

Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties

An independent report from Sir Jim Rose to the
Secretary of State for Children, Schools and Families
June 2009

A note on terminology

Throughout this report, references to children should be read as including young people of school age.

Letter to the Secretary of State from Sir Jim Rose

Dear Secretary of State

This is the review of dyslexia which you invited me to undertake in May 2008. The remit for the review, on which a call for evidence was launched on 14 July 2008¹, is set out below. The call for evidence resulted in 863 responses², which when added to our reviews of research literature, wide consultation and school visits, provided a considerable database for this report.

The Children's Plan³ made it clear that the Government wants every child to succeed, and it hardly needs to be said that the ability to read well is key to success in education and an essential 'life skill'. Moreover, reading and writing are closely related, and both are dependent on the development of children's speaking and listening capabilities. As the review explains, responses to overcoming dyslexia and other developmental difficulties of language learning and cognition must be robust and set within high quality provision for securing literacy for all children, especially in primary schools.

It is important to develop high quality interventions for children with literacy and dyslexic difficulties and to implement them thoroughly. This will require well trained, knowledgeable teachers and support staff. It is therefore recommended that the Department for Children, Schools and Families (DCSF) should

-
- 1 Weblink to DCSF Press Notice announcing call for evidence www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=2008_0148
 - 2 659 responses were from parents or carers of children with dyslexia. A further 75 were from children and adults with dyslexia, and 129 were from teachers, researchers or organisations tackling dyslexia and/or literacy difficulties.
 - 3 DCSF (2007)

commission short courses for teachers on selecting and teaching literacy intervention programmes.

Although well-founded interventions enable most children to make progress, those with the most severe difficulties invariably require more specialist support. It is therefore also recommended that the DCSF should fund a number of teachers to undertake specialist training in teaching children with dyslexia so that access to specialist expertise can be improved across local authorities and schools will form partnerships to share expertise.

Reading disorders have been extensively researched such that dyslexia, the existence of which was once questioned, is now widely recognised as a specific difficulty in learning to read. Research also shows that dyslexia may affect more than the ability to read and write. There is a growing body of research on so-called 'co-occurring' factors. While these factors are discussed, the report is mainly concerned with identifying and responding directly to counter the effects of dyslexia on literacy. This is clearly the main concern of anxious parents about the adequacy of school provision to help their children overcome dyslexia, as the following comment from a parent shows:

'I gave up on her school. I was literally banging my head on a brick wall. Everyone knew she couldn't read to save her life and that's what was causing all her other problems, especially at home, it was a nightmare.'

The British Dyslexia Association (BDA) reports that its helpline receives calls from many parents with similar concerns. Whether real or perceived, it is often a sense of lack of urgency in the system for taking action to provide for the child that causes parental anxiety. Obviously, this anxiety is heightened if bureaucratic processes appear to grind slow in providing effective interventions to help children overcome dyslexic difficulties. However, it is important to note that the review has found much good provision which is meeting children's needs and is highly

commended by parents. How best to even up the quality of provision and eradicate unacceptable variations in the time taken to implement it are therefore recurring themes of this review.

While there are no 'quick fixes', research and best practice converge on the principles that define effective provision for children with dyslexia and the kinds of support schools need to implement and sustain such provision.

I hope the review will therefore help policy makers and providers to strengthen practice, and assure parents that provision for children with dyslexia will be as good as we can make it.

The report owes much to the depth and range of knowledge of its Expert Advisory Group, and to the many groups and individuals who have contributed fulsomely through the call for evidence, consultations and school visits. I am most grateful to all those concerned and for the excellent support of my secretariat.

Yours sincerely,

Sir Jim Rose CBE

Expert Advisory Group

Members of the Expert Advisory Group:

Professor Greg Brooks, now retired, formerly at the School of Education, University of Sheffield

Professor Robert Burden, School of Education, University of Exeter

Dr Geraldine Price, School of Education, University of Southampton

Dr John Rack, Head of Assessment and Evaluation, Dyslexia Action

Dr Rea Reason, now retired, formerly at the School of Education, University of Manchester

Mark Sherin, Lyndhurst Dyslexia Centre, Southwark

Dr Chris Singleton, Department of Psychology, University of Hull

Professor Margaret Snowling, Department of Psychology, University of York

Professor Morag Stuart, Department of Psychology and Human Development, Institute of Education, University of London

Professional support was provided by:

Dr Yvonne Griffiths and **Dr Leith Krakouer**, Department of Psychology and Human Development, Institute of Education, University of London

Glynnis Smith, affiliated to the Centre for Reading and Language, University of York

Holly Garwood, Department of Psychology and Human Development, Institute of Education, University of London

Professors **Julie Dockrell**, **Morag Stuart** and **Jackie Masterson**, Department of Psychology and Human Development, Institute of Education, University of London

Contents

Remit from the Secretary of State	1
PART 1 MAIN FINDINGS AND RECOMMENDATIONS	9
PART 2 THE EVIDENCE BASE	28
Chapter 1: What is dyslexia?	28
Chapter 2: Identification of children with dyslexic difficulties	41
Chapter 3: Tackling reading difficulties	56
Chapter 4: Services children with dyslexia and their families	79
Chapter 5: Tackling difficulties beyond reading that are also associated with dyslexia	103
ANNEXES	
Annex 1 Current teacher training developments	128
Annex 2 A survey of the key features of specialist dyslexia teaching	130
Annex 3 Further information on training for specialist dyslexia teachers	144
Annex 4 Local Authority support services	161
Annex 5 Statistical measures of the impact of interventions on children's progress	176

Annex 6	Practical guidance: ‘What Works’ for children with literacy and dyslexic difficulties who are also experiencing wider difficulties	180
Annex 7	National Curriculum flexibilities for children with special educational needs	187
Glossary		189
Bibliography		202

Remit from the Secretary of State for Children, Schools and Families

We have ... asked Sir Jim Rose, in the light of evidence, to make recommendations on the identification and teaching of children with dyslexia, and on how best to take forward the commitment in the Children's Plan to establish a pilot scheme in which children with dyslexia will receive Reading Recovery support or one-to-one tuition from specialist dyslexia teachers.

We have asked Sir Jim Rose to include the following sources of evidence in developing his recommendations:

- a summary of published research on the impact of specialist dyslexia teaching and Reading Recovery on progression and outcomes for children with dyslexia, currently being prepared by Dr Chris Singleton of Hull University;
- evaluations of Every Child a Reader, including Reading Recovery, carried out by the Every Child a Chance Trust and the Institute of Education;
- a recently published interim evaluation of the No to Failure Project's identification of children at risk of dyslexia/specific learning difficulties;
- No to Failure Project's final evaluation of the progress made by children identified as being at risk of dyslexia/specific learning difficulties who have received specialist dyslexia teaching, which the Project expects to publish at the end of this year.

Sir Jim Rose will also consult with the No to Failure Project and other dyslexia organisations in considering his recommendations. He has agreed to prepare a report containing his recommendations early in 2009.

Written Statement to the House of Commons, by Ed Balls MP on 6 May 2008

PART 1 – Main findings and Recommendations

Despite different definitions of dyslexia, expert views very largely agree on two basic points. First, dyslexia is identifiable as a developmental difficulty of language learning and cognition. In other words, it is now widely accepted that dyslexia exists. Secondly, the long running debate about its existence should give way to building professional expertise in identifying dyslexia and developing effective ways to help learners overcome its effects.

What is dyslexia?

The review constructed the following working definition of dyslexia and its characteristics, which are further explained in Chapter 1:

- *Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.*
- *Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed.*
- *Dyslexia occurs across the range of intellectual abilities.*
- *It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.*

- *Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia.*
- *A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well founded intervention.*

There is a growing body of evidence on the serious short and long-term effects of dyslexia from the start of education into adolescence and beyond. Not surprisingly, young people with dyslexic difficulties generally do not read unless they have to: they are far less likely to read for pleasure or for information than other learners.

Children and adults with dyslexia who responded to the call for evidence said that they often felt deeply humiliated when asked to read. They reported being ridiculed and bullied because of their reading difficulties. Further, because so much depends on being able to “read to learn” the overall educational progress of such children is often seriously hampered with worrying consequences for gaining qualifications and for their life chances. While some develop coping strategies and achieve remarkable success, others with severe literacy difficulties, including dyslexia, often become disaffected and disengage from education.

The British Dyslexia Association have drawn the review’s attention to the relationship between crime and illiteracy. They note the high incidence of illiteracy among the prison population and hope that the findings of this review would lead to a consideration of what might be done to improve matters.

Estimates of the prevalence of dyslexia vary according to the definition adopted, the cut-offs used along the spectrum of those with difficulties, and whether data originated from clinical or large

population samples. A recent report estimates that dyslexia may significantly affect the literacy attainment of between 4% and 8% of children⁴.

Evidence from twin studies shows that if there is dyslexia in the family, then the probability that a child will have dyslexic difficulties is increased⁵. However, different environmental experiences will influence the impact of genes, the severity of the reading difficulty and the long-term outcomes⁶.

Early identification

It is generally agreed that the earlier dyslexic difficulties are identified the better are the chances of putting children on the road to success. However, blanket screening for dyslexia of all children on entry to school is questionable, not least because screening tests for this purpose are as yet unreliable. A better way to identify children at risk of literacy difficulties and dyslexia is to closely observe and assess their responses to pre- and early reading activities in comparison to their typically developing peers in the reception year of primary schools, and beyond (see Chapter 2).

The Early Years Foundation Stage Profile (EYFSP) is the major source of information on children's developing abilities that is available to Year 1 teachers. The importance of the EYFSP for assembling a reliable picture of children's language and literacy capabilities is self-evident. Strengthening the EYFS to enable practitioners to signal children's emerging difficulties with communication, language and literacy should be considered when the EYFS is reviewed in 2010. By that time, too, the highly

4 Snowling (2008)

5 De Fries et al (1987), Gayan and Olson (2001), Harlaar et al (2007)

6 See discussion of family studies in Snowling (2008)

promising work on Assessment for Learning (AfL) and Assessing Pupils' Progress (APP)⁷ should be sufficiently advanced to strengthen continuity of assessment practice with that of the EYFSP. In sum, observational assessment in the EYFS, combined with well embedded AfL and APP in schools, will provide a robust approach to assessment through which children's barriers to literacy and other learning can be signalled early, and teaching can be more carefully tailored to individual needs.

Effective teaching of reading

There are many primary schools where the teaching of reading is well-structured, following the 'Simple View of Reading' advocated by the 2006 Review of Early Reading⁸, and the three Waves of Provision promoted by the National Strategies⁹. This now familiar approach to teaching and learning should continue to be honed so

-
- 7 Personalised learning – tailoring teaching and learning to the needs of the individual – is being promoted to schools as a critical driver in helping pupils to make the best possible progress, and achieve the best possible outcomes. Central to personalising learning is Assessment for Learning (AfL) as a means of tracking how a child is progressing against national and personal targets, and the subsequent use of this data to inform lesson planning and interventions. AfL – and use of *Assessing Pupils' Progress* materials – can be the most accurate way of identifying quickly when a child is struggling in particular areas of learning, or is experiencing other underlying problems. See DCSF (2008).
 - 8 Rose (2006)
 - 9 The National Strategies are professional development programmes for early years, primary and secondary school teachers, practitioners and managers. They are one of the Government's principal vehicles for improving the quality of learning and teaching in schools and early years settings and raising standards of attainment. The Strategies at a national and regional level are delivered by Capita Strategic Children's Services on behalf of the DCSF.

that provision is of the highest quality for typically developing children and for those who require intervention programmes.

The provision for secondary age children with persistent reading difficulties calls for greater attention. Despite differences in school organisation, the same principles embodied in 'Simple View of Reading' and the three Waves of Provision for children with literacy difficulties should apply in secondary schools, as they do in primary schools. However, it is well known that the nature of the problems for secondary aged children who have experienced repeated failure with reading often include negative attitudes and disengagement that are much more entrenched than in primary schools. Additional support for those children starting secondary school without secure reading skills is essential if they are to make progress and not fall further behind their peers.

Effective interventions for children with literacy or dyslexic difficulties

Effective interventions 'personalise learning' by matching provision to meet children's individual needs and quicken the pace of learning for those with literacy difficulties, thus narrowing the attainment gap with their typically developing peers.

There is a well established evidence-base showing that intervention programmes which systematically prioritise phonological skills¹⁰ for reading and writing are effective for teaching reading to children with dyslexia¹¹. This recognises that children with dyslexic difficulties particularly benefit from teaching that adheres to the following principles: highly structured, systematic, 'little and often',

10 "Phonological skills" consist of the ability to identify and manipulate the sounds in words. An example of having or developing phonological skills is understanding that if the p in pat is changed to an s, the word obtained will be sat.

11 Singleton (2009)

using graphic representation, allowing time for reinforcement and encouraging generalisation¹².

Intervention sessions for dyslexia therefore need to have a strong, systematic phonic structure and be sufficiently frequent to secure children's progress and consolidate learning. Researchers and teachers report that regular daily sessions can be particularly effective¹³. Continuity of learning is also important. Therefore account should be taken of how best to support children who progress well in term time but then do very little reading and regress, for example, during a long holiday break.

The review acknowledges that some children with dyslexia may respond very slowly even to the most effective of teaching approaches. These children will require skilled, intensive, one-to-one interventions. The review notes, too, that "success with some children with the most severe literacy problems can be elusive"¹⁴. This makes it important for dyslexia guidance to cover such matters as building children's confidence to counter "learned helplessness" that may stem from repeated failure despite their best efforts to learn to read.

It is recommended that the DCSF should commission short courses for teachers on selecting and teaching literacy intervention programmes for use in their schools. It is also recommended that the DCSF should fund a number of teachers to undertake specialist

12 Brooks (2007) pp 31 and 32

13 See Brooks (2007) pp 31 and 32, who suggests that such teaching needs to be "little and often" and allow time for reinforcement. Similarly a US study undertaken by Torgesen et al (1999) entailed reading intervention for 20 minutes a day, for 4 days a week over a period of 2 years. A further study (Torgesen et al, 2001) entailed two 50 minute sessions per day for about 8 weeks. Similarly, Reading Recovery as delivered through Every Child a Reader, entails 30-minute sessions delivered every day for 12 to 20 weeks.

14 Brooks (2007) p 32

training in teaching children with dyslexia, in order to provide substantially improved access to specialist expertise in all schools and across all local authority areas.

The remit requires the review to make recommendations on “how best to take forward the commitment in the Children’s Plan to establish a pilot scheme in which children with dyslexia will receive Reading Recovery support or one-to-one tuition from specialist dyslexia teachers”. For most children in Years 1 and 2 with significant reading difficulties, it would be very difficult to be certain which of them have dyslexia, and which do not. It would therefore not be possible to undertake the pilots proposed in the Children’s Plan with sufficient rigour for any meaningful results to be obtained. The review therefore recommends that these pilots should not go ahead.

Implications for teacher training and professional development

“The quality of an education system cannot exceed the quality of its teachers”¹⁵ is an obvious truth, which applies to the assessment and teaching of learners of any age who are dyslexic. In other words, success depends first and foremost on teachers who know what they are doing and why they are doing it.

Virtually all recent reviews of educational provision call for more and better training of teachers and other members of the workforce. This review is no exception. It accepts, however, that the economic climate is hardly favourable for meeting what is likely to be the most costly aspect of its recommendations: high quality training for the workforce. In consequence, the review looks to providers to make even better use of existing training resources, so

15 How the world’s best-performing systems come out on top – Mckinsey and Company 2007

that any additional funding that may be available can be concentrated where it will make most impact.

In *Removing Barriers to Achievement*, the then-DfES said that every teacher should expect to teach children with special educational needs, and that they need to be equipped with the skills to do so effectively. It was explained that this would require action at 3 levels¹⁶, as in Figure 1 below.

Figure 1: Removing Barriers to Achievement: developing school workforce SEN skills



Core skills for teachers in all schools

All teachers of beginner readers should have at least a working knowledge of what to look for that suggests a child may be at risk of dyslexia and know where to seek advice on what steps are needed to help them. This working knowledge should be a normal constituent of initial teacher training of those destined to teach beginner readers, and updated through in-service training.

Through the Training and Development Agency for Schools (TDA), the DCSF is strengthening coverage of special educational needs in

16 DfES (2004) page 56

initial teacher training courses, as summarised in Annex 1 to this report. In parallel the National Strategies are developing and rolling out Inclusion Development Programme (IDP)¹⁷ on-line workforce development materials for meeting special educational needs. The first round of the IDP focussed on communication difficulties, including dyslexia, and was rolled out over the last year. Dyslexia Action has helped the National Strategies to prepare these materials, which are designed for early years settings, primary and secondary schools. The IDP has considerable potential for strengthening the response to dyslexia.

The 'Leading Literacy Schools' (LLS) initiative augurs well for establishing models of all-round good practice to exemplify how high quality Wave 1 and equally high quality Waves 2 and 3 teaching must be compatible and made coherent from the standpoint of the child. The potential of this initiative for strengthening teaching across groups of schools should be fully exploited.

Developing advanced skills in addressing literacy and dyslexic difficulties

Every school needs to be able to draw upon expertise in selecting literacy interventions, and on implementing, monitoring and evaluating them. The DCSF and the National Strategies commissioned Professor Greg Brooks to produce guidance for schools for these purposes¹⁸. The review recommends the development and delivery of short courses to enable serving teachers to gain this valuable expertise. Schools should ensure either that at least one of their teachers has, or obtains this level of expertise – or that they have good access to such a teacher through partnership arrangements with other schools.

17 <http://nationalstrategies.standards.dcsf.gov.uk/primary/features/inclusion/sen/idp>

18 Brooks (2007). The first edition was published in 2002.

Developing specialist skills in addressing literacy and dyslexic difficulties

There is also a need to develop better access for schools, parents and children to the advice and skills of specialist dyslexia teachers, who can devise tailored interventions for children struggling most with literacy, whether or not they have been identified as having dyslexia.

The variable size and location of schools militates against the provision of a 'dyslexia only' specialist in each of them. The important requirement is to make sure that schools can draw upon the expertise that is necessary to secure high quality mainstream programmes for teaching reading to all children, and equally high quality intervention programmes for those with dyslexia and other language difficulties.

To achieve this, specialist teachers may need to serve more than one school and take a strong monitoring and training role in supporting other teachers, within a clear policy promoted by governors and headteachers. Specialist teachers with expertise in a range of 'specific learning difficulties' including dyslexia, should also be up-to-date with best practice in promoting literacy for typically developing children, especially 'quality first teaching' in keeping with the 'Simple View of Reading'.

Individual tuition by specialist teachers alone is not always an essential requirement. Some studies have reported similar gains in reading whether an intervention is one-to-one tuition, teaching through small groups or a mix of both: the key factor being the quality of the teaching. Therefore, it is crucial for those implementing interventions (whether they are teachers or classroom support staff) to receive appropriate training, supervision and professional support, and that there are clear objectives against which each child's progress can be rigorously monitored and evaluated.

However, Brooks's guidance for schools on literacy interventions (cited above) identifies that for children who respond least well to these interventions, it is important to establish – through detailed assessment and close monitoring – the necessary combination of elements that will motivate them and secure their progress in learning to read. Even under the best-known instructional conditions, response to intervention for some dyslexic children can be variable and shows they are most likely to need intensive instruction¹⁹, on an individual basis for as long as it takes to put them on the road to reading²⁰. They will invariably require the involvement of teachers with specialist training in dyslexia assessment and intervention.

It is therefore recommended that the DCSF should fund a number of teachers to undertake appropriately specialist training in teaching children with dyslexia, to provide substantially improved access to specialist expertise in all schools and across all local authority areas.

What are parents looking for schools to do?

Parents must have confidence in the education system, and especially in their child's school, to provide and sustain effective support for children with dyslexia. However, in response to our call for evidence many parents reported that they have found it necessary to seek help for their child's dyslexic difficulties from outside the maintained school system. Similarly, individuals with dyslexia reported a lack of support at their schools. This chimes with a finding from the Lamb Inquiry that parents of children with

19 Brooks (2007) p32

20 Torgesen (2002). It should also be noted that most interventions have more impact on phonic-decoding than they do on reading fluency – see Torgesen (2005)

SEN often say that they have to “fight” or “do battle” with the system to get what they need for their child²¹.

The review therefore urges schools to make sure that they first have regard to *The Special Educational Needs Code of Practice* which provides guidance on the statutory duty of community, voluntary and foundation schools to use their best endeavours to ensure that the necessary provision is made for any pupil who has special educational needs²².

The Lamb Inquiry recently reviewed the provision of Special Educational Needs (SEN) and disability information. Brian Lamb’s report said that parents need assurance that they will be engaged in a positive dialogue with their child’s school, that relevant information will be provided and that the way schools operate will be transparent²³. The recommendations of this review seek to put these principles into practice for the parents of children with dyslexia. Some of the recommendations are specifically aimed at improving information for parents about their child’s progress, and the provision made to achieve this.

Assuring the quality of provision

Head teachers and school management teams should keep a close eye on all three Waves of literacy provision, to make sure they are of high quality and well-coordinated. To help them with this, schools must be able to draw upon the expertise of teachers with specialist skills in addressing dyslexic difficulties.

21 See Brian Lamb’s letter of 8 December 2008 to the Secretary of State for Children, Schools and Families, which is published on the following website <http://www.dcsf.gov.uk/lambinquiry/>

22 Education Act 1996 section 317

23 See Brian Lamb’s *Report to the Secretary of State on the Lamb Inquiry Review of SEN and Disability Information*, which was published on 29 April 2009 – available on the following website – <http://www.dcsf.gov.uk/lambinquiry/>

The importance of schools and parents working together

It is all too obvious that the effects of dyslexia can be deeply disturbing for children and their parents. Moreover, there is a very real risk that parents' anxieties will be transmitted to children. Along with the child's experience of falling behind, this may result in worsening emotional barriers to reading.

All of which means that it is essential for schools to engage parents in a constructive dialogue about how, together, they can help the child overcome the difficulties associated with dyslexia. One of the ways in which the DCSF is seeking to strengthen parental engagement is through the *Achievement for All* project²⁴. This focuses on progress and outcomes for children with SEN and disabilities, and on parental engagement. The project will include children with dyslexia and the learning from the project should inform the implementation of this review's recommendations on improving information for parents about the provision for, and progress made by, their children.

It is of first importance to build children's confidence in their capabilities and establish a 'can do' attitude to reading. For the child, early identification of dyslexia and well-planned programmes must result in progress no matter how slow, which is met with praise and encouragement from home as well as school.

Many children whose confidence in reading is beginning to flourish can benefit greatly from regular reading to a sympathetic and trusted adult listener. Putting in the 'reading miles' at this stage can boost their pace and enjoyment of reading considerably. This function is part of the long-standing contribution of the national charity known as Volunteer Reading Help (VRH) which has a network of volunteers who support primary school children with their

24 See the DCSF's *Achievement for All: Local Authority Prospectus* (2009)

reading. VRH has been working with some of the most disadvantaged children in the country for 35 years, recently helping over 4,000 primary school-aged children per year, including looked-after children, through a network of 1,500 volunteers operating in over 1,000 primary schools in England. VRH volunteers are vetted, trained to a high standard and are provided with support to help individual children identified by the teacher as requiring one-to-one help. They commit to an academic year therefore providing sustained support. The review is aware of a number of other similar schemes.

It is widely agreed that dyslexia can occur in children irrespective of their general intelligence and abilities. While there may be no 'cure-all' for children with severely dyslexic difficulties, much can be done through skilled teaching to lessen the impact of dyslexia on their educational progress and provide them with effective coping strategies.

RECOMMENDATIONS

To improve teaching, learning and outcomes for children with literacy and dyslexic difficulties:

Strengthening teaching and learning

The DCSF should fund a number of teachers to undertake appropriately accredited specialist training in teaching children with dyslexia, in order to provide substantially improved access to specialist expertise in all schools and across all local authority areas.

Local authorities should consider with schools how they might form groups which could share the resource of a specialist dyslexia teacher.

The DCSF should commission short courses for teachers on selecting and teaching literacy intervention programmes. These courses should:

- cover the definition and characteristics of dyslexia in keeping with this review and the 'Simple View of Reading'
- equip participants with the expertise to select, implement, monitor and evaluate literacy interventions
- ensure those trained are able to make best use of the published guidance on 'What Works for children with literacy difficulties?', and be able to advise other teachers and support staff on delivering high quality interventions
- link on-line training materials eg the refreshed IDP and the literacy interventions guidance

The National Strategies should refresh the dyslexia IDP materials in the light of this review. The materials should continue to be promoted for serving and trainee teachers, and other members of the workforce involved with teaching literacy, such as teaching assistants.

The DCSF should ask the BDA to review their accreditation criteria for training courses for specialist dyslexia teachers so that courses cover good practice in Wave 1 teaching of reading and writing, and how a child's literacy would normally develop if s/he is not experiencing difficulties.

The DCSF should ask the Training Development Agency for Schools and the initial teacher training sector to build on initiatives for strengthening coverage of special educational needs and disability (including dyslexia) in initial teacher training courses and through continuing professional development. For example, by capitalising on the Leading Literacy Schools programme so it includes opportunities for trainee teachers to work with experienced

teachers who are successfully tackling children's literacy difficulties.

Local authorities should set out how schools can secure access to sufficient expertise to meet the needs of children with literacy and dyslexic difficulties.

Assessing children's progress and identifying children's difficulties

The first step in identifying that children may have dyslexia is to notice those making poor progress in comparison with their typically developing peers, despite high quality Wave 1 teaching. Therefore, Local Authorities and the National Strategies should work with schools to make sure that they have in place good monitoring arrangements to ascertain that Wave 1 teaching is of a high quality, especially in teaching word recognition and language comprehension skills in keeping with the 'simple view of reading'.

When the Early Years Foundation Stage Framework is reviewed in 2010, consideration should be given to how language development can be carefully monitored so that where children have emerging difficulties with aspects of language and literacy that may be obstacles to their progress, practitioners can take steps to overcome them and tailor provision more carefully to individual language needs.

The DCSF should ask the QCA to ensure that Assessment for Learning (AfL) and Assessing Pupils' Progress (APP) secure continuity of assessment practice with that of the EYFSP, and thus assist with identifying literacy difficulties, which is a first step towards identifying dyslexia.

Further strengthening intervention programmes

The DCSF should work with partners to develop the following additions to the delivery of Every Child a Reader and other interventions:

- Effective Wave 2 provision that is systematic in its approach to phonic work;
- pre- and post-intervention phonemic awareness assessment that picks up the word level skills children should master (based on a thorough review of published assessment materials);
- guidance on how class teachers, and the intervention teacher, should share information so that children's progress through the phonic phases (as in *Letters and Sounds*²⁵) can be tracked, and interventions and in-class support planned as complementary responses.

The dyslexia pilots proposed in the Children's Plan should not go ahead.

Guidance for parents and others

The DCSF should commission clear guidance for parents and schools on the policy and purpose of interventions. This should include explaining how effective interventions, for all school age groups, are to be made available for children with literacy and dyslexic difficulties, and how children's progress will be monitored. The content and implementation of this guidance should be independently evaluated.

The guidance should be placed on an interactive website covering literacy and dyslexic difficulties, on which there should also be:

- regular updates on successful ways of helping children to overcome literacy and dyslexic difficulties
- links to the Inclusion Development Programme (IDP) materials, and to the short course materials which feature in the third recommendation

25 <http://nationalstrategies.standards.dcsf.gov.uk/search/earlyyears/results/nav:46163>

A copy of this review and key background papers that contributed to it.

A copy of 'What Works for children with literacy difficulties?' (G. Brooks's 2007) guidance, which should be regularly updated.

All schools should:

- keep parents informed of the plans for, and progress of, children with literacy or dyslexic difficulties
- publish the procedures they follow to identify and support children with such difficulties

The DCSF should continue to promote its SEN information booklet for parents, so they are better placed to understand and question provision being made for their children. This should refer directly to provision for reading difficulties, including dyslexia.

The DCSF should continue to fund a helpline that provides advice to parents and people working in schools on dyslexia and literacy difficulties.

Assuring the quality of provision

Headteachers and governors should audit school provision to make sure that it complies with 'The Special Educational Needs Code of Practice'²⁶ and the statutory duty on community, voluntary and foundation schools to use their best endeavours to ensure that the necessary provision is made for any pupil who has special educational needs²⁷. By definition, this will include identifying and making necessary provision for children with dyslexia.

26 Published by the Department of Children Schools and Families (previously the Department for Education and Skills): <http://inclusion.ngfl.gov.uk> or <http://www.teachernet.gov.uk/docbank/index.cfm?id=3724>

27 Education Act 1996 section 317

With the help of local authorities and the National Strategies, all primary and secondary schools should evaluate their intervention programmes, and make sure that where the expertise required for these programmes needs to be strengthened, steps are taken to do so.

The DCSF should consider asking Ofsted to undertake a survey to evaluate the extent to which, and with what impact, primary and secondary schools are using interventions to advance the progress of children and young people experiencing a wide range of literacy difficulties. This should be timed to provide an opportunity to evaluate the implementation of this review's recommendations.

PART 2 – The Evidence Base

Chapter 1

What is dyslexia?

A working definition

There are many published definitions of dyslexia²⁸. The Expert Advisory Group considered these carefully, in constructing a working definition for the review that includes key characteristics as explained below. The working definition is set out on the following page.

28 See Rice and Brooks (2004) for a summary of changing definitions

- *Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.*
- *Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed.*
- *Dyslexia occurs across the range of intellectual abilities.*
- *It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.*
- *Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia.*
- *A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well-founded intervention.*

'Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling'

Many definitions of dyslexia identify the primary difficulties as involving learning to read and spell words accurately and fluently²⁹.

Table 1 below is taken from recent dyslexia research³⁰.

It summarises the common features of dyslexia-related literacy difficulties observed during childhood, adolescence and adulthood. The table shows what early signs can be observed during pre-school, that is, before formal literacy instruction begins. It also highlights how literacy difficulties for children with dyslexia can change as the child grows older. Some children cope well during infant school but struggle during later school years as the demands on reading and writing fluency increase³¹. Poor readers often try to avoid reading activities in their leisure time - and this can further constrain word-level reading³² and spelling development³³. Teachers will often observe an increased difference between learners' ability to express themselves orally and their ability to record their ideas in writing. Some difficulties may persist throughout life, particularly slow reading and idiosyncratic spelling.

29 For a review of the evidence on this, see Vellutino et al (2004), Hulme and Snowling (2009)

30 Snowling (2008a)

31 Snowling & Maughan (2006)

32 Griffiths and Snowling (2002), Stanovich et al (1997)

33 Snowling et al (2007)

Table 1: Developmental phases of dyslexia in children and young people learning to read in English³⁴

Developmental phase	Signs of dyslexia
Preschool	Delayed or problematic speech Poor expressive language Poor rhyming skills Little interest/difficulty learning letters
Early school years	Poor letter-sound knowledge Poor phoneme awareness Poor word attack skills Idiosyncratic spelling Problems copying
Middle school years	Slow reading Poor decoding skills when faced with new words Phonetic or non-phonetic spelling
Adolescence and adulthood	Poor reading fluency Slow speed of writing Poor organisation and expression in work

‘Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed’

Phonological awareness, verbal memory and verbal processing speed are all aspects of phonological processing and a convincing

34 Adapted from Snowling (2008)

body of evidence shows that difficulties with them are reliable markers of dyslexia³⁵.

Phonological awareness is defined as the ability to identify and manipulate the sounds in words, and is recognised as a key foundation skill for early word-level reading and spelling development³⁶. For example, phonological awareness would be demonstrated by understanding that if the 'p' in 'pat' is changed to an 's', the word becomes 'sat'.

Verbal (phonological short-term) memory is the ability to retain an ordered sequence of verbal material for a short period of time; it is used, for example, to recall a list of words or numbers or to remember a list of instructions.

Verbal processing speed is the time taken to process familiar verbal information, such as letters and digits³⁷.

'Dyslexia occurs across the range of intellectual abilities'

Difficulties of a dyslexic nature can affect children across the range of intellectual abilities. This represents an important shift away from reliance on a discrepancy between measured IQ and

35 Vellutino et al (2004). Snowling (2008) has explained that learning to read requires the child to understand how letters in printed words relate to sounds of spoken words. In order to abstract this *alphabetic principle* the child must be able to segment the sound structure of words, an ability referred to as *phonological awareness* – for example, deciding which is the odd one out in set of rhyming words (eg sock, lock, *moat*, frock) or deleting a sound in a non-word to give a word (eg bice without the b is ice). Once they have acquired this principle, children read and write using a 'phonic' approach.

36 Byrne (1998), Muter et al (2004)

37 Rapid automatised naming (RAN) tasks are used as measures of speed of processing. They involve naming a matrix of objects, letters, digits or colours as quickly as possible. This task requires rapid retrieval of the phonological forms (names) of items in the matrix (Bowey, 2005)

measured attainment in reading and spelling once used to identify dyslexia³⁸. Convincing evidence shows that, regardless of general level of ability, those with marked reading and spelling difficulties perform badly on tasks such as decoding (ie turning written language into spoken language), word recognition and phonological skills³⁹. Furthermore, measures of IQ do not predict how learners will respond to literacy intervention⁴⁰ or their long-term outcomes⁴¹. However, where teachers observe increasing differences between learners' ability to express themselves orally and their ability to record their ideas in writing, the question of whether the child or young person may be experiencing at least some dyslexic difficulties should be explored.

'Dyslexia is best thought of as a continuum, not a distinct category, and there are no clear cut-off points'

The definition proposes that dyslexic difficulties are best thought of as existing on a continuum from mild to severe, rather than forming a discrete category⁴². Until recently, a child was deemed to either have or not have dyslexia. It is now recognised that there is no sharp dividing line between having a learning difficulty such as dyslexia and not having it⁴³.

'Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia'

38 Rutter and Yule (1975)

39 Fletcher et al (1994), Reid-Lyon (1998), Stanovich and Siegel (1994), Stuebing et al (2002)

40 Hatcher and Hulme (1999), Vellutino et al (2000)

41 Shaywitz et al, (1999); Maughan et al (1994). For a review of the issues surrounding the discrepancy criterion, see Stuebing et al (2002).

42 See, for example, Snowling (2008)

43 Goswami (2008)

The definition acknowledges that some individuals with learning difficulties of a dyslexic nature may experience other co-occurring difficulties. Co-occurring difficulties are considered further in Chapter 5.

'A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well-founded intervention.'

The severity of a particular learning difficulty can be gauged by the response of the learner to good, well-implemented intervention⁴⁴. For example, those with mild literacy or dyslexic difficulties will make good progress in word-level reading in the context of appropriate classroom teaching (Quality First Teaching incorporating programmes such as those compatible with the Letters and Sounds framework)⁴⁵, or after some additional support (Wave 2)⁴⁶. Similarly, others will make good progress following Wave 3 interventions⁴⁷. A small proportion will need more intensive support and long-term assistance. It is important that those children who have responded well to interventions continue to be monitored, to ensure that progress is maintained and to notice whether there are subsequent difficulties involving aspects such as reading fluency and spelling.

44 Fuchs and Fuchs (2006), Vellutino and Fletcher (2005), Compton et al (2006); see Duff (2008) for a recent review

45 Some children may make good progress from QFT with early word reading development, but show signs of difficulties with literacy later in development. There is some evidence that such children may be those with good oral language skills, who nonetheless show early delays with spelling acquisition and subsequent reading fluency difficulties (Snowling et al, 2007; Snowling, 2008).

46 See Chapter 3

47 Hatcher et al (2006)

Additional matters relating to the practical application of the definition

English as an additional language (EAL)

Literacy and dyslexic difficulties can be identified in males and females across languages, ethnic and socio-economic groups. Evidence shows that those who are learning to read and write in English as an additional language can have these difficulties, which may be masked by (or mistaken for) a limited mastery of English⁴⁸. It follows that provision for children learning to read English as an additional language should take full account of the possibility that some will have literacy and dyslexic difficulties that must be identified and acted upon.

The heritability of dyslexia

Studies following the development of children born to parents with dyslexia reveal a heightened risk of literacy impairment. However, families share environments as well as genes, making it difficult to disentangle the contribution of genetic *versus* environmental factors on reading behaviour⁴⁹. To some extent twin studies of dyslexia shed light on this problem. Typically, these find that reading is highly heritable⁵⁰.

Studies on twins have shed light on the heritability of dyslexia. However, some of the shared genetic variance between twins may be due to gene-environment correlation. The home literacy background provided by more literate parents may foster reading skills, and better readers may themselves actively seek out more

48 Geva (2000), Muter and Diethelm (2001), Landerl et al (1997), Goulandris (2003)

49 Snowling (2008)

50 Pennington and Olson (2005)

literary experiences⁵¹. Progress has been made in understanding the molecular basis of genetic influences on reading. To date, the strongest evidence for linkage with dyslexia is a site on the short arm of chromosome 6, with others replicated on chromosomes 1, 2, 3, 11, 15 and 18⁵². Recently, candidate susceptibility genes have been identified within these chromosomal regions, but it is important to emphasise that genetic influences are probabilistic.

Functional brain imaging studies during reading indicate that children and adults with dyslexia typically show less activity than controls in left hemisphere temporo-parietal regions⁵³. Preliminary evidence suggests that intervention may reduce this under-activation⁵⁴. However, the causal status of brain differences in dyslexia is debatable because brain development shows considerable plasticity: both its structure and function are shaped by use.

School and home environmental factors contribute to a child's risk of developing dyslexia. Reading disorders show a strong social gradient with poor readers often coming from large families. Where parents have literacy problems, they may provide less than optimal reading-related experiences in the home (though in practice many parents with dyslexia are acutely aware of the need to support their children's literacy development).

Snowling adds that various theories have implicated deficits in low-level visual or auditory processing. Research findings are mixed and typically only a proportion of people with dyslexia are affected. Whether these difficulties are a direct cause of reading impairments or more simply, a marker of brain difference is not yet known.

51 Snowling et al (2007)

52 Grigorenko (2005)

53 Price and McCrory (2005)

54 Simos et al (2002), Shaywitz et al (2004)

Long-term outcomes

There is growing evidence on the long-term outcomes of dyslexia into adolescence and beyond⁵⁵. Not surprisingly, young people with dyslexic difficulties generally do not read unless they have to: they are far less likely than others to read for pleasure or for information. Some with severe literacy difficulties in their teens can experience disaffection and disengagement from education. Those from adverse family and social backgrounds may have considerably less favourable long-term outcomes relating to educational achievement, mental health and occupations⁵⁶.

Long-term outcomes will often depend on the extent and quality of support provided by the home as well as the school. Figure 2 lists some factors influencing outcomes.

55 Maughan (1994), Shaywitz et al (1999), Snowling et al (2007)

56 See Goswami (2008) for a review, Maughan and Hagell (1996), Carroll et al (2005)

Figure 2: Influences on long-term outcomes⁵⁷

Protective influences – better outcomes

- High quality intervention
- Strong oral language skills
- Ability to maintain attention
- Good family/carer support

Problems which may cause poorer outcomes

- Severity of phonological problems
- Slow speed of processing
- Lack of compensatory resources
- Co-occurring learning difficulties
- Late recognition and intervention
- Poor teaching

Dyslexia within the framework of the *Simple View of Reading*⁵⁸

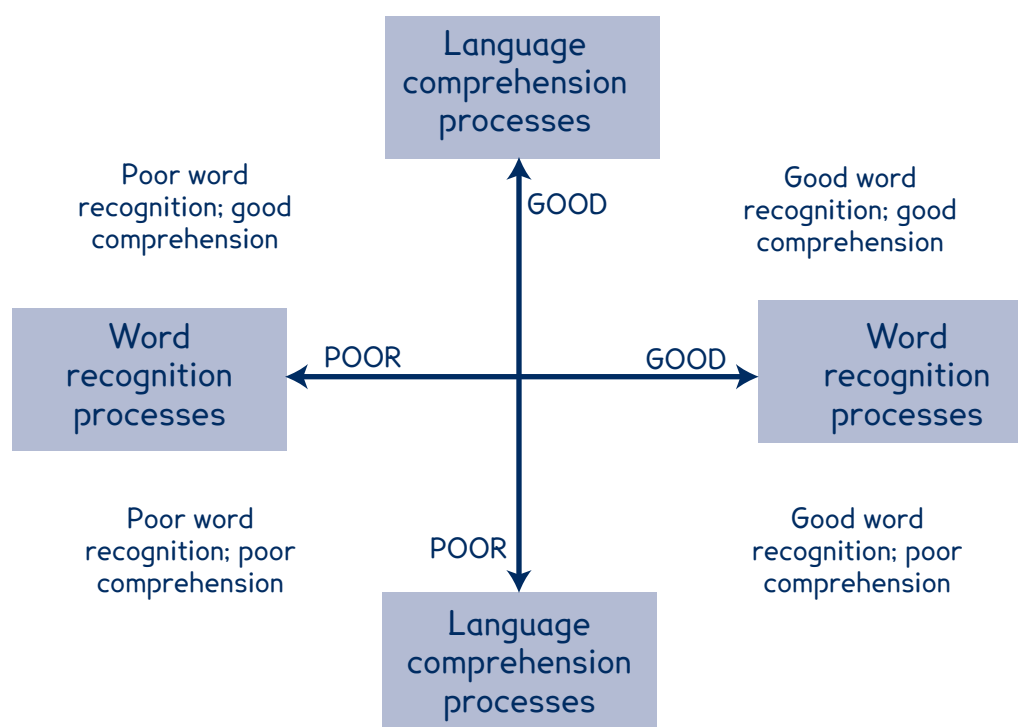
Within the Primary and Early Years National Strategies⁵⁹, the ‘Simple View of Reading’ provides a model for understanding important aspects of literacy learning. As shown in Figure 3, in this view there are two distinct but closely related dimensions: word recognition processes and language comprehension processes. Both are essential for learning to read and for understanding what is read.

57 Adapted from Muter and Snowling (2009)

58 Hoover & Gough (1990), Rose (2006)

59 www.standards.dcsf.gov.uk/primaryframework/literacy provides overarching guidance and support for teachers in teaching literacy

Figure 3: The Simple View of Reading – Different patterns of performance



The definition adopted in this review proposes that dyslexia primarily affects the skills involved in accurate and fluent word reading and spelling. It follows that those children whose reading performance falls within either the upper or the lower left quadrants of Figure 3 most likely include those children who are experiencing dyslexic difficulties because their performance indicates varying degrees of poor word recognition. The definition notes that cognitive difficulties associated with dyslexia include phonological awareness, verbal memory and verbal processing speed. Children with good and poor language comprehension can have such difficulties. The two-dimensional nature of the ‘Simple View of Reading’ accords with the definition in that dyslexia is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.

Every teacher of beginner readers should be familiar with the 'Simple View of Reading' because it provides a valuable structure for class teachers and others for differentiating groups of children in order to match teaching and learning resources to their different but developing abilities.

Chapter 2

Identification of children with dyslexic difficulties

“At long last one of the teachers at my school got someone to come and assess me. They said I had dyslexia; well it was a great relief to actually know that there was a name for what I had... it was important for me to be able to say to myself, well that’s why you couldn’t read and now I have to get on and do something about it’ Respondent T

‘What I want to know is, why is it so... hard to actually get someone into the schools and go to the kids who have obvious problems with reading and simply assess them. Then you can start some reading program to deal with it... it can’t be that difficult... I know it would have helped me’ Respondent H

‘Things just hit rock bottom. I was forever either on the phone to her teacher or the Head trying to get someone to come and assess her for her reading problems. It went on for ages; the school said there was a waiting list, she didn’t have a problem, I needed to get her diagnosed by someone myself and on and on it went’ Respondent M

Early identification

This chapter explores how literacy and dyslexic difficulties might best be identified at an early stage. It is generally agreed that the earlier dyslexic difficulties are identified the better are the chances of putting children on the road to success. However, views are divided on how early identification is best achieved. For example, some believe that children should be ‘screened’ for dyslexia on entry to the reception year. Others disagree on the

grounds that, as yet, blanket screening tests are unreliable and there are better ways to identify children at risk of literacy difficulties and dyslexia⁶⁰.

The first step advocated by the review in identifying that children may have language learning difficulties, including dyslexia, is to notice those making poor progress in comparison with their typically developing peers, despite receiving high quality Wave 1 literacy teaching.

The review therefore makes the following recommendation:

The first step in identifying that children may have language learning difficulties, including dyslexia, is to notice those making poor progress in comparison with their typically developing peers, despite receiving high quality Wave 1 literacy teaching. Therefore, Local Authorities and the National Strategies should work with schools to make sure that they have in place good monitoring arrangements to ascertain that Wave 1 teaching is of a high quality, especially in teaching word recognition and language comprehension skills in keeping with the 'simple view of reading'.

Effective early years settings and primary schools provide high quality experiences designed to boost children's spoken language especially those showing signs of impoverished vocabulary and language delay. Furthermore, the performance of all young children, including those with language difficulties, is currently assessed through the Early Years Foundation Stage Framework

60 In general, evaluations of screening tests for dyslexia indicate that they do not predict later reading difficulties very well; other measures such as letter-knowledge and measures of phonological processing skill are, arguably, much better predictors. Most screening tests also produce high numbers of false positives and false negatives. Evaluations include: Simpson and Everatt (2005) and Guerin, Griffin, Gottfried and Christenson (1993).

(EYFSF) covering the early learning goals for language and literacy. This provides opportunities for staff working in early years settings to identify children whose language and literacy development is falling behind their peers, and to start addressing this.

The recent Primary Curriculum Review⁶¹ advocates much closer attention to assessing children's responses to literacy (and numeracy) teaching across the three years of pre-school, the reception year and Year 1; with teachers and early years practitioners jointly moderating judgements. When it is reviewed in 2010, it may be possible to include markers for detecting vulnerability to literacy difficulties in the EYFS framework, and make sure these are recorded prominently in the EYFS profile (EYFSP), which is the major source of information on each child available to Year 1 teachers.

The review therefore makes the following recommendations:

When the Early Years Foundation Stage Framework is reviewed in 2010, consideration should be given to how language development can be carefully monitored so that where children have emerging difficulties with aspects of language and literacy that may be obstacles to their progress, practitioners can take steps to overcome them and tailor provision more carefully to individual language needs.

The DCSF should ask the QCA to ensure that Assessment for Learning (AfL) and Assessing Pupils' Progress (APP) secure continuity of assessment practice with that of the EYFSP, and thus assist with identifying literacy difficulties, which is a first step towards identifying dyslexia.

61 www.dcsf.gov.uk/primarycurriculumreview/

A graduated approach⁶²

The definition agreed for the purposes of this review recognises that dyslexia is not 'categorical' – it is not a question of dyslexia, yes or no – but that individuals have differing degrees of dyslexic difficulties. A good indication of the severity of these difficulties can be gained by examining responses to intervention.

As explained in the SEN Code of Practice⁶³, children's progress in mainstream classes should be monitored as standard practice, leading to adaptations to Wave 1 teaching that recognise individual differences in literacy and other learning. Where literacy difficulties are identified, responses should always take into account the quality of the teaching received by the child. This is because children's reading difficulties may result from the nature of the teaching rather than from inherent learning difficulties, though some children will have difficulties arising from both.

Where concerns continue, the class teacher, together with parents/carers and others who teach the child should undertake further assessment, planning and intervention. Those who have made a slow start can respond well to the teaching planned as a result of such assessment. The teaching is likely to entail the use of Wave 2 and/or Wave 3 interventions⁶⁴, and it is reasonable to expect most children to respond well to these.

If a learning difficulty is identified, which requires the school to make special educational provision, the parents must be informed⁶⁵,

62 The graduated approach to providing for children's special educational needs is explained in paras 4:9 et seq, 5:20 et seq and 6:22 et seq of the SEN Code of Practice

63 Published by the Department of Children Schools and Families (previously the Department for Education and Skills): <http://inclusion.ngfl.gov.uk> and on <http://www.teachernet.gov.uk/docbank/index.cfm?id=3724>

64 See Chapter 3 for an explanation of the 3 Waves of Provision

65 Education Act 1996 section 317A

the school's SENCO should be involved and the child is said to be at the School Action stage of support. Where marked problems persist which the school cannot address, outside advice and help (for example from specialist teachers, educational psychologists and speech therapists) will be needed. The child is then said to be at the School Action Plus stage of support.

It is important to emphasise that it is not necessary to wait for a child to be identified as having a special educational need (or, more specifically, as having dyslexic difficulties) before interventions are made. The initial trigger for action is the child having noticeably more difficulties with reading than his or her peers.

Children with severe and persistent difficulties should not be kept waiting for intervention support until they reach School Action Plus. The immediate help provided as part of Quality First Teaching and School Action is likely to have a positive impact, even if assessment shows that they will need help beyond that.

Three levels of identification and assessment

The rest of this Chapter provides some guidance on putting these principles into practice. Table 2 refers to three levels of assessment: (1) monitoring of progress, (2) skills assessment, and (3) comprehensive assessment. Although these may often follow in sequence, it is important to emphasise that there can be circumstances where a school might move very quickly from the stage of initial monitoring to considering a comprehensive assessment.

Additional difficulties may arise alongside those with reading. For example, problems with attention and concentration may mask the fact that a child also has dyslexic difficulties. Also, learning difficulties can result in emotional stress and regression.

Some individuals may have compensating strengths which may conceal dyslexic difficulties. For example, teachers may observe a considerable difference between learners' ability to express themselves orally and their ability to record their ideas in writing.

Table 2: Three levels of identification and assessment of literacy and dyslexic difficulties

<p>(1) Monitor progress Adapt teaching in the classroom Wave 1 Quality First Teaching Alert parents to concerns</p>	<ul style="list-style-type: none"> ● Teachers notice individual differences and adjust their teaching. In Early Years, this can entail monitoring of children’s responses to the content of Phase One in <i>Letters and Sounds</i> (sound discrimination, rhythm and rhyme, alliteration, oral blending and segmenting) for example. In the Reception Class, monitoring responses to letter recognition, and to blending and segmenting short vowel-consonant and consonant-vowel-consonant combinations ● Bearing in mind that children’s rates of progress may vary considerably, these observations provide a useful initial step in identifying children with early language or literacy difficulties. Throughout, teachers will also observe children’s progress in relation to the language comprehension areas of literacy. Records of a child’s progress through the phases of <i>Letters and Sounds</i> (or similar materials) will also signal a need for closer observation. ● It is important to ensure that a child’s hearing and vision have been checked, and that the possibility of any unidentified learning disability is considered. Concerns about literacy difficulties should be discussed with the child’s parents or carers. <p>For older children, the following points are particularly relevant:</p> <ul style="list-style-type: none"> ● School records of previous progress/concerns, interventions (e.g. Wave 2 or 3), and the child’s response to them provide the basis for further action. ● Classes/age groups can be screened through standardised reading and spelling tests to identify those who struggle with literacy. Group spelling tests are easy to administer and an analysis of the errors made by those performing with difficulty provides useful initial information.
--	--

	<ul style="list-style-type: none"> • Within primary schools, teachers will know the children in their classes. Reviews of progress, together with parents/carers and the children themselves, will point to difficulties that need further investigation/action. • In secondary schools, subject teachers noticing literacy and dyslexic difficulties should bring learners to the notice of those in their school with knowledge in this area. • As dyslexic difficulties range from mild to severe, an ‘open door’ approach is needed that gives pupils (and their parents/carers) easy access to appropriate advice. Learners with relatively mild difficulties, or those whose reading difficulties seem to be well-compensated, may struggle with aspects such as spelling, reading fluency and writing speed, and should be encouraged to discuss their concerns – for example with their personal tutor.
<p>(2) Skills assessment Inform Wave 1 and consider appropriateness of Wave 2 or Wave 3 interventions</p>	<ul style="list-style-type: none"> • The children’s parents/carers will already have been involved at the monitoring stage of assessment. They now become part of the team formed by the class teacher and available specialist teachers to undertake closer observations. The views and experiences of the children themselves are also important here. • Curriculum-based assessment establishes a clear starting point for a teaching approach that is systematic and repetitive (particularly in relation to phonics) and also takes account of language comprehension processes in literacy learning. • Skills assessment examines the child’s approaches to learning, e.g. how fluent/effortful it is to recall letters and words, how many repetitions seem to be required before new learning is retained. Weaknesses in phonological processing and memory can be assessed or inferred from these observations and supplementary tests of these skills.

	<ul style="list-style-type: none"> ● Standardised tests of reading and spelling enable comparisons to be made in relation to children whose progress is not causing concern. ● The possibility of co-occurring difficulties (see chapter 5) need to be considered. It is also essential to take account of the feelings of frustration and anxiety that the child may have. <p>For older children there is likely to be a need for</p> <ul style="list-style-type: none"> ● Investigation of the extent to which basic reading and spelling continue to be problematic. ● Administration of individual standardised tests of reading, spelling and writing speed. ● Closer examination of phonological and memory processes and the learner’s approaches to reading and spelling, e.g. how fluent/effortful it is to read and write. ● Discussion of associated problems, coping strategies, curriculum access and examination arrangements where appropriate. ● Evaluation of possible co-occurring difficulties. ● Discussion with all concerned how feelings of frustration and anxiety can be alleviated. <p>Where a learning difficulty is identified, and requires special educational provision to be made, the child is said to be at School Action. Parents or carers must be informed if a decision is made that the child has special educational needs.</p>
<p>(3) Comprehensive assessment Usually Wave 3 intervention but may need to be more long-term and/or entail specialist teaching</p>	<ul style="list-style-type: none"> ● The school decides to seek outside advice and help from specialist teachers and educational psychologists and from other professionals as necessary, such as speech and occupational therapists. ● Parents’ views are sought and they are kept fully informed throughout the process. ● All the information gathered so far forms part of a comprehensive appraisal of the nature and extent of the child’s difficulties.

	<ul style="list-style-type: none"> ● Further assessments examine more closely the child’s individual strengths and weaknesses. ● Complex problems, such as those associated with marked co-occurring difficulties or emotional and social circumstances, are likely to need the advice of educational psychologists. <p>Where a learning difficulty is identified, that requires special educational provision to be made, the child is said to be at School Action Plus. The parents or carers must be informed if a decision is made that the child has special educational needs.</p>
<p>Statutory assessments and statements of special educational needs</p>	<p>Chapter 7 of the SEN Code of Practice says that where a child with SEN continues to make little progress in response to support provided through <i>School Action Plus</i>, the school should ask the local authority to undertake a statutory assessment of the child’s SEN. As indicated at para 7.21 of the Code, a parent can request such an assessment at any time, which may result in a statement of SEN being issued for the child. Paragraph 7.29 of the Code explains that if a local authority does not agree to undertake a statutory assessment, the parents have a right of appeal to a Tribunal. Similarly, paragraph 8.15 of the Code explains that parents also have a right of appeal if a decision is made not to provide a statement, following a statutory assessment.</p> <p>Parents who are concerned about provision being made at School Action or School Action Plus sometimes request statutory assessments to be able to access Appeal Tribunals if they remain dissatisfied with provision made for their child following that process. If parents are satisfied that their child is making good progress as a result of provision being made by the school, they are less likely to request statutory assessments and statements.</p>

<p>Monitoring impact of Interventions</p>	<p>The three levels of identification and assessment are focused on (a) identifying those children who require additional support and (b) assessing strengths and difficulties to plan that support. It is also important that the impact of support – and adaptations to teaching – are monitored and fed back into further assessment. The effectiveness of support should be judged in relation to targets that are informed by consideration of evidence reviewed in Chapter 3; where difficulties are relatively mild, progress within a short period of time – as little as 10 weeks – should be expected. Use of standardised tests of reading and spelling are important for evaluating progress, along with evidence of progression through a structured programme.</p> <p>Although expectations should be high, it must be acknowledged that there is a significant minority of children who do not respond well to well-founded programmes of intervention. Those children should not have to repeat programmes that are less effective for them, but should instead have their needs considered through comprehensive assessment, so that more long-term intervention can be planned, implemented, and – in turn – evaluated.</p>
--	---

Use of the term ‘dyslexia’

Because dyslexia is regarded as a continuum, there needs to be clarity as to who might deem that a child has dyslexic difficulties and who is qualified to contribute to an assessment that confirms a child has severe dyslexic difficulties. A report prepared by the then DfES’s Specific Learning Difficulties Working Group provides guidance on what would constitute acceptable evidence of Specific Learning Difficulties (including dyslexia) for the purpose of determining whether higher education students with such learning difficulties would qualify for the Disabled Students Allowance (DSA). The full report is available on this weblink:

<http://www.dcsf.gov.uk/studentsupport/uploads/SpLD%20WG%20Final%20Report.doc>

This earlier DfES Working Group report recommended that both psychologists and specialist dyslexia teachers (with appropriate levels of training, experience and continuing professional development – which are set out in the Working Group Report) should be regarded as suitable to undertake assessments that would determine whether a student has a specific learning difficulty – but only if they hold a current Practising Certificate issued by their professional body (the British Psychological Society, PATOSS⁶⁶ or Dyslexia Action), which would have to be updated regularly through completion of continuing professional development.

What matters most is to ensure that children's difficulties with literacy learning are identified and addressed in ways that advance their progress, whether or not the difficulties are described in terms of dyslexia. However, who should decide a child has dyslexia and how that decision is made are important questions.

In the 3-level model for identifying and assessing literacy and dyslexic difficulties, outlined above, it is envisaged that the following professionals will be making the following decisions in the school:

At level 1 – At this stage, it is class teachers who identify literacy difficulties. They will notice individual differences and adjust their teaching. They will also be aware of the possibility that some children may have dyslexia. However, they will not declare that a particular child has dyslexia, in the absence of further assessment. If parents or carers raise the question of dyslexia at this stage, class teachers will explain that this possibility will be explored with more specialist colleagues in the light of the child's response to literacy interventions. They will also explain what interventions are being put in place and that, at this stage, no different intervention would result even if a positive identification of dyslexia was made.

66 PATOSS stands for the Professional Association of Teachers of Students with Specific Learning Difficulties

At level 2 – the class teacher will involve a more experienced literacy teacher or a specialist dyslexia teacher and/or the SENCO to assess the child's difficulties and response to intervention. The main purpose of an assessment undertaken at this level is to plan further teaching in the expectation that it will significantly advance the child's progress. However, in many cases the teachers will consider whether or not the child 'appears to have dyslexic difficulties' and discuss their emerging view with the child's parents. It should be stressed that this is not a formal identification of dyslexia, rather at this stage, the main decision being made is about what more should be done to counter the particular difficulties the child is experiencing.

At level 3 – appropriately qualified specialist teachers and other professionals, in consultation with parents and the child's class teacher, would make a decision on whether or not the child has dyslexia, and with what severity. The professionals regarded as "appropriately qualified" should be those who are identified as such in the earlier report from the DfES Working Group cited above ie they should be appropriately qualified and experienced psychologists or specialist dyslexia teachers, holding a current Practising Certificate of the type described above. The review has heard that assessments prepared by such professionals are sometimes not accepted by schools and local authorities, especially if the professional concerned is not a local authority employee. What matters is the professional's accredited training, experience, competence, continuing professional development and understanding of the educational context, not who happens to be his/ her employer – therefore the review considers that schools and local authorities would need to provide sound reasons for not accepting the outcome of an assessment from a suitably qualified professional.

The DCSF may wish to establish a further Working Group to consider and consult upon the proposed approach in greater detail.

Dyslexia awareness and teacher expertise

There is no doubt that identifying and helping children to overcome dyslexic and literacy difficulties requires considerable knowledge and pedagogical expertise. However, given suitable training such expertise is well within the reach of teachers in mainstream schools. The introduction of the Inclusion Development Programme by the National Strategies⁶⁷ provides a foundation on which to build professional expertise. Teachers of children in Key Stage 1 must know what to look for when observing children's progress with learning to read. They also need to know how to adjust their teaching to take account of children's particular difficulties and lack of progress. This expertise needs to be available throughout KS2 and beyond to continue to provide the teaching that the children need and to identify those who may have 'slipped through the net'.

Additional support for children starting secondary school with persistent reading and spelling difficulties is essential, if they are not to continue falling further behind their peers. Key Stage 2 test results and other records of progress from children's previous schools, along with standardised group tests of reading and spelling, are obvious starting points for identifying any child whose difficulties may have been missed. Their progress should continue to be monitored in keeping with Chapter 6 of the SEN Code of Practice (the introductory paragraphs of which are reproduced in Annex 2 of this report). In addition, as Brian Lamb has made

67 The Inclusion Development Programme (IDP) consists of a series of on-line workforce development materials on addressing special educational needs, for use by everyone working in schools. The first round of the IDP focussed on communication difficulties, including dyslexia, and was rolled out to schools through local authorities during 2008/09. The materials are for use in early years settings, primary schools and secondary schools – they can be accessed on line at <http://nationalstrategies.standards.dcsf.gov.uk/primary/features/inclusion/sen/idp>

clear⁶⁸, pupils and their parents need to be given information about the nature of the pupil's difficulties and have easy access to appropriate advice and support.

More is said about school workforce development in Chapter 4.

68 See Brian Lamb's *Report to the Secretary of State on the Lamb Inquiry Review of SEN and Disability Information*, which was published on 29 April 2009 – available on the following website – <http://www.dcsf.gov.uk/lambinquiry/>

Chapter 3

Tackling reading difficulties

'For years as a kid, I just knew that I couldn't read properly. I didn't know why I couldn't read, but it was always like this big problem that was just sitting there at the back of my head, just waiting and it never went away, in fact it only got worse'
Respondent R.

'I just knew that something was wrong inside of me when it came to reading. Every time the teacher got out the reading books I used to hope like crazy that she wouldn't call on me to read because I knew my reading was rubbish... I just felt so helpless'
Respondent K.

'I can remember all the fights and problems with my parents, even before I started school, when they would try to get me interested in reading. I just couldn't cope with it, I just didn't want to have anything to do with reading... it was an overwhelming experience' Respondent L.

The remit requires the review to make recommendations on the teaching of children with dyslexia. When evaluating evidence for the effectiveness of particular interventions Professor Greg Brooks warns that:

“In order to judge whether an initiative has really made a difference, it is not enough just to ask the participants – they will almost always say it has. So quantitative data on the learners' progress are essential, measured by appropriate tests of [in this case] reading, spelling or writing.”⁶⁹

69 Brooks (2007) p18

Carter and Wheldall⁷⁰ indicate this data is not always easy to capture:

"In education, we ... often deal with murky applied issues where data are inconsistent and messy and where research is not of a uniformly high quality. Thus, in order to form sensible and responsible conclusions, we need a balanced consideration of all of the available evidence... The strength of our conclusions is tempered where apparently contradictory evidence cannot be rationally explained. We typically form tentative conclusions that should be revised as further evidence becomes available."

Taking these comments into account together with the good practice in dyslexia support that has been observed in the schools visited, the review recommends that intervention programmes are best delivered by teachers who understand how to attune a programme to a child's learning difficulties, or by trained classroom support staff who are well managed by such teachers. This chapter summarises evidence showing that interventions promoting phonological skills are effective for teaching children with dyslexia⁷¹. It also recognises that children with dyslexic difficulties particularly benefit from teaching that adheres to the following principles: highly structured, 'little and often', using graphic representation, allowing time for reinforcement and encouraging generalisation⁷².

Dr. Chris Singleton's literature review concludes that as well as being multisensory and phonologically based, the key features of specialist dyslexia teaching are that it is 'structured', 'cumulative' and 'sequential'. He adds that these last three features may be summed up in one term: systematic⁷³. This chimes with the

70 Carter and Wheldall (2008)

71 Singleton (2009)

72 Brooks (2007) pp 31 and 32

73 Singleton (2009) p 20

recommendation from the Review of the teaching of early reading⁷⁴ that high quality, systematic phonics should be the prime approach for teaching children to read.

In systematic phonics teaching children learn;

- grapheme/phoneme correspondences 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

However, it is important to acknowledge that some children with dyslexia can respond very slowly even to high quality teaching approaches. This being the case, it is important that dyslexia guidance covers such crucial issues as helping children to build confidence and avoid 'learned helplessness'. These wider difficulties experienced by some children with dyslexia are considered further in Chapter 5.

The National Strategies advocate three Waves of Provision for addressing the range of educational needs encountered when teaching in mainstream schools, as shown in Figure 4.

74 Rose (2006)

Figure 4: The Three Waves of Provision

Wave 1 – Quality First Teaching. The majority of children achieve well through high quality classroom teaching. When children are being taught to read, Quality First Teaching provides high quality, systematic phonic work as part of a broad and rich curriculum that engages children in a range of activities and experiences to develop their speaking and listening skills and phonological awareness.

Wave 2 – Small group and one to one interventions. Some children require additional support to achieve well. This can often be provided through small group, time limited intervention programmes delivered by a member of the school’s classroom based support team that will advance children’s progress and help them achieve in line with their peers.

Wave 3 – Intensive support. This is for those children who require the personalised approach of a programme that is tailored to their specific, often severe, difficulties. It is usually taught as a one to one programme by a teacher or a member of the support staff who has undertaken some additional training for teaching children with reading difficulties.

The Primary Framework –

<http://nationalstrategies.standards.dcsf.gov.uk/primary/primaryframework/literacyframework> and

<http://nationalstrategies.standards.dcsf.gov.uk/node/47297>

provides overarching guidance and support for teachers in teaching literacy, based on the recommendations from the 2006 Review.

It is this framework that underpins the Department’s Primary National Strategy.

Earlier this year, the DCSF published a letter⁷⁵ to the Secretary of State commenting on progress in implementing the recommendations of the Review of Early Reading. This included a reminder that failure to read is often to do with the nature of the teaching rather than the nature of the child. Therefore, where children are not learning to read, the first thing to ensure is that

75 Rose (2009)

they are receiving a good programme in which phonic work is taught systematically. Where this teaching is in place, and children are not making progress, it is vital to consider what barriers there may be to their learning, which could include dyslexia. They should then receive appropriate assessments and additional interventions.

As each school builds on and develops its Wave 1 provision, teachers will become increasingly skilled at identifying children's learning. They will adjust their teaching to meet children's needs, monitor their progress and maximise the opportunities for them to catch up.

Wave 2 and 3 interventions to support children with literacy difficulties currently being used in schools include:

- those signposted to schools through the Every Child a Reader programme
- interventions identified as having an effective evidence-base including those identified by Professor Greg Brooks in his 2007 publication for schools, commissioned by the Department, *What works for pupils with literacy difficulties?*⁷⁶

However, there is general concern from responses to the call for evidence that a systematic approach to tackling dyslexia in schools is often lacking. This suggests that better use should be made of the available interventions summarised in the Brooks guidance. Research evidence is now reviewed which shows that the progress of many children with reading difficulties can be advanced through effective interventions.

76 Brooks (2007)

What does published research evidence tell us about the effectiveness of literacy interventions?

When should intervention take place?

From their review of research, the US National Reading Panel (2000) recommended that interventions are most effective if delivered before US Grade 2 (age 7 – 8 years). This resonates with the views of parents and dyslexia organisations who argue for early intervention before children become discouraged and de-motivated by their failure in school. However, it is important to bear in mind that it is usually literacy difficulties that are identified (and should then be addressed) in the early years of primary school, not dyslexia itself (see Chapter 2).

Can reading difficulties be prevented?

A few studies have implemented teaching programmes designed to *prevent reading difficulties developing* in children with a family history of dyslexia or with weak foundational literacy skills on school entry⁷⁷. These programmes typically include training in phonemic awareness and letter-sound knowledge, coupled with structured book reading adapted for children with limited or non-existent reading skills. Together, findings suggest that ‘at-risk’ children can make good progress but tend to remain behind their non-risk peers in reading and spelling. Such findings highlight the need for more sustained instruction in foundation literacy skills for children at risk of dyslexia.

As in Chapter 2, the inclusion of systematic phoneme awareness and phonics in quality first teaching of early reading provides opportunities for teachers to identify pupils who are not making adequate progress in these essential literacy skills (e.g. progress through the phonic phases), and to adjust their teaching accordingly.

77 Hindson et al (2005), Hatcher et al (2004), Bowyer-Crane et al (2008)

Adjustment might involve additional small group teaching for these children. Some teachers already differentiate standard classroom teaching (Wave 1) by grouping children according to their rates of progress through the phonic phases. At-risk children making slow progress can be expected to achieve better learning outcomes if they are provided with more intensive instruction that allows them more time to consolidate key skills.

How successful is early intervention?

The majority of early intervention studies involve children recognised by the end of their first year of formal schooling as being at risk of reading failure (including the ECaR early intervention funded in England by the DCSF). Participating children are often identified by measuring attainment in phonological skills (e.g., letter-sound knowledge and phoneme awareness – measures which tap areas of proven difficulty for children with dyslexic difficulties) or in word recognition skills⁷⁸.

Well-controlled research studies⁷⁹ demonstrate that intensive early intervention over a long duration can accelerate the progress of many children identified as at risk for reading failure, with gains maintained for up to two years following intervention.

For example, in a study carried out in the US⁸⁰, 135 five- to six-year-olds from a range of socio-economic backgrounds and with

78 Every Child a Reader (ECaR) differs to some extent from other early interventions in that teacher judgement of need determines entry to the programme, with assessment following acceptance on to the programme. Phoneme awareness is measured only indirectly through the child's ability to write a sentence to dictation, and letter-sound knowledge is not measured separately from letter name knowledge, although the introduction of standardised word reading tests in recent years brings ECaR more into line with other interventions.

79 Summaries of many of these research studies can be found in Brooks (2007) and Singleton (2009)

80 Torgesen, Wagner, Rashotte, Rose et al (1999)

very low levels of letter-sound knowledge and phoneme awareness skills were given an intensive individually delivered programme of reading intervention, 20 minutes each day for 4 days per week, over a period of 2 years, provided in equal amounts by trained teaching assistants and well-trained teachers (a total of 88 hours). The strongest gains in reading were observed for children receiving both a structured phonics programme *and* phoneme awareness training. As a group, they achieved average levels of word reading accuracy and rate by the end of the 2nd grade. Similar results have been reported by other studies, with evidence of longer term effects after 1-2 year follow-ups⁸¹.

In the UK, a study of an early intervention that promoted letter-sound knowledge and phoneme awareness skills (taught by trained teaching assistants who were also mentored) significantly improved children's word reading, letter-sound knowledge and phoneme awareness. Gains in reading for the group as a whole were maintained at an 11 month follow-up. A recent follow-up of some of the children, when midway through Year 6, has reported very positive results. On average, they maintained the gains made in reading attainment at the end of the intervention⁸².

However, each of the above studies identified a number of children who did not respond well to the intervention. Factors which place children at risk of not responding included: having the lowest levels of phonological skill at the start of the intervention; being rated low by their teachers on measures of attention and behaviour, and experiencing adverse socio-economic circumstances.

A recent 2-year US study following the progress of children who did not respond well following early intervention in kindergarten observed that non-response rates persisted into first and third

81 Vellutino et al (1996), Torgesen et al (2003), Vadasy et al (2008); see Scammacca et al (2007) for a review

82 See www.york.ac.uk/res/crl/nyreadingintervention.html for a full report of this follow-up study.

grade⁸³. This confirms earlier research findings indicating, what common sense might predict, that poor response to effective intervention is a valid indicator of long term reading disability⁸⁴.

What do studies tell us about key components of successful early intervention?

The US National Reading Panel identified five essential elements of effective ‘early’ interventions and these are endorsed by UK research⁸⁵: (i) explicit training in phonological awareness (ii) strong focus on phonological decoding and word-level work, (iii) supported and independent reading of progressively more difficult texts, (iv) practice of comprehension strategies while reading texts, and (v) instruction that is systematic and intensive. These elements are described in more detail in Table 3.

Table 3 Key elements of early intervention (adapted from Vaughn and Roberts⁸⁶)

Phonemic awareness instruction	Teaching students to manipulate the sounds of words (phonemes) to improve reading (blending) and spelling (segmentation) skills.
Phonics instruction	Teaching students how to sound out printed words using knowledge of graphemes, to decode multisyllabic words, and to generalise learned rules of language to new words.
Spelling and writing instruction	Encouraging students to write letters, sound patterns (graphemes), words, and sentences to support and reinforce segmentation strategies and the acquisition of phonics rules.
Fluency instruction	Providing students with practice in reading words accurately to gain sufficient speed to ensure that comprehension is not impaired because of undue focus on word reading.

- 83 Al Otaiba & Fuchs (2006)
- 84 Vellutino et al (1996)
- 85 Hatcher et al (2006)
- 86 Vaughn and Roberts (2007)

Vocabulary instruction	Teaching students to recognise the meaning of words they are reading and to build an appreciation and understanding of new words.
Comprehension instruction	Teaching students to monitor their understanding while reading, linking what they read to previous learning and asking questions about what they read.

Reading Recovery as an early intervention

Through the roll-out of Every Child a Reader (ECaR), Reading Recovery is being increasingly used as a literacy early intervention in England. Reading Recovery was originally developed in the 1970s in New Zealand by Marie Clay. It targets 5 to 6 year old children identified as falling within the lowest achieving in their class. There were similarities between the ‘whole language’ theory of reading⁸⁷ and Clay’s early philosophy⁸⁸. However, Reading Recovery, as now being delivered under the umbrella of ECaR, is reported to have developed a ‘cumulative’ approach to phonics⁸⁹.

The ECaR programme is a three-wave model based on promoting Quality First teaching (Wave 1) in keeping with the Simple View of Reading, ensuring effective small group interventions (Wave 2), and providing intensive one-to-one tuition (Wave 3) for those children in Years 1 and 2 with the greatest needs. Within ECaR, Reading Recovery is the programme of choice for Wave 3 provision. This comprises 12-20 weeks of intensive, individual (one-to-one), daily tuition involving 30-minute sessions.

In the evaluation report of its third year, ECaR provided information about the attainment of children in Key Stage 1 assessments who had participated in a London evaluation a year

87 Goodman (1986), Smith (1978)

88 Clay (1979; 1991)

89 This was reported to us in the Every Child a Chance Trust’s response to our call for evidence

earlier⁹⁰. In July 2007 those participants who could be traced were re-tested – 77 who had received ECaR and 109 comparison children. The ECaR children were reading at age-appropriate levels, and in the KS1 assessments 86% of the ECaR children achieved Level 2 or above in reading, compared to 84% of children nationally. In writing, 83% of the ECaR children achieved Level 2 or above, compared to 80% of children nationally.

Singleton notes that a substantial proportion of children completing the programme had not yet become independent readers; a concern being that such low-attaining children were unable to tackle unfamiliar words. The ability to tackle such words defines the development of a self-sustaining word recognition system which is often impaired in dyslexia.

The Advisory Group acknowledged that the data show ECaR interventions enable many children struggling in the early stages of learning to read to achieve national expectations by the end of Key Stage 1. However, as with all intervention programmes, participants' response to intervention varies. A US review of the effectiveness of early intervention suggests that between 11% and 35% may show a poor response⁹¹. Rates of poor response to ECaR fall within this range, with about 16% of children completing programmes without reaching the criteria set for programme discontinuation.

Over the longer term, it is also important to follow-up children who respond well to Reading Recovery (and other interventions) to establish whether they become fluent readers. As the Every Child a Chance Trust said in their response to our call for evidence – dyslexia does not go away. Even if children with this learning difficulty have caught up with their peers continued monitoring of their progress is essential.

90 ECaR (2008) p 16

91 Torgesen (2002)

Further investigations are needed to determine what proportion of pupils who do not successfully complete Reading Recovery show a profile consistent with dyslexia; future evaluations of ECaR should also examine its impact on component reading skills by assessing before and after the intervention, reading accuracy and fluency and non-word reading (as a consistent measure of decoding skill).

The remit requires this review to make recommendations on “how best to take forward the commitment in the Children’s Plan to establish a pilot scheme in which children with dyslexia will receive Reading Recovery support or one-to-one tuition from specialist dyslexia teachers”. The review recommends that these pilots should not go ahead. This is because, for most children in Years 1 and 2 with significant reading difficulties, it would be very difficult to be certain which of them have dyslexia, and which do not, as explained in Chapter 2. Moreover, whether or not those difficulties arise from dyslexia the approach taken to counter them may be the same. The review therefore concludes it would not be possible to undertake the pilots proposed in the Children’s Plan with sufficient rigour for any meaningful results to be obtained.

The review makes the following recommendation:

The DCSF should work with partners to develop the following additions to the delivery of Every Child a Reader and other interventions:

- Effective Wave 2 provision that is systematic in its approach to phonic work
- pre- and post-intervention phonemic awareness assessment that picks up the word level skills children should master (based on a thorough review of published assessment materials)
- guidance on how class teachers, and the intervention teacher, should share information so that children's progress through the phonic phases (as in *Letters and Sounds*⁹⁴) can be tracked, and interventions and in-class support planned as complementary responses

The dyslexia pilots proposed in the Children's Plan should not go ahead.

How successful is later intervention for children with persistent and severe reading difficulties?

This section builds on the summaries by Singleton and Brooks of literacy interventions, for children aged 7 to 12 years⁹³. Both summaries point out that studies evaluating the effectiveness of reading interventions for older pupils with persistent literacy or dyslexic difficulties during the secondary school years are scarce, though Brooks cites interventions that are available.

92 <http://nationalstrategies.standards.dcsf.gov.uk/search/earlyyears/results/nav:46163>

93 Singleton (2009), Brooks (2007). Alternative interventions for dyslexia currently lack evidence from rigorous controlled studies eg training motor co-ordination; Bishop, 2008b: targeting auditory temporal processing; McArthur et al (2008), and Given, Wasserman, Chari, Beattie, Eden (2008).

Different studies report different rates of success in response to interventions. These differences relate to factors such as severity of the difficulties experienced by the learner, family risk factors (social disadvantage, history of dyslexia), educational background (quality of early reading instruction, previous intervention, reading exposure) and co-occurring difficulties. The common factor linking the children in these studies is their long-standing word reading difficulties. On average, they made gains of 0.3 score points in word-level reading skills per hour of intervention, raising their decoding proficiency from below the 10th percentile to around the 38th percentile (gains in reading comprehension were somewhat more variable reflecting the fact that these skills were not always specifically targeted).

However, as with the early intervention studies, even the most effective intervention programmes do not lead to significant reading gains for *all* of the participating children and depending on the reading skills measured, from 15 to 60% of older pupils with dyslexia may fail to respond⁹⁴.

Current US research evidence⁹⁵ suggests that both cognitive weaknesses and problems with behaviour are characteristics of individuals most resistant to effective reading intervention, and that these children will require more intensive and longer lasting support⁹⁶. In England, these children are among those who should have received Wave 3 interventions.

94 Torgesen (2000;2005) defines non-responsiveness as reading scores falling below the 30th percentile (a standard score of 92)

95 Nelson, Benner & Gonzalez (2003)

96 Hindson et al. (2005) report evidence that preschool children with a family risk of dyslexia required more sustained teaching of phonics, letter learning and phoneme awareness than non-risk children. See also Snowling et al. (2003), Wanzek and Vaughan (2008)

A review of observational studies of instruction in special education classes in the US identified several reasons why phonologically based programmes are sometimes not effective in advancing the reading of older children: (i) insufficient intensity of the intervention; (ii) the case load carried by teachers was too high; (iii) insufficient direct instruction in the critical components (including comprehension strategies for some older pupils)⁹⁷.

Two recent DCSF funded evaluations of interventions for children with literacy or dyslexic difficulties

Two recent initiatives have been funded by the DCSF to develop practice in addressing children's literacy and dyslexic difficulties. Evaluations of both initiatives are reviewed here:

The No to Failure trailblazers

No to Failure was a collaborative project funded by DCSF involving the Professional Association for Teachers of Students with Specific Learning Difficulties (PATOSS), the British Dyslexia Association, Dyslexia Action and Xtraordinary People. Helen Arkell Centres were also involved in setting up the project. The project entailed whole school dyslexia awareness training as well as screening and teaching pupils. An evaluation by Dr Singleton forms a chapter in the project's recently published report⁹⁸.

The intervention involved children identified as being "at risk of dyslexia" in 19 schools (primary and secondary) in 3 local authorities. In each of the participating schools (called "trailblazers"), the No to Failure project arranged for specialist dyslexia teachers to screen children in Years 3 or 7 to identify those with dyslexic difficulties, and then to monitor the impact of

⁹⁷ Vaughan et al (1998) – this paper is cited and reviewed in Torgesen (2002) p.97

⁹⁸ No to Failure (2009)

specialist dyslexia teaching on their progress. Following screening, 243 children (from Years 3 and 7) were identified as requiring intervention; 108 were enrolled in an intervention group, and a further 135 in a comparison group.

The intervention group received specialist dyslexia teaching for an hour a week for up to 20 weeks. A range of literacy attainment tests were used before and after the specialist teaching to assess the children's progress. The same tests were administered to the comparison group, so that the progress of the 2 groups could be compared. After the 20 week period, the comparison group received specialist teaching for 10 weeks. Their progress after this time was again assessed using the same tests.

The specialist teaching consisted of tailored multi-sensory, structured, cumulative programmes, designed around assessments of each child's strengths and particular barriers to learning. No to Failure's evaluation report explains that the project's specialist teachers used a toolkit of skills based on a thorough understanding of the structure of language.

The children identified had mild to moderate reading difficulties, with standard scores falling within the low average to average range⁹⁹ and average phonological skills (measured by 3 subtests from a phonological test battery)¹⁰⁰. Both the intervention and comparison groups demonstrated marked spelling difficulties at the start of the intervention¹⁰¹.

99 Standard scores on a test of single word reading fluency were reported as 86 for the intervention group and 91 for the comparison group; on the phonemic decoding efficiency test as 86 for the intervention group and 90 for the comparison group.

100 The group average standard scores on two tests of phoneme awareness were above 90. Digit span scores were above 80.

101 The average standard scores for the intervention and comparison groups were 76 and 79 respectively.

Overall, the specialist dyslexia teaching enabled significant improvement in spelling for Year 3 and Year 7 pupils alike. Year 3 pupils also showed increased fluency of decoding.

The size and complexity of the project entailed some methodological difficulties. These included:

- the comparison group had less severe literacy difficulties than the intervention group
- whole school dyslexia awareness training was undertaken at the schools while the intervention was underway, potentially improving support to the comparison group
- in 4 schools it emerged that some support staff had been using photocopies of some of the intervention teaching materials with members of the comparison group

- the lack of teaching protocols, meant it is not possible to know exactly what interventions were used by the specialist teachers (who were guided by professional judgement in tuning teaching to children's needs).

Nevertheless, a further analysis of the data undertaken by a member of the Expert Advisory Group confirmed the general findings. Thus, it is reasonable to conclude that specialist dyslexia teaching can improve spelling in children with persistent difficulties and improved phonological decoding skills can be expected for younger pupils.

The No to Failure evaluation report concludes that the project had demonstrated that "specialist teaching works". Since Year 7 children did not show significantly increased fluency of decoding, and some children made considerably less progress than others, this claim may be overstated. However, the report correctly points out that the intervention was brief given the severity of these children's difficulties. Moreover, it is unclear whether the greater impact of the initiative on spelling indicates that the focus of teaching was on spelling skills more than on reading practice. Nevertheless some children made gratifying gains. It is also fair for the report to suggest that the accelerated levels of progress may have continued if the specialist teaching had continued, as found in a study of pupils at East Court School, a specialist provision for children with dyslexic difficulties¹⁰².

Ideally, further research on the efficacy of specialist dyslexia teaching would be undertaken using random allocation of children to teaching programmes, with a standard protocol for delivery. Close attention should be given to establishing protocols and making sure they govern the structure of the research, and to investigating the factors that lead to differences across children in responsiveness to intervention.

102 Thomson (2003)

Dyslexia Action's Partnership for Literacy pilots

Dyslexia Action published the latest evaluation of their Partnership for Literacy pilots (carried out by the University of Durham) earlier this year¹⁰³. This pilot has now operated or is operating in a total of 35 primary schools and is designed to help all children with literacy difficulties. The total duration of a partnership between each school and Dyslexia Action is 3 school terms – an apprenticeship training period for 2 terms and a consultancy period for the third term. Each school nominates at least 2 members of staff to be trained and mentored by a specialist teacher from Dyslexia Action.

The apprenticeship phase starts with dyslexia awareness training for all staff in the school. Following this, at least 2 of the staff are trained on the school premises. Neighbouring schools are invited to join the training sessions. All pupils from Years 2 to 5 are screened to identify which children have the poorest literacy skills – during which the school staff is trained to use the screening tools and help with the screening process. The results are analysed to select pupils for the project, in collaboration with the school's SEN Coordinator (SENCO).

After this, 16 of the children identified as having the most serious difficulties with literacy are given up to 1½ hours specialist support a week in small groups of 3 or 4. Each group is taught by the two teaching assistants (the apprentices) using Units of Sound and the Active Literacy Kit under the supervision of the Dyslexia Action teacher. Meetings are held with the parents, which include showing them how to use a home-support resource.

At the end of the 17 week apprentice training, all children in Years 2-5 are screened again to compare improvements across the whole school, and to compare the progress of the project participants against their peers. However, until last year there was no comparison group.

103 Dyslexia Action (2009)

The consultancy phase enables the schools to embed the new resources and teaching into their provision and to implement intervention strategies throughout the school, while being able to call on a Dyslexia Action consultant for support.

The evaluation demonstrates that on average the children receiving the specialist support have made significant gains in reading, comparable to those made by children in other effective interventions¹⁰⁴. Dyslexia Action emphasise that without a comparison group it is important to be cautious when interpreting these results.

Dyslexia Action recommend that every teacher should have a good level of understanding and awareness of children's special educational needs, and that each school should have access to appropriately trained staff who are able to support children struggling with literacy. The evaluation demonstrates the benefits of training classroom support staff in the effective delivery of interventions.

What are the implications of research evidence for practice in schools?

Guidance for schools produced for the National Strategies by Professor Greg Brooks¹⁰⁵ provides details of literacy interventions that schools can use to advance the progress of children with literacy and dyslexic difficulties. Children who are significantly delayed in reading on average benefit from small group reading intervention, but some poor readers will need more intensive or prolonged help. Even under the best-known instructional conditions, response to intervention is variable – with some children requiring more intensive instruction, possibly on an individual basis over a

104 Standard score gains of 7 points in single word reading

105 Brooks (2007)

longer duration¹⁰⁶. Also, most interventions have more impact on phonic-decoding than they do on reading fluency¹⁰⁷.

Individual tuition by specialist teachers is not essential to the success of intervention for most children; studies have reported similar gains in reading whether delivered through small groups, by well trained support staff or other non-teachers, or by well trained teachers¹⁰⁸. However, it is crucial that those implementing interventions receive appropriate training, supervision and support – and that there are clear aims and objectives against which each child’s progress can be rigorously monitored and evaluated.

In addition, for children who show a poor response to previous interventions, it is important to establish – through detailed assessment and close monitoring – the necessary combination of elements that will secure lasting progress and enjoyment of reading. This will almost certainly require the involvement of teachers with specialist training in assessment and intervention. As Brooks notes in his guidance:

“Success with some children with the most severe problems is elusive, and this reinforces the need for skilled, intensive, one-to-one intervention for these children... the greater the problem, the more skilled the teacher needs to be. Children with special educational needs normally benefit from a highly-trained teacher working through an intensive and wide-ranging [literacy] scheme using powerful ongoing diagnosis based on close observation”¹⁰⁹.

106 Torgesen (2002)

107 Torgesen (2005)

108 Rashotte et al (2001), Torgesen et al (2003), Elbaum et al (2000 JEdP), Scammacca et al (2007), Lovett et al (2000)

109 Brooks (2007) p 32

Sustaining and updating teaching expertise require organisational backing¹¹⁰. Schools should audit their range of Wave 2 and Wave 3 literacy interventions to take account of leading edge practice and research findings.

The Every Child a Reader initiative is a good example of a framework of training and quality checks necessary for consistent implementation. Key characteristics of the framework which might be incorporated into nationally recommended interventions for children of any age throughout the school years are:

- Commitment to the initiative at LA and school level
- In-depth training, including detailed knowledge of how to implement the initiative effectively and monitor pupil progress, for a small number of teachers to provide understanding of the theoretical rationale for the intervention,
- Training for this small number of teachers in dissemination and coaching
- Thorough training of a larger number of teachers and teaching assistants to implement the intervention and monitor pupil progress
- Systems for monitoring and quality control through records of children's progress, observations of teaching sessions and overall accountability to the LA.

Secondary schools

It is vital that secondary schools take account of information from primary schools and provide interventions for children whose dyslexic difficulties continue to act as barriers to progress. This is reflected in guidance in Chapter 6 of the SEN Code of Practice.

110 For example, Cumbria County Council sustains its Reading Intervention programme
www.cumbria.gov.uk/childrenservices/reading

Although there are very few controlled research studies evaluating the effectiveness of reading interventions for secondary school children, some promising approaches are included in Brooks's guidance¹¹¹. Where dyslexic difficulties persist post-transfer from primary to secondary school, children will benefit where schools are imaginative, for example, in their use of flexibilities summarised at Annex 7.

At both primary and secondary school, children with dyslexic difficulties may encounter barriers to their learning in addition to learning to read effectively, as briefly outlined in Chapter 1. Ways of addressing these wider difficulties are discussed in Chapter 5.

The next Chapter makes recommendations on building on and developing schools' use of literacy and dyslexic interventions, and on improving access to specialist dyslexia teaching expertise.

111 Brooks (2007)

Chapter 4

Supporting children with dyslexia and their families

'We waited far too long for help and only those [parents] who are able to persevere and access the system succeed'

Parent of a child attending a specialist school

'Dyslexia is normalised within the school so there is less focus on failure. Emphasis is on her success rather than on failure'

Parent of a child attending a specialist unit in a mainstream
Primary school

'They're not rubbish or stupid, they are potential learners and need support to achieve their full potential. They need more than just to have a babysitter'

Parent of a child attending a specialist unit in a mainstream
Primary school

This chapter looks at:

- the range of skills schools need to help children overcome literacy and dyslexic difficulties and make progress
- how specialist teachers and local authority services support children, schools and families in tackling dyslexia
- how schools might be supported in developing teacher expertise in selecting and implementing literacy interventions, and in improving access to specialist dyslexia teachers

- systemic improvements to achieve a more consistent approach that better meets the needs of dyslexic children and their families

In *Removing Barriers to Achievement*, the then-DfES said that every teacher should expect to teach children with special educational needs, and that they need to be equipped with the skills to do so effectively. It was suggested that this would require action at 3 levels¹¹², as in Figure 5 below.

Figure 5: Removing Barriers to Achievement: developing school workforce SEN skills



The first section of this chapter looks at what is already in place to develop these three levels of skill for helping children overcome literacy and dyslexic difficulties. It also proposes what more might be done to better enable schools to advance the progress of children with literacy and dyslexic difficulties.

112 DfES (2004) page 56

4.1 The range of skills needed in schools

Chapters 2 and 3 argued that schools should provide high quality teaching in all three waves of provision. For children who do not respond well to interventions (whether or not they have been identified as dyslexic), specialist dyslexia teachers will need to be involved in assessing their difficulties, directing or delivering intensive one-to-one programmes, and closely monitoring their progress.

The first layer in the triangle – core skills for all teachers

There are two related sets of core skills to be considered:

- Those skills required by teachers of typically developing children, who are making optimum progress as beginner readers
- Those skills which enable all teachers to adjust Wave 1 teaching to help children who are noticeably behind their typically developing peers and may have literacy and dyslexic difficulties.

Core skills for those teaching children to read

The Primary Framework makes clear that high quality, systematic phonics should be the prime approach for teaching children to read. Guidance is provided on <http://national.strategies.standards.dcsf.gov.uk/node/47297>

Following the publication of the Early Reading Review, the DCSF asked the National Strategies, in conjunction with the Training and Development Agency for Schools, to work with the initial teacher training (ITT) sector to strengthen teacher training in line with the recommendations contained within the review.

A key part of this work is the development of the Leading Literacy Schools (LLS) programme which is designed to ensure that ITT providers enable trainee teachers to work with, and learn from effective teachers and practitioners in the teaching and assessment of literacy. The LLS programme which was launched in the autumn term 2008 will also provide a bank of expertise which can be drawn upon to support school-based training. All higher education providers of ITT have registered for inclusion in the LLS programme: 684 schools have been funded to become Leading Literacy Schools and so support trainees in developing their skills in teaching reading and writing.

It is important for all primary school governing bodies and management teams to provide opportunities for appropriate continuing professional development (CPD) for class teachers and support staff who will provide this teaching.

Core skills for all teachers in literacy and dyslexia awareness

It follows from Chapter 2 of this review that all teachers and support staff in schools should be aware of difficulties associated with dyslexia in order to work with colleagues to support appropriate interventions for those children with literacy difficulties.

Through the Training and Development Agency for Schools (TDA), the DCSF is strengthening the coverage of special educational needs in initial teacher training courses as summarised in Annex 1 to this report. In parallel, the National Strategies are developing an Inclusion Development Programme (IDP)¹¹³ of on-line, special educational needs, training materials for serving teachers and others working in schools. The first round of the IDP focussed on communication difficulties, including dyslexia, and has been rolled out to schools through local authorities over the last year.

113 <http://nationalstrategies.standards.dcsf.gov.uk/primary/features/inclusion/sen/idp>

To build on the initiatives summarised above, **the review recommends:**

The first step in identifying that children *may* have dyslexia is to notice those making poor progress in comparison with their typically developing peers, despite high quality Wave 1 literacy teaching. Local Authorities and the National Strategies should work with schools to make sure that they have in place good monitoring arrangements to ascertain that Wave 1 teaching is of a high quality, especially in teaching word recognition and language comprehension skills in keeping with the 'simple view of reading'.

The National Strategies should refresh the dyslexia IDP materials in the light of this review. The materials should continue to be promoted to serving and trainee teachers, and other members of the workforce involved with teaching literacy, such as teaching assistants.

The DCSF should ask the Training Development Agency for Schools and the initial teacher training sector to continue building on initiatives for strengthening coverage of special educational needs and disability (including dyslexia) in initial teacher training courses and through continuing professional development. For example, by capitalising on the Leading Literacy Schools programme so it includes opportunities for trainee teachers to work with experienced teachers who are successfully tackling children's literacy difficulties.

The second layer in the triangle – developing advanced skills in addressing literacy and dyslexic difficulties

As noted the DCSF is already signposting Wave 2 and 3 interventions to primary schools through the Every Child a Reader programme, and to all schools through the Brooks guidance¹¹⁴.

114 Brooks (2007)

The DCSF has also acknowledged the message from respondents to the review that better use could be made of existing interventions which suggests that teachers would find it helpful to receive more guidance on how to select and implement evidence-based interventions.

There should be further guidance for schools on the range of interventions available, and on which interventions are particularly suitable for which age groups and types of literacy difficulty. This guidance should be written so that it can be readily understood by parents and carers. It should be made available to parents and carers, to enable them to have informed discussions with their children's schools about the availability and effectiveness of literacy and dyslexia interventions.

The short courses recommended by the review will enable serving teachers to gain this valuable expertise. Schools should try to make sure that at least one of their teachers obtains this level of expertise, or that they have access to such a teacher through partnership arrangements with other schools.

The review therefore makes the following recommendations:

The DCSF should commission clear guidance for parents and schools on the policy and purpose of interventions. This should include explaining how effective interventions, for all school age groups, are to be made available for children with literacy and dyslexic difficulties, and how children's progress will be monitored. The content and implementation of this guidance should be independently evaluated.

The guidance should be placed on an interactive website covering literacy and dyslexic difficulties, on which there should also be:

- regular updates on successful ways of helping children to overcome literacy and dyslexic difficulties

- links to the Inclusion Development Programme (IDP) materials, and to the short course materials which feature in recommendation 18 below
- a copy of this review and key background papers that contributed to it
- a copy of ‘What Works for children with literacy difficulties?’ (G. Brooks 2007) guidance, which should be regularly updated

The DCSF should commission short courses for teachers on selecting and teaching literacy intervention programmes. These courses should:

- cover the definition and characteristics of dyslexia in keeping with this review and the ‘Simple View of Reading’
- equip participants with the expertise to select, implement, monitor and evaluate literacy interventions
- ensure those trained are able to make best use of the published guidance on ‘What Works for children with literacy difficulties?’, and be able to advise other teachers and support staff on delivering high quality interventions
- link to on-line training materials eg the refreshed IDP and the literacy interventions guidance

The third layer in the triangle – developing specialist skills in addressing literacy and dyslexic difficulties

Schools, parents and children would benefit from better access to specialist dyslexia teachers, who can advise upon and tailor interventions for children struggling most with literacy, whether or not they have been identified as having dyslexia. Such specialist teachers, along with teachers with skills in literacy interventions (as above), also have a key role in helping other school staff

develop their skills in teaching and supporting children with literacy or dyslexic difficulties (see Section 4.3 below)

4.2 Building on schools' engagement with parents and carers

Responses to the call for evidence indicated that while some parents were pleased with the support their child received and the attention given to involving them in decisions, many parents found it difficult to understand how the school identifies and deals with a child's literacy and dyslexic difficulties. It is not acceptable for parents to discover at a late stage that children's difficulties have been unmet and thereby worsened.

'We could see that she was not making any progress in her reading at school, in fact what interest she did have had disappeared. One thing I did notice was that she no longer made eye contact with me, which really troubled me. This went on for a while and it only got worse. I remember becoming very concerned about what was going on at her school and wondering what they were actually doing to fix it' Respondent A.

'I remember very clearly when I first noticed a distinct change in our son's attitude. He'd become withdrawn and gloomy and no longer had the confidence that he once had. That's when the alarm bells started to ring very loudly. I knew that something at his school wasn't right and it was having a very negative effect on him' Respondent E.

'Our life at home had become a living hell. The happy normal child that we all loved had now become a very rude, aggressive and obnoxious little boy. The fights and arguments he would start with his sister were never ending. Till one day we just sat him down and asked him what his problem was to which he replied, its school' Respondent T.

The SEN Code of Practice is clear that parents should be fully involved in the school's response to their children's SEN, and understand the purpose of any intervention or programme of action.

Together with the recommendation that the DCSF should commission clear guidance for parents and schools on the policy and purpose of interventions, the review makes the following recommendations for the benefit of parents and carers:

All schools should:

- keep parents informed of the plans for, and progress of, children with literacy or dyslexic difficulties
- publish the procedures they follow to identify and support children with literacy or dyslexic difficulties

The DCSF should continue to promote its SEN information booklet for parents, so they are better placed to understand and question provision being made for their children. This should refer directly to provision for reading difficulties, including dyslexia.

The DCSF should continue funding a helpline that provides advice to parents and people working in schools on dyslexia and literacy difficulties.

4.3 Improving schools' access to specialist dyslexia teaching expertise

It has been suggested that every school should have a teacher with specialist expertise¹¹⁵ but the variable size and location of schools militates against the provision of a "dyslexia only" specialist in each of them. For example, the latest figures show that 15% of maintained primary schools had up to 100 pupils. The smallest school had just one pupil and the largest primary school almost 1000. Nevertheless, there is much that all teachers can do to

115 <http://www.patoss-dyslexia.org/SpecialInterest2.html> – read on 14 September 2008; and BDA response to the present enquiry.

identify children with literacy and dyslexic difficulties and to help them make progress. The review therefore recommends that an effective way of giving teachers additional support and providing expertise for those children whose difficulties are most severe is for a specialist to work with a group of schools.

It makes good sense to ensure that such specialists have expertise in dealing with the range of 'specific learning difficulties' of which dyslexia is but one¹¹⁶. It is also very important for them to be up-to-date with best practice in promoting literacy for all children i.e. Quality First Teaching in line with the Simple View of Reading. This is because knowing how typically developing children learn to read often provides valuable insights into the learning of those who find reading unusually problematic.

What is specialist dyslexia teaching?

Specialist dyslexia teaching is an umbrella term for approaches that are used by teachers who have attained accredited specialist qualifications in the teaching of children and adults with dyslexia. Specialist teacher training courses are academically validated by Universities and may also have additional professional accreditation, for example, through the British Dyslexia Association. Qualifications are offered at the National Qualifications Framework level 7 or level 5. Professional accreditation is offered by the BDA at two levels: Associate Membership of the British Dyslexia Association (AMBDA) and Approved Teacher Status (ATS). Further explanation of the qualifications structure and of the training routes is provided below.

116 DCSF (2005)

A review in 1990¹¹⁷ identified the following features common to most specialist teaching programmes:

- Phonetic
- Multisensory – by which is meant the active and interactive integration of visual, auditory, kinaesthetic and tactile elements of teaching and learning.
- Cumulative
- Sequential
- Progressive
- Small Steps
- Logical
- Over-learning – by which is meant the systematic use of repetition, both within and between lessons, in the attempt to ensure that newly acquired skills and material are automatised, consolidated in memory, so that they can be readily applied or recalled when needed, and will not be disrupted or confounded by subsequent lesson material.

117 Thomson (1990) reviewed a range of established UK multisensory teaching programmes for teaching dyslexics, including *'Alpha to Omega'* (Hornsby and Shear, 1974) and the Hickey language training course (Hickey, 1977; Augur & Briggs, 1992) together with subsequent publications such as the Bangor Teaching Programme (Miles, 1997) and the Aston Portfolio (Aubrey et al, 1981).

Research findings¹¹⁸ generally stress the importance of teaching phonological awareness and strongly support the view that a specialist teaching programme for children with dyslexia should incorporate the following features:

- **Structure** – i.e. logical progression of elements with small steps teaching and explicit links being made between steps.
- **Multi-sensory** – as above
- **Reinforcement** – i.e. reinforcement of all skills through regular practice to provide automatic access to all components of learning.
- **Skill teaching** – i.e. teaching should concentrate on the development of useful and transferable skills rather than too much information, which would create unnecessary burdens on memory.
- **Metacognition** – i.e. encouraging the student to think about what strategies and approaches would be best for them to use in different circumstances.
- There is also an increasing awareness that social and emotional barriers to learning, often associated with difficulties of a dyslexic nature need to be taken into account, particularly with regard to building self-efficacy and combating emotional obstacles to reading such as low confidence and anxiety often borne of repeated failure.¹¹⁹

118 For many years the Hickey programme was the principal basis for phonologically-based teaching provided by the Dyslexia Institute until Walker and Brooks (1996) developed the variant called the Dyslexia Institute Literacy Programme (DILP), which remains the basis for teaching provided by Dyslexia Action. Walker (2000) and Townend (2000), have specified five key principles of specialist teaching for children with dyslexia as shown, Burden (2008) emphasises the social and emotional barriers that can lead to a feeling of learned helplessness.

119 Burden (2008)

The Institute of Education and the University of York surveyed specialist dyslexia teachers to establish what key features of specialist teaching are regarded by practitioners as most important to accelerating the progression of children with dyslexia. The findings are reported at Annex 2.

What are the roles and responsibilities of specialist dyslexia teachers?

The Institute of Education and the University of York fieldwork asked specialist teachers about their roles and responsibilities. This enquiry found that specialist teachers screen and assess pupils for dyslexic difficulties, and design and implement interventions. They are frequently SENCOs, class or subject teachers, and Heads of Department. They are involved in training others to be 'dyslexia aware' and to carry out interventions (with maintained sector respondents more likely to provide this in-house training themselves). They provide support and advice to other teachers, and supervise intervention by other staff.

Specialist teachers engage in individual and small group teaching. About half teach up to 10 pupils regularly each week (both 1:1 and in groups). It is rare for them to teach more than 20 pupils individually, but a third of them teach more than 20 in small groups. In addition, the majority of specialists reported supervising the delivery of teaching, usually by teaching assistants. A quarter of supervised staff was reported to have received no specialist training, with a further quarter reported to have received dyslexia awareness training.

Pupils are most likely to receive a single, one to one, lesson each week (75% respondents), and/or one regular weekly small group lesson (58% respondents) from a specialist teacher. Lessons typically last from 30-60 minutes. Pupils are frequently withdrawn from class for their lessons but lessons also take place before and after school, during lunchtime or free periods and in the evening or weekend (less so for those in the maintained sector).

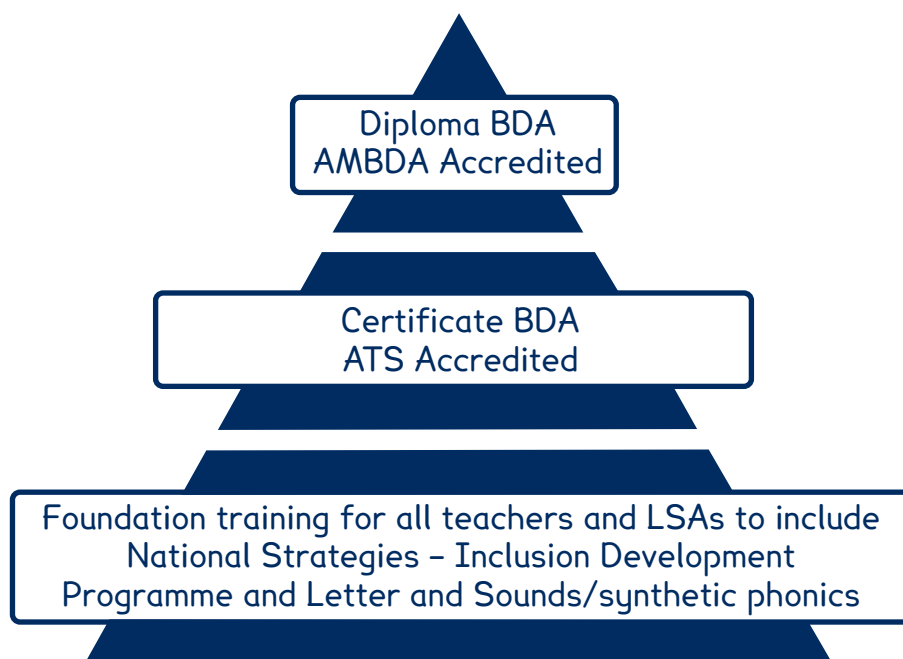
The indications are that while intervention sessions for dyslexia may be of good quality this provision may be of insufficient frequency to secure children's progress and consolidate learning¹²⁰. The frequency of intervention sessions may be more critical to children's success than often realised. Schools should bear this in mind when planning intervention sessions: wherever possible regular daily sessions should be in place, especially for children with serious reading difficulties.

Training of specialist dyslexia teachers

The following representation of the qualifications structure for specialist teachers in specific learning difficulties is available on the No to Failure website.

120 See Brooks (2007) pp 31 and 32, who suggests that such teaching needs to be "little and often" and allow time for reinforcement. Similarly a US study undertaken by Torgesen et al (1999) entailed reading intervention for 20 minutes a day, for 4 days a week over a period of 2 years. A further study (Torgesen et al, 2001) entailed two 50 minute sessions per day for about 8 weeks. Similarly, Reading Recovery as delivered through Every Child a Reader, entails 30-minute sessions delivered every day for 12 to 20 weeks.

Figure 6: No to Failure's training pyramid¹²¹



Training providers have told the review that there are some National Qualification Framework level 7 courses with both ATS and AMBDA accreditation and some level 4 – 7 courses with ATS accreditation. This means that there is scope to develop the content of No to Failure's pyramid to better reflect the full range of course levels, and the various combinations of academic validation levels and professional accreditation levels. The Dyslexia-Specific Literacy Difficulties Trust (a collaborative of dyslexia organisations developing from the No to Failure project) intends to look at this further.

However, the existing, basic structure of accreditation and validation, as shown on the pyramid, entails the British Dyslexia Association (BDA) accrediting courses at two levels:

- Associate Membership of the British Dyslexia Association (AMBDA), which is an accreditation relating mainly to Postgraduate Diploma courses that are at National Qualifications Framework Level 7 equivalent. These typically

121 <http://www.notofailure.com/> – accessed on 14 September 2008

entail between 60 and 120 Masters-level credits (between one and two thirds of the credits required for a Masters' degree); and

- Approved Teacher Status (ATS), which is an accreditation relating to Certificate courses that are sometimes described as being at level 5 of the National Qualifications Framework Level, but are understood in practice to be at levels 5, 6 and 7 (with one course understood to be at level 4). These may entail 60 Masters-level credits if validated at postgraduate level.

Most courses are run or academically validated by universities, but some courses are academically validated by OCR – the Oxford, Cambridge and RSA Examinations awarding body.

The BDA's website¹²² explains that alongside academic validation, the British Dyslexia Association Accreditation Board provides professional accreditation both for courses, and for people who have gained qualifications on courses. The Accreditation Board reviews the content of any course submitted for approval. If it meets the relevant criteria, the course will gain BDA accreditation. This means students successfully gaining the qualification can then apply for BDA recognition on an individual basis providing the relevant criteria for individual accreditation have also been met, for example, holding Qualified Teacher's Status (QTS). The criteria for AMBDA and ATS accreditation are reproduced at Annex 4.

Current level 7 equivalent courses, with professional accreditation for AMBDA, include training in diagnostic assessment and fit the criteria established by of the Specific Learning Difficulties Assessment Standards Committee (SASC) which leads to eligibility for the award of a Specific Learning Difficulties Assessment Practising Certificate, to which reference was made in Chapter 2.

122 <http://www.bdadyslexia.org.uk/accreditation.html> accessed on 30 May 2009

Courses leading to eligibility for a practising certificate are listed on the SASC website www.sasc.org.uk/features1.html

The BDA explained that the accreditation scheme is voluntary, and is not laid down in regulations. Some organisations running courses may not have sought BDA accreditation, which means that students qualifying from those courses may need to fulfill additional criteria before they could be granted BDA accreditation as a qualified practitioner. It has also been explained by PATOSS that only those who have passed a BDA accredited course can become specialist members of this professional association.

It can be seen from the No to Failure pyramid above that the AMBDA and ATS professionally accredited courses form the top two levels of the pyramid – teachers at both levels are regarded as specialist dyslexia teachers.

Other courses – many of which lead to NQF levels 3 or 4 – are provided by a number of colleges and local authorities, for classroom teachers and classroom support staff to gain significant dyslexia awareness. Many of these are recognised by the BDA. No to Failure regard completion of the IDP materials as having acquired sufficient awareness to be regarded as being part of the third tier of the pyramid – but there is considerably more awareness to be gained through level 3 and 4 courses. No one who is part of the ‘foundation’ tier should be regarded as being a specialist dyslexia teacher, though those who have successfully completed level 3 and 4 courses will have considerable understanding of how to teach children who have dyslexic difficulties, and are therefore well placed to engage in good practice.

It is noticeable that the accreditation criteria do not do not require course providers to include content on what constitutes good Wave 1 teaching of reading and writing, based on systematic phonics and the Simple View of Reading. The Institute of Education and the University of York contacted course providers as part of a survey of

specialist training commissioned for this review. They noted that descriptions of courses included coverage of typical literacy development, but of those courses which provided their reading lists, only three actually recommended a book devoted to this area.

Given that it is essential that a child's learning in mainstream classrooms should be reinforced through delivery of Wave 2 and Wave 3 interventions – and vice versa, it is important that specialist teachers should have a good understanding of Wave 1 teaching, and of how a child's literacy would normally develop if s/he is not experiencing difficulties.

The survey also found that the reading lists for courses contained very few articles in peer-reviewed journals. In contrast, some courses were found to place more emphasis on evaluating ideas and debates: for example, one course presented a very long and scholarly reading list that contained many references to articles in peer-reviewed academic journals, including articles evaluating the efficacy of certain interventions.

Other findings from the survey of training for specialist dyslexia teachers are reported at Annex 3.

The BDA has been asked to consider whether they might consider further their accreditation criteria in the light of observations summarised above. This review also urges all providers of training for specialist dyslexia teachers to apply for BDA accreditation because it is only through consistent accreditation that parents, professionals and employers can be clear about what competences it is reasonable to expect of practitioners holding particular qualifications.

Although the accreditation arrangements for courses that train specialist dyslexia teachers require some further rationalisation, as noted in Chapter 3 the specialist expertise of these teachers is needed for those children whose literacy difficulties have been least responsive to earlier interventions, whether or not those

difficulties have been identified as indicating dyslexia. To enable more schools to arrange for teachers to obtain training to become specialist dyslexia teachers – and for other schools to have improved access to this specialist expertise – **the review makes the following recommendations:**

Local authorities should consider with schools how they might form groups which could share the resource of a specialist dyslexia teacher.

The DCSF should ask the BDA to review their accreditation criteria for training courses for specialist dyslexia teachers so that courses cover good practice Wave 1 teaching of reading and writing, and how a child's literacy would normally develop if s/he is not experiencing difficulties.

The DCSF should fund a number of teachers to undertake appropriately accredited specialist training in teaching children with dyslexia, in order to provide substantially improved access to specialist expertise in all schools and across all local authority areas.

4.4 Quality assuring schools' provision of literacy and dyslexia interventions

Establishing excellent literacy and dyslexia interventions requires schools to take stock of what is already in place for children with these difficulties, rigorously monitoring and evaluating the impact of this provision on their progress, and considering what more needs to be in place, and what current provision might need to be changed.

All maintained school governing bodies have statutory duties to conduct their schools with a view to promoting high standards, and to use their best endeavours to make necessary provision for

children's special educational needs¹²³. **The review therefore makes the following recommendations:**

Headteachers and governors should audit school provision to make sure that it complies with 'The Special Educational Needs Code of Practice'¹²⁴ and the statutory duty on community, voluntary and foundation schools to use their best endeavours to ensure that the necessary provision is made for any pupil who has special educational needs¹²⁵. By definition, this will include identifying and making necessary provision for children with dyslexia.

The first step in identifying that children may have dyslexia is to notice those making poor progress in comparison with their typically developing peers, despite high quality Wave 1 teaching. Therefore, Local Authorities and the National Strategies should work with schools to make sure that they have in place good monitoring arrangements to ascertain that Wave 1 teaching is of a high quality, especially in teaching word recognition and language comprehension skills in keeping with the 'simple view of reading'.

With the help of local authorities and the National Strategies, all primary and secondary schools should evaluate their intervention programmes, and make sure that where the expertise required for these programmes needs to be strengthened, steps are taken to do so.

123 Education Act 2002 section 21(2) and Education Act 1996 section 317

124 Published by the Department of Children Schools and Families (previously the Department for Education and Skills):
<http://inclusion.ngfl.gov.uk> or
<http://www.teachernet.gov.uk/docbank/index.cfm?id=3724>

125 Education Act 1996 section 317

The Department should consider asking Ofsted to undertake a survey to evaluate the extent to which, and with what impact, primary and secondary schools are using interventions to advance the progress of children and young people experiencing a wide range of literacy difficulties. This should be timed to provide an opportunity to evaluate the implementation of this review's recommendations.

4.5 Local authority support services

A survey was undertaken of how local authorities provide dyslexia support services to schools. Responses were received from 28 of the 36 authorities contacted. The survey is reported in detail at Annex 4. Key findings included:

- In about three quarters of the authorities, local authority support for schools included identifying training needs for dyslexia and developing dyslexia policies, as well as developing “dyslexia friendly”¹²⁶ schools, and developing materials for schools.
- Two thirds of the authorities said they were responsible for deploying specialist staff within the authority, monitoring the effectiveness of policy, and targeting schools for support. Just over a third of authorities prepared materials for parents.

126 “Dyslexia friendly schools are able to identify and respond to the “unexpected difficulties” that a dyslexic learner may encounter... A particular feature of such schools is the awareness among all teachers of what each pupil should be able to achieve, together with a range of response strategies when targets are not met... Dyslexia friendly schools are proactive schools because they believe in the importance of “rigorous scrutiny followed by immediate intervention”.” (BDA, 2008)

- Three quarters of the authorities either already had in place or were preparing a written policy on dyslexia. Three quarters also produce guidance for schools on dyslexia friendly classrooms. 80% produce documentation on literacy interventions. Just over a third produce guidance on maths interventions and access arrangements for examinations.
- During interviews, local authority officers recognised that dyslexia affects a significant proportion of children and young people. High quality Wave 1 teaching and the provision of effective interventions for those children requiring them were seen as important to achieving positive outcomes.
- The authorities prioritise training, with nearly all providing training for SENCOs, and on interventions for children with dyslexia and other specific learning difficulties, as well as whole school awareness training.
- Most of the authorities provide specialist support for pupils at School Action Plus, and just over half provided this for pupils with statements for dyslexia or other specific learning difficulties.
- In a few of the authorities there was a specialist unit or centre at primary level, and in just over a third there was a specialist unit or centre at secondary level. Access to specialist centres/units is invariably available free to schools, but occasionally this depends on certain access criteria being satisfied (e.g. evidence of unsatisfactory progress and a history of interventions used with the child). In some authorities access is through a statement.
- Six authorities provided information on outreach services provided by their specialist centres or units. All of these services provided dyslexia training for teachers, and five provided whole school training, including planning and evaluating intervention programmes. Three also provided

identification, screening and assessment for dyslexic pupils, and SENCO training.

- Almost all the authorities hold information on dyslexia/SpLD qualifications held by teachers working for their central support services. 8 authorities had fewer than five qualified specialist teachers; ten had from 5-10, one had 11-15, three had from 16-20, and two had more than 20. It is clear that some authorities have put considerable effort into ensuring they have in place specialist teachers with relevant qualifications.
- Very few authorities maintain a list of self-employed specialist teachers that was shared with schools or knew how many specialist teachers were directly employed by schools within the local authority.
- It was accepted that parents' perceptions of both dyslexia and what constitutes good practice for dyslexic children may not always match those of schools, making it important that schools explain their actions and are open and transparent in their dealings with parents. It was also acknowledged that some parents feel that unless their child is openly acknowledged to be dyslexic, resources necessary for the child's progress would not be made available and this anxiety can show itself through dissatisfaction with the resources and support which are actually in place for their child. However, it can be seen from many responses to the call for evidence that many parents feel very unclear and uninformed about what support, if any, is in place. This suggests there is considerable variation in practice at both school and local authority levels.
- In nearly all the authorities, dyslexia support was in most cases provided free of charge to schools by the central support service, but six authorities reported that schools also used their delegated budget for this, and five that schools also bought in services from external providers. In one authority, the central service provided assessments free of charge to

schools, but schools then had to buy in specialist teacher support from the central service. In another authority, extra time for school staff to provide individual support to dyslexic pupils was funded centrally subject to allocation by an Allocation Panel.

In responding to the recommendation that more teachers should be encouraged by the DCSF to undertake training to become specialist dyslexia teachers, it is important that schools take responsibility for building capacity to improve outcomes for children with literacy and dyslexic difficulties. Chapter 1 of the *SEN Code of Practice* reminds local authorities of their strategic role in ensuring that the needs of children with SEN are identified and assessed quickly, and matched by appropriate provision. **The review therefore makes the following recommendations:**

Local authorities should set out how schools can secure access to sufficient expertise to meet the needs of children with literacy and dyslexic difficulties.

Local authorities should consider with schools how they might form groups which could share the resource of a specialist dyslexia teacher.

Chapter 5

Tackling difficulties beyond reading that are also associated with dyslexia

'When I put my hand up in class they ask other people because they give better answers'

'Sometimes when the teacher's talking you don't understand what she's saying'

Mainstream Primary pupils

'It takes too long to write down from the board... they start going though other things when I'm still writing, then I get confused'

'If I'm interrupted it's hard because my writing's really slow'

'If someone talks to me then I can't remember what I was writing'

Mainstream Primary pupils

'I couldn't keep up with the pace because we would be doing something completely different in next lesson'

Pupil attending a specialist school reflecting on her mainstream experience

5.1 Characteristic and Co-occurring difficulties

Difficulty in learning to read is often only one of several barriers to achievement for children with dyslexia. This Chapter looks at other barriers that they may face, and at ways in which schools and parents can help children to overcome them.

It can be seen from the working definition of dyslexia in Chapter 1 that children with dyslexia can have characteristic difficulties with areas such as:

- Phonological Awareness
- Verbal memory
- Verbal processing speed.

Difficulties in these areas can be thought of as reflecting disorders in the systems that are involved in processing information about word-sounds (phonology). In practice, this means that children with dyslexia often find it hard to:

- retain spoken information within their short-term memory systems
- access spoken information from long-term memory
- reflect on the units of sounds within words.

It is not difficult to see how such a set of difficulties would impact on the learning of vital aspects of reading and writing, such as encoding, decoding, segmenting and blending.

In addition, the definition identifies the following difficulties which, although not part of the dyslexic pattern, can co-occur with it:

- Aspects of language (Speaking and Listening)
- Mental calculation
- Concentration and attention
- Motor co-ordination
- Personal organisation

The first two difficulties are thought to relate to the same core weaknesses in processing spoken words that impact on literacy. Phonological difficulties may affect speaking and listening skills, and the ability to remember a list of instructions or to retrieve a

name to label something quickly. It is also thought that similar processes are required for some aspects of mathematics; number facts and procedures need to be retrieved and held in short-term memory, as do stages of calculations which need to be remembered. Because the same processes are involved in different kinds of learning task, a dyslexic child may well face difficulties not just in reading, although it is important to note that children will vary in the extent to which this happens.

These kinds of difficulties can occur as part of a dyslexic pattern but there are other reasons why some people have difficulties say with mathematics. These are said to be co-occurring difficulties and are not part of the core characteristics of dyslexia.

The remaining difficulties noted above often occur alongside dyslexia and fall into two types. There are those that are thought to relate to difficulties in different sets of cognitive or sensory processes such as motor co-ordination difficulties, concentration and attention difficulties are of this type, and visual stress may be added to this list¹²⁷. Secondly, there are consequential difficulties which may occur as a result of the primary difficulties. For example, problems in personal organisation can be a consequence of poor literacy and inefficient short-term memory. Similarly loss of self-esteem and disaffection may arise because of children's

127 Twin studies are helpful in showing whether co-occurrence can be partly related to genetic factors. For example, there is evidence that dyslexia and Attention Deficit Disorder (ADD) may have contributory genetic factors in common. In the case of dyslexia and motor co-ordination difficulties, on the other hand, it is argued by Rochelle and Talcott (2006) that their co-occurrence entails no causal connection from one to the other. Hulme and Snowling (2009) discuss the reasons why precise figures for the co-occurrence of different types of difficulties cannot be given. These include the need to assess representative samples rather than referred groups, issues of criteria used in identification and the fact the developmental difficulties of all kinds are typically on continua

experience of the impact of dyslexia, including the negative reaction of others to their difficulties.

In providing fully for children with dyslexic difficulties, it is especially important to make sure that efforts focus not only on tackling literacy, but account is also taken of any co-occurring difficulties confronting the child.

Evidence

There is much less published research on ways of addressing the wider difficulties associated with dyslexia compared to research on addressing difficulties with reading. However, dyslexic people often report that it is the difficulties aside from reading which are most frustrating and, potentially, most limiting.

The responses from specialist teachers to the call for evidence and to the survey undertaken by the Institute of Education and the University of York, confirms that the support provided, particularly for older children, often includes developing organisational and study skills, and the use of information and communications technology. The guidance in the remaining sections of this chapter draws extensively on the experience of practitioners. In particular, Dyslexia Action trainers have contributed to the section on teaching study skills, and some members of the BDA New Technologies Committee have provided further information about the use of ICT, building on information provided to the Expert Advisory Group by that Committee.

5.2 The range of difficulties and strategies for addressing them

5.2.1 Continued support for reading difficulties

Doing all possible to ensure that children are able to “read to learn” is not a responsibility that ends when they leave primary school. It is essential that secondary schools continue to identify children

who are falling behind because of literacy difficulties and that they provide appropriate interventions. Ensuring that as many children as possible are able to “read to learn” is not a responsibility that ends when children leave primary school. Professor Greg Brooks’s guidance states that although there are relatively few interventions that have been produced specifically for secondary school-aged children, there are some that have been evaluated as being effective, especially for reading. Brooks notes that “provided they receive continuing support, children ... should be better able to cope with the secondary curriculum”¹²⁸.

5.2.2 Making sure children understand what they are reading

Obviously, it should not be assumed that because a dyslexic child’s word recognition skills are improving, their understanding of what they are reading improves at the same rate. Difficulties with comprehension can be particularly persistent for a number of reasons. First, when decoding is effortful, readers are likely to be unable to give sufficient mental resources to understanding what is being read¹²⁹. Secondly, some children with dyslexia may have additional difficulties with aspects of language, for example the understanding of grammar. Thirdly, when decoding difficulties are longstanding, children may not have developed efficient strategies for reading comprehension because of limited practice and low print exposure. Finally, lack of reading practice can impact on the development of vocabulary knowledge which, in turn, makes reading more difficult and less rewarding. It is therefore important to

128 Brooks (2007) page 31

129 Singleton (2009) notes on p 50 that:
“Reading fluency is essential for good comprehension (see Chard, Vaughn & Tyler, 2002; Kuhn & Stahl, 2003). Children who read very slowly and struggle with decoding many words in text will experience a greater working memory load, which affects comprehension (Gathercole, Alloway, Willis & Adams, 2006; Pickering & Gathercole, 2004)”

monitor the comprehension of children in reading interventions as well as monitoring the development of their decoding skills.

Some children have problems in reading comprehension but little difficulty with decoding because they may not have been identified as having reading comprehension difficulties in the early stages of primary school. Although they would not be described as dyslexic, it is, of course, important that they are given support to develop their comprehension skills. Research is still at an early stage in terms of our understanding of the characteristics of this group of specific 'poor comprehenders' and the approaches to teaching that are the most effective for them.

Brooks concludes that "children's comprehension skills can be improved if directly targeted ... Engaging the child in exploring meaning embeds the relevance of reading for life, expands vocabulary and broadens the range of texts. Children falling behind their peers need both carefully structured reading material and rich, exciting texts"¹³⁰. His guidance contains details of suitably evaluated interventions.

To help children address reading comprehension difficulties, Dyslexia Action suggest that the following adjustments and strategies can be effective. Some of these strategies are designed to support comprehension directly and others do so by minimising the impact of inefficient decoding skills.

130 Brooks (2007) page 31

Adjustments to classroom environment – what could be provided?	Teaching strategies – what could be done?
Talking worksheets Visual symbols to support poor reading ability – e.g. labels on resources Voice recorders Simple dictionary/thesaurus Providing subject glossaries in hard copy and electronic format Highlighter pen for key words/ concepts Whiteboard adjustments	Highlighting and discussing new subject vocabulary Use of differentiated reading materials Use of visual cues to support reading Teaching how to highlight key words Checking understanding Using ICT Teaching metacognitive strategies (see section 5.3)

Further guidance on teaching comprehension strategies and developing vocabulary can be found in the report of the US National Reading Panel

<http://www.nichd.nih.gov/publications/nrp/upload/report.pdf>

More information about the use of ICT in supporting and teaching children with dyslexia is provided at the end of this Chapter.

5.2.3 Spelling and writing

Even when good progress has been made in reading, problems in spelling and writing may persist as part of continuing difficulties in encoding i.e. turning sounds into print. On the other hand, as noted in Chapter 2, it may be only later in school, when a child’s oral work appears considerably better than his or her written work that teachers and parents begin to consider the possibility of dyslexia. Whether identified early or late, there is no doubt that problems with spelling and writing are an enduring characteristic of dyslexia. Some children with dyslexic difficulties may have additional problems with the physical aspects of handwriting, with some reversals and badly formed letters and omissions of words. For

others, handwriting may be neat, but slow (which can lead to difficulties with note taking – see Annex 6 for some guidance to dyslexic students on note taking, note making and written work in general).

If the process of writing is very effortful, it can be difficult for a child to concentrate on what they are trying to get across. As a result, written work may drift off the point, or be extremely short. Difficulties with self-organisation (discussed below) can show themselves in the ability of a child with dyslexia to plan and deliver long pieces of more complex written work.

To help children address difficulties in spelling and writing, the following adjustments and strategies can be effective:

Adjustments to classroom environment – what could be provided?	Teaching strategies – what could be done?
Suitable writing tools and ICT Other technology e.g. digital recorder Choice of handwriting tools Cue card key ring for spelling Displays/cue cards for specific spelling rules/difficulties with reversals etc. Written homework instructions	Using errors to inform teaching points Using ICT for recording (eg a laptop for written work which enables the child to correct mistakes without mess, or more easily to insert material missing from an earlier part of a written account) Encouraging different ways of recording information Using a multi-sensory teaching environment ¹³⁴ Teaching strategies to help with planning written work Avoiding the requirement to copy from the board

131 A multisensory teaching environment is one where there is active and interactive integration of visual, auditory, kinaesthetic and tactile elements. See Singleton (2009) p23

No to Failure's evaluation report indicated that the specialist teaching delivered in the trailblazer schools enabled significant improvement in spelling for Year 3 and Year 7 pupils alike¹³². Brooks provides details of interventions where evaluations have demonstrated their effectiveness in improving spelling¹³³; but he also notes that evaluations of programmes to address writing difficulties are very rare.

5.2.4 Verbal memory and verbal processing speed

In Chapter 1, it was noted that verbal memory is the ability to retain an ordered sequence of verbal material for a short period of time for example to recall a list of words or numbers, or to remember instructions. It was also explained that verbal processing speed refers to the time taken to process familiar verbal information, such as letters and digits.

Difficulties in verbal memory, may include an inability to recall verbal instructions, and slow or no responses to questions, both of which can lead to the impression that the child has not been paying attention. At later stages of schooling, problems with note taking, essay planning and self-organisation can be seriously troublesome for a child with greater than usual difficulties in verbal memory. Ways in which such difficulties can be addressed are covered in section 5.2.10 and Annex 6. Further guidance can be found at: <http://www.york.ac.uk/res/wml/indexteachers.htm>

5.2.5 Language Difficulties

There is strong evidence of overlap between specific language impairment and dyslexia: between 35 and 40% of children with reading problems have been reported to have language impairment and vice versa¹³⁴. Longitudinal studies of young preschool children

132 No to Failure (2009)

133 Brooks (2007)

134 Bishop (2008), Bishop and Snowling (2004); McArthur et al, (2000); Catts et al, (2005)

indicate that broader oral language skills influence whether a child has a word reading difficulty at a later age¹³⁵.

In September 2007 the Secretary of State for Children, Schools and Families and the Secretary of State for Health asked John Bercow MP to review services for children and young people with speech, language and communication needs (SLCN). The Government welcomed the publication of the resulting Bercow Report¹³⁶ in July 2008 which made 40 recommendations to help improve services. *Better Communication*¹³⁷, the SLCN action plan providing the Government's full response to the Bercow Report was published in December 2008. It commits to a series of initiatives to improve services for children and young people with communication needs culminating in the National Year of Speech, Language and Communication in 2011.

Key new initiatives include a commitment to appoint a Communication Champion and form a Communication Council to encourage and support service improvements, a series of SLCN commissioning pathfinders which would develop a framework, tools and guidance for local commissioners, a £1.5m three year research programme looking at the cost effectiveness of interventions for children with SLCN and up to £1.5m in grants made by Becta to organisations supporting children with alternative and augmentative communication needs over three years.

135 Scarborough (1990), Snowling et al (2003)

136 *The Bercow Report: A Review of Services for Children and Young People (0-19) with Speech, Language and Communication Needs* published in July 2008 by the Department for Children, Schools and Families. Available at <http://www.dcsf.gov.uk/slcnaction/bercow-review.shtml>

137 *Better Communication: An Action Plan to Improve Services for Children and Young People with Speech, Language and Communication Needs* published in December 2008 by the Department for Children, Schools and Families. Available at <http://www.dcsf.gov.uk/slcnaction>

DCSF support for children with communication needs also includes the £40m Every Child a Talker programme which equips early years practitioners to provide effective support for children's language, and the Inclusion Development Programme which last year produced materials for the early years and schools workforce on working with children with SLCN. This included guidance on delivering material to children who may have difficulties understanding oral instructions, which is reproduced at the start of Annex 6.

5.2.6 Hearing and sight related impairments

Hearing related difficulties

If a child is experiencing oral language difficulties, it should be checked whether there may be a hearing difficulty. Addressing hearing difficulties is outside the scope of this review, however, guidance on teaching children with hearing impairments has been produced by the National Deaf Children's Society – available on: http://www.ndcs.org.uk/family_support/communicating_with_a_deaf_child/communicating.html

Where literacy difficulties are identified alongside a hearing impairment, consideration should be given to ensuring that difficulties associated with the hearing impairment and with acquiring and developing literacy skills are being fully addressed. This may entail seeking advice from a Hearing Impaired Specialist Teacher alongside an experienced literacy teacher or a specialist dyslexia teacher (whether or not dyslexia has been identified).

Sight related difficulties

It is also important that teachers discuss any concerns around suspected eyesight difficulties with a child's parents or carers, so they can consider arranging for their child to be seen by an NHS professional (eg optician or a GP).

Visual stress is a term used to describe the experience of eye strain, difficulty in focusing, headaches, and illusions of colour or movement in written text. These experiences may become more marked when reading for prolonged periods. Estimates indicate that about 20% of the general population experience some degree of visual stress, but lighting conditions, type and size of font, and degree of background contrast all affect susceptibility and severity¹³⁸. Visual stress is not generally recognised as a medical condition, although many optometrists and hospital eye clinics will identify it and provide treatment¹³⁹. Visual stress has sometimes been referred to as 'visual dyslexia', but there is no evidence supporting a causal link between visual stress and dyslexia. Although there is some evidence of increased prevalence of visual stress in children and adults with dyslexia¹⁴⁰, it is important to note that assessment of visual stress and response to treatment is usually by subjective report.

Where visual stress is identified or suspected, the most widely used intervention in schools is a tinted acetate overlay¹⁴¹. Many schools used pastel coloured paper for worksheets and handouts to alleviate these problems. The use of buff-coloured paper, for example, can cut down on visual anomalies and can support reading fluency and text access.

5.2.7 Arithmetic

It is not uncommon for children with dyslexia to experience difficulties with aspects of arithmetic, particularly mental calculation and numerical operations. For example, they may find it hard to learn and remember tables, and may find various mathematical symbols confusing. A child is struggling with understanding number symbols and operations is unlikely to be able

138 Singleton (2009a)

139 Taylor (2009)

140 White et al (2006).

141 See Singleton (2009) p 27

to give sufficient attention to understanding the conceptual problem to which an operation relates. Such children may also find it difficult to undertake tasks involving sequencing. Some dyslexic children continue to find simple mental calculations difficult, even if they are grasping higher mathematical concepts. There can also be difficulties with memorising formulae.

Alongside dyslexic children experiencing difficulties with numbers, there are other children who have problems with arithmetic and who seem to lack a 'sense of number' – this is referred to as dyscalculia¹⁴². Less is known about this group of children whose primary problem is with number skills but it is clear that some of them also have problems with reading.

To help support children who have difficulties with mathematics, the following adjustments and strategies can be effective:

142 See Butterworth (2008), Lewis, Hitch and Walker (1994), Gross-Tsur (1996) and DCSF (2005)

Adjustments to classroom environment - what could be provided?	Teaching strategies - what could be done?
<p>Posters on the wall - eg as constant reminders of mathematical signs and formulae</p>	<p>Teaching how to use support materials</p> <p>Structured, small steps teaching with over-learning built in</p> <p>Extended use of concrete materials may be required</p> <p>Putting number work into practical contexts</p> <p>Small packs of cards may be produced to aid the repetition and over learning of number bonds, tables etc. - the question on one side and the answer on the other. The child can then work through the pack from either side.</p> <p>Pelmanism and other matching games will help with reinforcement.</p>

There are numerous interventions available for addressing children’s mathematical difficulties. These have been helpfully summarised by Dowker¹⁴³.

5.2.8 Attention and Concentration

It is not surprising that children struggling with basic literacy may have limited concentration and appear to be fidgety and inattentive. In most instances appropriate support with overcoming literacy difficulties will help deal with this.

However, some children may have more serious difficulties, which could be indicative of the condition known as Attention Deficit

143 Dowker (2009)

Hyperactivity Disorder (ADHD) and sometimes as just ADD. ADHD is a behavioural syndrome characterised by the core symptoms of hyperactivity, impulsivity and inattention¹⁴⁴. There is evidence that children with dyslexia often also show characteristics of ADHD, suggesting some common contributory factors, but there are other children who have features of only one of these syndromes. As with all the difficulties mentioned in this chapter, what matters most is that monitoring and assessment is sensitive to the breadth of possible factors that impact on learning and that support is tailored to each individual's profile.

In September 2008, the National Institute for Health and Clinical Excellence (NICE) issued a clinical guideline on the diagnosis and management of ADHD which healthcare professionals are expected to take fully into account when exercising their clinical judgement¹⁴⁵. Symptoms of ADHD are distributed throughout the population and vary in severity; the guideline states that only those with significant psychological, social, educational and/or occupational impairment meet the criteria for a diagnosis of ADHD.

NICE's guideline is clear that diagnosis should only be made by a specialist psychiatrist, paediatrician or other appropriately qualified healthcare professional with training and expertise in ADHD, and gives guidance to professionals on appropriate treatment and multi-agency interventions.

It follows that where a teacher is seriously concerned about a child's ability to concentrate – especially where there is evidence of unusual levels of hyperactivity and impulsivity – this should be discussed with the child's parents or carers, with a view to them considering whether to seek advice from their General Practitioner in the first instance, who would make a referral to a medical specialist where this is judged to be appropriate.

144 See Hulme and Snowling (2009) for a review

145 NICE (2008)

The DCSF issued revised guidance on educating children and young people with behavioural, emotional and social difficulties (BESD) last year. In addition, the Department's 2001 guidance on *Promoting children's mental health within early years and schools settings* sets out general information on how mental health problems can present in children, and offers practical suggestions on what classroom interventions can support children in addressing associated learning difficulties¹⁴⁶.

5.2.9 Motor coordination

Some children have difficulties with fine motor coordination (drawing, handwriting, manual dexterity) and/or gross motor control (running, skipping, cycling) that are not serious enough to indicate a persistent learning problem. There are children, however, whose difficulties are so severe that they are identified as having Developmental Coordination Disorder (DCD, also known as dyspraxia)¹⁴⁷. DCD is not yet well understood, though causal links have been made to genetic and environmental factors that could affect brain development¹⁴⁸. DCD co-occurs with dyslexia but there are also dyslexic children who are good at activities involving art and physical education. Identification of and support for DCD will involve an Occupational Therapist or Physiotherapist.

The Dyspraxia Foundation's classroom guidelines are likely to enable teachers and support staff to help children address motor coordination difficulties. The guidelines can be downloaded from the following website: http://www.dyspraxiafoundation.org.uk/services/ed_classroom_guidelines.php

The use of ICT to support difficulties with writing can also be helpful, although it should be remembered that children with

146 Both sets of guidance are available through the following weblink: <http://www.teachernet.gov.uk/wholeschool/behaviour/schooldisciplinepupilbehaviourpolicies/besdguidance/>

147 See Sugden and Chambers (2005) for comprehensive reviews

148 See Hulme and Snowling (2009) for a review

co-ordination difficulties may have problems mastering the keyboard.

5.2.10 Personal organisation and study skills

Where it is evident that a child has difficulties with self-organisation, additional support will be needed, particularly at secondary school where the child is expected to develop clear strategies for:

- Organising time and workload
- Planning and organising written work
- Taking and making notes
- Planning to meet deadlines
- Revision and memory strategies for tests and exams

Some dyslexic children can appear very disorganised and forgetful eg overlooking homework commitments, missing appointments with teachers, or not bringing sports equipment or cookery ingredients on the right days. To emphasise an earlier point, not all children with dyslexia will experience these difficulties and others without dyslexia may experience the same problems

Within Dyslexia Action specialist teachers provide study skills courses for dyslexic learners and for teachers who wish to extend their understanding in this area. The experience of Dyslexia Action's teachers is that students gain confidence as they begin to see how best to approach tasks in different subject areas. The use of concept maps and other planning tools can help students to see an overview of the task, and so it becomes less daunting. They can then begin to break the task down, to organise and sequence it, and begin the necessary writing, sticking to the plan and focusing on what is important. These planning tools and the use of ICT are referred to within the dyslexia section of the Inclusion

Development Programme materials (IDP)¹⁴⁹. The message here, as in all of the IDP materials, is that these strategies will be of value to *all* students, not just those with dyslexia or other specific learning difficulties.

To help children address personal organisation difficulties, the following adjustments and strategies can be effective:

Adjustments to classroom environment – what could be provided?	Teaching strategies – what could be done?
Timetable with analogue clocks Colour coded time table Colour coding to aid organisation skills Examples of planning strategies eg concept maps, flowcharts, timelines Written homework instructions	Clear, short instructions with visual support ¹⁵³ Referring to visual timetable Giving time to finish tasks Show how to work backwards from a deadline to plan work or revision Always give the big picture – an overview of a lesson at the beginning, and summarised again at the end Small steps with clear learning intentions

5.2.11 Disaffection and developing coping strategies

‘Nothing succeeds like success’. Pupils who progress well take pride in their efforts. Their confidence in being able to complete a task brings them half-way towards doing so. The situation for children with learning difficulties can be the opposite. A child facing constant difficulties in the classroom is likely to approach their learning believing they cannot complete it, and may start to engage in avoidance and/or develop low self-esteem and disaffection.

149 <http://nationalstrategies.standards.dcsf.gov.uk/primary/features/inclusion/sen/idp>

150 Price (2007)

As children get older, low self-concept is exacerbated by comparison with peers who may appear to be gaining more recognition for their efforts and results.

While feelings of frustration and anxiety are not the causes of dyslexia, they can exacerbate its effects and result in low self-esteem and disaffection¹⁵¹. Overcoming these adverse emotional consequences depends on building strong individual resilience and coping strategies, and school and family support for learners experiencing dyslexic difficulties.

Some dyslexic children seek alternative rewards and recognition by becoming 'the clown of the class' and amusing their peers during lessons, or become disruptive to avoid yet more difficult tasks. Others may become very withdrawn, either as a result of feeling daunted by what they are asked to do, or because they are tiring from finding reading and writing so effortful.

Disaffection with school can be seen in disruptive behaviour, especially at secondary school, if young people feel difficulties are not acknowledged by school staff. Times of transition can be particularly challenging to the young person and their family, eg transition from primary to secondary school. There is important guidance on what should be done by schools to ease transition from the primary to the secondary phase contained in Chapter 6 of the SEN Code of Practice.

All the above mentioned factors can make it more difficult for teachers to notice that a child has dyslexic difficulties. Children should never be denied access to support and assessment because of apparent behavioural difficulties; instead, the priority should be to investigate the factors that lie behind those difficulties.

151 Carroll et al (2005), Chapman and Tunmer (2003). See Burden (2008) for a review

When helping children and young people cope with their difficulties¹⁵² schools will often have to support them on an emotional as well as a cognitive level, if they are to fully overcome the frustration, sense of shame, humiliation and anxiety which they may face. It can help if children are encouraged to talk about how they feel about their difficulties, in a calm and reassuring manner. Some schools report that it helps if young people are taught simple relaxation and calming techniques, to use when they feel anxious about their school or homework. This is especially pertinent to the young people at secondary school where they are expected to take increasing responsibility for their learning.

It is very important that a child is encouraged to take a positive view of themselves and their abilities rather than dwell on difficulties and challenges which undermine confidence. While negativity may result from the comments of others, children may also have poor self-esteem especially at school. For example, when asked to read aloud in class they, may panic and tell themselves that they 'can't do it' or that they're 'rubbish at reading' and thus hamper their efforts and reinforce their sense of failure.

Obviously support from parents must be integral to the help offered to the child. Seemingly small things like encouraging children to join a club outside school, where they can focus on enjoying a different activity, or finding activities in school where they can experience success are all helpful.

To help promote children's self-esteem and confidence, the following adjustments and strategies can be effective:

152 See Burden (2005), Nash (2006)

Adjustments to classroom environment – what could be provided?	Teaching strategies – what could be done?
Variety of ways of recording (eg use of laptops) Positive reinforcement of strengths Carefully differentiated learning tasks without over reliance on worksheets Grouping children not according to literacy abilities but according to their levels of understanding and interest in the topics	Praising work for effort and content and not only accuracy. Encouraging different recording methods Supporting alternative methods of presenting knowledge Considering seating arrangements and promoting peer support

Brooks says that: “Working on children’s self-esteem and reading in parallel has definite potential ...Building strong and trusting relationships between teacher and child is an essential prerequisite for accelerating learning. Schools need to provide a coherent network, using multi-agency support”¹⁵³.

5.3 Self-control of learning (metacognition)

Metacognition is a term used to describe the understanding of one’s own learning processes. Important goals for teachers are to help students towards this understanding and to take control of organising their learning. This is particularly important for students who have specific difficulties and are at risk of over-generalising from negative experiences believing themselves to be incapable of success. Having awareness of the processes of learning and thinking can help to show that difficulties are limited and specific and that ways of getting around them are possible – even if more laborious than for those without difficulties who seemingly achieve success without knowing how they do it.

153 Brooks (2007) p 31

Students should be encouraged to apply the following questions to all of their work:

Purpose	Why am I doing this? 'Do I know what the objectives are for this lesson?'
Outcome	What is the required end product? 'Do I know what a good example of this would look like?'
Strategy	What strategy should be used? 'Do I know which strategies I can use to help me achieve this?'
Monitoring	Was it successful? 'Did I meet the learning objective for this lesson?'
Development	How can it be improved? 'Could I have done it better?'
Transfer	Can it be transferred to another skill? 'What have I learned from this lesson that I could use in another subject or situation?'

5.4 ICT

There is helpful coverage of the use of ICT material in teaching and supporting children with dyslexia in Chris Singleton's *Intervention for Dyslexia* report. Clearly, ICT has an important role to play for those with dyslexic difficulties but some notes of caution need to be sounded here.

Brooks says that "ICT approaches work best when they are precisely targeted ... the mediation of a skilled adult is essential to ensure technologically-driven schemes meet children's needs. Time needs to be allocated effectively so that the diagnostic tools of programmes can be used for each child appropriately"¹⁵⁴. Thus ICT should be seen as part of the solution and not the complete

154 Brooks (2007) p 31

solution: simply giving students access to technology without supporting them in understanding how it works and then embedding its use in classroom routines is unlikely to succeed.

Computers can remove time and energy consuming tasks that are not central to the main learning objectives¹⁵⁵. For example, a computer can remove the impact of poor handwriting and minimise the impact of poor spelling in a writing task, and revising or redrafting no longer requires extensive copying out.

Further benefits relate to the opportunities that computers provide for modifying and adapting the presentation of learning materials. This might be as simple as using text-to-speech conversion or enlarging and reformatting text, and within training programmes there are opportunities to provide immediate feedback and to tailor the level of difficulty to the learner's current needs. From a teacher's point of view, there are advantages in terms of monitoring the pupil's performance.

Examples of helpful use of ICT include:

Spell Checkers

Spell checkers are perhaps the most obvious kind of technological support for those with spelling and writing difficulties, although they are not without difficulties. For example most cannot readily identify where an error is a homophone (eg their, there, they're) or the error just happens to be another word, (eg form, from). More recent spellcheckers are including context sensitivity to help identify some of these errors.

McNaughton, Hughes, and Clark (1997) investigated the proof-reading accuracy of college students with Specific Learning Difficulties, using five different methods: handwriting, word processing, handwriting with a dictionary, handwriting with a handheld phonetic spell checker, and a spell checker integrated

155 Underwood and Underwood (1998)

with word processing. They found that students identified and corrected about 60% of their errors with the integrated spelling checker, whereas to the handheld spell checker and dictionary did not help with detecting errors at all.

Text-to-Speech

Text-to-speech functions enable the computer to read out text from a computer screen. This can help dyslexic students in two ways:

Reading Support: Students with poor reading can have text read out to them by-passing the problem with word decoding. Some programs combine text-to-speech functions with the ability to scan in text documents and convert it into an editable format so that students can hear the document read out, and some come with a highlighting function which highlights the word as it is read aloud.

Proof Reading: Text-to-speech functionality can also be used to proof read documents, for example highlighting where a word may be missing or a reversal error (from/form) may have occurred. This function increases dyslexic children's independence as they do not have to rely on family, friends or teaching staff to correct their work.

Speech Recognition

Speech recognition programs can transcribe what the computer user is saying. As many dyslexic students have better oral abilities than writing skills, having their work transcribed automatically can be very helpful. It can also be particularly useful for those students who have poor typing skills due to sequencing problems. Using a speech recognition program to write requires a lot of time and effort to get to a workable level and there are significant technical considerations. It should also be remembered that there is a significant difference between 'spoken text' and written text and that a stream of spoken text will require further work to turn it into an acceptable written format. The Speech Recognition in

School guides, published by the Call Centre offer advice of using speech recognition within schools.

5.5 Concluding observations on addressing wider difficulties

This chapter has considered the wide ranging characteristics of dyslexia and some of the so called 'co-occurring difficulties' associated with it. Wider difficulties affecting reading may call for children to learn 'coping strategies' on the way to developing more proficient reading. Emphasis has also been given to the monitoring of children's performance and openness to adjusting provision that should continue throughout their education. It cannot be stressed enough that individuals differ in the extent to which they have co-occurring difficulties and in the extent to which their core dyslexic difficulties impact on learning.

The importance of addressing reading and writing difficulties throughout schooling has been emphasised, along with the importance of being alert to difficulties beyond decoding and encoding print, for example, difficulties with comprehending text that may not be apparent until later stages of schooling.

Good support depends on getting the balance right for an individual, taking account of their particular difficulties and their learning needs at different stages of education. Alongside specialist programmes to boost learning skills, attention has been drawn to the importance of and exploiting the new technologies of ICT, and of promoting self-respect.

Annex 1

Current teacher training developments

Through initial teacher training and continuing professional development, the DCSF has taken the following steps to develop workforce knowledge, skills and understanding of SEN and disability:

Working with the Training and Development Agency for Schools (TDA):

- Encouraging initial teacher training providers to build on their coverage of SEN and disability by offering specialist units for primary undergraduate initial teacher training (ITT), launched in June 2008, with £500,000 funding to aid dissemination. These include a Unit entitled “Learning and Teaching for dyslexic pupils”;
- Similar units for secondary undergraduate courses and for post graduate teacher training (PGCE) courses will be rolled out in September 2009;
- Developing materials enabling subject/ curriculum tutors to check their knowledge of SEN and disability in relation to their subject area;
- Promotion of enhanced opportunities for student teachers to gain experience of working in special schools or other specialist provision;

- Promoting the use of specialist materials for the induction of new teachers’;
- Developing nationally approved training for Special Educational Needs Coordinators (SENCOs), who have a key role in each school in ensuring effective provision for children with SEN and disabilities, and are an important link with parents.

Working through the National Strategies:

- Investing further in the Inclusion Development Programme, which started in 2008, to raise the knowledge, awareness and confidence of teachers and other school staff in working with children with SEN. The Phase 1 materials, now available to LAs and schools, focus on training on children’s communication difficulties (including dyslexia). Round 2 materials on autism are being issued this year, and in 2010 the materials will focus on children who have behavioural, emotional and social difficulties (BESD).

Other initiatives:

- Developing Trusts to promote best practice in relation to dyslexia, communication needs and autism, in partnership with voluntary sector organisations;
- Promoting voluntary sector produced guidance on teaching children with particular needs, through Teachernet;
- Providing School Improvement Partners (SIPs) with guidance to support them working with schools at how they are improving outcomes for children with SEN and disabled children.
- Encouraging special schools to provide outreach services to mainstream schools.

Annex 2

A survey of the key features of specialist dyslexia teaching

For the purposes of the research undertaken by the Institute of Education and the University of York, a list of key features of specialist teaching was drawn up in consultation with four dyslexia organisations. Respondents selected from a list of 20 features the 10 which they felt most important for effective pupil progress. The rank order of the 20 features and the percentage of respondents selecting each are shown in Annex 5.1. On the assumption that features considered important would differ according to educational stage, data were analysed by age group taught. Tables 1 and 2 show the rank orderings of respondents who work within KS1 and 2 or KS 3/4, HE and FE. These data should be interpreted cautiously, as the proportion of respondents working only in each single age range never exceeded 12%.

There was considerable uniformity between the responses made by teachers teaching in KS1/2. Multi-sensory teaching and learning was the most highly rated feature at all stages. Also ranked highly were: planning and delivering lessons so that pupils experience success, followed by planning and adapting programmes to meet individual needs, teaching a structured programme of phonics (82% for KS1), building in regular opportunities for consolidation & reinforcement of teaching points already covered. "Hearing pupils/

students read', which might be thought more important for the youngest pupils, was given a relatively low ranking.

In KS3 /4, teaching pupils effective learning strategies was also rated as important.

In FE, after multi-sensory teaching and learning, important elements were teaching students to develop effective learning strategies, planning and adapting the teaching programme to meet individual needs and teaching students to be aware of their own learning strategies. In HE the rank order differs from the overall list. Features in the top five on the HE list are 'Teaching pupils/students to be aware of their own learning strategies'; 'Showing sensitivity to the emotional needs of pupils/students'; and 'Promoting the ability of pupils/students to plan and use their time effectively in different learning contexts'.

These findings indicate that specialist teachers are differentiating provision to meet the various needs of learners and age groups. However the survey provided no information as to the balance of activities within sessions and how these changed with stage. Moreover the features deemed important are principles of teaching reading; less clear is the emphasis placed, for example, on teaching spelling.

Table 1. Features of specialist teaching thought to be most effective by those teaching KS1 (11 responses) and KS2 (48 responses)

Feature	KS1		KS2	
	Rank	% respondents	Rank	% respondents
Using multi-sensory methods for teaching & encouraging multi-sensory learning ¹	1.5	91	1	94
Planning and delivering lessons so that pupils/students experience success	1.5	91	3	79
Planning and adapting the teaching programme to meet individual needs	3.5	82	5	71
Teaching a structured programme of phonics	3.5	82	4	75
Building in regular opportunities for consolidation & reinforcement of teaching points already covered	6	73	2	81
Maintaining rapport with pupils/students	6	73	10.5	48

156 Multi-sensory teaching methods use more than one modality at once. These techniques are helpful for reinforcing learning in pupils with specific learning difficulties.

Feature	KS1		KS2	
	Rank	% respondents	Rank	% respondents
Planning a purposeful and engaging balance of activities in lessons	6	73	8	52
Teaching pupils/ students to be aware of their own learning strategies	9.5	64	13.5	40
Teaching pupils/ students to develop effective learning strategies	9.5	64	7	58
Showing sensitivity to the emotional needs of pupils/students	9.5	64	6	65
Teaching pupils/ students to improve their working memory	9.5	64	9	50
Selecting appropriate resources to support particular learning needs	12	55	13.5	40
Helping pupils/ students to develop their skills of concentration	13	45	17	21

Feature	KS1		KS2	
	Rank	% respondents	Rank	% respondents
Ongoing assessment and measurement of pupils'/students' progress	14	27	10.5	48
Hearing pupils/students read	15	18	12	42
Ensuring the teaching programme matches IEP requirements within the context of classroom and curricular needs	16	9	15	35
Promoting the ability of pupils/students to plan and use time effectively in different learning contexts		0	20	2
Considering the interests, views and levels of maturity of pupils/students		0	16	31
Other (please specify)		0	18	15
Using group situations to advantage to facilitate maximum opportunity for peer group learning		0	19	10

Table 2. Rank order of features of specialist teaching thought to be most effective by those teaching KS3/4 (114responses), FE (121 responses); HE (48 responses)

Feature	KS3/4		FE		HE	
	Rank	% respondents	Rank	% respondents	Rank	% respondents
Using multi-sensory methods for teaching & encouraging multi-sensory learning	1	89	1	93	4	73
Planning and delivering lessons so that pupils/ students experience success	2	76	9	59	11	46
Planning and adapting the teaching programme to meet individual needs	3	73	3	72	8.5	56
Building in regular opportunities for consolidation & reinforcement of teaching points already covered	4	70	5	66	12	31

Feature	KS3/4		FE		HE	
	Rank	% respondents	Rank	% respondents	Rank	% respondents
Teaching pupils/ students to develop effective learning strategies	5	65	2	81	1	81
Showing sensitivity to the emotional needs of pupils/ students	6	63	7	62	4	73
Maintaining rapport with pupils/ students	7.5	62	6	63	6	69
Selecting appropriate resources to support particular learning needs	7.5	62	8	60	10	54
Teaching a structured programme of phonics	9	61	14	35	16.5	12
Teaching pupils/ students to be aware of their own learning strategies	10	54	4	69	2	79

Feature	KS3/4		FE		HE	
	Rank	% respondents	Rank	% respondents	Rank	% respondents
Teaching pupils/ students to improve their working memory	11	53	11	51	7	60
Planning a purposeful and engaging balance of activities in lessons	12	50	12	48	16.5	12
Ongoing assessment and measurement of pupils'/ students' progress	13	44	15	31	13.5	25
Considering the interests, views and levels of maturity of pupils/ students	14	38	10	56	8.5	56
Hearing pupils/ students read	15	37	18	12	20	2
Helping pupils/ students to develop their skills of concentration	16	22	16	21	13.5	25

Feature	KS3/4		FE		HE	
	Rank	% respondents	Rank	% respondents	Rank	% respondents
Ensuring the teaching programme matches IEP requirements within the context of classroom and curricular needs	17	20	17	13	18.5	4
Promoting the ability of pupils/ students to plan and use time effectively in different learning contexts	18	16	13	43	4	73
Other (please specify)	19	6	19.5	9	15	21
Using group situations to advantage to facilitate maximum opportunity for peer group learning	20	3	19.5	9	18.5	4

Identifying children with dyslexia

80% of respondents are involved in screening pupils for literacy difficulties; the proportion is higher in the maintained sector. However, respondents interpreted 'screening' to mean investigations that went well beyond merely identifying those not performing at levels expected for their age. A wide range of assessments was carried out to screen for literacy difficulties, to assess individual strengths and weaknesses in reading and spelling in order to plan individual teaching programmes, and to identify pupils/students as dyslexic for resource or examination purposes.

All respondents assess reading when identifying dyslexic difficulties, 66% measure cognitive ability, 50% assess spelling, 33% assess writing speed and phonological processing, 20% memory and 20% use dyslexia screening tests in this context. Despite the co-occurring difficulties with numeracy known to be faced by some children with dyslexia, there were surprisingly few overt references to testing maths or arithmetic. Similarly, there was scarcely any overt reference to motor skills /dyspraxia, organisational skills, ADHD or Specific Language Impairment (SLI)..

Responses to the question of what criteria are adopted to decide that a pupil is dyslexic were received from 582 respondents and are summarised in Tables below: more respondents reported using some kind of discrepancy to identify pupils/students as dyslexic than any other category or criterion, with 145 respondents specifying discrepancy between cognitive ability and literacy attainments, which is not included in the definition of dyslexia adopted for this review (see Chapter 1).

Table 3 Percentage of respondents naming each type of measure used for the three different assessment purposes of screening, identifying strengths and weaknesses and identifying dyslexia

Type of test	Screen for literacy difficulties	Identify strengths and weaknesses in reading and spelling processes to plan teaching	Identify dyslexia for exam/resource purposes
Reading	100%	100%	100%
Spelling	44%	74%	49%
Phonological awareness	38%	34%	34%
Writing	20%	16%	37%
Dyslexia screening	57%	18%	20%
Phonic Knowledge	3%	21%	0%
ST/Working Memory	18%	16%	21%
Visual processing	5%	5%	5%
Cognitive ability	25%	14%	67%
Other	9%	5%	3%

For screening purposes, all respondents used standardised reading tests and about half use standardised spelling tests, dyslexia screening tests or batteries, a third assess phonological awareness and a quarter cognitive ability.

Assessments of strengths and weaknesses in reading rely heavily on standardised tests: all respondents used standardised reading tests and three quarters used standardised spelling tests, with a fifth assessing phonic knowledge. About 80% of respondents

include non-word reading in their assessments and about 36% reading comprehension. Few respondents mentioned comparing non-word and exception word reading. This comparison helps determine the mix of activities in any intervention programme designed to improve word reading accuracy.

Table 4 Percentage of respondents adopting specific criteria for deciding a pupil/student is dyslexic.

Keywords searched	Proportion responses
Discrepancy/ies (including misspellings); disparity/ies; difference; underachievement; unexplained; mismatch: <i>1. cognitive ability/literacy</i> <i>2. oral/written ability</i> <i>3. verbal/nonverbal ability</i> <i>4. reading acc /comp</i> <i>5. spiky profile</i>	43%
Phonological (<i>memory; processing; difficulties; processing difficulties; weakness; problems; poor skills; deficit</i>)	32%
Visual (<i>Perception; processing speed; memory; processing; difficulties; reasoning; sequencing; discrimination; impairments; acuity; skills; sequential memory</i>)	21%
Auditory (<i>Memory; perception; processing; discrimination; sequential; weakness</i>)	18%
Sequencing	8%
Refer to Ed Psych	6%
Organisation	5%
Use Dyslexia Screening Test	4%
Use Dyslexia Index	3%
Use BDA definition	2%
Use BPS definition	1%
Gut feeling	0.5%
Use Dyslexia Early Screening Test	0.3%
Use Lucid COPS	0.3%

Regarding individual assessment, more respondents reported assessing more children as their age increases. 80% of respondents assessed up to 10 KS1 and 10 KS2 pupils in the previous academic year, with few undertaking more than 20 assessments. In KS3 /4, 59% assessed up to 10 students, with 23% assessing more than 20. In FE and HE, 40% assessed up to 10 students, and 46% more than 20.

Monitoring progress and communicating findings

Specialist teachers communicate findings from assessments in face to face and occasionally in telephone discussions with pupils/students, class/subject teachers, parents/carers, and others. They also provide written reports to all these parties. FE/HE students are the group themselves most likely to receive a written report. The 'others' with whom findings are shared differ across age bands. For primary schoolchildren, SENCOs, LA dyslexia advisers and statementing panels, Educational Psychologists and Senior Advisory teachers might be kept informed.

For secondary schoolchildren, there is more emphasis on communicating findings within the school, with Heads of Year, SENCOs, and teachers kept informed, and individual IEPs shared. Local Authorities are informed through the Annual Review, with findings also communicated to the LA Specific Learning Difficulties (SpLD) team, Educational Psychologists, Speech and Language Therapists, and exam boards. In FE/HE, with the permission of students, findings are communicated to the exams office and exam boards, disability officers, support staff, Heads of Department, and Local Authorities.

Annex 3

Further information on training for specialist dyslexia teachers

BDA's course accreditation criteria

Chapter 4 explains that there are 2 levels of qualification for specialist dyslexia teachers, and that the British Dyslexia Association (BDA) Accreditation Board provides accreditation for courses that meet its professional criteria. The BDA website¹⁵⁷ explains that courses for specialist dyslexia teachers who are going to work with school aged children must meet the following criteria if they are to be accredited:

Approved Teacher Status (ATS) accreditation

It is expected that an ATS accredited course will enable candidates to achieve the following outcomes:

1. Demonstrate an understanding of the nature of dyslexia and identify children with specific learning difficulties in the classroom.
2. Make a diagnostic appraisal based on observation, assessment of attainment test findings, and demonstrate an understanding of the reports of other professionals.

157 <http://www.bdadyslexia.org.uk/accreditation.html> accessed on 30 May 2009

3. Demonstrate an understanding of structured, sequential, multi-sensory teaching, and design a teaching programme to meet specific individual needs at a basic level in learning, literacy and numeracy. Social and behavioural difficulties should be taken into account for each of the pupils in their specific teaching.
4. Construct, deliver and evaluate such a programme.
5. Review classroom organisation to facilitate individual learning within the National Curriculum framework or equivalent.
6. Communicate effectively with teachers, parents and other professionals by verbal and written reports on the needs and achievements of learners with dyslexia.
7. Demonstrate an understanding of the contribution of ICT in the screening and teaching of specific learning difficulties/dyslexia and a knowledge of the range of relevant technical aids to teaching.

The course must provide a minimum of:

- **40 hours** of lectures plus seminars, tutorials and study time,
- **20 hours** evaluated specialist teaching, of which **10 hours** must be with the same pupil. The remaining 10 hours may be with two different pupils, one of which could be taught in a group.
- **1 hour** of teaching to be observed and assessed by a tutor who holds **AMBDA**.

The following are essential points on observation of ATS accredited courses:

Observation of the 1 hour of evaluated specialist teaching is for the purposes of both formative and summative assessment.

Whether by direct observation or video/DVD, this observed specialist teaching must form a significant part of the process of developing the student's specialist skills. The hour should be followed by a written report to the student which should indicate how far that teaching currently meets the criteria.

Teaching should be evaluated by formal and informal means of observation, teaching diaries and the monitoring of pupils' progress. The teaching programme should be discussed and approved by the supervisor or tutor. Progress should be monitored with a final report on the quality of teaching.

All observation must be carried out by a course tutor who holds AMBDA.

This evaluation should take into account the quality of the observed teaching and the progress of the learner(s). The recording of lessons on video or DVD may be offered as a negotiable alternative provided they follow the [BDA Video/DVD Guidelines](#).

Teaching diaries and video/DVD and audio taped lessons should be provided supplementary to the main assessment of attainment of test findings. The teaching programme should be discussed with, and approved by, the supervisor/tutor and progress monitored by reference to set performance criteria.

The teaching practice must include a minimum of 10 hours with one pupil. The remaining teaching practice could be with two different pupils. One of these could be taught in a small group of no more than three pupils.

Associate Member of the British Dyslexia Association (AMBDA) accreditation

An AMBDA accredited course must enable the candidate to achieve the following outcomes:

1. Those competencies listed under Approved Teacher Status above and the following outcomes at postgraduate level.
2. Understand and critically appraise current research in specific learning difficulties/dyslexia and its relevance for teaching and learning.
3. Competently observe and assess the cognitive abilities and difficulties of students who fail to become competent in literacy and/or numeracy and to report appropriately on their needs and the provisions required.
4. Competently prepare and disseminate technical reports to specialist teachers and other professionals.
5. Critically appraise and reflect on a range of learning and structured, sequential, multi-sensory language and numeracy teaching programmes.
6. Design and evaluate appropriate programmes in relation to the assessed needs of a range of dyslexic learners.
7. Produce and critically evaluate appropriate programmes in relation to the assessed needs of a range of dyslexic learners, making reference to current research.
8. Demonstrate an understanding of the legal and professional issues that affect dyslexic students.
9. Demonstrate an understanding of the implications of social, emotional and community issues for dyslexic learners and their families.

The course must provide a minimum of:

- **90 hours** of lectures, seminars and guided learning hours plus private study time. It should include **12 hours** of lectures and

tutor led seminars devoted to the study of psychometric testing.

- **30 hours** of evaluated specialist teaching, a minimum of **12 hours** of which must be with the same pupil. The remaining 18 hours may be with two different pupils, one of which could be taught in a group.
- **3 hours** of teaching to be observed and assessed by a course tutor who holds **AMBDA**.
- **3 diagnostic assessment reports** stemming from three different assessments carried out under supervision and demonstrating a range of assessment experience. These must include:
 - supporting assessment plans;
 - working papers; and
 - related tutors' reports.
- **1 hour** of one of the above diagnostic assessments must be observed and assessed by a course tutor who holds **AMBDA**.

Use of lessons and assessments recorded on video/DVD is allowed subject to the procedures outlined below and must be in accordance with the [BDA Video/DVD guidelines](#).

The following are essential points on **observation** for **AMBDA** accredited courses:

Observation of the 3 hours of evaluated specialist teaching is for the purposes of both formative and summative assessment. This should be split into 1 hour segments and should take place at appropriate points during 30 hours of teaching.

Whether by direct observation or video/DVD, this observation must form a significant part of the process of developing the student's specialist skills. Each hour should be followed by a written report to

the student which should indicate how far that teaching currently meets the criteria.

Teaching should be evaluated by formal and informal means of observation, teaching diaries and the monitoring of pupils' progress. The teaching programme should be discussed and approved by the supervisor or tutor. Progress should be monitored with a final report on the quality of teaching.

All observation must be carried out by a course tutor who holds AMBDA.

For both types of courses

The website goes on to explain that in the case of both awards, assignments in the form of essays, case study and teaching and assessment reports should form part of the overall assessment. These should be made available if required.

The BDA considers these criteria to be essential in establishing Approved Teacher Status and Associate Membership of the BDA. However, it does not insist upon specific aspects of course structure or the academic aspects of assessment procedures. It also does not seek to act as a secondary examining body in these respects.

Any candidate wishing to seek BDA accreditation who has not fulfilled the practical components specified above will be required to attend and fulfil this within the framework of a BDA accredited course.

Candidates must apply for either ATS or AMBDA **within five years** of successful completion of a BDA accredited course. Any candidate who completed a course more than five years ago should contact the BDA office for further advice.

Awareness level courses

The BDA website also contains details of criteria for the accreditation of awareness level courses - available at <http://www.bdadyslexia.org.uk/alsa.html>

Further findings from the survey of specialist training providers

This section of Annex 3 reports information received from training providers, in response to a survey undertaken by the Institute of Education and the University of York. Additional information about training is taken from a survey of specialist teachers.

Specialist teachers were equally likely to have gained their specialist qualifications in each of the four time periods: last two years, 2 to 5 years, 5 to 10 years, and over 10 years. Maintained sector respondents were *least* likely to have qualified over ten years ago, suggesting that more maintained sector teachers are now seeking specialist training.

Overall, 15% of survey respondents held ATS or ATS approved qualifications, and 69% held AMBDA or AMBDA approved qualifications (explanations of ATS and AMBDA appear in Chapter 4).

40% of respondents trained with Independent training providers, 31% in HE institutions, 19% in FE colleges, and 9% in Local Authority CPD. 873 respondents supplied more detail about their training provider: 36% trained with dyslexia charities (18% Dyslexia Action, 10% Hornsby (now amalgamated with Dyslexia Action), 8% Helen Arkell). Few other independent training providers were cited (Partners in Education, 2%; Quantum Training, 1%).

The pattern of training is complex and difficult to unravel; it appears that terminology differs across HEIs with 'certificate' in some institutions being comparable in level to 'diploma' in others, and those holding qualifications are sometimes uncertain as to the nature or level of their qualification. This is further complicated by the fact that AMBDA/ATS may be awarded for courses offered both at different academic levels (Postgraduate Level 7 through to undergraduate level 5 – it is also understood there may be a level 4 course that is also ATS accredited) and also for courses offering different periods of study (one or two years part time).

Information from the BDA enabled contact to be made with all the training institutions listed as running BDA accredited training courses for specialist teachers of pupils and students with dyslexia /SpLD. Information was not gathered on courses not currently BDA accredited or seeking BDA accreditation, although such courses do exist¹⁵⁸. Nor was information gathered on training in assessment provided under the auspices of the National Committee for Standards in Specific Learning Difficulties Assessment and Training

158 For example, there are outreach (Graduate Certificate) and in-house (Masters) courses in literacy development and difficulties at the Institute of Education in London. They do not include the amount of individual and small group teaching, some of which must be observed, required for BDA accreditation.

(SASC)¹⁵⁹ and leading to award of a Specific Learning Difficulties Assessment Practising Certificate.

The BDA provided information on 28 HE institutions and/or local authorities which run one or both types of accredited course, or whose courses are awaiting accreditation. There are at present 17 providers of accredited courses leading to AMBDA, and a further two leading to AMBDA FE/HE. There are 17 providers of accredited courses leading to ATS, and a further four leading to ATS FE/HE. There are also two courses awaiting accreditation for AMBDA, four awaiting accreditation for ATS and one awaiting accreditation for ATS FE/HE. Details of these training providers are shown at Table 3.

Contact was made with all 28 course providers, both accredited and awaiting accreditation; 27 responded and of these, one stated their courses were no longer running because they were unable to meet the staffing criteria, and a further two sent no information. Thus, the summary below was compiled from information received from 24 training providers (17 AMBDA and 17 ATS courses, and 9 AMBDA and ATS FE/HE courses). Table 4 provides a summary of information gathered regarding costs of courses and amount of teaching practice required.

159 The remit of this committee derives from the SpLD Working Group 2005/DfES Guidelines. Courses currently approved for AMBDA do not require approval under the SASC process. However, it is understood that criteria from the Working Party Guidelines will be applied to courses seeking AMBDA re-accreditation from the beginning of the academic year 2008-2009.

Table 3 Current provision of training courses that are BDA accredited as at June 2009¹⁶⁰

Training institution	AMBDA	ATS	AMBDA FE/HE	ATS FE/HE
Bangor University	*	*		
Bath Spa University	*	*		
Birmingham University	*	*	*	*
Denbighshire LEA (Bangor validates)		*		
Durham LEA (Northumbria validates)	*	*		
Dyslexia Action (York validates)	*	*	*	*
East Sussex LEA (Sussex and Brighton validate)	*	*		
Edge Hill University	*	*		
Leicester LEA (Leicester validates)	*	*		
Liverpool John Moores University	*	*		
London Metropolitan University				*
Loughborough University				*
Manchester Metropolitan University	*	*	*	
Middlesex University				*
OCR	*	*		
Open University	*			

160 Some of the following providers offer courses at a number of locations and some by distance or on-line learning. Also, Manchester Metropolitan University's ATS course is an Initial Teacher Training (ITT) course so that those completing it will have their ITT and ATS after their probationary period.

Training institution	AMBDA	ATS	AMBDA FE/HE	ATS FE/ HE
Oxford Brookes University	*			
Somerset LEA	*	*		
University of Wales Newport	*			
Total accredited courses	17	17	3	5
Total courses accreditation pending	2	4	0	1
Courses included in summaries	17	17	3	6

Table 4 ATS and AMBDA courses: structure and costs

ATS	AMBDA
Entry requirements	
Usually QTS + minimum 2yrs teaching experience ¹⁶⁵	Usually QTS + minimum 2yrs teaching experience ¹⁶⁶
Qualification	
Certificate	Certificate or diploma ¹⁶⁷
Level 5-7	Level 5 or Level 7
60 M-level credits (Only valid if University offers Postgraduate award)	60 or 120 M-level credits (Only valid if University offers Postgraduate award)
Delivery by	
LA (N = 7; taught by LA staff, validated by University); Dyslexia Action (taught by charity staff, validated by University); taught by University (N = 7).	LA (N = 5; taught by LA staff, validated by University); Dyslexia Action (taught by charity staff, validated by University); taught by University (N = 10).
Course costs¹⁶⁸	
Courses range greatly in length, content and mode of delivery and therefore there is a wide range of costs to reflect this. The full range identified during fieldwork was from £490 to £4725.	
Additional cost to Local Authority	
Up to 8 days per annum supply cover	Up to 10 days per annum supply cover

161 Some courses accept 'exceptional' teaching assistants

162 Some courses accept speech and language therapists and other relevant professions

163 It is possible that inconsistencies between HEI and revised NQF levels is the cause of confusion here

164 The courses range in content and hence in cost

ATS	AMBDA
Lectures	
Minimum of 40 hours	Minimum of 90 ¹⁶⁹ hours
Delivery varies with the course from attendance at full day and twilight sessions to blended e-learning	
Seminars and workshops	
Hours vary from course to course	Hours vary from course to course
Private study time	
Recommended hours vary from course to course	Recommended hours vary from course to course
Specialist teaching practice	
Minimum evaluated specialist teaching hours 20 (at least 10 with a single pupil, 1-1)	Minimum evaluated specialist teaching hours 30 (at least 12 with a single pupil, 1-1)
Minimum hours of specialist teaching observed and assessed ¹⁷⁰ : 1	Minimum hours of specialist teaching observed and assessed ¹⁷² : 3
Assessment practice	
Some ATS courses are understood to include an assessment component, although ATS accreditation does not include assessment.	Minimum number of assessments required: 3
	Minimum hours of assessment observed and assessed ¹⁷² : 1
	Minimum number of assessment reports assessed: 3

The summary of ATS and AMBDA course content shown in Table 5 below is necessarily incomplete, as courses provided varying amounts of information in different formats. However, it does give an indication of the kinds of material covered, and of the 'core' material.

165 This includes a minimum of 12 hours lectures/workshops devoted to psychometric testing

166 Observation must be by a person with AMBDA qualification

Table 5 Summary of ATS and AMBDA course information

ATS	AMBDA
Course content	
The concept of dyslexia: <i>most</i>	Definition and identification of dyslexia: <i>all</i> Alternative theoretical perspectives on dyslexia: <i>most</i>
	Legal and statutory frameworks relevant to dyslexia: <i>about half</i>
Other difficulties which may co-exist with dyslexia (e.g. dyspraxia, dyscalculia, ADHD, SLI): <i>about half</i> ¹⁷¹	Co-occurring issues, especially dyspraxia and ADHD: <i>most</i>
Social and emotional issues	
The typical development of literacy skills, especially reading: <i>about half</i>	The typical development of literacy skills, especially reading: <i>about two thirds</i>
Introduction to a range of assessment measures: <i>all</i>	Introduction to a range of assessment measures: <i>all</i> Critical evaluation of assessment measures: <i>some</i> Psychometrics: <i>all</i>
Introduction to a range of teaching resources for dyslexic pupils, including ICT: <i>most</i>	Introduction to a variety of teaching methods (e.g. multi-sensory teaching, precision teaching, phonological approaches, metacognitive approaches): <i>all</i> ICT resources for dyslexic pupils: <i>all</i>
Cumulative, structured, multi-sensory teaching: <i>most</i>	
Structured phonics programs: <i>about half</i>	
Assessment of pupil: <i>all</i>	Assessment of pupil: <i>all</i>
Design and implementation of individual teaching programme based on assessment: <i>all</i>	Design and implementation of individual teaching programme based on assessment: <i>all</i>

167 Few courses included consideration of specific language impairment

ATS	AMBDA
Case study of pupil: <i>all</i>	Case study of pupil: <i>all</i>
	Working with other professionals (e.g. Educational psychologists, speech and language therapists, occupational therapists, physiotherapists, optometrists): <i>some</i>
	Inclusive dyslexia-friendly whole school approaches: <i>some</i>
Content specifically mentioned by small minorities of courses	
Working with parents	Talking with parents about their child's difficulties
Dyslexia-friendly practices and classrooms	Acting as advocate for pupils
Memory	Memory and learning
Visual processing	
Special arrangements at GCSE	Preparing pupils for formal examination procedures
Teaching and learning styles	Learning styles
Writing	Handwriting
The National Strategy for Literacy	Individual education plans
Intelligence (including multiple intelligences)	Multiple intelligences
Diet	The phonics debate (e.g. how much emphasis should be given to phonics; what kind of phonics).
Early identification of risk in KS1	The dyslexic brain: what is the evidence?
Evaluation of own professional development	Issues in phonetics and phonology
Study skills	Developing organisational and thinking skills

ATS	AMBDA
Emotional and behavioural issues and self-esteem	Working with and training Teaching Assistants to support pupils
	Differentiation in primary and secondary schools
Numbers of specialist teachers completing training, 2007-8	
No data collected	Data from 8 courses: 210 successful completions (63% from Dyslexia Action courses; therefore mean 11 completions across the other 7 courses)

ATS and AMBDA courses for FE/HE

Only two institutions providing AMBDA courses for FE/HE responded and neither differentiated between their AMBDA and ATS courses in the materials they supplied. We can therefore offer no insight into AMBDA FE/HE courses. All the ATS courses were Part Time 1-year courses, five run by universities, and the sixth by Dyslexia Action. Where institutions offered both ATS and ATS FE/HE courses, differentiation of the two awards frequently depended solely on age of students tutored by course participants: for the award of ATS FE/HE, tutees should be 16+. One course placed more emphasis on assessment, with successful participants eligible to apply for the British Psychological Society Certificate of Competence in Educational Testing.

Qualified Teacher Status was found not to be an entry requirement for ATS FE/HE courses; participants had to have a minimum 2:2 degree. Successful completion of each course led to the award of 60 M level credits. Dyslexia Action offers a FE/HE 20 week course for FE/HE teachers validated through the Open University at level 4 which carries BDA ATS Professional accreditation, while completion of the Dyslexia Action/University of York Post Graduate Diploma (120 Masters level credits part time over 2 years) is required to gain BDA Professional Accreditation for AMBDA in FE/HE.

One course included rather a lot of material on such matters as visual, kinaesthetic and auditory learning styles; use of coloured overlays; brain gym; orientation therapy, and the non linear holistic thought processes that typify dyslexia. A similar trend was evident to a much less extent in the other courses, with coverage of coloured lenses and learning styles. Despite this, reading lists included “Demystifying Dyslexia”. Reading lists were similar to reading lists of non FE/HE courses; additions were books on study skills (two on each list).

Annex 4:

Local Authority Support Services

This Annex provides more detailed findings of the survey of local authorities, reported briefly in Chapter 4.

The Local Authority survey

Twenty-eight of the 36 local authorities contacted responded to the survey: nine county authorities, fifteen city authorities, two London boroughs and two other metropolitan borough authorities. All nine regions of England were represented, with two local authorities each from the North East and London, three local authorities each from the North West, Yorkshire and Humberside, East Midlands, West Midlands and the South West, and four local authorities each from the East of England and the South East.

Five local authorities had achieved the BDA Quality Mark for dyslexia friendly services and a further seven were working towards this. A majority (16/28) had not achieved nor were working

towards this quality mark. Follow up conversations with three local authorities indicated they were working to develop an Inclusion Quality Mark or Charter for their schools and services, which they saw as involving provision of much the same information and therefore superseding the BDA quality mark. The Inclusion Charter sets out expectations for inclusion and entails a self-evaluation tool linking to the self-evaluation form (SEF) which schools are required to complete on a regular basis.

Responsibility for dyslexia/SpLD within the Local Authorities

Almost two thirds of the local authorities surveyed reported that strategic responsibility for dyslexia was shared among small groups of either named post-holders or individuals. It was unusual for a single named individual (four local authorities), or specific post holder (five local authorities) to have strategic responsibility. In about 80% of LAs surveyed, strategic responsibility included identifying training needs for dyslexia and developing policy on dyslexia, as well as developing 'dyslexia friendly'¹⁶⁸ schools and developing materials for schools. Local authorities with or working towards BDA quality marks were less likely to select as major responsibilities: identifying training needs, deploying specialist staff, or monitoring effectiveness of policy, and more likely to select developing dyslexia friendly schools. In two thirds of local authorities responsibilities also included deploying specialist staff within the local authority, monitoring the effectiveness of local

168 "Dyslexia friendly schools are able to identify and respond to the "unexpected difficulties" that a dyslexic learner may encounter..... A particular feature of such schools is the awareness among all teachers of what each pupil should be able to achieve, together with a range of response strategies when targets are not met..... Dyslexia friendly schools are proactive schools because they believe in the importance of "rigorous scrutiny followed by immediate intervention". (BDA, 2008)

authority policy and targeting schools for support. In 40% of local authorities' responsibilities included preparing materials for parents.

A variety of 'other' responsibilities were noted by respondents. These included early assessment and identification of SpLD and provision of intervention; supporting primary schools to include pupils with SEN; providing staff training for a variety of special needs; running accredited dyslexia training; assessing for dyslexia; and working on various aspects of inclusion and the Inclusion Development Programme.

Written dyslexia policy and other relevant documentation

Three quarters of local authorities surveyed either already had in place (54%) or were developing a written policy document on dyslexia. Eight local authorities provided weblinks to their policies. Three quarters also produced guidance for schools and governors on dyslexia friendly classrooms, and 80% produced documentation on literacy interventions: guidance on both literacy interventions and study skills was more frequently reported by local authorities without and not working towards the BDA quality mark. Other documentation provided by more than half the local authorities surveyed included guidance on learning styles, study skills, multi-sensory teaching, and use of ICT. More than a third also produced guidance on maths interventions, and access arrangements for examinations. Other documentation written in by respondents included guidance for schools moving towards achieving 'dyslexia friendly' status, guidance on meeting individual needs, dyslexia

audit documents, and DVDs and CD Roms demonstrating good practice.

Follow-up interviews showed that mapping of provision was developing or established within some of the local authorities surveyed. Provision mapping¹⁶⁹ enables schools to plan and monitor the impact of their interventions (Local Authority C, for example, encourages schools to collect and compare baseline and end of intervention data; Local Authority E has systematised its main Wave 3 interventions across the Local Authority and collects data on these annually; Local Authority F gathers evidence on the impact of its main Wave 3 intervention, The Reading Intervention Programme). Provision maps are shared within the school with staff aware of the interventions that are taking place. Interventions are monitored and evaluated across the school. The publication *What works for pupils with literacy difficulties* (DCSF: Brooks 2007) is frequently referred to for information on the effectiveness of literacy interventions. Schools are often challenged to show the evidence on which their Wave 3 practice is based.

Key aspects of Local Authority provision for dyslexic pupils

In follow up interviews, local authority officers recognise that children and young people with dyslexia were a significant grouping of vulnerable children and inclusion was the overarching agenda for securing identifiable positive outcomes for them. Included as important to achieving positive outcomes were: high quality wave 1 teaching in classrooms and effective interventions for those

¹⁶⁹ Provision mapping is a way of mapping provision in a school across year groups using the three wave model. Provision maps are replacing Individual Education Plans for children. It is also seen as a way of accounting for expenditure for children with LDD.

children and young people who need additional and different provision at wave 3¹⁷⁰.

The local authorities surveyed prioritised training, with 26 providing training for SENCOs, and 24 providing training on interventions for pupils with dyslexia/SpLD and whole school awareness training. Awareness training invariably included definitions of dyslexia; characteristics, behaviours and learning styles of dyslexic pupils; ways of supporting dyslexic pupils in literacy; creating a dyslexia-friendly classroom. In 19 local authorities, assessing pupils for dyslexia/SpLD was also covered; coverage of assessment was more common in local authorities without the BDA quality mark, whereas coverage of learning styles of dyslexic pupils was less often included in these local authorities. Other content of awareness training written in by respondents included presentation of Inclusion Development Plan materials and support for their use, synthetic phonics training, ICT, memory, multi sensory teaching and maths support. In thirteen local authorities, awareness training typically consisted of one 2-3 hour session and, in seven local authorities, it was less than this, making it difficult to see how it was possible to do more than skim the surface of the main issues covered. Only six local authorities provided more than 3 hours awareness training.

Twenty local authorities provided specialist support for pupils at school action plus, and fifteen provided this for pupils with

170 Wave 3 provision is expected to accelerate and maximise progress and to minimise performance gaps. This may involve support from a specialist teacher, highly-trained teaching assistant or academic mentor to support learners towards the achievement of very specific targets.

statements for dyslexia/SpLD¹⁷¹. Fourteen, the majority of which had or were working towards the BDA quality mark, had a 'dyslexia friendly school' initiative in place. Nine provided AMBDA training and three ATS training for local authority staff: again, this was more frequently provided by local authorities with or working towards the BDA quality mark, and was usually provided free of charge although schools were responsible for funding supply cover. For example, Local Authority E funds an Advanced Certificate in SpLD with an annual course budget of 40K including the fee to the accrediting university. This amount does not take account of the 550 local authority staff hours provided annually to cover course development and planning, tutor support, course delivery, course leadership, tutorial support, observation and marking.

In five local authorities there was a specialist unit or centre at primary level, and in ten there was a specialist unit or centre at secondary level. Access to specialist centres/units is invariably available free to schools, but occasionally this depends on certain access criteria being satisfied (e.g. evidence of unsatisfactory progress and a history of interventions used with the child). In some local authorities access is through a Statement of SEN.

171 LAs emphasised that access to specialist teachers was a key feature of their provision. LA:B have had no tribunals for dyslexia and this reflected the effectiveness of their current structure in meeting needs. They are seen as an "outstanding LA". In LA:C provision is delivered through mainstream schools with the support of a small number of specialists working for the LA. Their aim is to empower schools so they can manage the learning of children with dyslexia. In LA: D the provision is mostly located within schools with a very small team of centrally based staff who help direct this support to those schools where there is no specialist. In LA: E provision is mostly located in schools with a small centrally based team which is particularly valuable for supporting their small schools. Many teachers and teaching assistants have completed BDA accredited training. They also have a system of resourced IEPs for those children with persistent needs.

Twelve local authorities reported they had no specialist unit or centre and this was more frequently reported in local authorities with, or working towards, the BDA quality mark. No local authority surveyed had a specialist school for dyslexic pupils. Other provision noted by respondents included promotion of the Inclusion Development Programme materials, contracts with Dyslexia Action to provide training and support to schools, and authority-wide training on phonics and literacy interventions for pupils with dyslexia. Six local authorities provided information on outreach services provided by their specialist centres or units. All provided dyslexia training for teachers, five provided whole school training, and planning and evaluating intervention programmes. Three also provided identification, screening and assessment for dyslexic pupils, and SENCO training.

Information on specialist teachers within the authority

Almost all of the local authorities surveyed hold information on dyslexia/SpLD qualifications held by teachers working for their central support services. Eight authorities had fewer than five qualified specialist teachers; ten had from 5-10, one had 11-15, three had from 16-20, and two had more than 20.

It is clear that some local authorities have put considerable effort into ensuring they have in place specialist teachers with relevant qualifications. Numbers of teachers within local authorities with AMBDA level qualifications ranged from 0 – 25. There were three local authorities with 12, 16 and 25 AMBDA qualified staff respectively. Only one local authority had no specialist staff qualified at this level; the range across the other twelve local authorities which responded to this question was from 1-7, with a mean of 4. Specialist teachers are less likely to hold ATS qualifications, with only four local authorities reporting staff qualified at this level; the range was from 2-10 such staff, with a

mean of 5. More specialist teachers hold Practising Certificates, with eleven local authorities reporting from 1-20 teachers so qualified (mean 5; 20 = outlier). Very few local authorities surveyed maintained a list of self-employed specialist teachers that was shared with schools or knew how many specialist dyslexia/SpLD teachers were directly employed by schools within the local authority.

Roles of specialist teachers as seen by the local authorities

All local authorities reported that specialist teachers provided advice and support for SENCOs. In 90% of local authorities specialist teachers also plan and evaluate the impact of intervention programmes, and deliver whole school training for dyslexia/SpLD. In 80% of local authorities they assess individual children and identify dyslexia. Other major roles are preparing and submitting reports for pupils requesting access arrangements for exams, and delivering intervention programmes. Local authorities without and not working towards the BDA quality mark were more likely to report specialist teacher engagement in identification and assessment of dyslexia, planning and evaluation of intervention programmes, and delivering training, and less likely to report engagement in preparing and submitting reports for examination access requests. Additional roles written in by respondents include working in a multi-agency team with CAMHS; linking with Primary Strategy teams in the local authority; organising conferences for SENCOs, heads and literacy co-ordinators, and staffing the Dyslexia Helpline. There is overall a good level of agreement between the roles of specialist teachers identified by local authorities and by the specialist teachers themselves.

Roles of Educational Psychologists as seen by the local authorities

The role most frequently cited here was again providing advice and support to SENCOs, closely followed by assessing children for dyslexia and identifying dyslexia, indicating a large degree of overlap between the roles of specialist teacher and educational psychologist in these areas. About half of local authorities saw a role for educational psychologists in planning and evaluating the impact of intervention programmes, and delivering whole school training for dyslexia/SpLD (compared with 90% identifying these as aspects of the role of specialist teachers). Educational psychologists also had a role in organising access arrangements for exams, but very few delivered intervention programmes. In local authorities without and not working towards the BDA quality mark, educational psychologists were more likely to be reported engaging in planning and evaluation of interventions, delivering whole school training, and organising access arrangements for examinations. Other roles written in for educational psychologists include providing links between the educational psychology and the learning support team or the dyslexia or inclusion services.

Formal structures for liaison between different local authorities' services with an involvement in dyslexia/SpLD

Twenty-two of the 28 local authorities reported having formal structures in place for liaison between educational psychology and learning support services. A wide variety of structures and processes to enable liaison were described; most included formal sharing of reports across the two services. In some cases the two services formed part of the same team and were located in the same building; in others, such co-location was impending consequent upon implementation of the Inclusion Development Programme. Co-location and joint teams were seen to provide opportunities for more informal as well as formal sharing of information. References

were made to multi-agency and multi-professional team meetings; sometimes statements for dyslexic pupils were jointly monitored by these teams.

Service Level Agreements were often drawn up jointly. One local authority had established a dyslexia working party with representatives from the educational psychology service, the specialist teaching service, the Primary National Strategy literacy consultants, the Reading Recovery service and the Inclusion and Achievement advisers. In this local authority, inclusion and achievement advisers, educational psychologists and specialist teachers were core members of decision making panels for statutory assessment and issuing of SEN statements.

In follow-up interviews, it became apparent that messages on inclusion were delivered through a variety of channels including face to face communication between local authority officers and school staff. Networks within the local authority enabled reiteration of inclusion messages and sharing of good practice models for dyslexia: for example three of the case study local authorities held regular meetings for their SENCOs to alert them to new DCSF guidance, materials and interventions; some local authorities distributed newsletters through schools and encouraged staff involved with vulnerable children and young people to update their knowledge regularly and to be reflective practitioners.

It is clear that in many local authorities the need for joint working across different teams is recognised and supported by formal structures of meetings and joint or collaborative work in teams as well as by informal working relationships that result sometimes from co-location of services. However, six local authorities provided no response to this question and one of those that did respond reported having no central learning support services for dyslexia whilst in another, formal structures were evident only for statements of SEN.

In follow-up interviews, local authority officers emphasised the necessity to ensure that the practice and processes at both school and local authority level enable all vulnerable children to be identified and tracked to make sure they do not 'fall through the net'. For example, Local Authority F and Local Authority D have cascaded information on pupil tracking grids that map attainment and progress and these grids, derived from the Intensive Support Programme (ISP), are widely used alongside provision maps. They include age-related expectations with National Curriculum levels. Local Authority F has a Pupil Achievement Tracker disk (developed by a Senior Advisor Inclusion) that includes all the data of children with SEN in the local authority. This tracker disk helps schools to make judgments on the progress of their children and whether they are 'on track' or not and identify future actions. Schools are required to send National Curriculum levels of their children with SEN to the local authorities. Local Authority F is also developing an Inclusion Passport that will capture pupils' views on their provision and achievements. Transition is seen as a critical point for vulnerable children and the need for additional support recognised. Key documentation is shared and 'receiving' staff are aware of the child's needs and plan accordingly.

There were some examples of good relationships between local authorities and local dyslexia organisations, achieved in one case by establishing regular termly meetings between a local officer and the local dyslexia organisations.

The survey invited respondents to identify an officer who has the role of co-ordinating provision for dyslexia/SpLD within the local authority. Half of the 24 local authorities responding selected the Inclusion or Special Needs consultant, with two selecting the educational psychologist and one the literacy consultant. However, some of the written-in responses demonstrated a preference for continuing teamwork across educational psychology, dyslexia, learning support and inclusion teams.

Relationships with parents/carers

These relationships were explored only during the follow-up interviews. Local authority officers saw good practice as schools involving parents as partners in their child's education, and ensuring good communication with parents, including provision of regular information on their child's progress, and availability of useful guidance and information documents. Parent Partnership services in local authorities also deal with parental concerns.

It was accepted that parents' perceptions of both dyslexia and what constitutes good practice for dyslexic children may not always match those of schools, making it important that schools explain their actions and are open and transparent in their dealings with parents. It was also acknowledged that some parents may be concerned that unless their child is openly acknowledged to be dyslexic, resources necessary to the child's continuing progress would not be made available and this anxiety in itself might lead to dissatisfaction with the resources and support which are actually in place for their child. However, it has also been seen from many responses to the call for evidence that many parents feel very unclear and uninformed about what support – if any – is in place. This suggests there is considerable variation in practice between schools and local authorities.

Provision for schools to access support for dyslexic pupils

In 24 local authorities surveyed, dyslexia support was in most cases provided free of charge to schools by the central support service, but six authorities reported that schools also used their delegated budget for this, and five that schools also bought in services from external providers. One local authority had identified and funded schools with attached units for SpLD, whose qualified staff were available to support schools in their locality; this policy was currently under review in an attempt to move further towards

outreach rather than discrete provision within the units. Another local authority already used its dyslexia unit to provide outreach support to schools. In one local authority, the central service provided assessments free of charge to schools, but schools then had to buy in specialist teacher support from the central service. Yet in another local authority, extra time for school staff to provide individual support to dyslexic pupils was funded centrally subject to allocation by the Provision Allocation Panel.

This variety of access to free services and additional funding for schools perhaps needs to be examined in the interests of equitable access to support for pupils. In follow-up interviews it was clear that effective early intervention is seen as important in maintaining pupils' self-esteem and confidence, and the Foundation Stage Profile was seen as a useful tool for identifying 'at risk' children. For example, Local Authority B make good use of this to identify children at risk of underachievement and their Literacy consultant looks at Key Stage 1 data half termly to identify children at risk of failing and put interventions in place. Locality advisers and school improvement partners are clear about this process and kept informed.

It was also clear that in many local authorities there is currently a strong focus on good quality Wave 1 teaching as defined in the Rose Review (Rose, 2006), which is seen by them as likely to reduce the need for Wave 2 and 3 interventions. Children with persistent difficulties (sometimes described as needing Wave 3+ provision) are small in number and typically known to local authority staff. They may not have a statement, but their interventions are drawn up with specialist teacher advice and support, highly individualised and closely monitored and evaluated. For example, Local Authority E has implemented 'Resourced Individual Education Plans' for children with long term persistent needs. These IEPs are developed by a team of professionals working with the school, which receives financial support to deliver the IEP targets. Outcomes are closely monitored by the local authority. Despite this

level of support, it is extremely difficult to accelerate these children's progress so that the attainment gap between them and their peers is reduced.

Numbers of small schools

Information was sought on numbers of small schools in each authority as the number of small schools within an authority clearly has implications for the ways in which specialist teaching services are organised and deployed; 19 local authorities responded to this question. County councils tended to report more small schools, and more of the smaller sized, small schools, although city councils quite frequently reported some small schools. These data are shown in Table 1.

Table 1: Numbers of local authorities reporting schools in each range of small schools

School size	1 -10 schools	11-20 schools	21-30 schools	> 30 schools
1-50 pupils	5	0	1	3
51-100 pupils	13	0	0	5
101-150 pupils	7	2	2	5
151-200 pupils	1	5	4	8

Planned developments (2009-10) to improve provision for pupils with dyslexia

Ten of the 24 local authorities responding to this question identified further development, the use of, and training in, the Inclusion Development Programme as their key priority in 2009-10. In follow-up interviews it was apparent that these materials on dyslexia and speech language and communication needs (2008) were particularly valued, with their dissemination and training in their use prioritised.

Two local authorities intended to increase their specialist units, but another planned to replace three existing units with five 'specialist resource bases'; this plan had led to a request for a 'virtual school' for dyslexia from two areas within the local authorities, suggesting that schools might still feel dependent on the specialist unit to provide specialist teaching. Two other local authorities planned to increase the outreach functions of their specialist units in order to build local capacity.

Overall, the plans for specialist units seem to indicate that specialist teaching is likely to be devolved more to schools themselves, with advice and support provided by the specialist unit/team. In this context it is welcome that three local authorities identified training for teachers and TAs, including extension of accredited training courses, as their priority. One local authority identified early identification of pupils with dyslexia/SpLD as a priority, and planned to achieve this by attaching one specialist teacher to each primary school or cluster of primary schools. Another planned to tighten up their identification procedures and improve their assessment of individual needs for different levels of support. As their priority, one local authority identified the piloting of a particular ICT programme which could be used by parents and teaching assistants. Two local authorities had no key developments planned, and a further four did not respond to this question.

Annex 5

Statistical measures of the impact of interventions on children's progress

Standard scores

Standard (or standardised) scores, which usually have a mean (average) of 100 and a standard deviation¹⁷² of 15, are the ideal form of measurement as they are age-independent and test-independent and enable a proper comparison between different groups and different studies to be made. Most of the US studies included in Dr Chris Singleton's review have reported standard scores; unfortunately few of the UK studies have done so, sometimes because the tests used do not provide tables of norms in standard score form. Because they are normally distributed (i.e. in a bell-shaped curve), standard scores are also the most appropriate basis for analysing data using parametric statistics, which, for their integrity, rely on the fact that data are drawn from a population in which scores are distributed normally. Unlike non-parametric statistics, parametric statistics not only permit

172 The standard deviation is a conventional measure of statistical variability in the data.

calculation of the level of statistical significance¹⁷³ of a finding, but also the calculation of statistical *interactions* between variables (e.g. group and time), which enables a statistical significance to be placed on the relative impact of an intervention (e.g. on the group receiving the intervention compared with the control group).

Effect size

Statistical significance indicates the confidence that we can have that the finding is genuine. However, the fact that a given finding is statistically significant does not necessarily mean that it is important. A finding of a small difference between two conditions may well be statistically significant but is probably trivial.

Therefore a measure of the *size of the difference* is crucial.

Effect size is the name given to a number of statistical measures of the magnitude of a difference, whether over time within the same group or between groups. The most commonly employed measure of effect size used in education and psychology is Cohen's *d* (Cohen, 1988), and this is the one used throughout this review.

Cohen's *d* is a measure of the difference between two scores divided by the standard deviation (either a pooled standard deviation based on data from both the groups, or the standard deviation of the control group). In an intervention study involving a treated group and an untreated (control or comparison) group, for example, the effect size can be calculated by dividing the difference in standard score gains between the groups by the standard deviation of the untreated group at post-test. In the absence of a control group, Brooks (2007) suggests that using the standard deviation of the standardisation sample for the test is a

173 Statistical significance is a measure of the probability (p) that a given finding could have occurred by chance. The lowest level of statistical significance usually accepted is $p < 0.05$, which means that if the study were to be repeated 100 times the observed finding would have occurred by chance on less than five of those occasions; higher levels of significance often encountered are $p < 0.01$ (1 in 100) and $p < 0.001$ (1 in 1,000).

sensible alternative. Effect sizes of around 0.2 are usually regarded as 'small', of 0.5 as 'medium' and 0.8 or greater as 'large'. An effect size of 1.0 means that the treated group has gained an amount equivalent to one standard deviation compared with the untreated group, which is an impressive level of improvement.

However, effect size will depend on the type of control group used. If the control group has also received treatment, effect sizes will be smaller than if it was untreated.

Ratio gain

Many UK studies report results not in standard scores but in reading and spelling ages, from which *ratio gains* can be calculated in order to evaluate the effectiveness of the intervention. Ratio gain is the gain in reading (or spelling) age made by a group during a chronological time span, expressed as a ratio of that time span (Topping & Lindsay, 1992). A ratio gain of 1.0 means that the child's skills are developing at a normal pace, but they will not be catching up with their peers. Brooks (2007) suggests that ratio gains of less than 1.4 are of 'doubtful educational significance', between 1.4 and 2.0 of 'modest impact', between 2.0 and 3.0 of 'useful impact', between 3.0 and 4.0 of 'substantial impact' and above 4.0 of 'remarkable impact' (Brooks, 2007, p. 289).

However, Brooks (2007) points out that ordinary teaching (i.e. no intervention) does not enable children with literacy difficulties to catch up, and hence it is fair to presume that, in the absence of control or comparison groups, and where effect sizes cannot be calculated, findings of ratio gains in excess of 2.0 may be taken as good evidence in support of the method employed. Indeed, several studies have shown that, without help, dyslexic pupils progress at around only 5 months per calendar year in reading (ratio gain 0.42) and 3 months in spelling (ratio gain 0.25) (Thomson, 1990, 2001; see also Rack and Walker, 1994). Dr Singleton suggests that in cases of dyslexia the achievement of ratio gains of 1.00 or greater

represents substantial progress for these individuals, even though they may still have literacy skills below levels required to access the curriculum effectively.

Based on Dr Singleton's *Interventions for Dyslexia* report, pages 29 – 30

- 35 The term “secondary school” refers to any maintained secondary school that is a community, foundation or voluntary school. It also includes maintained middle schools, and those community and foundation special schools (other than hospital special schools) with pupils of secondary age.

Annex 6

Practical guidance: 'What Works' for children with literacy and dyslexic difficulties who are also experiencing wider difficulties

Listed below are a number of things found to help with some of the wider difficulties sometimes experienced by children with literacy and dyslexic difficulties. These have been gleaned, for example, from the Inclusion Development Programme and from experienced teachers during the course of the review. This material is not exhaustive.

Helping children understand complex instructions

Chunking – one instruction at a time

1. If you have a lot of information or instructions to give, break it down into shorter 'chunks' of language, pausing after each one. A long 'block' of spoken language can be difficult to process in one go.

Re-ordering

2. Say things in the order you want them to be done. So, instead of 'Before you write your homework down, clear away the equipment' say, 'Clear away the equipment. Then write down your homework.'

Cut down the amount you say

3. Studies have shown that in some classrooms adults talk for up to 90% of the time. For a young person with dyslexia or SLCN, this can feel overwhelming. Think about structuring lessons and activities so there is a mixture of activity-type.

Slow down

4. Even slowing down your talking a bit means that students will give longer responses, and will say more. This doesn't mean that you have to start talking in a sing-song voice!

Give visual support: use gesture, thinking/concept maps, demonstrating, quick sketches

5. Visual support can take many different forms. Young people with dyslexia and SLCN find information easier to understand and process if it is supplemented by something with a strong visual impact. This could be a natural gesture; facial expression; use of pictures; video; quick drawings on the whiteboard; using the interactive whiteboard; linking to the Internet; using real objects; demonstrating or showing instead of telling; using mind maps on the board.

Avoid idioms, sarcasm, double meanings

6. We all use phrases such as 'off you go' or 'get your thinking caps on', or use tone of voice to show meaning 'Oh that's just great!', but these can be really difficult for young people with dyslexia and SLCN who may easily take them literally or get the wrong end of the stick (there's another one!). Be aware of times when you use language that is inferential or may have a double

meaning – try to make sure you use something else or explain carefully.

Simplify the grammar

7. We often use a complex sentence when a simpler one would do just as well. Some sentences are very difficult for young people with dyslexia and SLCN to understand such as passive tense, for example ‘Show me who was the boy who was pushed’, or embedded phrases, for example ‘Put the one you thought it was next to the beaker that boiled’. Try to simplify your sentences.

Pausing after you have asked a question

8. We know that adults often pause far too briefly when they have asked a question before switching from one child to another, or jumping in with another question. Young people with dyslexia SLCN often need more ‘processing time’ to get their thoughts together and formulate a response. Waiting longer for a response can greatly help these students to engage and contribute. Sometimes this isn’t possible, but there are often times when you can wait – it doesn’t have to be empty space, be aware of strategies for making it feel more natural, for example, ask a question and say you’re coming back for the answer, or turn and write something on the board.

Commenting

9. For pupils with dyslexia and SLCN, commenting on what they are doing, and pausing, rather than asking questions, encourages dialogue and supports their thinking and learning, for example ‘So, plants need light and water to grow...’/ ‘I wonder what would happen if’

Note taking

There are a number of ways to structure note taking – the key word being ‘structure’.

The first rule is to be prepared. Students need to:

- make sure they have completed any background reading or preparation before the lesson and have made a note of any important questions they have to be aware of;
- use either a linear or patterned format to note the main points as key words and phrases;
- use abbreviations wherever possible;
- leave out the little words such as 'the', 'is', 'to', but make sure they remember that 'no' and 'not' are important words;
- record numbers, names, dates and titles;
- write definitions carefully;
- record the teacher's conclusions clearly and concisely;
- mark any points not understood;
- copy diagrams carefully;
- have a friend or classmate who will share their notes or use a piece of carbon paper to provide a second set.

Organising notes

If making linear notes the student should:

- use wide-lined A4 paper;
- leave wide margins on both edges of the sheets or divide the page lengthways and only write on two-thirds;
- leave gaps for additions or corrections;
- use coloured pens and highlighters;
- use headings and subheadings, marking subsections with letters or numbers.

When using patterned notes or spidergrams:

- use plain, coloured paper in a landscape position;
- make use of coloured pens.

For both kinds of notes:

- write only on one side of each page so that extra pages can be inserted later, for example observations of practical work, for additional reading or own thoughts;
- the aim should be to have one set of notes that ties together all the aspects of a particular topic;
- use particular colours of paper, folders or dividers for different subjects/topics;
- after the session, notes may need organising or reorganising perhaps by sorting them into: Main point › Supporting points › Summary.

Useful Strategies

Children can be helped to better organise their tasks if they are taught how to:

- skim and scan a page
- sort the information;
- determine priorities;
- make considered judgements

For most children putting printed information into their own words, rather than just copying it, is a highly challenging task. Therefore the more 'scaffolding' that can be provided for them, the better they will respond to this type of task. .

Pupils who are making notes from textbooks should be encouraged to:

- get an overview of the chapter by reading the first and last paragraphs and by taking note of any headings, subheadings, maps, charts and diagrams, etc.
- make a note of the book, chapter and page for later reference.

Using a spidergram or a linear format, allowing space for additional information later, they should:

- think carefully about the key point as they read each paragraph – the ‘essence’ of the paragraph and what the supporting details are, and make a note, using as few words as possible.

The advantages of this approach are that:

- pupils will process the information more deeply as they think about the key points and, therefore, have a greater understanding of the text and will be more likely to remember the information in the future;
- if they have to stop part-way through the task, they just need to re-read their notes before starting again
- they will end up with a summary of the chapter, which can be kept for later reference and revision.

Examples of note-making grids:

KWL Grid. This format allows existing knowledge to be used as a beginning for an investigation. Findings are summarised in the final column.

What I Know	What I Want to Know	What I've Learned

QUADS Grid. This builds on the KWL grid and provides an extended, more detailed approach to recording the outcomes of an investigation.

Question	Answer	Detail	Source

Organising Writing

10. Students with dyslexia may need explicit teaching and strategies to help them overcome the barriers of poor short-term memory.

For example, they may need:

- structured support for planning
- a scaffolding format, which helps them to plan a sequence of events
- a range of key words/sentences (provided by the students) which they can refer to throughout their writing
- the creative development of a storyline. This should not be inhibited by the technical aspects of writing, which can be considered at the redrafting and checking stages.

Annex 7

National Curriculum flexibilities for children with special educational needs

- 1 The National Curriculum is statutory in all maintained schools for Key Stages 1 to 4. It secures an educational entitlement for all pupils. Schools have a responsibility to provide a broad and balanced curriculum for all pupils. The National Curriculum provides the starting point for planning a curriculum that meets the specific needs of individuals and groups of pupils. While the National Curriculum sets out the knowledge, skills and understanding that pupils should attain at the end of each Key Stage, there is considerable flexibility in how it can be delivered and schools are free to adapt how they teach to suit their pupils' abilities and to enable individual pupils to make progress and show what they can achieve.
- 2 The National Curriculum includes a statutory Inclusion Statement as part of the common requirements. The Inclusion Statement gives teachers greater flexibility to adapt the curriculum to an individual pupil's ability, by explaining that material may be selected from earlier or later Key Stages to provide all pupils with relevant and appropriately challenging work. It is designed to enable pupils with a wide range of special educational needs to progress and demonstrate achievement within the National Curriculum and sets out the requirement for teachers to adapt the curriculum as necessary by setting suitable learning challenges, responding to pupils'

diverse learning needs and overcoming potential barriers to learning and assessment for individuals and groups of pupils.

- 3 Guidance to support the statutory Inclusion Statement can be found within the National Curriculum handbook and on the National Curriculum website at www.nc.uk.net, under the heading 'Inclusion'.
- 4 Where flexibilities flowing from the Inclusion Statement do not meet an individual pupil's needs, it is possible, under Section 92 of the Education Act 2002 for the local authority to disapply the National Curriculum through a statement of Special Educational Needs. Disapplication may be from all or part of the National Curriculum, including all or part of separate programmes of study and all or part of statutory assessment arrangements. Schools should, however, retain pupils' access to a broad and balanced curriculum or learning programme, including as much of the National Curriculum as possible.
- 5 In addition, regulations made under section 93 of the Education Act 2002 give head teachers power to disapply or modify the National Curriculum temporarily in order to help a child or young person during a temporary difficulty which is beyond the flexibility already in the National Curriculum (a month's illness, for example, does not usually require disapplication), or while s/he is being assessed with a view to making or amending a statement. Further information about disapplication is available online at: www.dcsf.gov.uk/disapply

Glossary

Assessment for Learning (AfL): a process of seeking and interpreting evidence for use by learners and their teachers to decide what stage learners have reached in their learning, where they need to go and how best to get there. The Assessment for Learning (AfL) strategy was launched on 20 May 2008. For more information, go to www.publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DCSF-00341-2008

Assessing Pupils' Progress (APP): a process of structured periodic assessment for reading, writing and mathematics. From the Assessment for Learning (AfL) strategy, launched on 20 May 2008 - see weblink above for more information.

BDA: British Dyslexia Association - a national charity which promotes early identification and support in schools for dyslexic learners, and which provides a helpline for those affected by dyslexia. For more information, go to www.bdadyslexia.org.uk

Children's Plan: Launched by the Government on 11 December 2007 - a ten year strategy to make England the best place in the world for children and young people to grow up. For more information, go to www.dcsf.gov.uk/childrensplan

Co-occurring difficulties: additional difficulties that are found to arise alongside dyslexia, while not being dyslexic difficulties in themselves.

DCSF: Department for Children, Schools and Families. For more information, go to www.dcsf.gov.uk

Developmental Coordination Disorder (DCD) - also known as dyspraxia: A severe difficulties with fine motor coordination (drawing, handwriting, manual dexterity) and/or gross motor control (running, skipping, cycling). DCD is also known as dyspraxia.

The DCSF's guidance, entitled *Data Collection by type of Special Educational Need*¹⁷⁴ says that children with dyspraxia are affected by an impairment or immaturity of the organisation of movement, often appearing clumsy. Gross and fine motor skills are hard to learn and difficult to retain and generalise. Children may have poor balance and coordination and may be hesitant in many actions (running, skipping, hopping, holding a pencil, doing jigsaws etc). Their articulation may also be immature and their language late to develop. They may also have poor awareness of body position.

Dyscalculia: The DCSF's guidance, entitled *Data Collection by type of Special Educational Need*¹⁷⁵ says that children with dyscalculia have difficulty in acquiring mathematical skills. Children may have difficulty in understanding simple number concepts, lack an intuitive grasp of numbers and have problems learning number facts and procedures.

Dyslexia Action: a national charity and the UK's leading provider of services and support for people with dyslexia and literacy difficulties. Dyslexia Action provides training for teachers to become specialist dyslexia teachers. Formerly the Dyslexia Institute. For more information, go to www.dyslexiaaction.org.uk

Dyspraxia: See Developmental Coordination Disorder (DCD).

174 DCSF (2005)

175 DCSF (2005)

Dyspraxia Foundation: a national charity which aims to increase understanding of Dyspraxia, particularly among professionals in health and education. For more information, go to www.dyspraxiafoundation.org.uk

Dyslexia: a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling. Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed. Dyslexia occurs across a range of intellectual abilities. It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points. Co-occurring difficulties may be seen in aspect of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia. A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well founded intervention.

Dyslexia-Specific Learning Difficulties (SpLD) Trust: a consortium of organisations, including the BDA, Dyslexia Action, Helen Arkell Centres, PATOSS, Springboard for Children and Xtraordinary People, promoting improved practice and outcomes for individuals with dyslexia and specific learning difficulties. For more information, go to www.thedyslexia-spldtrust.org.uk

Early Reading Review: an independent review of the teaching of early reading, following which a report was published in 2006. The review provided clear recommendations on the teaching of reading, including what constitutes 'high quality phonics work'. For more information go to www.standards.dcsf.gov.uk/phonics/rosereview

Early Years Foundation Stage: brings together *Curriculum Guidance for the Foundation Stage* (2000), the *Birth to Three Matters* (2002) framework and the *National Standards for Under 8s Daycare and Childminding* (2003), building a coherent and flexible approach to care and learning. All early years providers are required to use the EYFS to ensure that whatever setting parents

choose, they can be confident that their child will receive a quality experience that supports their development and learning. *For more information, go to www.standards.dcsf.gov.uk/eyfs/site/about/index.htm*

Early Years Foundation Stage Profile (EYFSP) came into force in September 2008. It is the regulatory and quality framework for the provision of learning, development and care for children between birth and the academic year in which they turn five. The primary purpose of the EYFS profile is to provide year 1 teachers and parents with reliable and accurate information about each child's level of development as they reach the end of the EYFS. This will enable the teacher to plan an effective, responsive and appropriate curriculum that will meet all children's needs, to support their continued achievement more fully.

Each child's development should be recorded against 13 assessment scales, based on the early learning goals and divided between the six areas of learning and development. Judgements against these scales should be made from observation of consistent and independent behaviour, predominantly from children's self-initiated activities.

For more information go to www.standards.dfes.gov.uk/eyfs/site/profile/index.htm

Every Child a Reader (ECaR): an early literacy intervention which targets 5 to 6 year old children identified as falling within the lowest achieving in their class. For more information go to www.everychildareader.org

Every Child a Chance Trust: a charity which aims to unlock the educational potential of socially disadvantaged children through the development and promotion of evidence-based, early intervention programmes, including Every Child a Reader and Reading Recovery. For more information, go to www.everychildachancetrust.org

Helen Arkell Dyslexia Centre (HADC): a voluntary sector organisation which believes that anyone with dyslexia should be offered expert assessment and tuition regardless of their ability to pay. The Centre offers training to professionals who wish to develop their skills in addressing dyslexia – including training to become a specialist dyslexia teacher. For more information go to <http://www.arkellcentre.org.uk/>

Inclusion Development Programme (IDP): a series of on-line professional development materials to help those working in schools address special educational needs, including dyslexia. For more information, go to www.nationalstrategies.standards.dcsf.gov.uk/primary/features/inclusion/sen/idp.

Inclusion Statement: the National Curriculum includes a statutory Inclusion Statement as part of the common requirements. The Inclusion Statement gives teachers greater flexibility to adapt the curriculum to an individual pupil's ability, by explaining that material may be selected from earlier or later Key Stages to provide all pupils with relevant and appropriately challenging work. More information is provided at Annex 9 of this report.

Leading Literacy Schools (LLS) programme: this programme is a key part of the National Strategies and Training and Development Agency for Schools' joint plan for work with the initial teacher training (ITT) sector towards further implementing the recommendations of the Rose Review of the Teaching of Early Reading. The programme is designed to support providers of ITT in ensuring that trainee teachers have the opportunity to work with and learn from effective teachers and practitioners in the teaching and assessment of literacy, and to provide a bank of expertise that can be drawn upon to support school and centre based training.

Motor coordination: See Developmental Coordination Disorder (DCD)

National Strategies: professional development programmes for early years, primary and secondary school teachers, practitioners and managers. For more information, go to www.nationalstrategies.org.uk/Home.aspx.

No to Failure project: a collaborative project, involving the BDA, Dyslexia Action, Patoss, and Xtraordinary People, which trailblazed whole school dyslexia awareness training alongside screening and teaching of pupils with dyslexic difficulties in three local authority areas. Helen Arkell Centres were also involved in setting up the project. For more information, go to www.notofailure.com

Ofsted: Office for Standards in Education – inspects and regulates to achieve excellence in the care of children and young people, and in education and skills for learners of all ages. For more information go to www.ofsted.gov.uk

PATOSS: The Professional Association of Teachers of Students with Specific Learning Difficulties. For more information go to www.patoss-dyslexia.org

Partnerships for Literacy: a Dyslexia Action project which uses the specialist knowledge of Dyslexia Action’s teachers to develop a sustainable model of support for primary-aged children who have literacy difficulties, including those associated with dyslexia. For more information go to www.dyslexiaaction.org.uk/Page.aspx?PageId=234

Phonological awareness: the ability to identify and manipulate the sounds in words. This is recognised as a key foundation skill for early word-level reading and spelling development.

Primary Framework: The Primary Framework – <http://nationalstrategies.standards.dcsf.gov.uk/primary/primaryframework/literacyframework>

provides overarching guidance and support for teachers in teaching literacy. It is the framework that underpins our Primary National

Strategy. High quality, systematic phonics as advocated by Jim Rose's Independent Review of the Teaching of Early Reading published in 2006 should be the prime approach for teaching children to read. Phonics is embedded throughout the Primary framework and throughout the Early Years Foundation Stage. The Rose Report made clear that there are two distinct but related processes involved in teaching children to read: learning to recognise words and developing language comprehension. Where children are not making sufficient progress through the phonics approach, teachers will be considering Wave 2 and Wave 3 interventions, and considering whether a child may have a special educational need or disability (e.g. dyslexia or a hearing impairment).

QCA: Qualification and Curriculum Authority - the regulatory body for public examinations and publicly funded qualifications. For more information go to www.qca.org.uk

Quality First Teaching: *Quality First Teaching*: is "first teaching" that is effectively designed and delivered so as to:

- fully meet the learning needs of **most** children
- partially meet the learning needs of any remaining small minority of children (where these children will additionally receive Wave 2 and or Wave 3 support to complete their provision)

First Teaching, sometimes also referred to as 'Wave 1' teaching, is that teaching which is provided for all children as part of the school's entitlement curriculum. It is usually delivered by children's regular teacher or teachers.

Although normally delivered with a whole class, first teaching may well involve differentiation and a variety of approaches, including whole-class teaching, guided group work, independent activity and individual support where appropriate. It can also include in-class

support from, for example, a teaching assistant, where this is part of the school's regular provision.

This is distinct from any **additional** teaching which is provided for **selected children only** in order to meet particular learning needs or support catch up. This can be for groups of varying sizes and/or individuals and is sometimes called 'Wave 2' and 'Wave 3' intervention. It is often delivered by an additional teacher or teachers, or by a regular teacher outside standard teaching time. Such additional support should always supplement, never replace, first teaching.

In the context of literacy teaching, Quality First teaching is lively, engaging and involves a carefully planned blend of approaches that direct children's learning. The children are challenged to think. The teacher provides children with good support but requires independence as and when appropriate. The balance between adult-led and child-initiated activity is an important element of planning within the EYFS, but similarly throughout the primary school opportunities should be provided for children to initiate their own learning and to use and apply the literacy skills they have been taught. The pitch and pace of the work is sensitive to the rate at which the children learn while ensuring that expectations are kept high and progress is made by all children. Although the learning focus may give greater weight to learning in a particular strand or area of literacy, the strong interdependence between speaking, listening, reading and writing should underpin planning and provision for learning.

The literacy skills and knowledge that children are expected to learn is clearly defined and the teacher has mapped out how to lead the children to the intended learning. Children know that they can discuss and seek help as and when they need to. Children who need more support than others are identified quickly and receive early intervention to help them maintain their progress.

Reading Recovery: Reading Recovery is the programme of choice for Wave 3 provision within Every Child a Reader (ECaR) and comprises 12 to 20 weeks of intensive, individual (one-to-one), daily tuition involving 30-minute sessions. For more information go to www.readingrecovery.ioe.ac.uk

School Action: when it is identified that a pupil has special educational needs the school provides interventions that are additional to, or different from those, provided as part of the school's usual differentiated curriculum offer and strategies.

School Action Plus: when a school continues to provide additional or different interventions, but is doing so with advice or support from outside specialists. The SENCO usually takes the lead, although day-to-day provision continues to be the responsibility of class or subject teachers.

SEN: special educational need/s as defined in section 312 of the Education Act 1996. The SEN Code of Practice explains this statutory definition in the following terms:

Children have special educational needs if they have a *learning difficulty* which calls for *special educational provision* to be made for them.

Children have a *learning difficulty* if they:

- (a) have a significantly greater difficulty in learning than the majority of children of the same age; or
- (b) have a disability which prevents or hinders them from making use of educational facilities of a kind generally provided for children of the same age in schools within the area of the local education authority; or
- (c) are under compulsory school age and fall within the definition at (a) or (b) above or would so do if special educational provision was not made for them.

Children must not be regarded as having a learning difficulty solely because the language or form of language of their home is different from the language in which they will be taught.

Special educational provision means:

- (a) for children of two or over, educational provision which is additional to, or otherwise different from, the educational provision made generally for children of their age in schools maintained by the LEA, other than special schools, in the area;
- (b) for children under two, educational provision of any kind.

SEN Code of Practice: provides statutory guidance to schools and local authorities on their SEN statutory duties. Section 313 of the Education Act 1996 requires schools and local authorities to have regard to the SEN Code of Practice when carrying out their duties towards all pupils with special educational needs. The Code can be accessed by going to www.teachernet.gov.uk/docbank/index.cfm?id=3724

SEN coordinator (SENCO): the member of staff at a school or in an early years education setting who has responsibility for coordinating SEN provision.

Simple View of Reading: this summary of the way in which children learn to read recognises that skilled reading entails the development of a set of processes by which the words on the page are recognised and understood (i.e. word recognition processes), and the development of increasingly sophisticated language comprehension processes, by which texts as well as spoken language are understood and interpreted.

Learning to read therefore involves setting up processes by which the words on the page can be recognised and understood, and continuing to develop the language comprehension processes that underlie both spoken and written language comprehension. Both sets of processes are necessary for reading, but neither is

sufficient on its own. Children who cannot adequately recognise the words on the page are by that fact alone prevented from fully understanding the text; however, recognising and understanding the words on the page is no guarantee that the text will be understood.

For more information, go to www.nationalstrategies.standards.dcsf.gov.uk/node/20162

Specialist dyslexia teaching: an umbrella term for approaches that are used by teachers who have attained accredited specialist qualifications in the teaching of children and adults with dyslexia. Training courses are accredited by the British Dyslexia Association, and qualifications are at two levels: Associate Membership of the British Dyslexia Association (AMBDA) and Approved Teacher Status (ATS).

Specific Learning Difficulties (SpLD): The DCSF's guidance, entitled *Data Collection by type of Special Educational Need*¹⁷⁶ says that "specific learning difficulties" is an umbrella term which indicates that pupils display differences across their learning. Pupils with specific learning difficulties may have a particular difficulty in learning to read, write, spell or manipulate numbers so that their performance in these areas is below their performance in other areas. Pupils may also have problems with short term memory, with organisational skills and with coordination. Pupils with specific learning difficulties cover the whole ability range and the severity of their impairment varies widely.

Specific learning difficulties include dyslexia, dyscalculia and dyspraxia.

Springboard for Children: Springboard for Children is an educational trust and charity which provides literacy support to disadvantaged children in inner-city primary schools. It works in partnership with the schools and specialises in advancing children's

176 DCSF (2005)

progress with learning to read. Springboard's experience is that the children they work with have fallen behind for various reasons: some are so emotionally disturbed they find it difficult to concentrate in the classroom; others are dyslexic; many do not have English as their first language; most have very little educational support at home. All are vulnerable to the cycle of frustration and failure. Springboard's approach is to help these children through one-to-one support with someone who can dedicate time to each child during some time spent away from the classroom. Springboard provides the special care of a committed adult to give consistent, high-quality support. Springboard's teaching and support is undertaken by trained volunteers, teachers and some specialist dyslexia teachers. For more information, go to <http://www.springboard.org.uk/>

Statement of SEN: this is a statutory document which sets out a child's special educational needs and the provision that must be made to address those needs. For more information, go to Chapter 8 of SEN Code of Practice.

Statutory assessment: Where a child with SEN continues to make little progress in response to support provided through *School Action Plus*, the school should consider asking the local authority to undertake a statutory assessment of the child's SEN, as in Chapter 7 of the Code of Practice. As indicated at para 7.21 of the Code, a parent can request such an assessment at any time, which may result in a statement of SEN being issued for the child. Paragraph 7.29 of the Code explains that if a local authority does not agree to undertake a statutory assessment, the parents have a right of appeal to a Tribunal. Similarly, paragraph 8.15 of the Code explains that parents also have a right of appeal if a decision is made not to provide a statement, following a statutory assessment.

Verbal memory: the ability to retain an ordered sequence of verbal material for a short period of time; it is used, for example, to recall a list of words or numbers or to remember a list of instructions.

Verbal processing speed: the time taken to process familiar verbal information, such as letters and digits

Visual stress: Visual stress is a term used to describe the experience of eye strain, difficulty in focusing, headaches, and illusions of colour or movement in written text.

Xtraordinary People: a campaigning organisation which aims to ensure that anyone with dyslexia or specific learning difficulties is empowered to succeed. For more information www.xtraordinarypeople.com

Bibliography

Al Otaiba, S. & Fuchs, D. (2006). Who are the young children for whom best practices in reading are ineffective: An experimental and longitudinal study. *Journal of Learning Disabilities, 39*(5), 414-431.

Aubrey, C., Eaves, J. Hicks, C. & Newton, M. (1981). *The Aston Portfolio*. Cambridge: LDA.

Augur, J. & Briggs, S. (1992). *The Hickey Multisensory Language Course*. Bath: Educational Publishers.

Bishop, D.V.M. (2008a). Specific Language Impairment. A paper prepared as part of the Foresight Review on Mental Capital and Wellbeing, available through the following weblink:

<http://www.foresight.gov.uk/OurWork/ActiveProjects/Mental%20Capital/ProjectOutputs.asp> – go to “Science synthesis reports and evidence reviews” and then “Learning difficulties: Science reviews”.

Bishop, D. V. M. (2008). Treating reading disability without reading: evaluating alternative intervention approaches. Keynote address delivered at the 7th International Conference of the British Dyslexia Association, Harrogate, March 2008.

Bishop, D.V.M. & Snowling, M.J.(2004). Developmental Dyslexia and Specific Language Impairment: Same or Different? *Psychological Bulletin, 130*, 6, 858-886.

Bowey, J. A. (2005). Predicting individual differences in learning to read. In M. J. Snowling & C. Hulme (Eds.), *The Science of Reading: A Handbook* (pp. 155-172). Oxford: Blackwell.

Bowyer-Crane, C., Snowling, M.J., Duff, F.J., Fieldsend, E., Carroll, J.M., Miles, J, Götz, K, & Hulme, C. (2008) Improving early language and literacy skills: differential effects of an oral language versus phonology with reading intervention. *Journal of Child Psychology and Psychiatry*, 49, 422-432.

Brooks, G. (2007). *What works for pupils with literacy difficulties?* London: DCSF.

Burden, R. (2005). *Dyslexia and Self-Concept seeking a dyslexic identity*. London: Whurr.

Butterworth, B. (2008). Dyscalculia. A paper prepared as part of the Foresight Review on Mental Capital and Wellbeing, available through the following weblink: <http://www.foresight.gov.uk/OurWork/ActiveProjects/Mental%20Capital/ProjectOutputs.asp> - go to "Science synthesis reports and evidence reviews" and then "Learning difficulties: Science reviews".

Byrne, B. (1998). *The foundation of literacy: The child's acquisition of the alphabetic principle*. Hove: Psychology Press.

Carroll, J., Maughan, B., Goodman, R. & Meltzer, H. (2005) Literacy difficulties and psychiatric disorders: evidence for comorbidity. *Journal of Child Psychology and Psychiatry*, 46, 524-532.

Carter, M and Wheldall, K (2008) Why can't a teacher be more like a scientist? Science, Pseudoscience and the art of teaching, *Australasian Journal of Special Education*, 32: 1, 5-2.

Chard, D.J., Vaughn, S. & Tyler, B. (2002) A synthesis of research on effective interventions of building reading fluency with elementary students with learning disabilities. *Journal of Learning Disabilities*, 35, 386-406.

Clay, M.M. (1979). *Reading: The patterning of complex behaviour*. Auckland, N.Z: Heinemann.

Cohen, J. (1988) *Statistical power analysis for the behavioral sciences* (2nd edition). Hillsdale, NJ: Lawrence Erlbaum Associates.

Compton, D.L., Fuchs, D., Fuchs, L.S. & Bryant, J.D. (2006). Selecting at-risk readers in first grade for early intervention: A two-year longitudinal study of decision rules and procedures. *Journal of Educational Psychology*, 98, 394-409.

DCSF (2005) *Data Collection by Type of Special Educational Need* London: DCSF on <http://www.teachernet.gov.uk/docbank/index.cfm?id=5352>

DCSF (2008) *Personalised Learning – A Practical Guide* London: DCSF on <http://publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DCSF-00844-2008&>

DeFries, J.C., Fulker, D.W., & LaBuda, M.C. (1987). Reading disability in twin: Evidence for a genetic etiology. *Nature*, 329, 537-539.

Dowker (2009) *What works for children with mathematical difficulties* which can be downloaded from: http://www.numicon.com/Assets/Downloadablefile/00086-2009BKT-EN_WEB-15868.pdf

Duff, F. J. (2008). Defining reading disorders and evaluating reading interventions: Perspectives from the Response to Intervention model. *Educational and Child Psychology*, 25, 31-36.

Dyslexia Action (2009). *Partnership for Literacy: a whole school approach to raising literacy standards* Egham: Dyslexia Action.

ECaR (2008) *Every Child a Reader: the results of the third year*. London: Every Child a Reader www.everychildareader.org/pubs/third_year.pdf

Elbaum, B., Vaughn, S., Hughes, M. & Moody, S. (2000) How effective are one-to-one tutoring programs in reading for elementary students at risk for reading failure? A metaanalysis of the intervention research. *Journal of Educational Psychology*, 92, 605-619.

Fletcher, J. M., Shaywitz, S. E., Shankweiler, D. P., Katz, L., Liberman, I. Y., Stuebing, K. K., Francis, D. J., Fowler, A. E., & Shaywitz, B. A. (1994). Cognitive profiles of reading disability: Comparisons of discrepancy and low achievement definitions. *Journal of Educational Psychology, 86*, 6-23.

Fuchs, D., & Fuchs, L. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly, 41*, 92-99.

Gathercole, S.E., Alloway, T.P., Willis, C.S., & Adams, A.M. (2006) Working memory in children with reading disabilities. *Journal of Experimental Child Psychology, 93*, 265-281.

Gayan, J. and Olson, R.K. (2001). Genetic and environmental influences on orthographic and phonological skills in children with reading difficulties. *Developmental Neuropsychology, 20(2)*, 483-507.

Geva, E. (2000). Issues in the assessment of reading disabilities in L2 children – beliefs and research evidence. *Dyslexia, 6*, 13-28.

Given, B.K., Wasserman, J.D., Chari, S.A., Beattie, K., and Eden, G.F. (2008). A randomized, controlled study of computer-based intervention in middle school struggling readers. *Brain and Language, 106, 2*, 83-97.

Goodman, K. S. (1986) What's whole in whole language: A parent-teacher guide. Portsmouth, NH: Heinemann.

Goswami, U. (2008). Learning difficulties: Future challenges. A paper prepared as part of the Foresight Review on Mental Capital and Wellbeing, available through the following weblink:

<http://www.foresight.gov.uk/OurWork/ActiveProjects/Mental%20Capital/ProjectOutputs.asp> - go to "Science synthesis reports and evidence reviews", then to "Learning Difficulties – Future Challenges".

Goulandris, N. (Edn.) (2003). *Dyslexia in Different Languages: Cross-Linguistic Comparisons*. London: Whurr.

- Griffiths, Y.M. and Snowling, M.J. (2002). Predictors of exception word and nonword reading in dyslexic children: The severity hypothesis. *Journal of Educational Psychology*, 94(1), 34-43.
- Gross-Tsur, V., Manor, O. and Shalev, R.S. (1996). Developmental dyscalculia: Prevalence and demographic features. *Developmental Medicine and Child Neurology*, 1(38), 25-33.
- Guerin, Griffin, Gottfried and Christenson (1993) *Concurrent validity and screening efficiency of the Dyslexia Screener* Psychological Assessment (5) 3, 369-373.
- Harlaar, N., Dale, P.S., & Plomin, R. From Learning to Read to Reading to Learn: Substantial and Stable Genetic Influence. *Child Development*, 78,1,116-131.
- Hatcher, P.J. and Hulme, C. (1999). Phonemes, rhymes and intelligence as predictors of children's responsiveness to remedial reading instruction: Evidence from a longitudinal intervention study. *Journal of Experimental Child Psychology*, 72(2), 130-153.
- Hatcher, P.J., Hulme, C. and Snowling, M.J. (2004). Explicit phoneme training combined with phonic reading instruction helps young children at risk of reading failure. *Journal of Child Psychology and Psychiatry*, 45(2), 338-358.
- Hatcher, P.J., Hulme, C., Miles, J.N.V., Carroll, J.M., Hatcher, J., Gibbs, S., Smith, G., Bowyer-Crane, C. and Snowling, M.J. (2006) Efficacy of small group reading intervention for beginning readers with reading-delay: A randomised controlled trial. *Journal of Child Psychology and Psychiatry*, 47, 820-827.
- Hickey, K. (1977) *Dyslexia: A language training course for teachers and learners*.Staines: The Dyslexia Institute.
- Hindson, B., Byrne, B., Fielding-Barnsley, R., Newman, C., Hine, D.W., Shankweiler, D. (2005). Assessment and early instruction of pre-school children at risk for reading disability. *Journal of Educational Psychology*, 97, 687-704.

- Hoover, W.A. & Gough, P.B. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal*, 2, 127-160.
- Hornsby, B. & Shear, F. (1974) Alpha to Omega. London: Heinemann.
- Hulme, C. and Snowling, M.J. (2009). *Developmental disorders of language, learning and cognition*. Chichester: Wiley-Blackwell
- Kuhn, M.R. & Stahl, S.A. (2003) Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology*, 95, 3-21.
- Landerl, K., Wimmer, H., and Frith, U. (1997). The impact of orthographic consistency on dyslexia: A German-English comparison. *Cognition*, 63: 315-334.
- Lewis, C., Hitch, G.J., and Walker, P. (1994). The prevalence of specific arithmetical difficulties and specific reading difficulties in 9- to 10-year old boys and girls. *Journal of Child Psychology and Psychiatry*, 35, 283-292.
- Lovett, M.W., Lacerenza, L., Borden, S.L., Frijters, J.C., Steinbach, K.A. & DePalma, M. (2000). Components of effective remediation for developmental reading disabilities: Combining phonological and strategy-based instruction to improve outcomes. *Journal of Educational Psychology*, 92, 263-283.
- Lyon, G.R. (1995) Towards a definition of dyslexia. *Annals of Dyslexia*, 45, 3-27.
- McArthur, G.M., Hogben, J.H., Edwards, V.T., Heath, S.M. and Mengler, E.D. (2000). On the "Specifics" of Specific Reading Disability and Specific Language Impairment. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41, 869-874.
- McArthur, G.M., Ellis, D., Atkinson, C. and Coltheart, M. (2008). Auditory processing deficits in children with reading and language impairments: Can they (and should they) be treated? *Cognition*, 107, 946-977.
- Maughan, B., Hagell, A., Rutter, M., & Yule, W. (1994). Poor readers in secondary school *Reading and Writing*, 6, 2, 125-150.

- Maughan, B. and Hagell, A. (1996). Poor readers in adulthood: psychosocial functioning. *Development and Psychopathology*, 8, 457-476.
- Miles, E. (1997). *The Bangor Dyslexia Teaching System*. 3rd Edition. London: Whurr.
- Muter, V., & Diethelm, K. (2001). The contribution of phonological skills and letter knowledge to early reading development in a multilingual population. *Language Learning*, 51 (2), 187-219.
- Muter, V., Hulme, C., Snowling, M.J., and Stevenson, J. (2004). Phonemes, rimes, vocabulary, and grammatical skills as foundations of early reading development: Evidence from a longitudinal study. *Developmental Psychology*, 40, 663-681.
- Muter V. & Snowling, M.J. (2009). Children at Familial Risk of Dyslexia: Practical Implications from an At-Risk Study, *Child and Adolescent Mental Health*, 14, 1, 37-41.
- Nash, P. (2006). The assessment and management of psychosocial aspects of reading and language impairments In: Snowling, M J and Stackhouse, J (eds). *A Practitioner's Handbook: Dyslexia, Speech and Language* 2nd ed., chap 13, 278-301 London: Whurr.
- Nash, P. (2008): *Supporting vulnerable learners in their transition to secondary school* Dyslexia Review, Vol 20, No 1, 26-30.
- Nelson, J R, Benner, G J & Gonzalez, J (2003) *Learner characteristics that influence the treatment effectiveness of early literacy interventions: A meta-analytic review*. Learning Disabilities Research and Practice, 18, 255-267.
- NICE (2008) *Attention deficit hyperactivity disorder: Diagnosis and management of ADHD in children, young people and adults* Available from this weblink: <http://www.nice.org.uk/guidance/CG72>
- No to Failure (2009). *Evaluation of the No to Failure trailblazers*. Currently awaiting publication – will be available from www.thedyslexia-spldtrust.org.uk/

- Pickering, S. J. & Gathercole, S. E. (2004). Distinctive working memory profiles in children with special educational needs. *Educational Psychology, 24*, 393-408.
- Price, G. (2006). Creative solutions to making the technology work: three case studies of dyslexic writers in higher education. *Association for Learning Technology Journal ALT-J*, Volume 14, Number 1, Number 1/March 2006 , pp. 21-38(18).
- Price, G. (2007) Special Educational Needs in Ellis, V (Ed) (3rd Ed) *Achieving QTS: Learning & Teaching in Secondary Schools*. Exeter, Learning Matters.
- Rashotte, C.A., MacPhee, K., & Torgesen, J.K. (2001) The effectiveness of a group reading instruction program with poor readers in multiple grades. *Learning Disability Quarterly, 24*, 119-134.
- Rochelle, K. and Talcott, J. (2006). Impaired balance in developmental dyslexia? A meta-analysis of contending evidence. *Journal of Child Psychology and Psychiatry, 47*, 1159-1166.
- Rose, J. (2006). Independent review of the teaching of early reading: Final report. London: Department for Education and Skills. Available at www.standards.dfes.gov.uk/phonics/rosereview/
- Rose, J. (2009). Copy of a letter to the Secretary of State for Children Schools and Families, which is published as a link from a DCSF press notice, available at http://www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=2009_0016
- Rutter, M. and Yule, W. (1975). The concept of specific reading retardation. *Journal of Child Psychology and Psychiatry, 16*, 181-197.
- Scammacca, N., Vaughn, S., Roberts, G., Wanzek, J. & Torgesen, J.K. (2007) *Extensive reading interventions in Grade K-3: From research to practice*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Scarborough, H. S. (1990). Very early language deficits in dyslexic children. *Child Development*, 61, 1728-1734.

Shaywitz, S.E., Fletcher, J.M., Holahan, J.M., Schneider, A.E., Marchione, K.E., Stuebing, K.K. et al (1999) Persistence of dyslexia: The Connecticut longitudinal study at adolescence. *Paediatrics*, 104, 1351-1359.

Simpson and Everatt (2005). Reception Class predictors of literacy skills. *British Journal of Educational Psychology*, 75, 171-188

Singleton, C. H. (2008) Visual factors in reading. *Educational and Child Psychology*, 25(3).

Singleton, C.H. (2009). *Intervention for Dyslexia*. Bracknall: The Dyslexia-Specific Learning Difficulties Trust. Shortly being published on www.thedyslexia-spldtrust.org.uk

Singleton, C.H. (2009b). Visual stress and dyslexia. In G. Reid (Ed.) *The Routledge Companion to Dyslexia*. London: Routledge, pp. 43-57.

Smith, F. (1978). *Understanding reading*. New York: Holt, Rinehart & Winston.

Snowling, M.J. (2008). Dyslexia. A paper prepared as part of the Foresight Review on Mental Capital and Wellbeing, available through the following weblink:

<http://www.foresight.gov.uk/OurWork/ActiveProjects/Mental%20Capital/ProjectOutputs.asp> - go to "Science synthesis reports and evidence reviews" and then "Learning difficulties: Science reviews"

Snowling, M.J. & Maughan, B. (2006). Reading and other learning disorders. In C. Gillberg, R. Harrington, R., and H.C. Steinhausen (Eds). *A Clinician's handbook of child and adolescent psychiatry*. Cambridge University Press.

Snowling, M.J., Gallagher, A. and Frith, U.(2003). Family risk of dyslexia is continuous: Individual differences in the precursors of reading skill. *Child Development*, 74, 358-373.

Snowling, M.J., Muter, V. and Carroll, J.M. (2007). Children at family risk of dyslexia: A follow-up in adolescence. *Journal of Child Psychology and Psychiatry*, 48, 609-618.

Stanovich, K.E. and Siegel, L.S. (1994). The phenotypic performance profile of reading-disabled children: A regression-based test of the phonological-core variable-difference model. *Journal of Educational Psychology*, 86, 24-53.

Stanovich, K.E., Siegel, L.S., and Gottardo, A. (1997). Converging evidence for phonological and surface subtypes of reading disability. *Journal of Educational Psychology*, 89, 114-127.

Stuebing, K.K., Fletcher, J.M. LeDoux, J.M., Lyon, G.R., Shaywitz, S.E. & Shaywitz, D.B.A. (2002). Validity of IQ-discrepancy classifications of reading disabilities. *American Educational Research Journal*, 39, 469-518.

Sugden, D.A. and Chambers, M. (2005). *Children with Developmental Coordination Disorder*. London: Whurr.

Taylor (2009) [http://www.rcophth.ac.uk/docs/publications/paed-patient-information/Reading andtheVisualSystem.pdf](http://www.rcophth.ac.uk/docs/publications/paed-patient-information/Reading%20and%20the%20Visual%20System.pdf)

Thomson, M. (1990). *Developmental Dyslexia* (3rd edition). London: Whurr.

Thomson, M. (2003). Monitoring dyslexics' intelligence and attainments: A follow-up study. *Dyslexia*, 9, 3-17.

Torgesen, J. K., Wagner, R. K., Rashotte, C. A., Rose, E., Lindamood, P. & Conway, T. (1999). Preventing reading failure in young children with phonological processing disabilities: Group and individual responses to instruction. *Journal of Educational Psychology*, 91, 579-593.

Torgesen, J.K. (2000) Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research and Practice*, 15, 55-64.

Torgesen, J.K. (2002) The prevention of reading difficulties. *Journal of School Psychology*, 40, 7-26.

Torgesen, J.K. (2005) Recent discoveries from research on remedial interventions for children with dyslexia. In M. Snowling & C. Hulme (Eds) *The Science of Reading: A Handbook*. Oxford: Blackwell, pp. 521-537.

Torgesen, J.K., Alexander, A.W., Wagner, R.K., Rashotte, C.A., Voeller, K., Conway, T. et al (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities*, 34, 33-58.

Torgesen, J.K. (2002). Lessons learned from intervention research in reading: A way to go before we rest. In R. Stainthorp and P. Tomlinson (Edn.). *Learning and Teaching Reading. British Journal of Educational Psychology, Monograph Series II: Psychological Aspects of Education – Current Trends*, Number 1, 89-104.

Torgesen, J.K., Rashotte, C.A., Alexander, A., Alexander, J., & MacPhee, K. (2003). Progress towards understanding the instructional conditions necessary for remediating reading difficulties in older children. In B. Foorman (Ed.). *Preventing and Remediating Reading Difficulties: Bringing Science to Scale*.(pp. 275-298). Parkton, MD: York Press.

Townend, J. (2000). Phonological awareness and other foundations skills of literacy. In J. Townend & M. Turner (Eds.) *Dyslexia in Practice: A guide for teachers*. London: Kluwer Academic/Plenum Publishers, pp. 1-29.

Underwood, G. & Underwood, J.D.M. (1998). Children's interactions and learning outcomes with interactive talking books. *Computers Education*, 30, 95-102.

Underwood, J.D.M. (2000). A comparison of two types of computer support for reading development. *Journal of Research in Reading*, 23, 136-148.

Vadasy, P.F., Sanders, E.A. & Abbott (2008) Effects of a supplemental early reading intervention at 2-year follow-up: reading skill growth patterns and predictors. *Scientific Studies of Reading*, 12, 51-89.

Vaughn, S, and Roberts, G - Abstracts from Teaching Exceptional Children (TEC), 2007 - escholarship.bc.edu VOLUME 39 ISSUE 5. Secondary interventions in reading: Providing additional instruction for students at risk http://escholarship.bc.edu/abstracts_tec/60/

Vaughan, S.R. Moody, S.W. and Schumm, J.S. (1998). Broken promises: Reading instruction in the resource room. *Exceptional Children*, 64, 211-225.

Vellutino, F.R., Scanlon, D.M., Sipay, E., Small, S., Pratt, A., Chen, R. et al (1996). Cognitive profiles of difficult-to-remediate and readily-remediated poor readers: Early intervention as a vehicle for distinguishing between cognitive and experiential deficits as basic causes of specific reading disability. *Journal of Educational Psychology*, 88, 601-638.

Vellutino, F.R., Scanlon, D.M. & Lyon, G.R. (2000) Differentiating difficult-to-remediate and readily remediated poor readers: More evidence against the IQ-achievement discrepancy definition of reading disability. *Journal of Learning Disabilities*, 33, 223-238.

Vellutino, F.R., Fletcher, J.M., Snowling, M.J. & Scanlon, D.M. (2004) Specific reading disability (dyslexia): What have we learned in the past four decades? *Journal of Child Psychology and Psychiatry*, 45, 2-40.

Vellutino, F.R. Scanlon, D.M., Small, S., and Fanuele, D.P.(2006) Response to Intervention as a Vehicle for Distinguishing Between Children With and Without Reading Disabilities. *Journal of Learning Disabilities*, 39, 2, 157-69.

Vellutino, F.R. and Fletcher, J.M. (2005). Developmental dyslexia. In M.J. Snowling and C. Hulme (Eds.) *The Science of Reading: A handbook*. Oxford: Blackwell, 521-537.

Walker, J. & Brooks, L. (Eds.) (1996) *Dyslexia Institute Literacy Programme*. Staines: The Dyslexia Institute.

Walker, J. (2000) Teaching basic reading and spelling. In J. Townend & M. Turner (Eds). *Dyslexia in Practice: A guide for teachers*. London: Kluwer Academic/Plenum Publishers, pp. 93-129.

Wanzek, J. and Vaughan, S. (2008). Response to Varying Amounts of Time in Reading Intervention for Students With Low Response to Intervention *Journal of Learning Disabilities*, 4, 2, 126-42.