Assessment of Learners with Dyslexic-Type Difficulties

Sylvia Phillips
Kathleen Kelly
& Liz Symes
© Sylvia Phillips, Kathleen Kelly and Liz Symes 2013

First published 2013

Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, this publication may be reproduced, stored or transmitted in any form, or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency. Enquiries concerning reproduction outside those terms should be sent to the publishers.

All material on the accompanying website can be printed off and photocopied by the purchaser/user of the book. The web material itself may not be reproduced in its entirety for use by others without prior written permission from SAGE. The web material may not be distributed or sold separately from the book without the prior written permission of SAGE. Should anyone wish to use the materials from the website for conference purposes, they would require separate permission from us. All material is © Sylvia Phillips, Kathleen Kelly and Liz Symes, 2013.

Library of Congress Control Number: 2012955969

British Library Cataloguing in Publication data

A catalogue record for this book is available from the British Library

ISBN 978-1-4462-6022-7
ISBN 978-1-4462-6023-4
# CONTENTS

*About the Authors*  
*Acknowledgements*  
*List of Figures and Tables*  
*Downloadable Materials*  
*Introduction*

<table>
<thead>
<tr>
<th>Part I</th>
<th>Dyslexic-type Difficulties and Assessment: Setting the Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dyslexic-type Difficulties: Implications for Assessment</td>
</tr>
<tr>
<td>2</td>
<td>Purposes and Forms of Assessment</td>
</tr>
<tr>
<td>3</td>
<td>Legislation, Policy and Practice</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part II</th>
<th>Informal Approaches to Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Informal Approaches: Identification and Screening</td>
</tr>
<tr>
<td>5</td>
<td>Gathering Information from Others</td>
</tr>
<tr>
<td>6</td>
<td>Informal Approaches: Assessing Difficulties in Reading</td>
</tr>
<tr>
<td>7</td>
<td>Informal Approaches: Assessing Spelling Difficulties</td>
</tr>
<tr>
<td>8</td>
<td>Informal Approaches: Assessing Difficulties in Handwriting</td>
</tr>
<tr>
<td>9</td>
<td>Assessing Alphabetic Knowledge</td>
</tr>
<tr>
<td>10</td>
<td>Assessing Cognitive Processing Skills</td>
</tr>
<tr>
<td>11</td>
<td>Assessing Difficulties in Mathematics</td>
</tr>
</tbody>
</table>
Part III  Formal Assessment  153

12  Principles and Concepts of Psychometrics  155
13  Screening Procedures for Dyslexic-type Difficulties  173
14  Standardised Assessment of Reading  187
15  Standardised Assessment of Spelling and Handwriting  199
16  The Assessment of Underlying Ability  207
17  Standardised Assessment of Cognitive Processing Skills  221
18  Identifying Specific Learning Difficulties in Mathematics, including Dyscalculia  229

Part IV  Conducting Assessment  239

19  Conducting Assessment  241
20  Writing an Assessment Report  251
21  Assessment by Other Professionals  271

Appendices  283
Glossary  303
Author Index  315
Subject Index  319
Chapter Overview

This chapter will enable the reader to:

- understand the relationship between general and specific learning difficulties/ dyslexia;
- consider theories and research which inform the identification and assessment of literacy and numeracy difficulties in order to develop appropriate intervention.
Although the latest figures on pupils' progress at Key Stage 2 (DfE, 2012) showed an increase in attainments in English and mathematics from 74% in 2011 to 79% in 2012, this gives no cause for complacency. A detailed breakdown shows that 11% of pupils did not make expected progress in English and 13% in mathematics. This chapter considers a range of difficulties in literacy and numeracy experienced by these learners, who include pupils with specific learning difficulty (dyslexia) and those who experience general learning difficulties. We have used the term 'dyslexic-type difficulties' as an umbrella term to describe the many common characteristics they present. However, we argue that it is both possible and important to distinguish between learners with dyslexia and those with more general difficulties in order to determine appropriate intervention and support. The chapter focuses on considering and justifying which characteristics and skills should and can be assessed by teachers. The emphasis is on literacy because of the increasing need to 'read to learn' as a child progresses through school.

Any pupil who is experiencing difficulties in learning (i.e. not making the same progress as most of his/her peers) should not only be closely monitored but their needs should be identified and assessed so that intervention can be put in place before those difficulties become entrenched. It is essential also that assessment identifies not only strengths but also potential barriers to learning. This is true for both literacy and mathematics, as Chinn (2011) points out. Difficulties in mathematics and numeracy are only briefly mentioned here but expanded on in two dedicated chapters in Parts II and III of this book.

**Characteristics of Difficulties in Literacy and Numeracy**

**Difficulties in literacy**

Literacy difficulties are typically characterised by poor decoding skills resulting in slow and often inaccurate reading which may lead to poor reading comprehension. There is much overlap between the difficulties in decoding often noted in learners with dyslexia (for example poor letter-sound knowledge, omission of letters or syllables when reading, losing place in reading, difficulty in skimming and scanning texts for information) and those experienced by other learners with literacy difficulties. It is a fact that many children present similar characteristics and difficulties but their underlying needs may be very different and therefore require different forms of intervention.

Rose (2006) in his review of literacy teaching in England advised the adoption of the Simple View of Reading (SVoR) model (Gough and Tunmer, 1986) as a framework for the development of literacy. This model is discussed further in Chapter 6. It emphasises that 'Reading' implies reading for meaning, i.e. reading comprehension, which is the product of two dimensions: decoding skills and language/listening comprehension. This
is useful in offering an explanation of some of the differences among learners with reading difficulties, accounting for ‘good’ or skilled readers (with good decoding skills and language comprehension) and suggesting three broad groups of ‘poor’ readers:

- those with poor decoding skills but good language comprehension who can understand a text if it is read to them (most learners with dyslexia are in this group);
- those who can decode, i.e. read the text aloud, but without understanding (sometimes this is found in learners with English as an Additional Language (EAL), especially in the early stages of English language acquisition; it can sometimes be observed in children with autistic spectrum conditions and those with severe learning difficulties; it may be observed also in some learners who have weaknesses in both dimensions but whose decoding skills have improved by targeted teaching although their comprehension remains poor);
- those who have both poor decoding skills and poor language comprehension (they often have other learning difficulties).

It is important to recognise that the model suggests that each dimension represents a range from good to poor and therefore there will be a variety of individual differences. However, it provides a clear framework for assessing two aspects of reading difficulties, as discussed in Chapter 6. It points also to a need to assess listening/language comprehension as well as reading comprehension.

**Difficulties in numeracy**

If we apply a similar framework to the development of numeracy skills, we can examine possible strengths and difficulties in mathematics. Mathematical ability could be seen as a product of:

- computational skills (number fact knowledge, speed of working, sequential skills) and
- conceptual understanding (ability to reason, see relationships and generalise).

This suggests:

- some learners may have relatively good conceptual understanding but weaknesses in computational skills due to difficulty learning and retrieving number facts, slow processing speed or confusion with directionality (learners with dyslexia may exhibit this profile); if they have a flexible approach to mathematics, they may be able to develop strategies to support weak number fact knowledge;
- some may have poor conceptual understanding but may master the four basic rules even if they are unsure of their application;
- some others may have poor conceptual understanding (this includes children with dyscalculia and those with general learning difficulties) and may also struggle with computation.
Who are the learners who experience difficulties?

Those most ‘at risk’ (in England) are children who start school with:

- limited exposure to the English language – this includes many children where English is not spoken in the home (and for whom English is an Additional Language) but it also includes a high proportion of children whose first language is English but who have had a limited range of experiences and opportunities to learn to use a wide range of English expressions, often resulting in poor oral language skills and, in particular, a lack of knowledge and understanding of much of the vocabulary of school;
- poor phonological awareness and letter knowledge (this will include many learners with dyslexia but also others with general learning difficulties);
- little experience of exposure to the printed word, books or the purpose of reading;
- the possibility of having inherited dyslexia (Pennington, 2011);
- a ‘specific learning difficulty’, which often co-exists with dyslexia and/or leads to literacy difficulties, e.g. dyspraxia (Developmental Co-ordination Disorder), autistic spectrum conditions including Asperger’s Syndrome, and Attention Deficit (Hyperactivity) Disorder (ADHD).

Many of the children presenting these ‘risk factors’ also have more general learning difficulties, but some may have dyslexia or dyslexic-type difficulties.

Can we differentiate between ‘poor readers’ who have dyslexia and those who do not?

‘Discrepancy theory’ has traditionally been used to distinguish between specific and general learning difficulties. This suggested that where a learner's reading age is significantly below that predicted by their chronological age and ‘IQ’ score (general intelligence/ability) the child could be considered to have dyslexia, i.e. a specific learning difficulty. By comparison, learners with reading difficulties whose reading attainment could be accounted for by below-average scores of ability would be seen as having general difficulties.

Discrepancy theory has been criticised on a number of grounds including:

- the impact dyslexia itself may have on verbal ability (which may depress ‘ability’/IQ scores reducing the ‘ability’/IQ-attainment gap) so that some children may therefore not be identified although they have dyslexia (MacBlain et al., 2005);
- the fact that learners of all abilities may have dyslexia but it is harder to demonstrate a ‘discrepancy’ if measured ability is below average;
• the fact that the behavioural characteristics of learners with reading difficulties with high and low ability/intelligence scores are similar, so that the need to distinguish between them is redundant (Stuebing et al., 2002).

Moreover, Snowling (2000) points out that some children with dyslexia display more difficulty with spelling and writing than with reading and may be overlooked if a discrepancy between IQ and reading only is looked for. She also pointed out that children who do not practise reading might show a discrepancy but not be dyslexic. Earlier, Stanovich (1996: 161) argued that a number of studies indicate that the processes involved in decoding (including phonological segmentation and reading non-words) are similar for poor readers regardless of intelligence, and asked:

Why is a low IQ child with demonstrated speech segmentation problems, with poor word recognition skills and hence reading comprehension, not dyslexic?

Current definitions of dyslexia have moved away from the discrepancy model to one that considers differences in cognitive processing (Singleton, 2003). However, the debate continues as to whether any learner with the same processing difficulties and uneven learning profiles should therefore be identified as having dyslexia.

**Defining Dyslexia**

Many definitions exist, but the current definition adopted by the British Dyslexia Association is that of the Rose Report (2009: 30), which suggested the following:

• 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 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 aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but they 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.
With the addition that:

In addition to these characteristics, the BDA acknowledges the visual processing difficulties that some individuals with dyslexia can experience, and points out that dyslexic readers can show a combination of abilities and difficulties that affect the learning process. Some also have strengths in other areas, such as design, problem solving, creative skills, interactive skills and oral skills. (www.bdadyslexia.org.uk)

The emphasis on phonological processing skills implies that this should form the core of any assessment for dyslexia. However, the BDA's additional paragraph is important for drawing attention to the fact that some people with dyslexia have visual processing difficulties. The current definition acknowledges that dyslexia can occur across a range of intellectual abilities and suggests that an indication of severity can be seen by how a learner responds to intervention, although it could be argued that this approach relies on the learner failing at school before the severity of their needs is recognised. Co-occurring difficulties are also noted and these should be assessed as well as phonological processing skills.

The underpinning reasons for such difficulties are many and varied and some may be beyond the control of teachers. What we know, however, is that whatever the reasons for the difficulties, in literacy in particular, the effects on the learner can be profound. Even as a very young child, failure to learn to read successfully may lead to low self-esteem and increasing inability to access the full curriculum and keep up with teachers’ expectations. Indeed relationships with peers may be impaired and, in many cases, children with literacy difficulties have been susceptible to bullying. All too often, a consequence is that learners with difficulties begin to use avoidance strategies and/or misbehaviour. In some cases, they themselves may begin to bully others as a means of gaining ‘prestige’. Others may present the behaviour known as ‘learned helplessness’ where they may give up trying to learn because ‘I know I can't do it’.

Early intervention is important. As children grow older, they are expected to ‘read to learn’. Many learners enter secondary school with very low levels of literacy and are unable to cope with the demands of literacy-based subjects. They may know how to use the Internet to access information but cannot read or understand the information given.

What Should We Assess?

In this chapter we focus particularly on the assessment of literacy because of its impact on all learning. The main sources for determining what to assess are:

- models of reading and spelling processes;
- models of reading and spelling development (descriptive);
- research into the nature and causes of literacy difficulties, particularly those associated with dyslexia.
What do models of reading and spelling processes suggest we assess?

The Simple View of Reading model has already been discussed. Two other models of reading which can inform assessment are the Dual-Route of Reading (Coltheart, 2005) and the connectionist or ‘triangle’ model developed by Seidenberg and McClelland in 1989 (Adams, 1990; Seidenberg, 2005).

The Dual-Route of Reading suggested two pathways:

• a direct, lexical route, which uses visual memory for automatic recognition of familiar words;
• an indirect, phonological processing route, which is important for decoding unfamiliar words.

An impairment or weakness in either pathway would affect ability to ‘read’/decode words.

Similarly, the connectionist model points to interactions between visual and phonological strategies and ‘meanings’ of words. There is, perhaps, greater explicit reference to the importance of context in a text in this model. Both models can also form the basis of a model of spelling. A more detailed summary of these models and their application can be found in Chapters 4 (reading) and 5 (spelling) in Kelly and Phillips (2011). The value of these models is that they point to the need to assess not just the surface characteristics of literacy difficulties but also underlying cognitive processing skills, including visual and auditory perception, memory, phonological awareness and their application to and knowledge of grapheme-phoneme correspondence. The dual-route model points to the need also to investigate a learner’s ability to read non-words that are phonetically regular (e.g. grib) as this can reflect phonological processing skills. About 80% of learners with dyslexia have some degree of phonological deficit and about 20% have a visual processing difficulty, although some have both.

How can models of reading and spelling development inform assessment?

Some models of reading and spelling, particularly those of Ehri, Frith and Gentry, provide developmental frameworks that can be used for assessing literacy. These are discussed in Part II (where full references are provided) because they are particularly useful in informal assessment. They also remind us that the nature of learning and learning difficulties can change over time. Many learners with dyslexia, for example, present characteristics that are ‘typical’ in the literacy development of very young children (such as confusing ‘b’ and ‘d’ in spelling at a much later age than is observed in ‘normal’ development). Similarly, learners with dyslexia may, with good teaching, improve their decoding skills in reading and where they have good
language comprehension, their reading comprehension will be good. For many, however, spelling remains a difficulty and often is their major problem at secondary school.

Early assessment and intervention is necessary for all learners who fail to acquire early literacy skills, whatever the cause, because children who find reading difficult are less likely to want to read. The result is likely to be that they get less practice and increasingly fall behind their peers. Stanovich (1986) refers to this as the Matthew effect because the gap between good and poor readers widens.

How do theories of causation inform assessment?

Morton and Frith (1995) suggested that using a causal modelling framework is helpful in analysing theories of psychological and learning behaviours such as dyslexia. They identify three ‘levels’ of theories of causation and emphasise the interaction at all levels with the environment. This can be depicted as in Figure 1.1.

![Figure 1.1 Summary of Morton and Frith’s causal framework model](image)

Kelly and Phillips (2011) provide a fuller description of theories of causation, which are summarised below.

**Biological factors**

There is evidence that dyslexia is a genetic, neurobiological condition. The relevance for teachers’ assessments is that knowledge that parents/siblings have dyslexia can mean that the learner is ‘at risk’ of having inherited it (Pennington and Olson, 2005). However, it does not mean that the child will have dyslexia and even where early signs of dyslexic characteristics (e.g. phonological difficulties) have been identified in the children of parents with dyslexia, some do not develop literacy difficulties (Snowling et al., 2007). Snowling suggests that perhaps this is because the parents
consciously adopt strategies to foster their child’s reading development. However, the issue of ‘dyslexia in the family’ often comes up in parental interviews and it is an area worth exploring as part of the assessment process, together with information about compensatory or preventative strategies and support provided at home.

Cognitive factors
The term ‘cognitive processing’ refers to the psychological processes involved in learning, such as phonological processing, memory, auditory and visual processing, and speed of processing information. Research has suggested a number of cognitive processing deficits that might be responsible for dyslexia and which can be assessed. One of the most researched areas is that of phonological processing deficits (Snowling, 2000; Vellutino et al., 2004). Difficulty in phonological processing is seen as a core deficit. Difficulties in distinguishing sounds in words (blending, segmenting, and manipulating sounds) and in acquiring the alphabetic principle (knowing that letters/graphemes represent sounds/phonemes) are early indicators of later literacy difficulties. Other areas of difficulty in phonological processing include limited verbal short-term memory, problems in rapid naming (the ability to name objects at speed) and poor verbal repetition ability (the ability to repeat a multisyllabic word orally without error). Snowling (2000) attributed these to difficulty in ‘phonological representations’ or the way that the brain codes sounds and words. In addition, she suggested that phonological coding deficits are responsible for short-term memory difficulties and that inefficient verbal rehearsal strategies may result in information being lost during transfer from short- to long-term memory. This offers an explanation for difficulties in remembering long or complex instructions, relaying messages correctly and recalling names or events out of sequence.

Learners with dyslexia appear to have problems in storage and retrieval of information. Gathercole and Packiam-Alloway (2008) attribute these difficulties to problems in working memory capacity, the part of memory that holds on to information until it is transferred from short-term to long-term memory. They argue that the amount of information that can be held in working memory is limited and if a learner is given information that exceeds their memory capacity, some of that information will be forgotten. They point out that not all children of the same age have the same working memory capacity. Another explanation for difficulty is that something distracts us and prevents us from attending to information in working memory (e.g. a noisy background) and information gets lost. A third possible explanation is an inability to switch attention from one activity to another. If this is more difficult for some learners then it may lead to loss of information in activities such as mental calculations where it is necessary to switch attention frequently from the calculation (manipulation of the numbers, e.g. as in rounding up) to the items being stored (the numbers to be calculated, e.g. ‘273–97’). Similarly, working memory affects reading and spelling. One implication is that assessing verbal short-term memory (the ability to recall a string of
verbal information immediately after it is given) is not sufficient; we also need to assess working memory.

Das (2009) maintains that in assessing cognitive processes we should move beyond phonological coding to that of sequencing. In particular, the learner’s ability to sequence both sounds and letters within words and words within sentences should be considered. Stein (2001, 2008) further suggests that learners with dyslexia have impaired visual and auditory processing. Difficulty in processing rapidly changing auditory stimuli (such as speech) can compromise phonological awareness and memory storage and result in slower work rate (Tallal, 2007; Valeo, 2008). Difficulties in visual processing can result in visual stress and sensory integration problems when trying to read (Everatt, 2002; White et al., 2006), where letters appear to blur or move about, creating difficulty in determining the order of letters in words and hence lack of reading fluency. Signs of visual stress may include headaches, eye strain, tracking difficulties, words or lines omitted when reading or copying text, difficulty remembering what has been read and poor concentration (Jordan, 2006). Such problems may be found in learners with dyspraxia (Developmental Co-ordination Disorder – DCD) and poor concentration is a feature also of Attention Deficit (Hyperactivity) Disorder (ADHD), both of which can co-exist with dyslexia. (Formal assessment of visual processing difficulties is normally carried out by an optometrist/ophthalmologist.)

Slow processing speed resulting in problems in integrating and synchronising different forms of information has also been considered as a possible cause of dyslexia (Breznitz, 2008). Fawcett and Nicolson (2008) propose that learners with dyslexia might have particular difficulties when a task or activity requires the co-ordination of different brain regions, as in reading aloud (where eye-movements, speech and cognitive processes such as word recognition and retrieval must be co-ordinated), spelling (in which cognitive processes such as analysing speech sounds in words and identifying the letters that represent those sounds must be co-ordinated) and writing (where eye and hand movements and cognitive processes such as organisation of ideas, sequencing of words, and retrieval of spellings must be co-ordinated). They attribute such difficulties to a lack of automatic skill development, resulting not only in literacy difficulties but also problems in multi-tasking and poor motor planning and appearing clumsy and unco-ordinated. (Some would see such motor difficulties as indicators of DCD.)

**Behavioural factors**

These are the behaviours or characteristics of difficulties observed in the classroom and that first alert teachers to look more closely at a learner’s difficulties. There will be particular difficulties in decoding, i.e. in reading words aloud (word recognition), and reading is likely to be slow, laboured and lack fluency. Spelling is often inconsistent with a similar lack of knowledge of how sounds are represented by letters, i.e. poor knowledge of grapheme-phoneme correspondence. These characteristics form
the basis of observations and assessments carried out by teachers, as described in Part II of this book, and inform the selection of formal tests, as detailed in Part III.

Even before school, a child may be late in developing some speech patterns, say syllables (in some words) in the wrong order, display difficulty in remembering two-part instructions and have poor ability to detect rhyme. This may be accompanied by co-ordination difficulties, such as learning to ride a bicycle, or poor self-help skills, e.g. dressing. Information about these difficulties may be obtained when talking to or during interviews with parents. Difficulties are compounded as learners grow older and more demands are made of these skills at secondary school.

Environmental factors
The Morton and Frith model is particularly useful for reminding teachers of the impact of interaction between any ‘within-child’ aspect and the environment. All too often, however, research into learning difficulties has concentrated only on the way the home environment affects learning. There are many studies that show the benefits of homes where there are positive attitudes towards learning (e.g. Snowling et al., 2007), books to read and where adults and others regularly read and where visits to different places to extend children’s experiences and vocabulary take place (Jennings et al., 2009). At the time of writing, these aspects of ‘parenting skills’ are being actively debated (Field, 2012).

The relationship between social class, poverty and educational achievement is well established. Recent surveys in England, like those in the USA, show that children from lower socio-economic groups are more likely to underachieve than those from higher groups. The educational level of parents is also a significant factor. Issues of gender, ethnicity, culture and language add to the complexity of understanding how to ‘Create a fairer educational system’ (Dyson et al., 2010). A recent review of the literature is provided by Perry and Francis (2010) and the case for early intervention to raise standards, particularly in literacy and numeracy, has been argued for more than forty years and recently reiterated by Gross and others (Gross, 2008).

All too often, however, knowledge of this relationship is used as an ‘explanation’ for children’s low educational achievement. Schools can and do make a difference through their teaching and learning strategies and by ensuring children have opportunities to benefit from experiences such as school visits, creative approaches to technology, and after-school clubs. They also find ways of working with parents/carers. It is vital to remember that many of the children from disadvantaged homes may have dyslexia. This fact is sometimes overlooked when people look only at a relationship between low achievement and social disadvantage! It is, therefore, important to consider the environment at school and whether this raises barriers to learning for some children and young people. (Some would argue this is more fruitful as teachers have more control over what happens there.) Recent moves to make schools more dyslexia-friendly have made schools more ‘learning-friendly’ for all pupils. However, in undertaking assessments teachers need to consider aspects such as the levels of reading required
by some of the texts/worksheets that they use, the vocabulary used in school and the arrangements for giving additional support for those experiencing difficulty. One aspect is the ‘balance’ between direct teaching of reading/spelling/numeracy to those with difficulties and ‘supporting’ learners, particularly those with reading difficulties, by having an assistant read ‘to or for’ them. Whilst this gives access to the wider curriculum and enables those with good listening/language comprehension skills, too much support can be seen as ‘propping up’ rather than helping the learner to become an independent reader. Reid (2009) emphasises the importance of understanding the demands of the curriculum and the effect that a mismatch between this and learning needs, together with time pressures, excessive noise levels, lack of appropriate aids and unrealistic expectations, can have on a learner with dyslexia.

The attitudes and expectations of teachers are very important in giving a sense of the possibility of achievement to those struggling with learning. Their attitude to those with difficulties will be conveyed not only to the learners but also their peers, thereby potentially giving rise to negative social interactions amongst learners. Asking questions of the learner and teachers/TAs in addition to direct observation in a range of lessons should all be part of the identification and assessment process.

Many learners will experience some of the difficulties described in this chapter. It is important to note that isolated difficulties may be experienced by most children and therefore teachers and TAs need to look for clusters of difficulties using checklists or observation as part of the initial identification process. However, clusters of difficulties may also be found in children with other types of learning difficulties (e.g. general learning difficulties) and some of the co-occurring difficulties mentioned in the Rose (2009) definition can overlap with other specific learning difficulties. It is important, therefore, to be aware that having identified one specific learning difficulty does not rule out the possibility of the existence of others.

Summary
The complex nature of dyslexia requires a comprehensive assessment on which to base intervention. This chapter has provided a rationale for determining the areas to be taken into account when assessing learners presenting dyslexic-type difficulties. We summarise these in Table 1.1, using the Morton and Frith framework because this includes both observable characteristics and the need to explore some of the underlying cognitive processes. It also ensures that we consider which of a learner’s experiences to date, including their school experiences, may have helped them or exacerbated their difficulties. Our model also values the contributions of learners and parents.
Table 1.1 What should we assess when investigating dyslexic-type difficulties?

<table>
<thead>
<tr>
<th>Behavioural</th>
<th>Spelling</th>
<th>Writing</th>
<th>Numeracy</th>
<th>General</th>
<th>External Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Spelling</td>
<td>Writing</td>
<td>Numeracy</td>
<td>General</td>
<td>Learning environment:</td>
</tr>
<tr>
<td>Word reading/decoding: g–p correspondence</td>
<td>Free writing: g–p correspondence</td>
<td>Letter formation</td>
<td>Basic numeracy</td>
<td>Articulation</td>
<td></td>
</tr>
<tr>
<td>Single word reading (regular and irregular)</td>
<td>Regular words</td>
<td>Speed</td>
<td>Mental maths</td>
<td>Sequencing</td>
<td></td>
</tr>
<tr>
<td>Non-word reading</td>
<td>Irregular words</td>
<td>Punctuation</td>
<td>Maths symbols</td>
<td>Organisation</td>
<td></td>
</tr>
<tr>
<td>Passage reading</td>
<td>Spelling rules</td>
<td>Grammar</td>
<td>Maths language</td>
<td>Fine/gross motor</td>
<td></td>
</tr>
<tr>
<td>Reading rate</td>
<td>Presentation in copying and free writing</td>
<td>Word problems</td>
<td>Word</td>
<td>Concentration</td>
<td></td>
</tr>
<tr>
<td>Comprehension</td>
<td></td>
<td>Cognitive learning style</td>
<td></td>
<td>Copying skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Attitude to learning</td>
<td></td>
</tr>
</tbody>
</table>

Cognitive

<table>
<thead>
<tr>
<th>Memory: Short-term memory Working memory</th>
<th>Phonological Awareness: Blending Segmenting Manipulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasoning Ability: Verbal Non-verbal</td>
<td>Processing Skills: Auditory Visual (including scotopic sensitivity) Speed of processing (including rapid naming)</td>
</tr>
<tr>
<td>Biological</td>
<td></td>
</tr>
<tr>
<td>Family history (parent voice)</td>
<td>Usually obtained in interviews</td>
</tr>
</tbody>
</table>

Points for Discussion

- Do you think there is a need to distinguish between learners with dyslexia and those presenting similar literacy difficulties but who have general learning difficulties? Why?
- What assessment procedures are currently used in your school to identify dyslexic-type difficulties?
Further Reading

A discussion of the theories of causation of dyslexia can be found in Chapter 1 of this book.
An excellent practical overview of many aspects of assessment and intervention for dyslexia.

References


