

# Dyslexia

## Dyslexia: a preferred way of Learning

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outlines some of the best approaches to meeting the needs of students with dyslexia

Dyslexia is best viewed positively as a preferred way of learning, with commensurate opportunities and costs implicit with any preference, rather than negatively as a disability with the implication that there is something "wrong" with a child or adult with dyslexia.. I believe in the concept of dyslexia as a "spectrum condition" and I would argue that all teachers have the ability and opportunity to identify and respond to students with Dyslexic Type Learning Needs (DTLN) as part of everyday classroom monitoring and tracking procedures. This would typically include students who think faster than they read, spell and get ideas down on paper - a definite "thinking gap" - and those who are unlikely to get an assessment leading to an official label, a cue for needs-based intervention.

This latter point is especially important, particularly in the light of

changes in the way progress and achievement are measured from 2016.

In this respect, labels are meaningless unless they lead very quickly to changes in the way a student is taught. Classroom practitioners are the best people to confer the "DTLN" label because this leads to instant action rather than waiting for panels, bureaucracy and assessments to grind on while a student is going steadily backwards.

**"If I have an expectation of you, then I have an obligation to provide you with whatever you need to be successful in meeting that Expectation"**

Labels which are explanation-driven and based on what a student needs to move forward are a perfect fit with the SEND (Special educational needs and disability) Code of Practice, the national curriculum and , for the time being at least, current Ofsted thinking.

If we look at the solution-focused approaches built around Eide and Eide's "MIND" strengths of Dyslexia, there are ways of incorporating these to develop the "Dyslexia Zone" in the mainstream unsupported classroom by fine-tuning already well established "notice and adjust" approaches Eide and Eide's MIND strengths are :

- Material reasoning
- Interconnected reasoning
- Narrative reasoning
- Dynamic reasoning

It is also important to understand that students have the right to be dyslexic, which places an obligation on teachers to teach them in the ways they prefer to learn. In the words of Sharratt and Fullan (2009), authors of *Putting Faces on the Data*: "If I have an expectation of you, then I have an obligation to provide you with whatever you need to be successful in meeting that expectation.

This makes the point that the constant pressure for student achievement requires students to be taught in the ways they prefer to learn, through differentiation, personalisation and accommodation. This is where the MIND strengths empower teachers to create the Dyslexia Zone, the place where tweaks for DTLN benefit most, if not all student in a class.

## MIND - Explained

### Material reasoning

This is the ability to think, reason and visualise in 3D. For example, experiments in science, coding problems in maths and physical geography are often processed in this powerful way, conferring advantages in terms of understanding, inference and prediction. But it can also lead to weaker 2D recall and may explain why some student prefer to write in capitals.

### Interconnected reasoning

This is the ability to "Spot connections and relationships between concepts and points of view " (Eide and Eide, 2011). Dyslexic students are very comfortable with the global big picture and can be seriously disadvantaged when there is an over-emphasis on detail and process. Trade-offs include comprehension at the

expense of accuracy and the use of context to make intuitive leaps at the expense of reading fluency.

### Narrative reasoning

This is the ability to recall the past, understand the present and imagine the future through the use of stories. Many Pupils with Dyslexia report thinking in vivid colourful pictures and a tendency for the mind to wander and become distracted by possibilities. This powerful episodic memory benefits from multisensory learning opportunities which support fluid thinking to link ideas in unique ways.

### Dynamic Reasoning

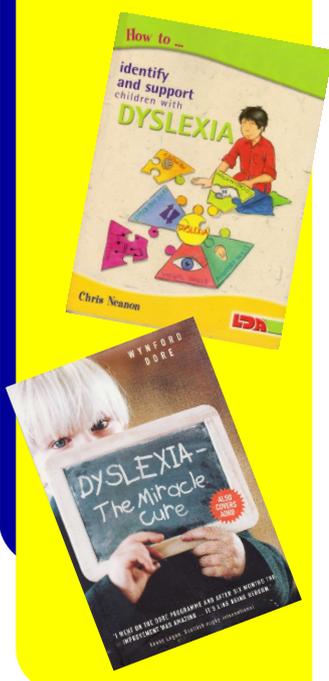
This is the ability to "recombine elements of past experience to predict or mentally simulate future out-

comes" (Eide and Eide, 2011). However, they also risk "paralysis by analysis" and students often struggle to get started as they become overwhelmed by possibilities. Multi-sensory planning techniques are very effective in this context.

**Both extracts were sourced from SecEd**

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# TOP TIPS

## USEFUL BOOKS

- **How to identify and support children with Dyslexia**

By Chris Neanon

- **Dyslexia** By Carol Mellers

- **Dyslexia - The Miracle Cure**

By Wynford Dore

- **Dyslexia - What parents ought to know**

By Vera Quin and Alan Macauslan

- **Dyslexia Biology, Cognition and Intervention**

Edited by Charles Hulme and Margaret Snowling

- **Winning with Dyslexia**

By Lindsay Peer BDA Education Director

These books and more can be found in the Resource Base Room, Connected with the ALNs department.

## USEFUL WEBSITES

[www.bdadyslexia.org.uk](http://www.bdadyslexia.org.uk)

[www.dyslexiaaction.org.uk](http://www.dyslexiaaction.org.uk)

[www.sec-ed.co.uk](http://www.sec-ed.co.uk)

# Dyslexia and Mathematics

Dyslexia causes difficulties in learning to read, write and spell. Short-term memory, mathematics, concentration, personal organisation and sequencing may also be affected. Dyslexia usually arises from weakness in the processing of language-based information. Biological in origin, it tends to run in families, but environmental factors also contribute. Dyslexia can occur at any level of intellectual ability. It is not the result of poor motivation, emotional disturbance, sensory impairment or lack of opportunities, but may occur alongside any of these. The effects of dyslexia can be largely overcome by skilled specialist teaching and the use of compensatory strategies.

### Areas of possible difficulty

Dyslexia is generally understood to relate to literacy and language, but many parents, teachers and researchers

are aware that it may also relate to mathematics. Not all children with dyslexic problems will experience difficulties in mathematics. Some make good mathematicians: others show strengths in the more practical mathematics-related subjects such as physics, engineering and architecture. Little research has been done to assess the percentage of children with dyslexia experiencing difficulties with mathematics. However, Joffe (1981) suggests that 60 per cent of dyslexic individuals have problems severe enough to require remediation. Miles and Miles (1991) see the figure as simplistic: "It may be that all dyslexics have some difficulties with mathematics (as part and parcel of their problems with language and memory) but there is considerable variation in the extend to which these difficulties are over come.

### A dyslexic individual may experience difficulties in any of the following areas :-

#### Reading

Decoding, understanding, comprehension, fluency

#### Memory

Short-term and working memory, moving information into long-term memory; recalling that information.

#### Handwriting

This may be poorly formed and letter/symbols may be incorrectly written.

#### Spelling

Phoneme recognition, transferring phonemes to the correct grapheme, visual recognition of correct/incorrect spelling.

### Sequencing and logical thinking

Problems may occur in: writing letters in words or digits in numbers in the correct order, correctly sequencing procedures problem solving.

### Concentration

The Brain of a child with dyslexia is 'wired differently' and the learner has to work harder to achieve the same standard as their peers: this means that their level of concentration cannot be retained for as long as may be required for learning in the classroom

### Organisation

Poor organisation skills affect many areas - from taking the right books to school to organising project work.

### Time management

It is widely recognised that many children with dyslexia have difficulty in telling the time, but what may be less well understood is that they may also have difficulty in recognising the passage of time ; this particularly affects project work and examinations.

### Confidence and self-esteem

Low confidence and self-esteem mean that, apart from having a poor self-image, learners are reluctant to participate in learning, the learners themselves are the best predictors of their levels of performance, thus a learner with low confidence levels will achieve work at a low level that they are capable of, given suitable support.

### How to develop numeracy in children with Dyslexia

by Pauline Clayton

This book can be found in the Resource Base

# 10 Facts about Dyslexia

1. Dyslexia is the most common learning disability. Individuals with this medical condition have difficulty in the areas of language processing
2. 1 in 5 people suffer from dyslexia.
3. About 70 to 85% of children who are placed in special education for learning disabilities are dyslexic.
4. Dyslexia does not reflect an overall defect in language, but a localized weakness within the phonologic module of the brain (where sounds of language are put together to form words of break words down into sounds.
5. People with dyslexia are usually more creative and have a higher level of intelligence.
6. Those with dyslexia use only the right side of the brain to process language, while non-dyslexics use three areas on the left side of the brain to process language.
7. Children have a 50% chance of having dyslexia if one parent has it. And a 100% chance if both parents have it.
8. Dyslexia ranges from mild to severe. Around 40% of people with dyslexia also have ADHD. And those with dyslexia use about 5 times more energy to complete mental tasks.
9. Dyslexia is not a disease so there is no cure. It's a learning disability that includes difficulty in the use/processing of linguistic and symbolic codes, alphabetic letters representing speech sounds or number and quantities.
10. Dyslexics do not "see" words backwards. The "b-d" letter reversal for example is mainly caused by deficits in interpreting left and right.