/sound) correspondences (the alphabetic principle) in a clearly defined, incremental sequence
- to apply the highly important skill of blending (synthesising) phonemes in order, all through a word to read it
- to apply the skills of segmenting words into their constituent phonemes to spell
- that blending and segmenting are reversible processes.

52. All of these elements featured consistently in the best work seen, including the visits by HMI undertaken for the review and discussed below. The sum of these represent 'high quality phonic work' and, for the sake

of clarity and ease of reference, the report will use this term from now on.

53. High quality phonic work is not a 'strategy' so much as a body of knowledge, skills and understanding that has to be learned. From work considered by this review, the balance of advantage favours teaching it discretely as the prime approach to establishing word recognition. This is because successful phonic work for word recognition is a time-limited activity that is eventually overtaken by work that develops comprehension.

Different programmes - similar principles

54. A number of contributors to the review claimed to have developed exemplary but differing approaches to teaching reading in general, and phonic work in particular. Virtually all of the developers of commercially produced phonic programmes provided assessment data that showed very substantial, sometimes spectacular, gains in the performance of beginner readers on their programme. Since a wide array of different tests was used to measure these gains, it was not possible to compare the value added by each programme with any accuracy. It was clear, however, that all these programmes were highly systematic and the perceived, sharp differences that divided their advocates appeared to make little difference to the claimed

success rates. This suggests that the common elements in each programme - those that really make a difference to how well beginners are taught and learn to read and write - are few in number and similar to those set out above.

Fidelity to the programme

55. Once started, what has been called 'fidelity to the programme' is also important for ensuring children's progress. Experience shows that even high quality programmes founder if they are not applied consistently and regularly. It can be unwise to 'pick and mix' too many elements from several different programmes because this often breaks up important sequences of work and disrupts planned progression.
56. Another important feature of the best practice was that, once begun, high quality phonic programmes were followed consistently and carefully, each day, reinforcing and building on previous learning to secure children's progress. The time spent daily on this work was well planned. It was usually short, around 20 minutes overall, with the time distributed as judged best by the practitioner or teacher. It included a variety of related activities that advanced learning incrementally and appealed to children, with praise for effort and achievement at every opportunity. Their interests were fired

often by engaging them in multi-sensory activities which drew upon a mix of stimulating resources.

Multi-sensory work

57. Multi-sensory activities featured strongly in high quality phonic work and often encompassed, variously, simultaneous visual, auditory and kinaesthetic activities involving, for example, physical movement to copy letter shapes and sounds, and manipulate magnetic or other solid letters to build words. Sometimes mnemonics, such as a picture of a snake or an apple in the shapes of 's' and 'a', were used to help children memorise letters. Handwriting too was often seen as a kinaesthetic activity and was introduced early. This multi-sensory approach almost always captured the interest of boys as well as girls. A common feature of the best work was that boys' progress and achievement did not lag behind that of girls: an important outcome given the generally weaker performance of boys, especially in writing.
58. The multi-sensory work showed that children generally bring to bear on the learning task as many of their senses as they can, rather than limit themselves to only one sensory pathway. This calls into question the notion that children can be categorised by a single learning style, be it auditory, visual or kinaesthetic.

Assessment and use of data

59. Good assessment should track performance in all four strands of language: speaking, listening, reading and writing, and identify strengths and weaknesses in children's knowledge, skills and understanding, especially those related to mastering word recognition skills. Hence assessment for learning is vital for planning work that is matched well to children's needs. However, despite the substantial amount of valuable work which has been done in this area, including an 'assessment for learning' audit from the Primary National Strategy, Ofsted has pointed out that:

*The use of assessment for learning is improving but overall it is still the least successful element of teaching.*²¹

60. Across the schools visited by HMI for this review, assessment was also seen to be of mixed quality. Plenty of assessment took place, but not enough of it was targeted precisely to provide relevant information, for example, on the next steps in teaching phonics, either for individuals or for groups of children.
61. The most effective assessment was simple, rigorous and purposeful. At least three schools, which followed a

high quality phonics programme, assessed:

- recognition of letters (and groups of letters, such as digraphs)
- the ability to sound out phonemes
- the ability to hear and blend phonemes
- the reading of phonically regular words
- the reading of some irregular words.

The teaching was then adapted to take account of the outcomes of this assessment. Obviously, to be of value for teaching reading or anything else, assessment must provide more than inert information about children's performance - hence the current emphasis on assessment for learning.

62. The final report of the Effective Provision of Pre-school Education (EPPE) project underlines the importance of assessment in the Foundation Stage:

*It remains important not to ignore or minimise the existence of language or pre-reading differences because of their potential relationship with later attainment and progress in school. It is crucial that school entry assessments are used formatively to assist teachers in planning a programme to meet individual needs.*²²

²¹ Primary national strategy: an evaluation of its impact in primary schools 2004/05 (HMI 2396), Ofsted, 2005.

²² The effective provision of pre-school education (EPPE) project: final report: a longitudinal study funded by the DfES 1997 – 2004 (SSU/FR/2004/01), DfES, 2004.

It follows that assessment during the Foundation Stage should take full account of well informed observations of children's early language development, including pre-reading differences that may be associated with language delay for which planned support is needed.

63. The work that is taking place within the Primary National Strategy on assessment of, and for, learning will inform both the development of the new Early Years Foundation Stage and the renewed literacy framework. As the benefits of this work become more widely embedded, many of the obstacles to successful assessment are likely to be overcome.

English as an additional language

64. The acquisition of two languages, with English as the additional language, must be a valuable attribute and should certainly not be seen as an obstacle to learning to read. The term 'English as an additional language' (EAL) acknowledges that many learners of English in our schools already know at least one other language and are adding English to that repertoire. The term 'bilingual' generally refers to children who have access to more than one language at home and at school, even though they may not be fully fluent in any one language.

65. Ofsted has used the term 'advanced bilingual learners' to describe children who have had considerable exposure to, and progressed beyond, the early stages of learning English. For these children, all the earlier comments about best practice apply with equal force. This is especially important in the case of developing speaking and listening and intensifying language comprehension in English as precursors to reading and writing, including phonic work. The indications are that the key features of a high quality, systematic programme of phonic work sit well with, and strengthen, any additional arrangements that need to be made. For example, good progress in learning to read was reported by HMI when observing phonic work in schools with high percentages of children whose first language was other than English.

66. Submissions to the review, including from the National Association for Language Development in the Curriculum (NALDIC), acknowledged the importance of developing speaking and listening skills and the value of existing materials for promoting them. NALDIC noted that:

At whatever age children begin to learn English in school, they need to learn quickly how to convey knowledge and understanding in English and to engage with new

*learning through English. Developing their speaking and listening skills in English is a key to their success. This is clearly acknowledged with the development of materials such as the Sure Start/DfES/PNS publication 'Communicating matters.'*²³

67. Obviously, provision for teaching reading must fall within a well established, broader range of support for pupils learning English as an additional language, taking into account not only 'advanced bilingual learners' but also those who are not so advanced, such as newly arrived learners of EAL, those with learning difficulties and those who may have special educational needs. Children's backgrounds will obviously shape their experiences and should be taken into account, for example, by recognising cultural events, such as religious festivals and traditional stories. These can provide powerful learning opportunities to boost speaking, listening, reading and writing in English.
68. From work seen by the review, the guidance from the Primary National Strategy on school-wide approaches to inclusion constitutes a sound basis for providing for all these learners of English as an additional language. It is worth underlining, however, the importance of the effective use of

assessment so that any gaps in achievement can be spotted early and the progress of these children tracked to ensure they receive appropriate and sustained support.

69. For example, one school visited by HMI for the review had a predominantly Asian British population, with over 30% of the pupils eligible for free school meals. Nearly 70% of the pupils did not have English as their first language. The development of speaking and listening skills, and vocabulary building, were strong features of the work. In September 2004, the school introduced a commercial phonics programme.
70. Underpinning much of the programme's success was its approach to assessment and intervention. The headteacher described it as follows:

In the afternoon, any children who need extra help are taught in very small groups or one-to-one for short periods. The support is provided by teaching assistants, who have been trained with this specifically in mind. This does not involve new material – it concentrates on blending skills and follows the programme. Children who are not coping in their reading groups will be moved to the one below – this is not a problem and is never referred to as 'going down'. The

²³ *Communicating matters: an introduction to communication and language in early years settings (1771-2005DOC-EN)*, DfES, 2005.

managers of the programme monitor the progress of every child and are quick to spot problems as they arise.

71. The school's data show a big increase in the proportion of children learning to read at Key Stage 1, with far fewer 'working towards' or achieving only level 1 in reading. Such data add weight to the view that systematic, high quality teaching, detailed assessment and early intervention are as important for learners of English as an additional language as for all other children.

Information and communication technology (ICT)

72. The range of ICT initiatives and programmes available to settings and schools has grown apace in recent years. Discussions with providers suggest that reading, and especially phonic work, is an area for further growth in this area. Users will need to be sure not only that they have the expertise to exploit these resources but also that the ICT resources themselves are fit for purpose and value for money.
73. One significant improvement noted by Ofsted in their latest report on the Primary National Strategy is teachers' better use of ICT as a result of increased guidance and support from the Strategy. This was also noted by the review, for example, in the case of electronic whiteboards. The

opportunities afforded by this interactive technology were exploited to good effect, and the benefits were apparent for both teaching and learning. At best, electronic whiteboards extended teachers' repertoire of skills, helped them to plan and teach sequences of work that captured children's interest, intensified their concentration and sustained their attention.

74. When used well there is no doubt that ICT was also highly motivating as a form of additional support of benefit to children within intervention programmes.

Consistent quality

75. Not all the work observed by HMI was of a consistently high quality; observations of weak practice in schools *that were otherwise generally effective in teaching phonic work* illustrate the point. Two examples are included here because they draw attention to the need for vigilance in ensuring consistently high quality.

When sounding out (segmenting) words such as 'cat' and 'bat', the teacher frequently stretched the consonants, for example, by adding the sound 'ur'. What the children heard was 'cur - a - tur' and 'bur - a - tur' thus they found blending (synthesising) the sounds (phonemes) for 'cat' and 'bat' unnecessarily difficult.

The whole class was seated on the carpeted area around the teacher who sat on a chair next to the whiteboard. The children were asked to sound out, blend and read words such as 'pin' and 'tin' that the teacher wrote on the board. Two difficulties for the children were immediately apparent. First, the writing was too small and indistinct because it was written in a yellow marker pen. Secondly, those at the front constantly obscured the sight lines of the children sitting at the back of the group which included two boys later identified as 'struggling readers'.

76. The first example is directly related to phonic work. It calls for greater technical skill from the teacher in enunciating phonemes, as well as an understanding of why this is so important. The second is an example of general weaknesses that would depress learning not only of phonic work but also of any work presented in that way.
77. At first glance, these may appear to be minor weaknesses. However, allowing them to continue will have a considerable, negative impact on children's learning. In both cases, the school's normal monitoring should have identified these weaknesses and the teachers should have received feedback to correct them. While effective basic training should safeguard against such weaknesses,

the hard message is that the ultimate responsibility for overcoming them lies within the school - hence the importance of good monitoring if 'quality first teaching' is to be secured.

Divergent views

78. The interim report identified some aspects of phonic work on which opinions diverged about how, or whether, they should be taught. These aspects are touched on below.

Teaching letter names

79. The teaching of letter names is often left until after the sounds of letters have been learned, in the belief that it can be confusing for children to have to learn both together. However, research indicates that children often learn letter names earlier than they learn letter sounds and that five year olds who know more letter names also know more letter sounds. The reasons for this are not fully understood by researchers.
80. Given that children will meet many instances outside, as well as within, their settings and schools where letter names are used, it makes sense to teach them within the programme of early phonic work.
81. It appears that the distinction between a letter name and a letter sound is easily understood by the majority of

children. Professor Morag Stuart has observed that it seems:
*... sensible to teach both names and sounds of letters. Names may be easier to learn because, being syllables rather than phonemes, they are more perceptible, and also because children expect things to have names and are accustomed to rapidly acquiring the names of things.*²⁴

The value of regular texts

82. There is some force in the view that, as they learn to master the alphabetic code, children should be given reading material that is well within their reach in the form of 'decodable books', that is to say, early reading books specially designed to incorporate regular text, which children can decode using the phonic skills they have secured. The view is that this enables them to benefit from 'quick wins' in practising phonic skills and gaining confidence from reading a whole, albeit short, book. Using such books as part of the phonic programme does not preclude other reading. Indeed it can be shown that such books help children develop confidence and an appetite for reading more widely.
83. Much turns on the quality of the decodable books which are available,

and there is no doubt that this has improved greatly in recent years. Established, highly regarded authors of children's literature write some of these books, and there is a widening choice of attractively designed material.

84. There is no doubt, too, that the simple text in some recognised favourite children's books can fulfil much the same function as that of decodable books. Thus it may be possible to use these texts in parallel, or in place of them. In any event the use of decodable books should certainly not deny children access to favourite books and stories at any stage and particularly at the point when they need to read avidly to hone their skills, as the focus shifts from learning to read to reading to learn. Current work being undertaken at Warwick University valuably explores these matters, suggesting, for example, that:

*many books written for young children have a high degree of repetition anyway, above and beyond high frequency words. Furthermore, the vast choice of available books will potentially contribute to them developing and extending their vocabularies and general knowledge.*²⁵

²⁴ Stuart, M. 'Learning to read: developing processes for recognising, understanding and pronouncing written words', 2005 [submitted for publication].

²⁵ Solity, J. and Vousden, J. I., 'Reading schemes vs real books: a new perspective from instructional psychology', 2006. [submitted for publication]

The sequence of teaching phonic knowledge and skills and pace of coverage

85. Reviewing the sequence of teaching phonic knowledge and skills will be undertaken rigorously as part of the renewal of the NLS framework. Rather than pre-empt that work, the following comments are offered to support it.
86. The sequence should be such that children have every opportunity to acquire rapidly the necessary phonic knowledge and skills to read independently. As Rhona Johnston and Joyce Watson noted in their research:

*Most of the letter-sound correspondences, including the consonant and vowel digraphs, can be taught in the space of a few months at the start of their first year at school. This means that the children can read many of the unfamiliar words they meet in text for themselves, without the assistance of the teacher.*²⁶

87. It is vital that such direct, systematic teaching does not stop once children have mastered the main letter-sound correspondences (such as knowing

one sound for each letter of the alphabet and some common digraphs such as 'sh', 'ch' and 'th'). In addition, there should be direct teaching of words which are not phonically regular, such as 'the' and 'was', but which occur frequently in children's reading.

88. For example, in one school, which chose to introduce aspects of phonic work before the age of five, there was a very short (10 minute) session in Foundation Stage 1, where children learnt to hear the separate sounds in words and then, mentally, blended the sounds to recognise the words, an exercise which developed their phonological awareness. This was followed, in Year R, by a daily whole-class session, lasting around 20 minutes. In another school, a similar pattern was seen: the work in Year 1 consolidated the phonic knowledge and skills taught in Year R and provided more opportunities for children to apply these in reading and spelling. Both schools had very high proportions of pupils (around 68%) learning English as an additional language who were clearly benefiting from this approach.

²⁶ Johnston, R. and Watson, J. *The effects of synthetic phonics teaching on reading and spelling attainment: a seven year longitudinal study*, The Scottish Executive Central Research Unit, February 2005.

Aspect 2: the development of the Early Years Foundation Stage and the development and renewal of the NLS *Framework for teaching*

The Early Years Foundation Stage

At what age should phonic work be introduced?

89. Responses to the interim report show that early years educators are concerned about the important issue of when to start teaching phonic work. It would be ridiculous for the review to suggest that phonics teaching should start at the stroke of midnight on every child's fifth birthday. However, there is ample evidence to support the recommendation of the interim report that, for *most* children, it is highly worthwhile and appropriate to *begin* a systematic programme of phonic work by the age of five, if not before for some children, the way having been paved by related activities designed, for example, to build phonological awareness.
90. Much good work was evident where young children were actively and fully engaged in developing this awareness within a broad and language-rich curriculum. This work exploited the power of play, story, songs, rhymes and drama to familiarise children with letters, words and sounds. Time was also provided for children to talk with adults and each other about their experiences and feelings in ways which enlarged their vocabulary and stimulated their interest in reading.
91. Worthwhile pre-reading activities ensured that children had wide exposure to print, for example, by seeing their names on models and paintings, noticing labels and words on displays, playing freely with solid letters and, importantly, hearing and seeing text simultaneously when stories and interesting non-fiction material were read to them. Well before they were able to read, children were thereby getting the idea that print carried a message that could be read separately, for example, from the attractive pictures in story books. Practitioners pointed to the value, also, of role play in which children often pretend to write, learning that print

goes from left to right as their scribble-like writing becomes more linear and they start to form letter shapes and words.

92. The important point is that practitioners and teachers need to be willing, and have the wherewithal, to test the boundaries of children's readiness for systematic phonic work. Pre-reading activities, such as those described above, provide opportunities to observe and assess children's capabilities. Thus when to introduce phonic work systematically is, and should be, a matter of principled, professional judgement based on careful observation and robust assessment.
93. Linnea Ehri, in a paper mentioned earlier, not only pointed out the importance of systematic phonics, but also drew attention to introducing it early:

*The impact of phonics instruction on reading was significantly greater...when phonics was the method used to start children out... These results show that early instruction in systematic phonics is especially beneficial for learning to read.*²⁷

94. The many imaginative, active ways of doing this already evident in settings

and schools can certainly provide an enjoyable and rewarding start to phonic work for young children.

The Early Reading Development Pilot

95. To take further account of the views of practitioners, and issues around the introduction and implementation of phonic work, the review drew upon the Early Reading Development Pilot announced by the Secretary of State in July 2005. Around 180 primary schools and linked early years settings in 18 local authorities are trialling new approaches to using *Playing with sounds*. In part, the pilots focus on increasing the pace at which phonics is taught, with a view to progressing phonics more effectively in the Foundation Stage. The pilots are also considering what support and training are needed to improve professional knowledge and skills, as well as ways to engage parents in their children's early reading.
96. The pilots were still running at the time of publication of this report and the review has considered feedback from the first term only (September to December 2005). This, nevertheless, has provided some valuable early insights, notably:
 - Settings and schools have reviewed and raised their expectations of

²⁷ Ehri, Linnea C., *Systematic Phonics Instruction: Findings of the National Reading Panel*, Graduate Center of the City University of New York. Paper presented at the DFES seminar on phonics on 17 March 2003.

progress in phonic development, including the impact on children at risk of underachievement and those with special educational needs.

- Practitioners reported that it is possible to focus on children's phonic development without compromising the wider principles underpinning the Foundation Stage curriculum.
- The phonic audit to identify priorities for early reading development, and the emphasis placed on tracking pupils' progress to match provision to need, were welcomed and seen as strengths in the design of the pilot.

97. These early findings support conclusions drawn from other evidence considered by the review, especially that it is possible to start early phonic work while still giving children access to the full range of learning and development opportunities in the Foundation Stage. The findings also highlight the importance of early identification and continual monitoring of work to strengthen early reading, and for all staff in the setting or school to be engaged in this process.
98. It will clearly be important that the development of the new Early Years Foundation Stage and the renewal of the literacy framework take account of

these and subsequent findings from the pilot, particularly to determine how best to secure more effective progression in early reading up to and beyond the age of five.

Developing communication, language and literacy

99. An early start on systematic phonic work is especially important for those children who do not have the advantages of strong support for literacy at home. Despite overall gains in international tests of reading, such as the Progress in International Reading Literacy Study (PIRLS) in 2001, other data for England show that we do less well than other countries for particular groups of children, for example, boys from families of low socio-economic status.²⁸ Furthermore, an appropriate introduction to phonic work by the age of five enables our children to cover ground that many of their counterparts in other countries whose language is much less complex phonetically do not have to cover.
100. Efforts to overcome persistent underperformance are hardly likely to benefit from depressing expectations for our five year olds when we know that, with appropriate teaching, they are capable of higher achievement than at present. The indications are that, when these children do not get a

²⁸ Progress in international reading literacy study (PIRLS), 2001.

really good start, they are likely to need interventions to enable them to 'catch up' and 'recover' ground that they should not have lost in the first place. While it is true that socio-economic differences considerably outweigh gender differences in reading and writing performance, we need to respond effectively to both factors in the interests of all children.

101. The significance of getting a really good start that will help to prepare children embarking upon phonic work (and much else) is underlined further by an extension of the EPPE research which studied children at 'early risk' of developing special educational needs (SEN).²⁹ This study showed that attendance at high quality, pre-school provision reduced the proportion of children entering school with low cognitive and language skills which put them at risk of a poor start to learning. Significantly, more 'home' children were identified as having SEN at the age of seven than those who had attended pre-school, even after taking home backgrounds into account. The benefits of early education were still seen at seven, suggesting that pre-school experience can be effective for improving cognitive and linguistic development in children 'at risk' of SEN.
102. Various contributors to the review from the early years sector have been

concerned about perceived pressures on practitioners in the Foundation Stage to adopt direct teaching which is more commonly associated with later key stages. Because concerns about work that is 'too formal too soon' are long-standing in early years education, it is no surprise that the teaching of phonics has raised questions about the balance between teacher-directed and child-initiated learning.

103. However, it is indisputable that settings and schools provide unique opportunities for young children to learn co-operatively in language-rich contexts. If children are to become successful independent learners, then settings and schools must exploit the conditions that they provide best. The most effective work drew upon all six areas of learning of the Foundation Stage curriculum and experience to fire children's imagination and enrich their communication skills, particularly speaking and listening.
104. Important, too, is the boost to children's confidence, self-belief and attitudes to reading that is apparent when early phonic work is taught successfully within a language-rich curriculum. All this provides a strong foundation for early phonic work that in no way compromises the broader early years curriculum. Much of this was illustrated in work seen by HMI. For example:

²⁹ Sammons, P. et al. *The Early Years Transition and Special Educational Needs (EYTSEN) project* (RR 431, ISBN 1 84185 021 X), June 2003.

The teacher read 'We're going on a bear hunt', in a big book format, with a group of 17 children. The session lasted around twenty minutes. The emphasis was firmly on developing the children's language skills, especially through enlarging their vocabulary, focusing on the sounds of words and enhancing their comprehension of the narrative.

Excellent questioning engaged their social and communication skills. For example, the teacher encouraged the children to listen to, repeat and enjoy the language of the book, such as 'swishy, swashy'. She developed their grammar and vocabulary by demonstrating correct responses: a child who said, 'Him likes swimming', received the encouraging response, 'Yes, dogs do like swimming'. She helped them to understand new words and to discuss them: 'What does it mean if it's gloomy – a "gloomy cave"?'. Questions such as 'What do you think the dog is going to do?' and 'Why are they not going on a bear hunt?' helped the children to think about the narrative, whilst questions such as 'Why is the bear sad?' required their emotional engagement, as well as an understanding of what had happened in the story up to that point. Both the teacher and the teaching assistant used some Makaton signing

for children with auditory impairments for words such as 'beautiful', 'under', 'through', 'we', 'over', 'think' to support their learning.

All the children concentrated and listened very well, throughout the session, which had a very positive focus on listening and speaking, book language, and the sounds of words.

105. Much has been done recently to shape the early years curriculum to reflect what is known about child development and how children learn. Making sure that teaching secures optimum progress for every child applies with equal force to the Foundation Stage as to other stages of education. The EPPE study helpfully commented on this issue:

In summary effective pedagogy in the early years involves both the kind of interaction traditionally associated with the term 'teaching', and also the provision of instructive learning play environments and routines.

The 'excellent' settings provided both teacher-initiated group work and freely chosen, yet potentially instructive play activities.³⁰

106. Good early years practice shows, if proof were needed, that much learning

³⁰ The effective provision of pre-school education (EPPE) project: final report. A longitudinal study funded by the DfES 1997 – 2004 (SSU/FR/2004/01), DfES, 2004.

is a social and a socialising activity in which many important aspects of communication, language and literacy develop apace. The evidence from successful programmes suggests that teaching the whole group or class together, for short amounts of time, is advantageous for children, save for those with serious learning difficulties that cannot be met within mainstream provision. Exploiting the benefits of learning together also allows adults to identify quickly those children who need various degrees of additional support.

107. As children progress, however, some will inevitably learn faster than others. Grouping children for phonic teaching, within an early years setting or class, by matching work to their pace of learning and developing abilities, is often done to good effect. In the best work, too, children are strongly encouraged to help each other, for example, by working in pairs and talking about the task in hand. Again, practitioners and teachers must exercise professional judgements about organising teaching groups to provide optimum conditions for learning. In these respects, good practice in phonic work simply reflects good practice in general.

Involving parents

108. Obviously, developing children's

positive attitudes to literacy from the earliest stage is very important. As the National Literacy Trust's recent survey shows, children's attitudes to reading are greatly influenced by parents and carers.³¹ They can do much to stimulate children's early interest in literacy, for example, by such well known practices as reading and telling stories and making sure that children have lots of opportunities to listen and talk. Regular exposure to good books, well before the age of five, by sharing and enjoying them with trusted adults, is a time-honoured benefit for children that should be strongly encouraged. In doing this, parents and carers should be reassured that they are contributing massively not only to children's literacy but also to their education in general.

109. Respondents to the review commented upon the many initiatives designed to engage parents in helping their children to develop their communication skills in general and reading in particular. While it was not possible to look in detail at any particular initiative, it is clear that those such as Bookstart, Books for Babies, Reading Connects and the National Reading Campaign provide well regarded, valuable resources for parents that also do much to forge links between homes, settings and schools.

³¹ *Children's and young people's reading habits and preferences: The who, what, why, where and when*, The National Literacy Trust, December 2005.

110. Agencies such as the Basic Skills Agency, the National Literacy Trust and charitable organisations such as the National Confederation of Parent Teacher Associations, and I CAN, which works largely with children with speech and language disorders, do much to engage parents. The Peers Early Education Partnership also has imaginative and well established programmes for engaging parents, wider families and the community in the language development of young children, as do voluntary organisations such as Volunteer Reading Help.

111. The review found that settings and schools realised the importance of involving parents in developing children's language and literacy. This was often done well. For example, workshops on the teaching of reading were held for parents, materials for engaging children in reading were widely available for use at home, good use was made of school libraries and contacting parents by telephone to invite them to attend events designed to promote reading.

112. Despite their best efforts, however, some schools reported that it was not always possible to gain parents' co-operation and support for literacy. Thus, while they made every effort to involve parents, they had to accept that the contribution of some parents could not be guaranteed. In these

circumstances the school was the single most important provider of literacy support for the child.

The searchlights model

113. As noted under Aspect 1, phonic work is a body of knowledge, skills and understanding that quite simply has to be taught and learned. However, it is an obvious truth that the goal of reading is comprehension and that skilled reading involves understanding as well as decoding text. In short, learning to read progresses to reading, effortlessly, to learn. The teaching of beginner readers requires an understanding of the processes that underpin this progression. These processes have a considerable bearing on the searchlights model of reading.

114. The review has provided an important opportunity to consider how well the searchlights model continues to serve the needs of beginner readers. The model has undoubtedly served to establish phonic work within a broad range of strategies. To that extent this helped to systematise phonic work at a time when many settings and schools were giving it far too little attention.

115. The searchlights model was founded on a view of what constitutes a 'skilled reader' and the processes which support a child moving to such a position.³² Obviously, that a child

should become a skilled reader is an indisputable expectation of all those involved in teaching reading to beginners. However, the searchlights model does not best reflect *how a beginner reader progresses to become a skilled reader*.

116. This is because skilled readers do not rely upon strategies to read words, as they have already developed the skill of word recognition. They may use knowledge of context and grammar, which are conceived within the searchlights model, to assist their understanding of the text but, crucially, they would still be able to decode the words if all contextual and grammatical prompts were removed. Therefore, a model of reading which encourages switching between various searchlight strategies, particularly when phonic work is regarded as only one such strategy, all of equal worth, risks paying insufficient attention to the critical skills of word recognition which must first be secured by beginner readers. That is not to say beginner readers should be denied access, with skilled readers, to literature and sharing books. Indeed, it is important to make sure that, over the course of acquiring phonic skills, children are also given every opportunity to enjoy and benefit from excellent literature.
117. However, if beginner readers, for

example, are encouraged to infer from pictures the word they have to decode this may lead to their not realising that they need to focus on the printed word. They may, therefore, not use their developing phonic knowledge. It may also lead to diluting the focused phonics teaching that is necessary for securing accurate word reading. Thus, where beginner readers are taught habitually to infer the word they need from pictures they are far less likely to apply their developing phonic knowledge and skills to print. During the course of the review, several examples were seen of beginners being encouraged to infer from pictures the word they did not immediately recognise from the text. This was often done well before they had sufficient time to decode the word and, if necessary, check, adjust and re-try after their first attempt.

118. These issues were raised by the summary evaluation of the first four years of the NLS when Ofsted concluded:

The 'searchlights' model proposed in the framework has not been effective enough in terms of illustrating where the intensity of the 'searchlights' should fall at the different stages of learning to read. While the full range of strategies is used by fluent readers, beginning readers need to learn how

³² *The National Literacy Strategy: Framework for teaching* (PP3/31981/298/124), DfEE, 1998.

*to decode effortlessly, using their knowledge of letter-sound correspondences and the skills of blending sounds together. The importance of these crucial skills and knowledge has not been communicated clearly enough to teachers. The result has been an approach to word-level work which diffuses teaching at the earliest stages, rather than concentrating it on phonics.*³³

119. Some contributors to the review expressed concerns about the searchlights model. In addition, witnesses presenting evidence to the Education and Skills Committee argued that the searchlights model needs to be reconsidered in the light of a recent synthesis of research findings.³⁴ We, therefore, asked Professors Morag Stuart and Rhona Stainthorpe to review the relevant research and consider its implications for the searchlights model. An outline of their findings is set out below and the more detailed research evidence on which this is based is explored in Appendix 1.

The case for change to the searchlights model

The contribution of the searchlights model

120. When it was introduced in 1998, the searchlights model encapsulated what

was considered to be ‘best practice’ in the teaching of reading. This offered the opportunity, which the NLS has fully exploited, of gradually increasing the emphasis on the importance of phonics for young and for struggling readers. The searchlights model is an ambitious model, which seeks to incorporate the whole complexity of reading. At the time it was introduced, this holistic approach was in line with current accounts of reading development that were accepted by practitioners and teachers.

Research into learning to read

121. Meanwhile, researchers were investigating different aspects of the cognitive processes involved in reading, and the ways in which children developed these processes. Rather than viewing reading development as involving a continuous increase in the child’s ability to apply and orchestrate different ‘cueing systems’ (searchlights), researchers looked at the ways in which children’s word recognition skills developed. They looked at children’s ability to read and understand words in and out of context, and also the ways in which their ability to understand written discourse developed. This new research thus involved studying these two essential components of reading

³³ *The National Literacy Strategy: the first four years, 1998 – 2002* (HMI 555), Ofsted, 2002.

³⁴ *Teaching children to read*, paragraph 47.

separately, in an attempt better to understand the development of each.

Incorporating new research insights into the teaching of reading

122. Sufficient progress in understanding each component has now been made for the findings of this research to inform teaching. Some of this research (for example, the research into phonological awareness and letter-sound knowledge as important prerequisites for successful reading development) has already informed the *NLS Framework for teaching*. Further progress can now be made if the searchlights model is restructured to separate and clarify the two components of reading, word recognition skills and language comprehension processes, that are presently confounded within it. In this context, word recognition is the process of using phonics to recognise words. Language comprehension is the process by which word information, sentences and discourse are interpreted: a common process is held to underlie comprehension of both oral and written language.
123. This separation, made explicit in 'The simple view of reading' (see below and Appendix 1) is useful in practice because it provides a framework that enables teachers to understand what they need to teach about word recognition and comprehension and

why they need to teach it within a broad and rich curriculum.

The simple view of reading

124. There is evidence of the validity of this conceptual framework in that:

- different factors have been shown to predict word reading from those that predict comprehension
- there are children who have word recognition difficulties in the absence of language comprehension difficulties
- there are children who have language comprehension difficulties in the absence of word recognition difficulties
- there are differences in context effects at word and text levels.

Consequences of adopting this conceptual framework

125. Each dimension and its development must be understood by practitioners and teachers. They need to be brought up to date with research into the development of word recognition skills. This research acknowledges the crucial importance of ensuring that children understand the alphabetic principle at the start of a systematic approach to reading. There are three essential components to such understanding:
- ability to segment spoken words into their constituent phonemes
 - knowledge of grapheme-phoneme

correspondences (phonic knowledge)

- ability to blend phonemes into words.

126. Teachers also need to be brought up to date with research into reading comprehension. As reading comprehension has now been shown to depend crucially on language comprehension, teachers also need to have good knowledge and understanding of oral language development, and of ways to foster language comprehension. These two dimensions are shown in Figure 1 below.
127. As explained further in Appendix 1, in the top right-hand quadrant there are children who are good readers: children who lift the words off the page relatively effortlessly and understand the texts they read with relative ease.
128. In the other three quadrants, there are three predicted patterns of poor reading. At bottom right, there are children who read the words in the text with relatively little difficulty but whose poor language comprehension abilities militate against their understanding written texts. At top left, there are children who have difficulty reading the words in the text but have good language comprehension: that is, children for whom poor word recognition skills are

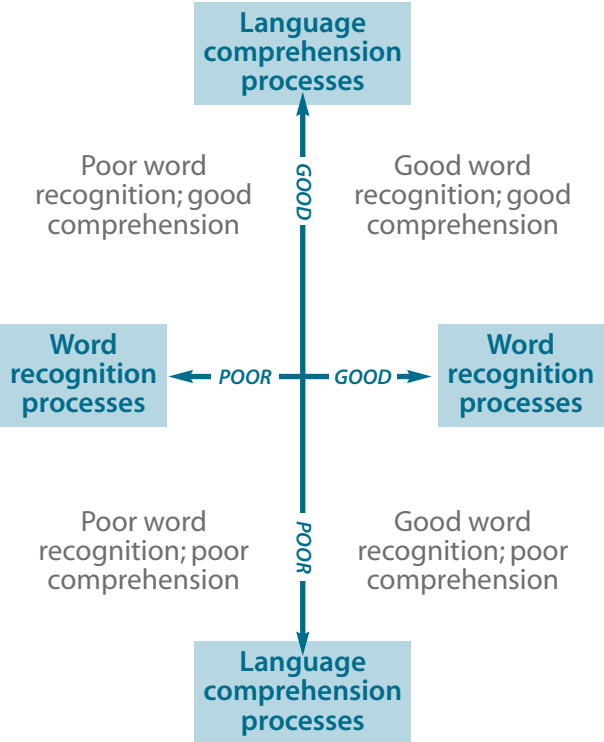
the major barrier to understanding written texts. At bottom left, there are children who experience difficulty on both dimensions, with problems both in reading words and in language comprehension.

Summary

129. In sum, distinguishing the key features associated with word recognition and focusing upon what this means for the teaching of phonic work does not diminish the equal, and eventually greater, importance of developing language comprehension. This is because phonic work should be time limited, whereas work on comprehension continues throughout life. Language comprehension, developed, for example, through discourse and a wide range of good fiction and non-fiction, discussing characters, story content, and interesting events, is wholly compatible with and dependent upon introducing a systematic programme of high quality phonic work at an appropriate time as advocated by this review.
130. Apart from teaching phonic work systematically and discretely for short periods of time, the best practice also took advantage of opportunities to reinforce aspects of phonic knowledge and skills throughout the curriculum. The most obvious examples of this were when teachers encouraged

children to apply their developing decoding and encoding skills to the reading and writing of fiction and non-fiction in work across the curriculum. This interplay of phonic work within the wider curriculum was a strong feature of good teaching: it helped children to see the purpose of phonic work as they reinforced their developing skills by applying them to worthwhile and interesting curricular content.

Figure 1



Aspect 3: what range of provision best supports children with significant literacy difficulties and enables them to catch up with their peers, and the relationship of such targeted intervention programmes with synthetic phonics teaching

Approaches to intervention

131. An obvious, sometimes overlooked, first response to concerns about early reading difficulties must be to make sure that the child has been reliably assessed for medical conditions such as hearing and sight problems that can easily be corrected. Thereafter, consideration should be given to providing targeted intervention.
132. For many children incipient reading difficulties can be prevented, or nipped in the bud, by thorough, early assessments of their performance, the information from which is then used to adjust and tailor work more closely to their needs. These adjustments can often be made effectively so that the children continue to be taught in their regular settings and classes. Where this is not in their best interests, however, the arrangements for intervention advocated by the Primary National Strategy remain sound advice. That is to say, work should be adapted within the classroom, further support in small groups should be provided for those who need it, and individual programmes should be provided for those with the greatest need, some of whom will have special educational needs.
133. The Primary National Strategy distinguishes three 'waves' of teaching and intervention which adequately cover the range of provision that best supports children with significant literacy difficulties. It is important to recognise that these 'waves' signify types of provision and not categories of children. High quality phonic work,

as defined by the review, should be a key feature of the provision in each of these 'waves':

- *Wave 1 – the effective inclusion of all children in daily, 'quality first teaching'*
- *Wave 2 – additional interventions to enable children to work at age-related expectations or above*
- *Wave 3 – additional, highly personalised interventions, for example, specifically targeted approaches for children identified as requiring SEN support (on School Action, School Action Plus or with a statement of special educational needs).³⁵*

134. The Basic Skills Agency has published useful recent guidance for schools seeking information on choosing effective intervention schemes.³⁶

Wave 1: quality first teaching – securing cost effectiveness

135. 'Quality first teaching' is a term coined by the NLS to emphasise such teaching as a priority entitlement for all children.³⁷ It is a useful reminder that the need for interventions, variously described as 'catch-up' or 'recovery' programmes, may be much reduced

when high quality teaching is matched well to the different but developing abilities of beginner readers. It follows that investment in quality first teaching not only promises to bring the greatest benefit to children but it is also likely to offer greatest value for money. If such an investment is made, the idea that there will inevitably be a large group of children nationally who require Wave 2 intervention and 'catch up' can be dispelled.

136. Intervention programmes for children who have fallen behind in reading can be expensive, costing as much or more than the average capitation sum for a child in a given year. In order to recover lost ground and close the gap with their peers who are meeting the target levels for attainment, the rate of progress for these children often has to be doubled. Moreover, the longer the period of failure in reading the more difficult and costly it becomes to reverse the trend. It follows that the most cost-effective strategy is to do as much as possible to prevent reading difficulties in the first place. An early, systematic, high quality phonic programme within Wave 1 (quality first provision) almost certainly offers the best and most cost-effective way to achieve this.

³⁵ In, for example, *Learning and teaching for dyslexic children*, DfES 1184-2005 CDI, DfES, 2005.

³⁶ Enters, I. & Brooks, G. *Boosting reading in primary schools* (ISBN 1 85990 328 2), The Basic Skills Agency, 2005.

³⁷ The term was used, for example, in the NLS conferences for headteachers held in the autumn term 2000 and subsequently in describing the teaching that should precede any intervention work.

137. The prime purpose of intervention programmes, therefore, is not to shore up weak teaching at Wave 1. As the Special Educational Needs Code of Practice points out:

It should be recognised that some difficulties in learning may be caused or exacerbated by the school's learning environment or adult/child relationships. This means looking carefully at such matters as classroom organisation, teaching materials, teaching style and differentiation in order to decide how these can be developed so that the child is enabled to learn effectively.³⁸

138. Furthermore, intervention should be an integral part of the school's total offer for meeting the range of needs presented by the children. It is important that the gains made through intervention work should be sustained and built upon after it is no longer deemed necessary for children to have the support of an intervention programme.

Characteristics of quality first teaching

139. The provision of Wave 1 teaching has to come to terms with some long-standing issues about how best to match work to children's different but developing abilities. The teaching of reading is no exception. Current interest in 'personalising' education, for example, rightly recognises differences in children's rates of learning and the need to provide work that is neither too easy nor too hard for each child. A cautionary note should be sounded, however, about exaggerating these differences at the expense of what children hold in common and the strengths of co-operative learning.
140. For beginner readers, the benefits of learning worthwhile things together are all too obvious as they engage with common, interesting tasks that involve helping each other, for example, through partner work, as well as learning collectively from clear explanations, focused discussion, skilfully framed questions and planned activities provided by the adults responsible for teaching them.
141. From the work seen during the review, 'quality first teaching' is characterised by a carefully judged blend of whole-class, group and individual work that provides optimum conditions for all save those children whose needs are clearly unmet because they are demonstrably not making progress and are falling behind their peers despite such teaching.
142. Obviously, assessment of the child's reading should determine whether

³⁸ *Special educational needs: code of practice*, DfES 581/2001, DfES, 2001.

Wave 1 teaching needs to be strengthened, before any intervention programme is considered. Should intervention prove necessary, such programmes should relate closely to high quality Wave 1 teaching but be tailored to the specific needs of the children who are not making progress. The Special Educational Needs Code of Practice is very clear that:

The way in which a school meets the needs of all children has a direct bearing on the nature of the additional help required by children with special educational needs, and on the point at which additional help is required.

143. In the best work seen, 'quality first teaching', in addition to reducing the numbers requiring intervention programmes, also narrowed the gap which otherwise might have existed between boys and girls. Data from the national tests illustrate the importance of tackling this issue. The 2005 Key Stage 1 assessments show that, overall, 85% of seven year olds gained level 2 or above in reading, the expected level for their age. However, only 81% of boys reached this level compared to 89% of girls – already a gap of eight percentage points. At level 1, there were 14% of boys compared to 8% of girls and 4% of boys were still 'working towards' level 1 compared to 2% of girls.

Intervention programmes

144. In discussing intervention, it is helpful to distinguish between two main groups of children:

- those who are falling behind either because of issues relating to their personal, social and economic circumstances, or weaknesses in the teaching or teaching programmes they have received for whom Wave 2 provision is likely to be appropriate
- those who have specific problems that may, for example, be neuro-developmental in origin, for whom Wave 3 provision is likely to be most appropriate, some of whom may be able to make progress but unable to 'catch up' with their peers.

145. Children can also fall behind or even regress in reading for other, perhaps less obvious, reasons, for example:

At least in early acquisition, reading ability is a bit like foreign language ability: use it or lose it, and the more tenuous the knowledge, the greater the loss. Thus, the well-documented and substantial losses in reading that are associated with summer vacation are especially marked for younger and poorer readers.³⁹

146. Careful consideration must therefore

³⁹ Preventing reading difficulties in young children: report of the Committee on the Prevention of Reading Difficulties in Young Children, eds. Snow, C.E., Burns, M.S., Griffin, P. National Academy of Sciences, 1998.

be given as to how all children, and especially the most vulnerable groups, can be helped to build upon 'tenuous' knowledge rather than risk losing it through lack of, or uneven, support at times, such as long school holidays.

Wave 2: additional interventions to enable children to work at age-related expectations or above

147. Where 'quality first teaching' is not meeting the needs of children, there are ample data to show that early failure in literacy can be overcome, to a very large extent, by timely intervention. The importance of responding early to such difficulties cannot be overstressed because there is much convincing evidence which indicates that, once entrenched, reading failure is not only much harder to reverse but is also detrimental to other areas of learning and self-esteem.
148. Evidence considered by the review, including visits by HMI, showed that the most effective Wave 2 interventions:
- are not used as a substitute for 'quality first teaching', especially the effective early teaching of phonics
 - provided an early accurate assessment of children's phonic knowledge and skills
 - are focused on the right children through careful assessment, regular updating and tracking of progress

- use assessment information to shape appropriate support
- are used early before literacy failure has become embedded
- aim for children who have fallen behind to reach the target levels for their age rather than just narrow the gap between them and their peers
- are time limited and have clear entry and exit criteria.

Teaching arrangements

149. Schools visited by HMI provided a variety of arrangements at Key Stage 1 which included:
- support from teaching assistants for small groups within class lessons
 - work with a teaching assistant, in a small group, outside the class
 - one-to-one daily reading sessions with a teaching assistant
 - use of the Primary National Strategy Early Literacy Support programme in Year 1 and, sometimes, Additional Literacy Support in Year 2, taught by trained teaching assistants
 - guidance for parents on how to help their children at home
 - providing selected children with 10 minutes of additional work on letter-sound correspondences with a teaching assistant
 - a 20-minute group session with the special educational needs co-ordinator, focusing on phonic knowledge and skills, and on applying these to reading and writing

- grouping children for phonic work, moving them between groups depending on their progress.

150. These examples show, unsurprisingly, that schools exercise professional judgement to exploit different arrangements for intervention work, depending on their circumstances.

151. A prominent feature of much successful intervention work was that it was often ably undertaken by teaching assistants who had almost always benefited from thorough training and who worked not only alongside teachers in regular classes but also very effectively with small groups or individual children. Indeed, one specific intervention programme for the teaching of phonic work was designed and researched jointly by a local authority and a university. This consisted of training teaching assistants to work with individuals and small groups of children, with obvious success. The key features of the training were:

- how to use data to track children's progress and to match teaching resources to it
- techniques for teaching individuals and groups
- fortnightly tutorials following up training.

Enlisting the support of parents was a notable feature of the programme and contributed to its success. This was evident from the positive feedback received from parents about the progress of their children.

152. The headteacher of another school which was visited strengthened the quality of teaching by arranging for the whole staff, including teaching assistants, to undertake shared training on teaching reading with a focus on phonics. The teachers and teaching assistants were particularly enthused by this collective arrangement, which greatly helped to integrate Wave 2 interventions with 'quality first teaching'. This reflects the message from the interim report that:

*'...it is nothing short of foolhardy to make enormous investments in remedial instruction and then return children to classroom instruction that will not serve to maintain the gains they made in the remedial program.'*⁴⁰

153. This cautionary note applies to any intervention work. It should not be difficult to heed. This is because effective intervention work should focus on the phonic skills children have already met in their mainstream classes but may need more help and time from skilled adults to strengthen

⁴⁰ *Preventing reading difficulties in young children: report of the Committee on the Prevention of Reading Difficulties in Young Children*, eds. Snow, C.E., Burns, M.S., Griffin, P. National Academy of Sciences, 1998.

and secure those aspects they had not first understood. The important point is that all the contributions to a child's programme must be implemented to an agreed plan that coordinates intervention and mainstream work.

Wave 3: additional, highly personalised interventions

154. The aspects of effective intervention for Wave 2 set out above apply with equal force to Wave 3. This provision will usually involve additional, highly personalised interventions designed for those children whose main areas of need fall within the SEN Code of Practice. They are:

- cognition and learning
- behaviour, emotional and social development
- communication and interaction
- sensory and/or physical needs.⁴¹

155. While children receiving Wave 3 provision will undoubtedly make progress, it has to be recognised that some may not reach the target levels of their peers. Equally, not all such children will require intervention for reading difficulties. It is also reasonable to expect that many children with SEN, such as those with certain physical needs, will make progress to or above the expected levels for their age, given

appropriate support within an inclusive approach to intervention.

156. Further, it needs to be recognised that some children with special educational needs, for example, physically disabled, may not require essentially different programmes of phonic work. Indeed, receiving 'quality first teaching' within regular classes is the priority for these children as it is for some children with sensory impairments. For the latter, some modifications to the phonic programme might be beneficial, such as emphasising particular aspects of the multi-sensory work to intensify support for speaking and listening.

157. It is also the case that the boundaries between Waves 2 and 3 provision and, indeed, between some areas of difficulty or need are porous such that provision will need to be made for children with multi-sensory impairments. In other words there is:

*considerable overlap between area of need, teaching approach and teaching strategy... Sound pedagogy incorporates knowledge from both special education and general education traditions. Special education knowledge is an essential component of pedagogy.*⁴²

158. Much Wave 3 provision, for example,

⁴¹ See chapter 7 of *Special Educational Needs: Code of Practice*, DfES 581/2001, DfES, 2001.

⁴² Research Brief 516, February 2004, www.dfes.gov.uk/research

for children with severe auditory or visual impairments is of such a specialist nature that it was not possible, within the scope of this review, to give these important areas the attention they require. Nevertheless, contributions were invited from leading organisations, including the British Association of Teachers of the Deaf, the South East SEN Regional Partnership, and I CAN. It was clear from these contributions that a wide range of expert support and guidance is available to help settings and schools match provision to need, including that which relates to the teaching of literacy. The DfES has also funded a study to investigate ways in which teaching approaches could be developed and implemented, drawing on existing good practice in order to raise the achievement of pupils with special educational needs.⁴³ It should also be noted that there are mandatory qualifications for teachers of children with sensory impairment.⁴⁴

Other considerations

159. Some programmes, specially designed for children with reading difficulties whose needs are not met by Wave 1 or Wave 2 provision, provide intensive training not only for the adults who work with the children but also for

those who train them. The well known Reading Recovery early intervention programme is one of these. Teacher leaders undergo intensive training in order to train Reading Recovery teachers for what is essentially daily, one-to-one work for children with the greatest difficulties. The Dyslexia Institute also has an extensive tiered training programme which covers a spectrum of specific learning difficulties across the primary and secondary age range.

160. A strength of these specially designed programmes is the provision of a teacher who is well trained to deal with intervention work and provide advice and support to other adults in their school with a responsibility for the teaching of reading.
161. 'Fidelity to the programme', as noted under Aspect 1, is equally, if not more, important in the case of intervention programmes because, as Marie Clay points out in the case of Reading Recovery:

There is a clear trend for the programme to drift away from its designed suitability for an extreme and different population toward what typically works with most children in classrooms. Such drift has

⁴³ *Teaching strategies and approaches for pupils with special educational needs: a scoping study* (RR516), DfES, 2004.

⁴⁴ The Education (School Teachers' Qualifications) (England) Regulations 2003.

*to be constantly attended to in the professional development of Reading Recovery.*⁴⁵

162. In sum, no matter which provision applied, the most successful intervention arrangements were planned as part of the total programme for teaching reading and monitored carefully. The driving and coordinating force was, more often than not, a well trained, experienced member of staff, such as the coordinator for literacy or SEN; above all, the arrangements had the full backing of the headteacher.

⁴⁵ Quoted in *Standards and guidelines for the implementation of Reading Recovery: extract for schools*, Reading Recovery National Network, Institute of Education, University of London, August 2004.

Aspect 4: how leadership and management in schools can support the teaching of reading, as well as practitioners' subject knowledge and skills

163. Time and again, successful improvement within schools and high standards of work are shown to depend on the strength and quality of leadership provided by headteachers and senior staff. The teaching of reading is no exception. Given the wide range of responsibilities that headteachers carry, however, for them to cover everything to the required depth and detail is a formidable undertaking. Therefore, it is very important for all settings and schools to make sure that at least one senior member of staff is fully able to take the lead on literacy, especially phonic work. Among other things, this must include an overview, well informed by monitoring, of the total provision for literacy that can be drawn upon to tackle inconsistent practice and deploy resources to best effect. This overview should also inform the process for setting targets and school self-evaluation.
164. As the vice-chair of the National Governors' Association has said so succinctly, 'The main aim of a governing body should be to endeavour to raise the school's standards'.⁴⁶ Governors have a legal duty to set targets for English at Key Stage 2. In setting these targets, schools will take account of children's performance in Key Stage 1; hence provision at this stage will be a significant influence on expectations for achievement at Key Stage 2.
165. Primary schools were given responsibility for setting their own targets three years ago. In the last two years schools have set targets which seem to show they cannot make any further improvement in English. The aggregate of the school targets for English for 2007, which were set in December 2005, indicates that they expect to make no progress beyond the performance achieved in 2005. It is

⁴⁶ Adamson, S. *Start here: what new school governors need to know* (ISBN 0 948543 01 9), Adamson Books, revised edition 2005.

essential for headteachers and governing bodies to ensure that the targets they set are achievable but also ambitious for the progress of individual pupils and, above all, do not depress expectations.

HMI observations of effective leadership

166. The visits by HMI illustrated the essential contribution of good leadership and management to the effective teaching of phonic work and to the quality of training which underpinned it, including deepening the subject knowledge of those responsible for beginner readers. Effective headteachers, supported by senior management teams, ensured that programmes of phonic work were implemented thoroughly. This was particularly noticeable in the schools that had selected a commercial phonic scheme. Because headteachers were convinced of the quality of these commercial programmes, they made sure that their investment, including the time and funding for training, resulted in value for money in terms of a positive impact on children's progress in reading. Above all else, these schools were characterised by their consistent approaches and the sense that every single adult was engaged in making sure that all children learnt to read.

167. Headteachers and senior staff

generally built this whole-school commitment by:

- setting high expectations for children's progress through ambitious and realistic targets for English
- establishing a clear and explicit programme of work for phonics
- improving the quality and consistency of teaching, assessment and intervention by providing relevant training for all those engaged in teaching phonics
- putting strategies in place to ensure that no child 'fell through the net', such as comprehensive assessment and the allocation of resources (time and staff) for catch-up work
- monitoring both the quality and consistency of teaching reading and its outcomes (as part of the school's normal monitoring arrangements)
- strengthening awareness of how phonic work could be applied throughout the curriculum.

168. The best leadership teams gave reading and the phonic component a high priority and ensured that programmes were implemented as planned. The monitoring of teaching, learning and the impact of training was frequent and thorough, and was crucial to keeping the programme on track:

In one very large primary school, two senior teachers, without classes of

their own, divided their time between observing the teaching of reading and writing, and giving feedback, modelling teaching through demonstration lessons, scrutinising children's work, and analysing assessment and other performance data. They were also responsible for managing the placing and movement of children in the ability sets across classes for phonic work. This was a key leadership role that helped to ensure the programme ran smoothly and that, in the words of the headteacher, 'no child slips through the net'.

169. Not all schools, of course, can provide that level of support and sometimes headteachers had to overcome resistance to change. For example:

The headteacher of a challenging inner-London primary school sought to strengthen phonic work considerably by introducing a new, systematic phonics programme. Some teachers believed that what was proposed would stifle their creativity and lead to children 'barking at print', and the school's learning mentors did not want to teach reading but saw themselves more as providers of pastoral support. However, with the support and encouragement of the head, these attitudes were changed, particularly when all the staff were engaged in teaching the programme

to small groups of children working at the same level. They saw its effectiveness first hand and, in the words of the headteacher, became 'converts'.

170. In practice, decisions involving major change, such as whether to group children by ability for teaching reading, have to be taken by the head teacher. This arrangement was observed in some schools visited by HMI. For example:

An infant and nursery school in a socially and economically deprived area had to meet the needs of a diverse population, including children at various stages of learning English as an additional language. Factors such as poor attendance, which was well below average, partly due to extended visits to children's country of origin, hampered their progress.

The head, therefore, in consultation with the staff, decided to organise teaching by ability groups to provide better adult: pupil ratios for lower ability pupils; shared planning between teachers and teaching assistants, and better assessment arrangements, particularly to take account of pupil mobility. As a result of these changes, many of the children moving from the nursery into Year R received a good foundation in early phonic work. The school was in its third year of this

approach and was beginning to see the impact on standards of reading in the national tests in Year 2. The approach was particularly effective for the less able pupils who were taught in the smaller groups.

171. In addition to the headteacher, other staff acting in a leadership capacity can play a very important part in ensuring that high quality phonic work takes place. For example, expert teachers contributed significantly to the quality of provision by:

- demonstrating excellent teaching
- providing training and advice, including for teaching assistants
- supporting new teachers, such as newly qualified teachers and experienced staff from elsewhere who were unfamiliar with the school's approaches, through support for planning and resources
- initiating developments, such as specific approaches to intervention
- developing or enhancing links with parents.

172. In some cases, these expert teachers were also Advanced Skills Teachers or lead teachers in their authority and so played an important leadership role beyond, as well as within, their own school.

Aspect 5: value for money or cost effectiveness of the range of approaches the review considers

The importance of investing in training

173. The importance of training at all levels has featured strongly in this review. To establish high quality work in settings and schools requires an investment in training. As training costs amount to a large, if not the largest, system-wide investment, the review has considered value for money in terms of the scope and impact of training.
174. Very considerable sums of money have been spent, and continue to be spent, on the training of practitioners, teachers and support staff responsible for beginner readers. For example, for 2004-2006 the DfES has provided around £130 million for local authorities to undertake a range of workforce training and development activities for the early years sector. A cornerstone of the National Strategies' approach to raising standards has been a commitment to the professional development of teachers. In 2004-05, this amounted to 75,000 days of training for teachers in English, including one day's training in reading and phonics for two teachers from every school.
175. Evidence during the review about the quality and impact of training to teach reading has been drawn from:
- the visits by HMI to schools
 - Ofsted's inspections of initial teacher training (ITT) and views from the ITT sector
 - observation of a small amount of in-service training led by the Primary National Strategy and commercial providers
 - views from contributors to the review, including teaching unions and the Dyslexia Institute, Xtraordinary People and the Reading Recovery National Network.
176. The predictable picture that emerges from this evidence is of a clear link between the quality of training and its impact on teaching reading. However, the training is not always as effective as it should be. It is not a matter of a lack of capability in the teaching force but, rather, that initial, in-service training, and other professional development should be strengthened considerably to take greater account of the teaching of reading and make

explicit how knowledge of phonic work applies to pedagogy.

177. Given that ‘quality first’, as defined by the NLS, is the overriding priority for teaching, training at all stages should aim to exemplify and amplify what this entails as an entitlement for all children. Initial teacher training should, therefore, at least equip primary teachers with the key principles of teaching phonic work and relate this to how children learn to read. As the Education and Skills Committee noted in its report on *The teaching of reading*:

*Improvements to teacher training are necessary to ensure that all teachers of reading are familiar with the psychological and developmental processes involved in reading acquisition.*⁴⁷

178. The imperative is to improve professional knowledge and skills, and their application, so that the high level of investment in training continues to raise standards, yield better value for money and maximise benefits to the learner.

Initial teacher training and induction

179. Many of these issues about quality are long-standing. Ofsted’s Primary Follow-Up Survey (PFUS) from 1996-98 followed a previous inspection of

primary ITT, known as the Primary Sweep, during which:

*Trainees were often found to be very insecure about how to teach reading; in particular, they were not well prepared to teach phonics and were uncertain of how to structure a reading programme for a class of pupils.*⁴⁸

180. In order to enable trainees to reach high standards in terms of their subject knowledge, Ofsted recommended that providers of initial teacher training should ensure that:

all trainees can plan and implement a structured programme of phonics teaching in order to develop pupils’ skills systematically.

181. Subsequently, ITT has given a good general overview of teaching reading. This has led to improvements in planning, teaching and class management but too often does not ensure that trainees recognise the priority that should be given to phonic work. The new standards for ITT need to reflect this priority so that ITT providers are clear about the emphasis which should be given to phonic work.

182. An ITT provider sought views from its tutors and trainees on the implications of the interim report for training. The

⁴⁷ Page 34, *Teaching children to read*, House of Commons Education and Skills Committee, The Stationery Office, 2005.

⁴⁸ *Primary follow-up survey of the training of trainee teachers to teach number and reading 1996-98* (HMI 193), Ofsted, 1999.

responses it received illustrate the value of considering the steps below. For example, a school in the ITT partnership reported 'missing the "depth and precision" of the previous ITT standards' where 'you could spell out to trainees the knowledge and skills to be acquired.'⁴⁹ A new ITT tutor expressed criticism of 'the current ITT venture' which was seen to ignore phonics teaching and 'gives rather generalised advice about effective practice and choosing books'.

reading - adds weight to the TDA's view of the importance of subject knowledge. In reviewing the standards it will be important for the TDA to make sure that the teaching of reading is addressed explicitly in these respects and receives the priority its importance merits. It should also ensure that the standards reflect the expectations in the renewed framework for literacy and the new Early Years Foundation Stage.

In-service training

183. The views of trainees reflected a general concern that training should do more to make sure good phonic work was exemplified in as many ways as possible, for example, by defining the detail and structure of systematic, high quality programmes, and portraying the effective teaching of such programmes through video/DVD and other means.
184. The TDA is currently conducting a consultation on the standards for classroom teachers. It proposes that 'for all career stages, the standards will need to reflect the importance of subject knowledge and progression in subject knowledge'.⁵⁰
185. Ofsted's evidence – from the HMI visits during the review, ITT inspections and the 2004 survey of the teaching of
186. At its best, the in-service training seen during the review was very good indeed. It made clear that the purpose of phonic work was to enable children to learn to read and write independently, and that it should focus sharply on making sure that they gained the necessary knowledge and skills efficiently and quickly.
187. Such training was characterised by:
 - sufficient time given to communicating key content
 - clear principles which underpinned the content, sequence and pace of phonic work
 - straightforward, well structured presentation of the phonic knowledge, skills and understanding children need to learn, ensuring that

⁴⁹ The initial teacher training (ITT) National Curriculum for primary English, an Annex to Circular 4/98, specified the essential core of knowledge, understanding and skills which all trainees on primary and KS2/3 courses of ITT were to be taught. The requirements came into effect in September 1998. They were superseded by *Qualifying to teach* from September 2002.

⁵⁰ *Consultation on the review of standards for classroom teachers*, Training and Development Agency for schools, September 2005.

- each stage of learning is secured
- understanding of the relationship between phonic work and comprehension
- guidance on how to teach irregular words
- guidance on regular assessment of phonic knowledge, skills and understanding and using the information gained to improve teaching and learning
- attention to children's speaking and listening skills, including during phonic work itself
- multi-sensory approaches, including an appropriate use of mnemonics.

188. The best training also made clear the importance of effective classroom practice being supported by:

- school-wide commitment to teaching phonic work systematically
- strong leadership and management by senior staff, including monitoring teaching to make sure that the intended outcomes of the training were being achieved.

For example:

In one school visited by HMI, following a course of synthetic phonics training, the headteacher undertook a minimum of 10 short observations each week. He was convinced that this level of personal intervention kept the programme 'on track' and was effective in ensuring

that pupils made good progress. He felt that such monitoring 'ensures that they stick to the agreed, whole-school programme'. The impact was, in his words, a 'staggering difference' in the pupils' ability to read. The Key Stage 1 test results improved markedly in 2004 and again in 2005. The school became one of the most highly attaining schools in the authority, yet with one of the most diverse populations.

The headteacher's commitment to consistent and robust monitoring was clearly key to bringing about this improvement in reading.

Strengthening the quality of training

189. There are three main interdependent aspects of training which need to be considered:

- initial training and induction
- in-service training and professional development of all those responsible for teaching beginner readers

and the implications for:

- the updating of trainers' skills and knowledge.

190. The new Early Years Foundation Stage, the renewal of the NLS framework and the proposals to revise the TDA standards together form a strong platform for ensuring that:

- phonic work receives the priority it merits in initial teacher training
- this priority is maintained through induction, in-service training and professional development
- those responsible for providing training receive the support and training that they themselves need to make sure that these standards are achieved and sustained.

191. The TDA should be invited to consider how the implications for training and development prompted by the new Early Years Foundation Stage and renewed literacy framework should be reflected in initial teacher training and training of the wider workforce.

192. All the following steps should be explored to make sure that full account is taken of the expectations for teaching literacy, especially phonic work:

Step 1: In revising entry standards for all primary teachers (Qualified Teacher Status), maintain the current priority given to securing an up to date knowledge and understanding of the Primary National Strategy and the revised framework for teaching literacy.

Step 2: In developing the proposed revised standards for early years professionals, ensure that these take full account of the new Early Years Foundation Stage and revised Primary National Strategy framework for

teaching literacy.

Step 3: Over a period of two years, develop a programme for ‘training the trainers’ for initial and in-service providers to ensure that all have a thorough grasp of the new Early Years Foundation Stage and the revised literacy framework.

Step 4: Revise standards for induction, threshold and Excellent Teacher and Advanced Skills Teacher to take full account of the new Early Years Foundation Stage and revised Primary National Strategy framework.

Step 5: Revise the standards for support staff, including Higher Level Teaching Assistants (HLTAs), to reflect the higher expectations for literacy, especially for phonic work.

Step 6: Explore new ways in which HLTAs might specialise in early reading programmes, including interventions for Waves 2 and 3.

Other considerations

193. Contributors to the review pointed out that initial training to teach reading must take account of the contexts in which trainees learn, for example, in universities, colleges and school-based centres. Arguably, universities and colleges are better placed to provide the training on ‘the psychological and developmental processes involved in reading acquisition’ and the related

research. A good example of this is the need for trainees to acquire an understanding of the research underpinning the proposed changes to the searchlights model. Trainees' experience in schools, therefore, should complement centre-based training. It should include: working alongside skilled teachers, assessing reading (including phonic work), and supporting pupils with difficulties. Schools should also make sure that trainees have opportunities to teach high quality phonic work.

194. Continuing professional development must build upon successful practice and, if necessary, cover gaps from earlier training. The DfES noted in written evidence to the School Teachers' Review Body:

*However rigorous the training and development that generally needs to be undertaken in order to reach QTS and induction standards, the notion of a teacher ever being 'fully-trained' is at odds with the culture of continuing professional development throughout teachers' careers that the Government and its partners are seeking to promote.*⁵¹

195. There is a strong argument for the continuing professional development of all teachers to reflect the importance of supporting reading and

writing across the curriculum, as well as deepening the expertise of those directly responsible for beginner readers. This will be a fundamental responsibility of the Primary National Strategy in both the design of the new frameworks and the implementation of their aims and objectives.

Training for early years

196. Whatever form it takes, the training of early years practitioners would fall far short of reaching satisfactory, let alone high, standards, if it failed to give priority to the area of communication, language and literacy.

197. Obviously, the value of all six areas of learning must be acknowledged. However, the area of communication, language and literacy calls for carefully structured training that makes crystal clear, for example:

- how young children develop language
- how their acquisition of language can be strengthened and enriched
- how their language development is observed to make sure that any obstacles to progress are tackled early
- how the precursors to reading and writing can help children make a good start on phonic work by the age of five.

⁵¹ Evidence submitted to the School Teachers' Review Body by the DfES (School Workforce Group), 20 June 2005.

Training for school support staff

198. In recent years, rising numbers of support staff, especially teaching assistants, have played an increasingly important role in the teaching of reading and wider aspects of language work. This increase in such a valuable sector of the workforce is undoubtedly an outcome of the National Literacy and Numeracy Strategies, which served to strengthen the purpose and definition of their role.
199. The value of support staff was recognised further by the advent of HLTAs, and some excellent work has been seen in 'quality first' (Wave 1) and intervention programmes (Wave 2) where teaching assistants and HLTAs have contributed vitally to the success of these programmes.
200. Support staff often reported that their training was successful. It was usually a mix of on-site apprenticeship style training, that is, learning from skilled teachers, and off-site training provided by local authorities. Although it was often difficult for schools to release staff, joint training courses on reading (which brought together teachers and teaching assistants for shared sessions) were highly regarded. The support staff also valued thorough feedback about their work.
201. These observations suggest that good quality training for support staff is an investment worth making. The status of this training might be raised further by award-bearing courses which assess competencies, for example, in supporting language and literacy.
202. Tiered courses of the kind offered by the Dyslexia Institute are an example of training which has the advantage of providing a pathway for support staff wishing to enhance their existing role or eventually train to become a teacher.
203. Work by the TDA is already underway to put the training of support staff on a firmer footing and could be strengthened further by steps 5 and 6 discussed above.

Evidence from practice

Clackmannanshire

Research and practice

204. The Education and Skills Committee placed considerable weight on the findings of a seven-year longitudinal study in Clackmannanshire in Scotland, noting that ‘the Clackmannanshire study is an important addition to the research picture, which increasingly points to synthetic phonics as a vital part of early reading education’. Several contributors to the review also underlined the importance of this study. Other contributors, however, challenged some aspects of the study, because they did not feel it had been undertaken rigorously enough.

205. As well as examining the research in some detail, members of the review team visited Clackmannanshire in mid-September 2005 to:

- discuss the background to the Clackmannanshire research with members of the Scottish Executive and one of Her Majesty’s Inspectors of Education in Scotland
- observe examples of Clackmannanshire’s approach to teaching phonics in P1 (the

equivalent of Year R in England)

- hold discussions with headteachers, teachers, members of Clackmannanshire council and Dr Joyce Watson (co-author of the research).

206. In a nutshell, the Clackmannanshire research reports at the end of the seven-year longitudinal study that:

*At the end of Primary 7 [Year 6 in England], word reading was 3 years 6 months ahead of chronological age, spelling was 1 year 8 months ahead, and reading comprehension was 3.5 months ahead. However, as mean receptive vocabulary knowledge (an index of verbal ability where the average is 100) was 93 at the start of the study, this is a group of children for whom normal performance might be expected to be below average for chronological age on standardised tests. Therefore this may be an underestimate of the gains with this method.*⁵²

207. Although the research methodology had received some criticism by researchers, the visit provided the review with first-hand evidence of very effective teaching and learning of

⁵² *The effects of synthetic phonics teaching on reading and spelling attainment: a seven year longitudinal study*, Johnston, R. and Watson, J. Published on the Scottish Executive website, 11 February 2005.

phonic knowledge and skills of the children in the P1 classes, as well as much useful contextual information, which was also associated with their success. Focusing on the practice observed in the classroom and its supportive context, rather than debating the research, is therefore not without significance for this review. An important finding is that the work centred on a high quality phonics programme similar in most respects to those observed by HMI in the best work seen in England.

3 secondary schools, 2 special schools and 4 nursery schools. This means that it was relatively easy for groups of teachers or headteachers to be drawn together for training; further, word of success spread rapidly. The council's development officer for the initial stages of the project was able to involve herself closely in all aspects of it. This was effective not only at the level of direct management, but also in terms of ensuring teachers' commitment to the project through effective leadership.

Context

208. The work in Clackmannanshire, begun in 1997 by Joyce Watson of the University of St Andrews, gained impetus from funding from the Scottish Executive to all councils for work on early intervention. Councils were free to decide how to allocate this, for example, on work with parents, transition, teaching and learning. Clackmannanshire used some of it to develop its work on phonics. It therefore built on practice that had emerged from findings from earlier research conducted by the University of St Andrews and, importantly, engaged the teachers in implementing it.

209. Clackmannanshire is a small council, comprising 19 primary schools (10 of which have an attached nursery class),

210. Traditionally, local authorities (councils) in Scotland have a high degree of autonomy for the work they do with their schools. Scotland has curriculum guidelines for pupils aged 5 – 14 at 6 levels, A – F; these are advisory, not statutory. In practice, there is a high degree of compliance with the guidelines but schools are free to make their own decisions about programmes and assessment. The pre-five curriculum guidelines are also advisory.⁵³

Design, implementation and delivery

211. As noted earlier, the phonic approach built on evidence from earlier research. It began with a small number of schools in the first instance, involving the headteachers and senior management teams directly in order to

⁵³ A curriculum framework for children 3 – 5 (1 85955670 1), The Scottish Office, 1999.

ensure their commitment to the project. Only later, by which time the seeds of success had been sown, were other schools drawn into the work and interested to adopt the then promising methods which were being piloted.

212. The authority provided timely, differentiated training, for example, meeting the needs of new teachers as well as extending the training provided to others. The teachers of P1 children were trained first; then, later, P2 teachers and so on. Teachers who joined a school from outside the council either attended external training or, if none was available at the right time, they observed an experienced teacher teaching a similar age-group to their own until authority-wide training was provided.
213. At the beginning of the programme some teachers had reservations: they 'thought at first it was too quick and [they] worried about those [pupils] that could not cope'. However, having seen the impact on children's learning, the teachers were wholly committed to the approach. One teacher said, 'I have never seen results like this in 30 years of teaching'. She went on to say that, as a result of following the programme, 'I am seeing Primary 3 quality in Primary 1'. In other words, the teacher considered that the children she was teaching in Primary 1 were working at the level of children two years older.

214. In part the teachers attributed their commitment and enthusiasm to the way in which they had been involved by the authority: their opinions were sought, materials were introduced or developed as a result of feedback, and there was extensive local training.

Teaching and learning

215. At the time of the review team's visits to the P1 classrooms, the children had been in school for four weeks, having started school in mid-August. In the one school visited, they had attended part-time until the week of the visit; in another school, they were still part-time.
216. By starting phonic work early in P1 teachers were able to identify quickly 'those children who do not have concepts of print' and in so doing reduce 'the real trailing edge...because their difficulties were tackled much sooner'.
217. Key features of the teaching and learning were:
- short teaching sessions (15-20 minutes), broken up by a move from the carpet area to tables part-way through
 - a consistent structure for each session so that the children knew how the teacher would approach each part of their learning
 - revision of previously learnt letter-

- sound knowledge before the introduction of new work
 - a well-judged pace to the teaching
 - multi-sensory approaches
 - demonstration of the 'reversibility' of reading and spelling.
218. A typical phonics session began with singing the 'alphabet song' while the teacher (and, later, a child) pointed to the magnetic letters on the whiteboard. Sounds already learnt were rehearsed and there was sounding out and blending of simple words (e.g. *in, tip, pin*), the words having been written on the whiteboard before the lesson. The teacher then pronounced words clearly, which the children segmented into their separate phonemes, with physical actions; she questioned children about which sounds had been heard and in what order ('Which came at the beginning? Which came in the middle? Which came at the end?'). How to write the letter 'p' was rehearsed (in 'sky writing'). After that, the children learnt a new sound and how to form the letter 's', before reading words with the sound /s/ (*is, sat*), using their previous letter-sound knowledge and blending skills. Then they made up a sentence, orally, with the word 'is', before segmenting 'sit' into its separate phonemes. At their tables, they did further similar work with magnetic whiteboards: they segmented CVC words (and one CCVC word as an extra challenge), selecting the magnetic letters and placing them, in the correct order, to spell the words, followed by sliding the letters together (to represent blending) to read the words.
219. Multi-sensory approaches were evident throughout the session. Children sang the 'alphabet song'; tapped out the number of phonemes in spoken words with their hands on their heads, their shoulders, their knees, saying the relevant phoneme each time; formed the relevant letter in the air ('sky-writing'); listened to the sounds in words, identifying the position of the sound in the word; selected magnetic letters, lined them up for the correct spelling and pushed them together, saying the sounds and then blending them together to say the whole word.
220. Simple but effective resources contributed significantly to the quality of the teaching: an alphabet frieze, flipchart and coloured pens, magnetic letters and small white boards for each child. In the work at their tables, following the work done with the teacher in the carpeted area, children had the whole alphabet shown on a grid on their magnetic boards, but only the magnetic letters for sounds already learnt were actually on the board. Children selected from these to spell the words they were given orally.
221. The 'reversibility' of decoding letters to read words and choosing letters to

spell (encoding) meant that children were applying their phonic knowledge and the skills of blending and segmenting in two contexts: reading and writing. Since they were successful in this, building on firmly established knowledge and skills, they paved the way for further work and developed their confidence and self-esteem as readers and writers.

Lessons learnt

222. Despite the difference in context between Clackmannanshire and authorities in England, features of effective practice were observed in Clackmannanshire comparable with provision in England, such as:

- the training and commitment of headteachers and senior staff
- the involvement of practising teachers in developing the materials and providing feedback to refine the programme
- training provided at the point at which teachers and support staff needed the required knowledge and skills
- access to expert assistance
- the efficient dissemination of information through informal and formal support networks
- prompt 'catch-up' training for staff joining a school in the authority from elsewhere
- a clear, consistent structure from which to plan

- good quality, simple classroom resources, such as magnetic boards and letters.

223. Although contextual features differ, and Scotland has a tradition of teaching phonics which almost certainly continued over a period when it had fallen out of favour in England, there is now firm evidence of phonic work in England of comparable quality with that seen in Clackmannanshire.

HMI visits

224. Observing practice and seeking the views of teachers and practitioners was an important part of the review. Visits by HMI focused on gathering up to date evidence from classrooms in order to identify the features of consistently effective teaching that resulted in high achievement. These visits also evaluated how leadership and management affected the provision of work in phonics, including training and the development of teachers' subject knowledge to teach it. The findings on these aspects are reported under Aspect 4.

225. A small but significant number of schools choose to adopt a phonic programme other than that proposed by the NLS, rather than just supplementing the NLS's approach with commercially available materials (particularly for teaching letter-sound

correspondences). HMI therefore visited schools representative of best practice in both approaches: 10 proposed by the Primary National Strategy and 10 proposed by experienced advocates of other phonics programmes; almost all of these were commercial programmes. Across both categories, 17 of these schools included nursery-aged pupils (aged 3 – 4). The visits took place during late September and early October 2005; four further visits took place during November and December 2005 to gain additional evidence on specific aspects of phonic work.

226. During the visits, HMI:

- discussed approaches to phonic work with senior staff
- observed the teaching of phonics, mainly in the Foundation Stage and Year 1
- listened to 55 pupils in Year 1 reading individually.

Quality of teaching

227. Across the 24 schools visited, HMI judged the quality of teaching to be at least good in 45 of the 64 lessons seen (70%). In six lessons it was inadequate.

228. This good teaching, and the learning which resulted from it, reflected the key principles of high quality work in phonics which are set out under Aspect 1 of this report. The lessons

judged by HMI to be at least good (and, occasionally, outstanding) were characterised by:

- clear objectives which focused unwaveringly on ensuring that children gained phonic knowledge and skills, especially asking them to blend sounds together to read and segment the sounds in words to spell
- consolidation and revision of previously taught phonic knowledge and skills
- multi-sensory approaches to support learning (physical actions, visual and aural mnemonics) and effective, simple resources
- clearly directed questioning, very good assessment, feedback and praise
- a good, often brisk, pace to the teaching and learning, unhindered by extraneous activities which often slow the pace of the lesson and waste valuable time
- efficient organisation and management, including effective support from teaching assistants in whole-class lessons
- opportunities for children to work in pairs to support each other's learning
- adults' excellent knowledge of the phonic content to be taught and their skills in teaching it, including clear and precise pronunciation of phonemes which provided a good model for pupils and supported their blending skills.

229. In the lessons which were judged to be just satisfactory, HMI noted:

- insufficient revision of previously taught letter-sound knowledge
- limited opportunities for pupils to apply their phonic knowledge in blending sounds to read
- low expectations of what pupils could achieve (typified by a too-leisurely coverage of letter-sound correspondences)
- imprecise pronunciation of phonemes by adults
- inefficient use of resources (including teaching assistants).

These features slowed children's progress in acquiring phonic knowledge and skills and limited the extent to which they could apply what they were learning to their own reading.

230. The most important aspects to be drawn out from these observations concerned: the content and sequencing of the programme of phonic work; the knowledge adults needed to teach (or support) phonic work successfully; the pace of teaching; consolidation and assessment; the activities provided, and classroom management, including the management of materials and resources.
231. Two important aspects required improvement. First, not all schools were sufficiently clear about exactly what phonic knowledge (letter-sound correspondences) they expected their pupils to have learnt at particular

stages. As a result, teachers failed to consolidate sufficiently the knowledge already taught before moving on. Insufficient assessment of phonic knowledge and skills also meant that teachers had not determined accurately enough what the next stage of teaching should be to meet children's precise needs.

232. Second, nearly half the schools visited did not give enough time to teaching children the crucial skill of blending (synthesising) sounds together. Instead, teachers emphasised hearing and identifying the initial, final and then the middle sounds in words. So, even when children knew sufficient letter-sound correspondences, their lack of skill in blending sounds meant that they could not apply their knowledge to read words they had not seen before. Being able to hear the individual sounds in words, and know which letter (or letters) represented them, was necessary for their spelling, but it was not sufficient for them to learn to read independently.
233. High quality phonic work was underpinned by high quality assessment. Detailed approaches, allied to systematic teaching, helped to identify, very early on, the children who were not making progress in line with their peers. Because the programmes of phonic work set out exactly what needed to be learnt and assessed at each point, teachers could act

immediately on assessment findings, so that children had plenty of opportunity to catch up quickly before the gap between them and their peers widened.

234. In contrast, schools where assessment was weak were not rigorous or focused enough in what they did. This meant that the evidence that they gathered had gaps. For instance, in one school, teachers tried to assess, during the course of a lesson, which pupils knew which letter-sound correspondences; every six weeks, there was a formal assessment of the phonemes which had been taught in that block of work (but not of all phonemes taught) to see whether children could sound them out and blend them; guided reading records asked for a comment on phonic knowledge. However, despite all this, the HMI who visited discovered that it was not possible to find out, from records, whether an individual pupil could sound out and blend specific phonemes, could segment the sounds in words to spell or knew the different ways of writing specific phonemes – the fundamental building blocks for learning to read and write independently.

Children's reading

235. As well as observing teaching, HMI judged how well the teaching fostered children's confidence in applying the knowledge and skills they had been

taught when they were reading independently.

236. Children who had been taught, at an early stage, to blend the sounds in words were able to apply their phonic knowledge to tackle words they had not seen before. In this example, a child in Year 1 with English as an additional language read a book from a commercial scheme. HMI wrote:

She reads at a steady if not entirely fluent pace. She blends sounds confidently and is not put off by words which would be very challenging for many pupils in the first half-term of Year 1. She reads with little hesitation and without miscues: 'Mum freaked out at first but she got me one' and 'We let the sheep sleep in the kitchen'. She is unafraid of tackling fairly complex words she has not seen before. She also has a good knowledge of phonically irregular words that she can read on sight.

237. In contrast, in the schools which did not emphasise sufficiently the skills of blending sounds, children were not able to apply the phonic knowledge they had learnt. They knew the individual letter-sound correspondences, but were not able to sound these out in words and then blend them together to read. In this example, an average-attaining boy in Year 1, with English as his first language, attempted to read his

'reading book' from a commercial scheme. HMI wrote:

This pupil knows the letter-sound correspondences for most of the 26 letters of the alphabet, but he reads by a whole word method. Occasionally he tries to use his phonic knowledge too, but he rushes at words, using his knowledge of the first letter only. For example, he reads 'was' instead of 'went'. At times he leaves words out and continues from memory without self-correcting, to the extent that at one point he reads 'it' for 'everyone'. He does not know vowel digraphs; when asked what sound 'oo' makes in 'pool', he says 'o', even though he has just read 'pool' correctly (presumably by using the pictures or the context).

238. The visits showed clearly that, if phonic work is to contribute effectively to reading (and spelling), schools need to be clear about:

- the essential core of phonic knowledge and skills which children require
- the sequence in which that core content should be taught
- the relative weight which needs to be given to the skills of blending and segmenting – and the importance of blending to read
- the fact that these skills are 'reversible': if children can blend to read, they can also segment to spell.

Leadership and management

239. HMI also gathered evidence on the quality of leadership and management. The findings are reported under Aspects 4 and 5.

Recommendations

240. These recommendations build on those proposed in the interim report and are set out under the aspects of the remit given by the Secretary of State.

teaching; showing how robust assessment of children's learning secures progression in phonic work and how literacy is developed across the curriculum from the Foundation Stage onwards.

Aspect 1

What best practice should be expected in the teaching of early reading and synthetic phonics

- The forthcoming Early Years Foundation Stage and the renewed Primary National Strategy Framework for teaching literacy should provide, as a priority, clear guidance on developing children's speaking and listening skills.
- High quality, systematic phonic work as defined by the review should be taught discretely. The knowledge, skills and understanding that constitute high quality phonic work should be taught as the prime approach in learning to decode (to read) and encode (to write/spell) print.
- Phonic work should be set within a broad and rich language curriculum that takes full account of developing the four inter-dependent strands of language: speaking, listening, reading and writing and enlarging children's stock of words.
- The Primary National Strategy should continue to exemplify 'quality first

Aspect 2

How this relates to the Early Years Foundation Stage and the development and renewal of the National Literacy Strategy's *Framework for teaching*

- For most children, high quality, systematic phonic work should start by the age of five, taking full account of professional judgments of children's developing abilities and the need to embed this work within a broad and rich curriculum. This should be preceded by pre-reading activities that pave the way for such work to start.
- Phonic work for young children should be multi-sensory in order to capture their interest, sustain motivation, and reinforce learning in imaginative and exciting ways.
- The searchlights model should be reconstructed to take full account of word recognition and language comprehension as distinct processes related one to the other.
- The Early Years Foundation Stage and the renewed literacy framework must be compatible with each other and make sure

that expectations about continuity and progression in phonic work are expressed explicitly in the new guidance.

Aspect 3

What range of provision best supports children with significant literacy difficulties and enables them to catch up with their peers, and the relationship of such targeted intervention programmes with synthetic phonics teaching

- It is not the purpose of intervention work to shore up weak teaching at Wave 1. Settings and schools should establish 'quality first teaching' to minimise the risk of children falling behind and thereby secure the most cost effective use of resources. High quality phonic work should therefore be a priority within Wave 1 teaching.
- Given that intervention work will be necessary, settings and schools should make sure that additional support is compatible with mainstream practice. Irrespective of whether intervention work is taught in regular lessons or elsewhere, the gains made by children through such work must be sustained and built upon when they return to their mainstream class.
- Leading edge interventions should

continue to be exemplified in guidance showing how the best provision and practice are matched to the different types of special educational needs.

Aspect 4

How leadership and management in schools can support the teaching of reading, as well as practitioners' subject knowledge and skills

- Headteachers and managers of settings should make sure that phonic work is given appropriate priority in the teaching of beginner readers and this is reflected in decisions about training and professional development for their staff.
- Settings and schools should make sure that at least one member of staff is fully able to lead on literacy, especially phonic work.
- Those in leadership and management positions should make sure that the normal monitoring arrangements assure the quality and consistency of phonic work and that staff receive constructive feedback about their practice.
- Headteachers and governors should ensure that high quality teaching of reading in Key Stage 1 informs realistic and ambitious target-setting for English at Key Stage 2.

Aspect 5

The value for money or cost effectiveness of the range of approaches covered by the review.

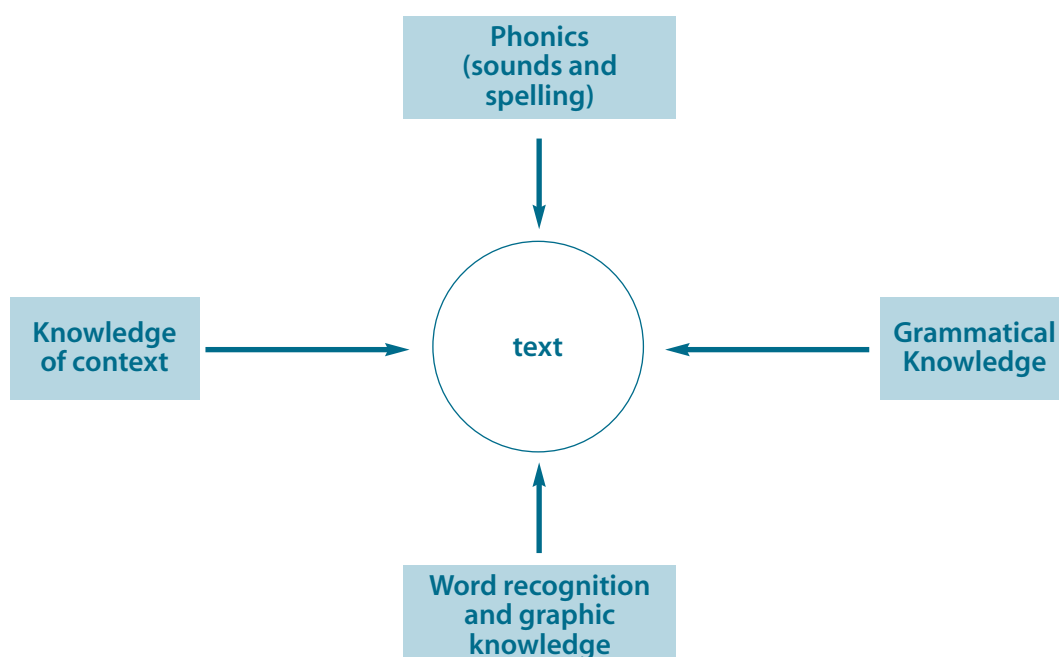
- In order to ensure that initial training and professional development provide good value for money in the teaching of reading, including phonic work, the Training and Development Agency for Schools should consider all the steps set out under Aspect 5 of the remit.

Appendix 1: the searchlights model – the case for change

The contribution of the searchlights model

1. In making the case for moving on from the searchlights model as the framework for understanding how children develop their reading skills, we acknowledge the positive effect that the model has had in promoting a better understanding of the importance of the direct teaching of literacy.
2. When it was introduced in 1998, the searchlights model also encapsulated what was currently accepted as ‘best practice’ in the teaching of reading. This had the advantage of making it easier to bring teachers on board to accept the NLS framework for teaching. It is an ambitious model, which seeks to incorporate the whole complexity of reading. This holistic approach to reading was in line with the accounts of reading development that were current and informed what was considered to be ‘best practice’ in the teaching of reading.

Figure 1: The NLS searchlights model of reading



3. The searchlights model (Figure 1) characterises the reading process as involving four strategies – called ‘searchlights’. The suggestion is that, when addressing a text, readers use four sources of knowledge to ‘illuminate’ their processing. These four sources are: phonic (sounds and spelling) knowledge; grammatical knowledge; word recognition and graphic knowledge; and knowledge of context. The original implication, later modified, was that these different knowledge strands were potentially of equal usefulness to the reader and that in some way higher levels of facility in one area of knowledge might compensate for lower levels in another. The searchlights model implicitly acknowledges that both accurate word recognition and good language comprehension are necessary if readers are to understand the texts with which they engage, but does not delineate accurately which aspects of the complex process of reading texts with understanding are attributable to each of these components. The case for change that we discuss below rests on the value of explicitly distinguishing between word recognition processes and language comprehension processes.
4. Best teaching practice in the years immediately preceding the introduction of the NLS drew heavily on Clay’s work (Clay, 1972, 1979, 1985). Like the searchlights model, Clay proposed that readers have to use four sources of information, which she describes as cueing systems, in order to read texts. These she labelled as: phonological (the sounds of oral language); syntactic (sentence order); visual (graphemes, orthography, format and layout); and semantic (text meaning) (Clay, 1985; Clay and Cazden, 1990). According to Clay, children have to use all four cueing systems to develop multiple strategies for processing texts. Good readers are said to focus on meaning and use output information from applying all the strategies to enable comprehension of the text. In contrast poor readers are said to have a more limited range of strategies and those they use tend to be lower level and to lack integration.

Research into learning to read

5. Over the past 30 years, there has been a considerable research effort undertaken largely, but not solely, by cognitive psychologists, devoted to investigation of different aspects of the cognitive processes involved in reading, and the ways in which children develop these processes.
6. Rather than viewing reading development as involving a continuous increase in the child’s ability to apply, and to orchestrate the application of, different ‘cueing systems’ (searchlights), this research has been concerned with investigating (a) the ways in which children’s word recognition skills (i.e. their ability to read and understand words, in and

out of context) develop; and (b) the ways in which children's ability to understand written texts develops.

7. Psychological research thus involves separation of these two essential components of reading, in an attempt better to understand the development of each.

Incorporating new research insights into education

8. Sufficient progress has now been made in understanding each component for the findings from this research to be useful to informing teaching practice. Some of this research has already informed the NLS framework for teaching (e.g. the research into phonological awareness and letter-sound knowledge as important prerequisites for successful reading development has led to increased emphasis on the importance of teaching phonics to young and to struggling older readers, and on the prime importance of establishing use of the 'phonics – sounds and spelling' searchlight).
9. We have been impressed with the readiness of the NLS to modify the guidance given to teachers in the light of new evidence from research. We think that further progress towards the goal of using evidence derived from psychological research to inform teaching practice will be better achieved if the searchlights model is now reconstructed into the two components of reading (word recognition, language comprehension) that are present but confounded within it.

The simple view of reading

10. There is wide acknowledgement that reading is a complex activity but in the following paragraphs we show that reading has two, essential components which can be represented in a relatively simple way.
11. In recent years there has been a convergence of opinion among psychologists investigating reading that little progress towards understanding how reading happens in the human mind is likely to be made

*If we start off by investigating 'real reading', seeking for example to discover how readers develop an understanding of what life might have been like in Imperial Russia as they read *The Brothers Karamazov*. No one has any idea about how to carry out such an investigation; so more tractable reading situations have to be studied first. This is done by breaking up 'real reading' into simpler component parts that are more*

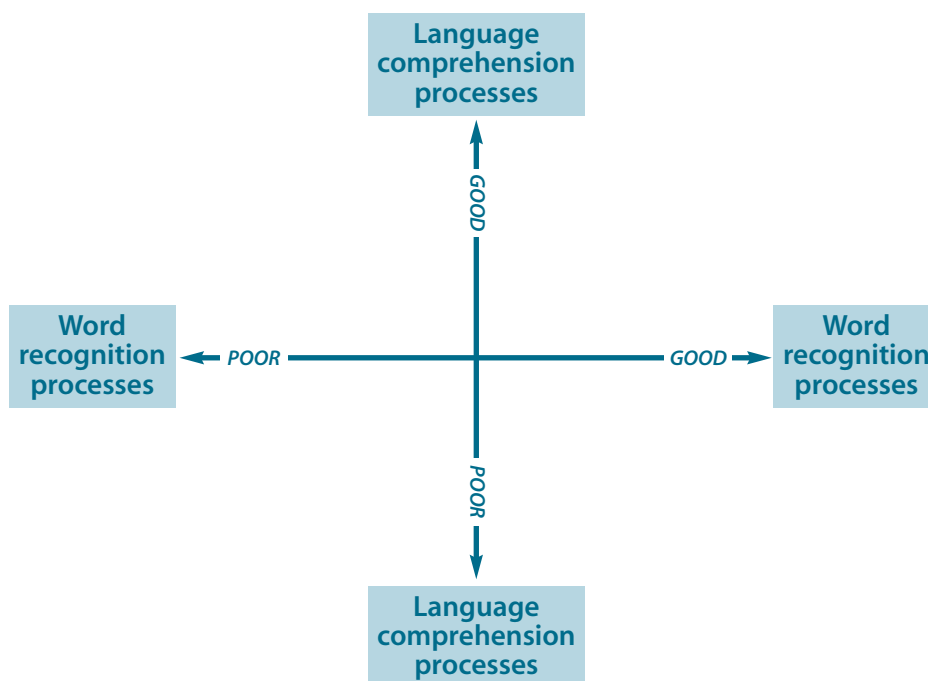
immediately amenable to investigation, with the hope that as more and more of these component parts come to be understood we will get closer and closer to a full understanding of 'real reading'.

(Coltheart, 2006).

12. Two components of reading identified in the simple view of reading first put forward by Gough and Tunmer (1986) are 'decoding' and 'comprehension': according to these authors, 'Reading is the product of decoding and comprehension'. We would not want to suggest accepting this statement as a complete description or explanation of reading; rather, we want to advocate the good sense of considering reading in terms of these two components.
13. However, it is important to be clear as to the meanings the authors ascribe to the terms used in the statement, so that we can understand what each component comprises. Gough and Tunmer make clear that by 'decoding' they mean the ability to recognise words presented singly out of context, with the ability to apply phonic rules a crucial contributory factor to the development of this context-free word recognition ability.
14. They also make clear that by 'comprehension' they mean not reading comprehension but *linguistic* comprehension, which they define as 'the process by which, given lexical (i.e. word) information, sentences and discourse are interpreted'. A common set of linguistic processes is held to underlie comprehension of both oral and written language.
15. Gough and Tunmer further make clear that word recognition is necessary but not sufficient for reading because ability to pronounce printed words does not guarantee understanding of the text so represented. Furthermore, linguistic comprehension is likewise necessary, but not sufficient, for reading: if you cannot recognise the words that comprise the written text, you cannot recover the lexical information necessary for the application of linguistic processes that lead to comprehension.
16. A useful illustration of the necessity for reading of both components and the insufficiency for reading of each component on its own is the story of Milton in his blindness. Wishing to read ancient Greek texts, but unable to do so because he could no longer see the words, Milton encouraged his daughters to learn to pronounce each alphabetic symbol of the ancient Greek alphabet. His daughters then used these phonic skills to read aloud the texts to their father. Their father could understand what they uncomprehendingly read aloud to him. The daughters possessed word recognition skills, which did not enable them to understand the text; Milton, despite his ability to understand the Greek language, was no longer able to use his word recognition skills and so was no longer able to understand Greek text without harnessing his daughters' skills.

17. Gough and Tunmer's simple view of reading has increasingly been adopted by psychologists researching reading development since it was first proposed in 1986. It is sometimes presented in diagrammatic form as illustrated in Figure 2 below. The two dimensions are presented in the form of a cross to emphasise that both word recognition processes and language comprehension processes are essential at all points during reading development and in skilled reading.

Figure 2: The simple view of reading



18. We believe that the simple view of reading provides a valid conceptual framework that is useful to practitioners and researchers alike. Clear differentiation between the two dimensions provides a conceptual framework that:

- (a) encourages teachers not necessarily to expect that the children they teach will show equal performance or progress in each dimension;
- (b) offers the possibility of separately assessing performance and progress in each dimension, to identify learning needs and guide further teaching;
- (c) makes explicit to teachers that different kinds of teaching are needed to develop word recognition skills from those that are needed to foster the comprehension of written and spoken language; and

(d) emphasises the need for teachers to be taught about and to understand the cognitive processes involved in the development of both accurate word recognition skills and of language comprehension.

19. Throughout this section we urge that the reader keep in mind that although we see good reason to consider each of the two dimensions separately, we would also consistently maintain that both dimensions are essential to reading. However, it is evident from the research literature that the balance of learning needs across the two dimensions changes as children become more fluent and automatic readers of words: that is, establishing the cognitive processes that underlie fluent automatic word reading is a time limited task, and involves acquiring and practising certain skills, whereas developing the abilities necessary to understanding and appreciating written texts in different content areas and literary genres continues throughout the lifespan.
20. In addition, it must be remembered that, when children begin to learn to read, they have already made considerable progress in their language development. They already understand much of what is said to them and can express their ideas so that others can understand them. They have not been ‘taught’ language. *However, the time limited task that is word reading is generally achieved as a result of direct instruction.*
21. Evidence suggests that word recognition processes and language comprehension processes are separable dimensions of reading. If the two are indeed separable dimensions, then the following four predictions can be made:
 - (a) Different underlying skills and abilities should contribute to successful development of each dimension.
 - (b) Factor analysis of data sets on different measures of reading should reveal more than one underlying factor.⁵⁴
 - (c) Four different patterns of performance should be observable across the two dimensions.
 - (d) Context effects might be shown to operate differently at word and text level. We examine evidence relevant to each of these four predictions below.

⁵⁴ Factor analysis is a statistical method of identifying a small set of variables that account for the differences between people on a large number of tests.

Different underlying skills and abilities should contribute to successful development of each dimension.

22. Oakhill, Cain and Bryant (2003) assessed the extent to which oral vocabulary, single word reading accuracy, phonological awareness, working memory, syntax, ability to draw inferences, understanding of story structure, and comprehension monitoring ability contributed to reading accuracy and reading comprehension scores. All measures were administered twice, once when children were seven, and again a year later.
23. Results were quite similar at both time points. Ability to draw inferences, understanding of story structure, and comprehension monitoring ability significantly predicted reading comprehension. Single word reading accuracy and phoneme deletion significantly predicted word recognition. There was a clear dissociation between predictors of comprehension and predictors of word recognition. This study therefore provides some evidence in support of the view that different skills and knowledge underlie word recognition and reading comprehension.
24. Muter, Hulme, Snowling and Stevenson (2004) studied 90 children for two years from their entry to school as 'rising fives'. They showed that later word recognition skills were predictable from earlier measures of letter knowledge and phoneme sensitivity, but not from earlier measures of oral vocabulary, rhyme skills or grammatical skills. In contrast, later reading comprehension was predictable from earlier word recognition skills, vocabulary knowledge, and grammatical skills. Again, different skills and knowledge were shown to underlie performance on each of the two dimensions of reading.

Factor analysis of data sets on different measures of reading should reveal more than one underlying factor.

25. Pazzaglia, Cornoldi and Tressoldi (1993) present some evidence that this is the case in a review of findings from their 15-year research programme of reading development in Italian children. Factor analysis of data from 1st and 2nd grade children (Cornoldi, Colpo and MT group, 1981) found measures of reading accuracy and reading speed loaded heavily on one factor, whilst measures of reading comprehension loaded heavily on a second factor.

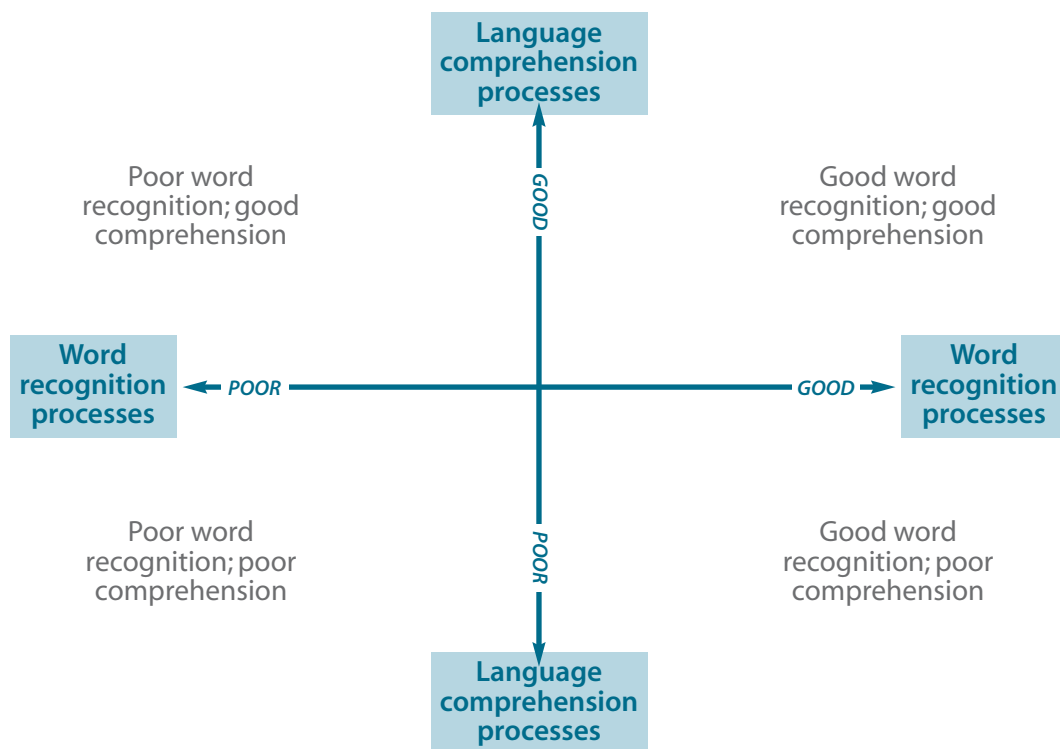
26. Factor analysis of data from 186 1st and 2nd grade children (Cornoldi and Fattori, 1979) also found that, at each grade level, measures of reading accuracy and reading speed loaded heavily on to one factor. First grade reading comprehension loaded on to a second factor, and 2nd grade reading comprehension on to a third factor, on to which linguistic competence also loaded heavily – consistent with the view that oral and written language comprehension depend on the same underlying language comprehension system.⁵⁵
27. The only factor analytic study we have found of children learning to read in English is that carried out by Nation and Snowling (1997). They assessed Key Stage 2 children's word reading accuracy (with and without context), nonword reading, narrative listening comprehension, and reading comprehension at text and sentence level. Factor analysis again revealed two factors. The three word recognition measures (word reading accuracy with and without context, nonword reading) loaded heavily on one factor, whilst the two text comprehension measures (narrative listening, text reading) loaded heavily on to a second factor.
28. Importantly in this study, listening and reading comprehension loaded onto the same factor, again consistent with the view that oral and written language comprehension depend on the same underlying language comprehension system.

Four different patterns of performance should be observable across the two dimensions.

29. These patterns of performance are illustrated in Figure 3.
30. It is important to note that these four patterns of performance reflect *relative* differences in the *balance* of word recognition and language comprehension abilities: as both dimensions are continuous, children can vary continuously on each.
31. In the top right hand quadrant we have the children who are good readers: children who lift the words off the page relatively effortlessly and understand the texts they read with relative ease.

⁵⁵ The authors ascribe the different underlying factor loadings of the two reading comprehension tests to differences in the tests used, with the first grade test including pictures – therefore the first grade children were not solely relying on linguistic processing to comprehend the text.

Figure 3. Different patterns of performance



32. In the other three quadrants, we have three predicted patterns of poor reading. At bottom right, we have the children who read the words in the text with relatively little difficulty but whose poor language comprehension abilities militate against their understanding written texts. At top left, we have the children who have difficulty reading the words in the text but good language comprehension: i.e. children for whom poor word recognition skills are the major barrier to understanding written texts. At bottom left, we have the children who experience difficulty on both dimensions, with problems both in reading words and in language comprehension.

33. We will concentrate here on the two patterns where performance diverges across the two dimensions. Are there children who read words relatively well despite poor language comprehension? And are there children who read words relatively poorly despite good language comprehension?

Good word recognition abilities with poor language comprehension

34. There are studies in the literature that provide unequivocal evidence for the existence of readers whose word reading skills are in advance (and sometimes, far in advance) of their oral and written language comprehension abilities (for a recent review, see Grigorenko, Klin & Volmar, 2003).
35. This pattern of performance is sometimes observed in children with developmental disorders such as specific language impairment (e.g. Bishop & Adams, 1990) or autistic spectrum disorders (e.g. Snowling & Frith, 1986), where language comprehension is impaired.
36. However, it is a pattern also found in some typically developing children who are precocious readers (e.g. Pennington, Johnson & Welch, 1987; Jackson, Donaldson & Cleland, 1988) and is increasingly being identified in children from mainstream classrooms by psychologists researching reading comprehension (e.g. Stothard & Hulme, 1992; and, for a recent review, see Nation, 2005).

Poor word recognition abilities with good language comprehension.

37. Spooner, Baddeley and Gathercole (2004) provide evidence for this pattern. Spooner et al. worked with 80 7- to 8-year-old children. They divided the children into two groups. Children in both groups had equally good listening comprehension scores, but differed in their word recognition skills. The group with poor word recognition skills did significantly worse on a reading comprehension test. This is good evidence that there are children whose word reading skills (poor) are discrepant with their language comprehension ability (good), and that in such children, poor word reading skills do indeed impact on reading comprehension.
38. Catts, Adlof and Weismer (in press) present data from a longitudinal study which also suggests that reading comprehension in the early grades (when children are still developing their word recognition skills) is more heavily dependent on word recognition skills than on language comprehension ability.
39. Catts et al. showed that in 2nd and 4th grade, children with poor word recognition skills and children with poor language comprehension both had reading comprehension scores significantly lower than those of typically developing readers. That is, at these earlier grade levels, poor word recognition skills impaired reading comprehension in children even when they possessed language comprehension abilities similar to those of typically developing readers. By 8th grade, reading comprehension in the group with poor word recognition skills was no longer significantly impaired relative to that of the

typically developing readers. Presumably by 8th grade, although they were still less skilled in terms of word recognition than the typically developing 8th grade readers, they had reached a minimal level of competence in word recognition that allowed their good language comprehension ability to have an effect on reading comprehension.

40. Catts et al. conclude that identification of these two reader groups (children with poor word recognition but good language comprehension; children with good word recognition but poor language comprehension) provides evidence of the double dissociation predicted by the simple view of reading.

Context effects might be shown to operate differently at word and text level.

41. There is a widely held view in education that context facilitates both word recognition and reading comprehension. The evidence supports this view. However, as Share and Stanovich (1995) argue, the assumption that *context effects that are found to facilitate comprehension of texts operate in the same way as context effects at the level of word recognition is not supported by the evidence.*
42. Empirical studies show that there are important differences in the use of context by skilled and less skilled readers: differences that relate to the different processes involved in word recognition and comprehension. Children with poorer word recognition skills show larger facilitatory effects of context on word recognition than children with good word recognition skills (Briggs & Underwood, 1986; Perfetti, 1985; Pring & Snowling, 1986; Schwantes, 1985, 1991; Stanovich, West & Feeman, 1981).
43. *These findings refute the hypothesis that poor reading results from failure to use context.⁵⁶ They also strongly suggest that it is not a good idea to teach children to use context to read the words on the page: children who read well do not need to use context as an aid to word recognition.*
44. At the word recognition level, skilled readers do not use context: they are simply subject to it. To illustrate this, let us imagine that you have been invited to take part in a reading experiment. In this experiment, you are shown words one at a time on a computer screen, and asked to read them aloud. The experimenter measures the time it takes for you to respond to each word – a matter of thousandths of a second (milliseconds). But the experimenter is also tricking you. She has arranged for some words to be flashed up so rapidly that you are completely unaware that anything has appeared on screen. These unseen words affect your response time to read the words you *do* see. If you see and

⁵⁶ This hypothesis was advanced, but never to our knowledge tested empirically, by proponents of the account of reading that was current in the educational world prior to implementation of the NLS.

read 'DOCTOR' after the experimenter has sneakily flashed an unseen 'NURSE' on the screen, you respond to 'DOCTOR' faster. Although you were not aware of seeing 'NURSE', your quick and clever word recognition system had fully processed it. The meaning of 'NURSE' provided contextual facilitation for the word 'DOCTOR' that you saw, and read, and were aware of reading. But you did not knowingly *use* the context. You were not aware that there was a context and therefore could not strategically use it to identify DOCTOR. You were simply subject to its effects.

45. At text level, it is skilled rather than unskilled readers who make the most use of context to help generate a faithful mental representation of the text (Baker & Brown, 1984; Stanovich & Cunningham, 1991). Recent empirical studies comparing good comprehenders matched for word reading skills with poor comprehenders have shown that good comprehenders are better able to infer the meanings of novel words from context (Cain, Oakhill & Elbro, 2003); better able to work out the meanings of opaque idioms (i.e. idioms whose meaning cannot easily be inferred from the words in the idiomatic phrase, but which require use of the context within which they appear) (Cain, Oakhill & Lemmon, 2005); better able to integrate information between sentences in a text (Cain & Oakhill, 1999); better able to generate a coherent representation and elaborative inferences (Cain, Oakhill, Barnes & Bryant, 2001), and better able to monitor their own understanding (Oakhill, Hartt & Samols, 2004).
46. To summarise: less skilled and poorer readers have been shown to rely more on context to recognise words. Skilled and good readers have been shown to rely more on context to construct an accurate representation of the meanings of the text. These opposite uses of context by skilled and less skilled readers make a strong case for the need explicitly to acknowledge that there are indeed two separable dimensions of reading, word recognition skills and language comprehension. Each dimension is necessary. Neither dimension is sufficient on its own.

Consequences of adopting this conceptual framework

47. If the scientific evidence supports the good sense of adopting this alternative two-dimensional conceptual framework to guide teaching practice (and, clearly, we think it does) then it is crucially important that teachers should understand the ways in which this alternative framework relates to the searchlights model. We think that clarification of the different nature of the two dimensions of reading, that are confounded in the searchlights model, has the power further to improve teaching, particularly of those children who most need it: the children who experience difficulty in establishing word recognition processes, the children who experience difficulty in learning to understand

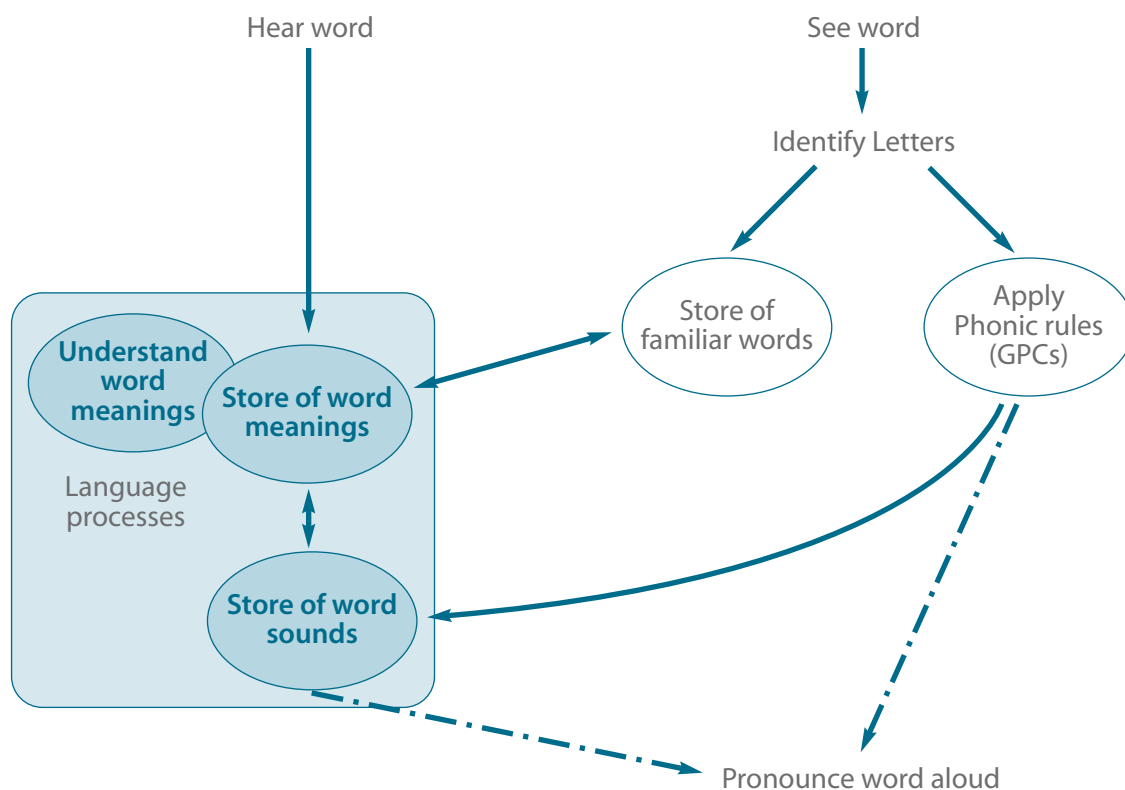
what they read, and, most importantly, the children who have difficulty on both dimensions.

48. But a better conceptual framework is only the starting point. Each dimension and its development must be understood by practitioners. We present below diagrams to illustrate the processes involved in (a) developing word recognition skills and (b) developing comprehension. The diagrams and the accompanying commentaries are based on research evidence, and represented in a way that helps to aid the reader in understanding them.

The development of word recognition skills

49. Figure 4 below presents a diagrammatic representation of the word recognition system. The shaded parts of this diagram (vocabulary stores containing meanings and sounds of words, and links between items in these stores) are involved in processing both spoken and written language. Children have started to develop these stores and links long before they are taught to read, because they are necessary to understanding spoken language, language the children *hear*.
50. In order to become readers as well as listeners, children need to develop processes that lead into their store of word meanings and their store of word sounds from language they *see*. The stores and processes that children need to set up to accomplish this are shown in the unshaded parts of the diagram. The dotted lines leading to 'pronounce word aloud' indicate that reading aloud is optional, since probably most reading is silent.

Figure 4: Diagrammatic representation of the word recognition system.



51. Beginner readers need to set up processes for identifying letters, because (a) written (printed) words are composed of letters, and (b) contrary to some earlier proposals, skilled readers have been shown to process all the letters in words (see, for example, Rayner, Foorman, Perfetti, Pesetsky & Seidenberg, 2001).
52. Children need to develop a store of phonic rules: processes to link graphemes to phonemes, and to blend phonemes into words. These processes are essential to reading unfamiliar words, and therefore form an essential part of the word recognition system (Ehri, 1998; Frith, 1985; Marsh, Friedman, Welch & Desberg, 1981; Seymour, 1997).⁵⁷ Working out pronunciations of unfamiliar words allows these to be identified in the pre-existing store of word sounds. Items identified in this store are already linked to their corresponding entries in the pre-existing store of word meanings. Thus, unfamiliar words that are successfully 'sounded out' can not only be pronounced but also understood. None of this entails the necessary or strategic use of 'context', or of any linguistic processes beyond the level of the single word.

⁵⁷ Although implementation of these processes is achieved differently in different models of skilled word recognition, all such models also agree that such processes must exist.

53. In the first instance, the store of phonic rules will contain the single letter-sound correspondences that are typically the first rules children are taught. Development involves expanding the number of stored rules and incorporating increasingly complex and conditional rules.
54. Children also need to establish a store of familiar words that are recognised immediately on sight, and linked to their meanings.⁵⁸ Children's first entries into this store are partial (some but not all letters of a word are stored), (Ehri, 1995; Stuart & Coltheart, 1988). Development involves expanding the number of words entered, and completing their representations (storing all letters of the word in correct sequence). The term 'sight vocabulary' will be used in what follows as a shorthand label for this store.

The 'self-teaching' hypothesis

55. Recent psychological research into the development of word recognition skills acknowledges the crucial importance of ensuring that children understand the alphabetic principle – that the letters on the page represent the sounds in the words – at least as soon as they are formally taught to read in school.
56. This is because understanding and application of the alphabetic principle is seen as the primary driver of development of *all aspects* of printed word recognition: of phonic rules *and* of 'sight vocabulary'. For example, Share (1995) proposed that, once children have sufficient phonic knowledge to work out the pronunciations of unfamiliar printed words they encounter in their reading, they have to hand a self-teaching device which allows these newly analysed and decoded words to be entered into their 'sight vocabulary' for future fast recognition. It has also been suggested (Ehri, 1992; Rack, Hulme, Snowling & Wightman, 1994; Stuart, Masterson & Dixon, 2000) that children's ability to analyse the phonemic structure of words and to link phonemes to graphemes directly facilitates acquisition of 'sight vocabulary'.
57. One final proposal from recent research is that as 'sight vocabulary' expands and as representations of words in it become complete, 'sight vocabulary' becomes a database from which children can infer more sophisticated, complex and conditional phonic rules (Stuart, Masterson, Dixon & Quinlan, 1999; Savage & Stuart, 2001).

⁵⁸ With respect to skilled readers, the precise details as to how items are represented in this store differ across different theories. Most theories of how reading develops assume, as we do here, that words are represented as entities in the word recognition system.

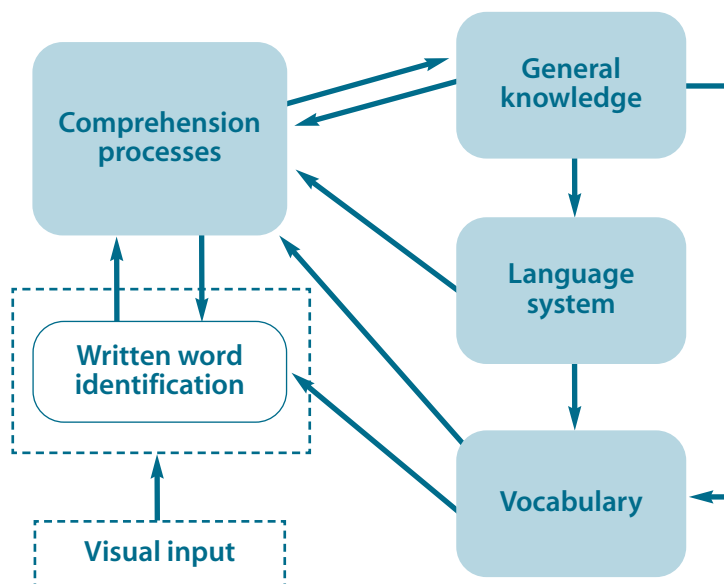
58. This account of the development of word recognition skills has the power to explain how it is possible for some children to develop these skills with amazing rapidity and ease. It might also be taken to imply that not all phonic correspondences need to be taught, but we would urge caution with this interpretation. We simply do not know whether all children, given the right start, will go on to develop a self-teaching system, or whether there will always be children who require longer term systematic teaching and multiple opportunities to practise their skills.

Reading comprehension is language comprehension – with access from eye rather than ear

59. In this section we explain that comprehension means understanding of language whether it is spoken or written. In the past in primary schools children might have been asked to do 'comprehension' exercises. This meant that the term comprehension came to be equated with the ability to answer questions posed about written texts. However, answers given to questions about texts are simply an index of the quality of the understanding, which is generated from an interaction between comprehension processes, language processes and general knowledge.
60. By the time children enter school their language skills are typically considerably advanced. They understand much of what is said to them and they can express their ideas, feelings and needs in ways that others can comprehend. Their language processes are established and though there is much still to develop, particularly in the areas of vocabulary and syntax (grammar), they can be considered to be proficient language users. There will, of course, be considerable individual differences.
61. Comprehension occurs as the listener builds a mental representation of the information contained within the language that a speaker is using. The comprehension processes that enable the mental representation to be built up occur at the word, sentence and utterance (text) level. Individual word meanings are identified from phonological input. Parsing of the language occurs. This ensures that meaning is mediated through grammatical structure. A number of inferential processes are also used. These all happen simultaneously and the resulting information interacts with the listener's general knowledge to enable as accurate a mental representation of the spoken message as the listener is capable of at any particular stage of development. It is important to bear in mind that the extent of the listener's general knowledge and level of cognitive development will have a bearing on the comprehension of the message. To generate an accurate mental representation of this the listener has to process the language *and* the concepts.

62. When children learn to read, the comprehension processes they use to understand written texts are the same as those they already use to understand spoken messages. The major difference is that the language of written texts is accessed via the eyes rather than via the ears.
63. Figure 5 below, which has been adapted and simplified from Perfetti (1999), illustrates the components of comprehension. The shaded boxes are the components required for comprehending spoken language. The knowledge sources of general knowledge, language and vocabulary are used to support the comprehension processes to generate a mental representation of the spoken message. When texts are read there are further processes involved in order that the words can be identified. This is represented by the clear boxes in the diagram. The visual word identification processes have to be incorporated into the system. However, the comprehension processes themselves remain the same.

Figure 5: The components of the comprehension system.



64. The figure illustrates the point that in order to generate a mental representation of a spoken message the comprehension processes use information from the language system, vocabulary and the level of general knowledge of the listener. Improvements in all these areas underlie developmental improvements in language comprehension. This improves whether or not the listener becomes literate. However, becoming literate has the potential to extend both vocabulary and general knowledge and thus to accelerate improvements in language comprehension.
65. When the 'listener' becomes a reader, the unique development that takes place is that the 'reader' is able to identify the written words and encode their meanings so that the mental representation is constructed using additional output from the written word identification system. As long as this system is operating optimally this does not impede comprehension of the text. However, when word recognition skills are only just being developed children should be given opportunities to read texts that make fewer demands on the system.

Appendix 1 references

- Baker, L. & Brown, A. L. (1984). Metacognitive skills in reading. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 353-394). New York: Longman.
- Bishop, D.V.M. & Adams, C. (1990). A prospective study of the relationship between specific language impairment, phonological disorders, and reading retardation. *Journal of Child Psychology and Psychiatry*, 31, 1027 -1050.
- Briggs, P. & Underwood, G. (1982). Phonological coding in good and poor readers. *Journal of Experimental Child Psychology*, 35, 93-112
- Cain, K. & Oakhill, J.V. (1999). Inference making and its relation to reading comprehension failure. *Reading and Writing*, 11, 489-504.
- Cain, K., Oakhill, J.V., Barnes, M. & Bryant, P.E. (2001). Comprehension skill, inference making ability, and their relation to knowledge. *Memory & Cognition*, 29, 850-859.
- Cain, K., Oakhill, J.V. & Elbro, C (2003). The ability to learn new word meanings from context by school-age children with and without language comprehension difficulties. *Journal of Child Language*, 30, 681-694.
- Cain, K., Oakhill, J.V. & Lemmon, K. (2005). The relation between children's reading comprehension level and their comprehension of idioms. *Journal of Experimental Child Psychology*, 90, 65-87.
- Catts, H.W., Adlof, S.M. & Weismer, S.E. (in press). Language deficits in poor readers: A case for the simple view of reading. *Journal of Speech, Hearing and Language Disorders* (in press).

- Clay, M.M. (1972). *Reading: The patterning of complex behaviour*. London: Heinemann Educational Books.
- Clay, M.M. (1979). *Reading: The patterning of complex behaviour. 2nd Edn.* Auckland, NZ: Heinemann Educational Books.
- Clay, M.M. (1985). *The early detection of reading difficulties*. Auckland: Heinemann.
- Clay, M. M., & Cazden, C. B. (1990). A Vygotskian interpretation of Reading Recovery tutoring. In L. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 206-222). Cambridge, UK: Cambridge University Press.
- Coltheart, M. (2006). Dual-Route and connectionist models of reading: An overview. *London Review of Education*, 4 (1).
- Cornoldi, C. & Fattori, L. (1979). La verifica dei livelli di apprendimento della lettura: le prove MT. (The assessment of reading proficiency: The MT tests). *GIAMC*, 1, 259-267.
- Cornoldi, C., Colpo, G., & Gruppo M. T. (1981). La verifica dell'apprendimento della lettura (The assessment of reading proficiency). Firenze: Organizzazioni Speciali.
- Dixon, M., Stuart, M. & Masterson, J. (2002). The role of phonological awareness and the development of orthographic representations. *Reading and Writing*, 15, 295-316.
- Ehri, L.C. (1992). Reconceptualizing the development of sight word reading and its relationship to recoding. In P. Gough, L. Ehri & R. Treiman (Eds.). *Reading acquisition*. (pp. 107-143). Hillsdale, NJ: Lawrence Erlbaum.
- Ehri, L.C. (1995). Phases of development in learning to read by sight. *Journal of Research in Reading*, 18, 116-125.
- Ehri, L.C. (1998). Grapheme-phoneme knowledge is essential for learning to read words in English. In J.L. Metsala & L.C. Ehri (Eds.). *Word recognition in beginning literacy*. (pp. 3-40) Mahwah, NJ: Erlbaum.
- Frith, U. (1985). Beneath the surface of developmental dyslexia. In Patterson, K.E., Marshall, J.C. & Coltheart, M. *Surface dyslexia* (pp. 301-330). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gough, P.B. & Tunmer, W. E. (1986) Decoding, reading and reading disability. *Remedial and Special Education*, 7, 6-10.
- Grigorenko, E.L., Klin, A. & Volmar, F. (2003). Annotation: Hyperlexia: disability or superability? *Journal of Child Psychology and Psychiatry*, 44, 1079-1091.
- Jackson, N.E., Donaldson, G.W. & Cleland, L.N. (1988). The structure of precocious reading ability. *Journal of Educational Psychology*, 80, 234-243.

- Marsh, G., Friedman, M., Welch, V. & Desberg, P. (1981). A cognitive-developmental theory of reading acquisition. In G.E. MacKinnon & T.G. Waller (Eds.). *Reading research: Advances in theory and practice, Vol 3*. NY: Acad. Press.
- Muter, V, Hulme, C, Snowling, M.J., & Stevenson J. (2004). Phonemes, rimes, vocabulary, and grammatical skills as foundations of early reading development: Evidence from a longitudinal study. *Developmental Psychology* 40 (5): 665-681
- Nation, K. (2005). Children's reading comprehension difficulties. In M. Snowling & C. Hulme (Eds.). *The Science of Reading: A Handbook*. Oxford: Blackwell.
- Nation, K. & Snowling, M. (1997). Individual differences in contextual facilitation: Evidence from dyslexia and poor reading comprehension. *Child Development*, 69, 996-1011.
- Oakhill, J., Cain, K. & Bryant, P.E. (2003). The dissociation of word reading and text comprehension: Evidence from component skills. *Language and Cognitive Processes*, 18, 443-468.
- Oakhill, J.V., Hartt, J. & Samols, D. (2004). *Levels of comprehension monitoring and working memory in good and poor comprehenders*. Unpublished manuscript.
- Pazzaglia, F., Cornoldi, C. & Tessoldi, P.E. (1993). Learning to read: evidence on the distinction between decoding and comprehension skills. *European Journal of Psychology in Education*, 8, 247-258.
- Pennington, B.F., Johnson, C. & Welsh, M.C. (1987). Unexpected reading precocity in a normal pre-schooler: Implications for hyperlexia. *Brain and Language*, 30, 65-180.
- Perfetti, C.A. (1985). *Reading ability*. NY: OUP.
- Perfetti, C. A. (1999) Comprehending written language: A blueprint of the Reader. In P. Hagoort & C. Brown (Eds.) *Neurocognition of language processing* (pp. 1967- 208). Oxford: Oxford University Press.
- Pring, L. & Snowling, M. (1986). Developmental changes in word recognition: An information processing account. *Quarterly Journal of Experimental Psychology*, 38A, 395-418.
- Rack, J., Hulme, C., Snowling, M. & Wightman, J. (1994). The role of phonology in young children learning to read words: the direct mapping hypothesis. *Journal of Experimental Child Psychology*, 57, 42-71.
- Rayner, K., Foorman, B.R., Perfetti, C.A., Pesetsky, D. & Seidenberg, M.S. (2001). How psychological science informs the teaching of reading. *Psychological Science in the Public Interest*, 2, 31 – 73.
- Savage, R. & Stuart, M. (2001). Boundary consonants provide a base for vowel inferences in early reading: evidence from two orthographic inference tasks. *Reading and Writing*, 14, 571-598.

Schwantes, F. M. (1985). Expectancy, integration, and interactional processes. Age differences in the nature of words affected by sentence context. *Journal of Experimental Child Psychology*, 39, 212-229.

Schwantes, F. M. (1991). Children's use of semantic and syntactic information for word recognition and termination of sentence meaningfulness. *Journal of Reading Behavior*, 23, 335-350.

Seymour, P.H.K. (1997). Foundations of orthographic development. In C.A. Perfetti, L. Rieben, & M. Fayol (Eds.). *Learning to Spell*. (pp. 319-338). Mahwah, NJ: Lawrence Erlbaum Associates.

Share, D.L. (1995). Phonological recoding and self-teaching: sine qua non of reading acquisition. *Cognition*, 55, 151-218.

Share, D. & Stanovich, K. E. (1995). Cognitive processes in early reading development: Accommodating individual differences into a model of acquisition. *Issues in Education: Contributions from Educational Psychology*, 1, 1-57.

Snowling, M. & Frith, U. (1986). Comprehension in hyperlexic readers. *Journal of Experimental Child Psychology*, 42, 392-415.

Spooner, A. L. R., Baddeley, A. D., & Gathercole, S. E. (2004). Can reading and comprehension be separated in the Neale Analysis of Reading Ability? *British Journal of Educational Psychology*, 74, 187-204.

Stanovich, K. E. & Cunningham, A.E. (1991). Reading as constrained reasoning. In S. Sternberg & P. Frensch (Eds.), *Complex problem solving: Principles and mechanisms* (pp. 3-60). Hillsdale NJ: Erlbaum.

Stanovich, K. E., West, R. F. & Feeman, D. J. (1981). A longitudinal study of sentence context effects in second-grade children: Tests of an interactive-compensatory model. *Journal of Experimental Child Psychology*, 32, 185-199.

Stothard, S.E. & Hulme, C. (1992). Reading comprehension difficulties in children: the role of language comprehension and working memory skills. *Reading and Writing*, 4, 245-256.

Stuart, M. & Coltheart, M. (1988). Does reading develop in a sequence of stages? *Cognition*, 30, 139-181.

Stuart, M.; Masterson, J.; Dixon, M. & Quinlan, P. (1999). Inferring sublexical correspondences from sight vocabulary: Evidence from 6- and 7-year-olds. *Quarterly Journal of Experimental Psychology*, 52A, 353-366.

Stuart, M.; Masterson, J. & Dixon, M. (2000). Spongelike acquisition of sight vocabulary in beginning readers? *Journal of Research in Reading*, 23, 12-27.

Appendix 2: glossary of terms

This glossary provides, for generalist readers, a set of simple working definitions which have been accepted by the review. It is acknowledged that there are other ways of defining some of the terms listed here.

The definitions of the four terms marked with an asterisk have been quoted from the report, *Preventing reading difficulties in young children*.⁵⁹

Word	Definition
blend (vb.)	to draw individual sounds together to pronounce a word, e.g. s-n-a-p, blended together, reads <i>snap</i>
cluster	two (or three) letters making two (or three) sounds, e.g. the first three letters of 'straight' are a consonant cluster
digraph	two letters which together make one sound, e.g. <i>sh, ch, th, ph, ee, oa</i>
grapheme	a letter or a group of letters representing one sound, e.g. <i>sh, ch, igh, ough</i> (as in 'though')
grapheme-phoneme correspondences (GPC)	the relationship between sounds and the letters which represent those sounds
mnemonic	a device for memorising and recalling something, such as a snake shaped like the letter 'S'
phonemes*	the phonological units of speech that make a difference to meaning. Thus, the spoken word <i>rope</i> is comprised of three phonemes: /r/, /o/, and /p/. It differs by only one phoneme from each of the spoken words, <i>soap, rode</i> and <i>rip</i>
phonemic awareness*	the insight that every spoken word can be conceived as a sequence of phonemes. Because phonemes are the units of sound that are represented by the letters of an alphabet, an awareness of phonemes is key to understanding the logic of the alphabetic principle and thus to the <i>learnability</i> of phonics and spelling
phonics*	instructional practices that emphasise how spellings are related to speech sounds in systematic ways

⁵⁹ *Preventing reading difficulties in young children: report of the Committee on the Prevention of Reading Difficulties in Young Children*, eds. Snow, C.E., Burns, M.S., Griffin, P. National Academy of Sciences, 1998.

phonological awareness*	a more inclusive term than phonemic awareness and refers to the general ability to attend to the sounds of language as distinct from its meaning. Phonemic awareness generally develops through other, less subtle levels of phonological awareness. Noticing similarities between words in their sounds, enjoying rhymes, counting syllables, and so forth are indications of such ‘metaphonological’ skill.
segment (vb.)	to split up a word into its individual phonemes in order to spell it, e.g. the word ‘cat’ has three phonemes: /c/, /a/, /t/
split digraph	two letters, which work as a pair, split, to represent one sound, e.g. a-e as in <i>make</i> or i-e as in <i>site</i>
VC, CVC, CCVC	the abbreviations for vowel-consonant, consonant-vowel-consonant, consonant-consonant-vowel-consonant, and are used to describe the order of letters in words, e.g. <i>am</i> , <i>Sam</i> , <i>slam</i>

Appendix 3: sources of evidence

The review took evidence from a range of sources, as noted in paragraph 5. The main sources were:

- oral evidence, from individuals and associations
- visits
- written evidence.

Oral evidence - individuals

Professor Lesley Abbot, Institute of Education, Manchester Metropolitan University

Professor Robin Alexander, University of Cambridge

Bev Atkinson, Medway LA

Sir Michael Barber

Ian Barren, Institute of Education, Manchester Metropolitan University

Alix Beleschenko, Qualifications and Curriculum Authority (QCA)

Professor Greg Brooks, University of Sheffield

Tom Burkard, Promethean Trust

Professor Brian Byrne, University of New England

Mary Charlton, Tracks Literacy

Professor Margaret Clark, University of Birmingham

Ian Coates, former Head of SEN and disability division, DfES

Kevan Collins, former Director, Primary National Strategy

Felicity Craig

Shirley Cramer, Chief Executive, Dyslexia Institute

Kate Daly, adviser, Minority Ethnic Achievement Unit, DfES

Edward Davey MP

Alan Davies, THRASS

Professor Henrietta Dombey, University of Brighton

Marion Dowling

Nick Gibb MP

Professor Usha Goswami, University of Cambridge

Marlynne Grant, Educational psychologist, South Gloucestershire LA

Jean Gross, Every Child A Reader

Kate Gooding, Early Childhood Forum (ECF)

Sue Hackman, chief adviser to ministers on school standards, DfES
 Professor Kathy Hall, Open University
 Diana Hatchett, Primary National Strategy
 Debbie Hepplewhite, Reading Reform Foundation
 Sue Horner, QCA
 Jane Hurry, University of London, Institute of Education
 Laura Huxford
 Julie Jennings, ECF
 Professor Rhona Johnston, University of Hull
 Lesley Kelly, Cambridgeshire LA
 Penny Kenway, Islington LA
 Julie Lawes, Catch Up
 Sue Lloyd and Chris Jolly, Jolly Phonics
 Ruth Miskin, ReadWriteInc
 Sue Nally, Warwickshire LA
 Angie Nicholas, Dyslexia Institute
 Joan Norris, ECF
 Wendy Pemberton, Primary National Strategy
 Sue Pidgeon, Primary National Strategy
 Dee Reid, Catch Up
 Eva Retkin
 Dilwen Roberts, Merton LA
 Rosie Roberts
 Cheryl Robinson, Bedfordshire LA
 Lindsey Rousseau, South East Region Special Educational Needs Partnership
 Conor Ryan
 Professor Pam Sammons, University of Nottingham
 Peter Saugman and Bruce Robinson, Mindweavers
 Professor Margaret Snowling, University of York
 Professor Jonathan Solity, University of Warwick
 Lesley Staggs, Primary National Strategy
 Professor Rhona Stainthorp, University of London, Institute of Education
 John Stannard
 Arthur Staples, LexiaUK
 Professor Morag Stuart, University of London, Institute of Education
 Professor Kathy Sylva, University of Oxford
 Ralph Tabberer, Training and Development Agency for Schools (TDA)
 Jude Thompson, Headteacher, Dorton House School

Janet Townend, Dyslexia Institute
Gail Trembl, SEN professional adviser, DfES
Paul Wagstaff, Primary National Strategy
Trudy Wainwright, St Michael's Primary School, South Gloucestershire LA
Tina Wakefield, British Association of Teachers of the Deaf
Mick Waters, QCA
Joyce Watson, University of St. Andrew's
Lyn and Mark Wendon, Letterland
Caroline Webber, Medway LA
Rose Woods, Helen Arkell Dyslexia Centre

Oral evidence – associations

Association of Teachers and Lecturers (ATL)
Basic Skills Agency
British Association for Early Childhood Education
Dyslexia Institute
Early Education Advisory Group
Educational Publishers Council
GMB
I CAN
National Association for Language Development in the Curriculum (NALDIC)
National Association for the Teaching of English (NATE)
National Association of Education Inspectors, Advisers and Consultants
National Association of Head Teachers (NAHT)
National Association of Primary Education (NAPE)
National Governors' Association
National Association of Schoolmasters Union of Women Teachers (NASUWT)
National Childminding Association (NCMA)
National Children's Bureau
National Confederation of Parent Teacher Associations (NCPT)
National Family and Parenting Institute (NFPI)
National Literacy Trust
National Union of Teachers (NUT)
Parent Education and Support Forum (PESF)
Peers Early Education Partnership (PEEP)
Pre-School Learning Alliance (PLA)

Primary Umbrella Group
Reading Recovery National Network
Renaissance Learning
UNISON
United Kingdom Literacy Association (UKLA)
Volunteer Reading Help
Xtraordinary People

Oral evidence – Education and Skills Committee

In addition, oral representations were taken from members of the Education and Skills Committee on 30 January, 2006.

Visits

In Scotland, members of the review took evidence from the Scottish Executive Education Department, members of Clackmannanshire council, headteachers and teachers of Clackmannanshire primary schools.

In England, in addition to the oral evidence listed, evidence was drawn from visits to schools and training events, as well as discussions with practitioners during those events. Of the schools visited by HMI, 17 of them included nursery-aged pupils (aged 3 – 4).

Schools visited by Her Majesty's Inspectors (HMI)

Andrews' Endowed Church of England Primary, Hampshire LA
Barlows Primary, Liverpool, Liverpool LA
Blue Coat C of E Aided Infants, Walsall, Walsall LA
Bonner Primary, London, Tower Hamlets LA
Brooklands Primary, London, Greenwich LA
Byron Primary, Bradford, Bradford LA
Christ the King RC Primary, London, Islington LA
Cobholm First School, Great Yarmouth, Norfolk LA
Coppice Infant and Nursery School, Oldham, Oldham LA
Elmhurst Primary, London, Newham LA

Heaton Primary, Bradford, Bradford LA
Holy Family Catholic Primary, Coventry, Coventry LA
Kings Hedges Primary, Cambridge, Cambridgeshire LA
Lostwithiel Primary, Lostwithiel, Cornwall LA
St Michael's C of E Primary, Bristol, South Gloucestershire LA
St Sebastian's Catholic Primary School and Nursery, Liverpool, Liverpool LA
Stoughton Infants, Guildford, Surrey LA
Swaythling Primary, Southampton, Southampton LA
Thelwall Community Infant School, Warrington, Warrington LA
Tyldesley Primary, Manchester, Wigan LA
Victoria Infants, Workington, Cumbria LA
Victoria Road Primary, Plymouth, Plymouth LA
William Lilley Infant and Nursery, Nottingham, Nottinghamshire LA
Woodberry Down Primary, London, Hackney LA

Other schools visited by members of the review team

Greatwood Community Primary, Skipton, North Yorkshire LA
Ings Community Primary and Nursery, Skipton, North Yorkshire LA
Lyndhurst Primary, London, Southwark LA
Millfield Preparatory School, Glastonbury
Oliver Goldsmith Primary, London, Brent LA
Snowfields Primary School incorporating the Tim Jewell Unit for Children with Autism, London, Southwark LA
Walnut Tree Walk School, London, Lambeth LA

Training observed and conferences attended

'ReadWriteInc' – training: 5 and 6 September 2005
Amy Johnson Primary School, Sutton LA

'ReadWriteInc' – training: 16 September 2005
Vermont School, Southampton, Hampshire LA

'The Death of Dyslexia?' – conference: 21 October 2005
The Friends House, London

‘Playing with sounds’ – training: 8 November 2005
Cambridge Professional Development Centre, Cambridgeshire LA

Early Reading Development Pilot – feedback conference for pilot LAs: 15 December 2005
Marlborough Hotel, London

Reading Recovery – training: 24 January 2006
Woodlane High School, London, Hammersmith and Fulham LA

Written evidence

Evidence was also drawn from sources of published information, notably:

- the House of Commons Education and Skills Committee, particularly the report *Teaching children to read*
- reports and data from Ofsted, in particular from evaluations of the National Literacy Strategy, the Primary National Strategy, the teaching of English and initial teacher training
- reports and papers from the other bodies, including the Qualifications and Curriculum Authority, the Teacher Development and Training Agency for Schools and the Basic Skills Agency
- reports and papers from researchers from academic establishments, professional associations, and professionals working in the field of early reading and other aspects of literacy from both the United Kingdom and internationally
- materials and guidance for practitioners and teachers on supporting literacy and reading development for 0-3, the Foundation Stage, and Key Stages 1 and 2 produced by the DfES and the Primary National Strategy
- teaching materials and guidance produced by providers of commercial and voluntary reading schemes.
- analysis by the DfES of national test results for reading and writing at Key Stage 1 and for English at Key Stage 2.

Further evidence was drawn from over 300 letters and submissions to the review, including some from those who also provided oral evidence.

Advisory group

The review was supported by an advisory group, chaired by Jim Rose, comprising:

Janet Brennan HMI
Professor Greg Brooks
Professor Pam Sammons
Professor Morag Stuart
Professor Kathy Sylva

In addition, Tim Key HMI, divisional manager of Ofsted's research, analysis and international division, provided data from Ofsted's evidence base.

Review support team

The review's support team consisted of:

Julia Ashford
Roslyn Bagot-Sealey
Mary Captus
Philip Collins
Bev Grant
Lucillia Samuel

You can download this publication or order copies online at
www.teachernet.gov.uk/publications

Search using ref: 0201-2006DOC-EN

You can also download copies from the review website
www.standards.dfes.gov.uk/rosereview/

Copies of this publication can also be obtained from:

DfES Publications
PO Box 5050
Sherwood Park
Annesley
Nottingham NG15 0DJ

Tel: 0845 60 222 60
Fax: 0845 60 333 60
Textphone: 0845 60 555 60

Please quote ref: 0201-2006DOC-EN

ISBN: 1-84478-684-6

PPAPG/ENG/0306

© Crown copyright 2006

Produced by the Department for Education and Skills

department for
education and skills
creating opportunity, releasing potential, achieving excellence

