Section 10
Specific Learning Disabilities
SPECIFIC LEARNING DISABILITIES

So what can people with learning disabilities do that I can do also? Well it would take pages and pages to name them all, so I’ll describe them in one short word: EVERYTHING!

Holly Hanlon, Scoil Bhride Naofa, Kildare taken from I Can, You Can: Primary Schools Essay Competition, Department of Justice, Equality and Law Reform (2005)

The Report of the Special Education Review Committee (SERC) (1993, p. 86) defines specific learning disability as ‘impairments in specific aspects of reading, writing and arithmetical notation, the primary cause of which is not attributable to assessed ability being below the average range, to defective sight or hearing, emotional factors, a physical condition or to any extrinsic adverse circumstances’.
Many people think dyslexic people are boneheads. Dyslexia doesn’t equal a lack of intelligence. Don’t laugh at your mates when they have problems with reading! Maybe they’ll become movie stars and you’ll want tickets to their premieres.

Orlando Bloom on his dyslexia taken from the Orlando Bloom Files
http://www.theorlandobloomfiles.com/articles/j1404march.html

Dyslexia affects the learning process in relation to reading, writing and speaking, such difficulties being disproportionate to the student’s other academic abilities. Dyslexia is indicated by a mismatch between an individual’s assessed ability and his/her attainments in literacy-related areas. Dyslexia may affect the development of the student’s ability to remember in sequence what is seen or heard, his/her ability to identify sounds in words and his/her ability to put things in order (e.g. information, letters, stories, numbers, the days of the week, the months of the year, etc); it may affect concentration, co-ordination, letter/numeral formation skills and the speed of reading and understanding. In addition students may have problems with directions, map-reading, recognising left and right, spelling, copying words and numbers from a book or a blackboard, recalling the names of words or objects and reading music.

Students’ learning difficulties arising from dyslexia are in a continuum that ranges from mild to severe. Students’ confidence and self-esteem are often affected and they appear to lack motivation. Dyslexia may co-exist with other special educational needs such as dyscalculia (see page 158), dyspraxia (see page 41) and attention deficit hyperactivity disorder (ADHD) (see page 59). It occurs across all socio-economic groups and affects people differently. Although dyslexia occurs across the lifespan it may be alleviated with appropriate intervention.

Tips for Learning and Teaching

- Recognise the confusion and frustration of the student and avoid situations that increase pressure.
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- Do not equate genuine variability of performance with lack of effort.
- Provide support with additional recording mechanisms where appropriate (e.g. appropriate literacy software, charts, diagrams, dictaphones, electronic dictionaries, models, voice recognition software and word processors with spellchecker).
- Employ line trackers and/or coloured overlays as appropriate.
- Provide opportunities for the student to re-learn and over-learn.
- Encourage the process of drafting and redrafting.
- Amend worksheets to make them understandable.
- Provide assistance with elements of the writing process, such as the using of planning sheets and editing checklists.
- Read questions aloud.
- Encourage self-correction.
- Practise memory games.
- Use a structured multi-sensory literacy programme with the student.
- Establish the students’ strengths and their individual learning styles.
- Teach a range of word-attack skills (e.g. contextual cues, look and say, phonics, punctuation and word shapes).
- Use a graded-reading programme that is appropriate to the student’s level of literacy skills as well as his/her interest level.
- Provide supplementary reading material that is below the student’s assessed reading level, which allows the student to read independently (i.e. less than two errors in one hundred words).
- Use a rehearsal-reading system. Instead of calling on students at random to read aloud, assign each student a specific passage a day in advance.
- Start with the student’s free writing when selecting spellings to learn. Target specific spelling patterns that the student requires assistance with as evidenced in the student’s free writing.
- Correct spellings positively and allow students credit for correct letters or sounds in words.
- Employ a number of multi-sensory methods when teaching spellings and consider the use of the strategy of look, copy, trace, picture, cover, write and check selectively.
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- Construct logs or diaries of essential words.
- Break tasks into small steps and allow adequate time for completion.
- Select and highlight most important errors, not all errors – focus on the nature of the errors (quality) rather than the number of errors (quantity).
- Teach study skills (e.g. highlighting central points, mind-maps®, mnemonics, etc).
- Give regular constructive praise and encouragement and maintain high expectations.
- Limit copying from the board. Write in different colours on the blackboard.
- Expect students’ work to be erratic and inconsistent.
- Encourage students to repeat the directions for completing a task.
- Use visual cues to help the students to organise themselves.
- Acknowledge that extra time is needed by students in order to complete tasks.
- Use appropriate computer software to support reading, spelling and writing (e.g. Wordshark®, Numbershark®, etc).
- Encourage the use of spelling dictionaries such as ACE Spelling Dictionary® and spellcheckers such as the Franklin®.
- Particularly at post-primary level consider the use of some non-printed learning materials such as taped books, recorded classes and curriculum texts on tape.
- Remember a student with dyslexia may have great difficulty with figures (e.g. learning tables), reading music or anything which entails interpreting symbols. Learning foreign languages can be particularly difficult.

Additional Resources/References


17. Special Education Support Service (SESS) lists a number of sites related to dyslexia, website: [http://www.sess.ie/](http://www.sess.ie/)


Dyscalculia

Living with dyscalculia ... can be really frustrating at times ... the biggest challenge is dealing with the attitudes I get from others, who cannot understand my apparent inability to remember locations or follow directions. Hopefully as more of us talk about such struggles and share our experiences of dealing with such a disability, more people will become more understanding.

Virginia Beach, taken from *D means Deaf and Dys... (whatever!)*, http://deafpagancrossroads/2007/11/10/d-means-deaf-and-dys-whatever/

Dyscalculia primarily affects the learning process in relation to Mathematics. Two of the types of dyscalculia that have been identified are:

**Type 1: developmental dyscalculia** where students exhibit a marked discrepancy between their developmental level and general cognitive ability as it pertains to Mathematics. As a basic indicator of developmental dyscalculia students will perform below expectations with no obvious explanation (e.g. general ability, emotional state or illness) available.

**Type 2: dyscalculia** where students exhibit a complete inability to manage mathematical concepts and numbers. It presents as an enduring condition that affects the ability to acquire mathematical skills despite appropriate teaching.

Dyslexia and dyscalculia may co-exist, but not all students with dyslexia will have difficulties in Mathematics. However, dyslexia will affect all kinds of learning that depend on reading including Mathematics.

Dyscalculia may manifest itself through the student’s inability to conceptualise number, number relationships and outcomes of numerical operations (estimating). Students variously exhibit difficulties in the following areas: computation, direction, laterality,
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mathematical concepts, mental Mathematics, money, omissions, reading and writing numbers, reversals, rote counting, rules and formulae, sequencing, and time and time management. Students may be unable to comprehend or ‘picture’ mechanical processes as they often lack ‘big picture’ thinking.

Other symptoms of dyscalculia may be noted in poor athletic co-ordination, difficulty keeping scores during Physical Education and problems keeping track of whose turn it is during games. Transitioning between lessons, particularly at post-primary level may also be difficult. Students may also have a poor sense of direction, display a tendency to lose things and may seem absent minded. Additional problems may be seen in difficulties that arise in grasping concepts of formal music education such as reading music, and in students sometimes having poor name/face retrieval when recollecting individual’s names.

Tips for Learning and Teaching

- Use concrete materials and start from practical activities.
- Avoid creating anxiety for the student.
- Establish the student’s preferred learning style.
- Teach more than one way to solve mathematical operations.
- Build on student’s existing knowledge.
- Try to understand the student’s errors, do not just settle for wrong.
- Concentrate on one concept at a time.
Language should be kept to a minimum and specific cues given for various mathematical operations in word problems.

Encourage students to visualise mathematical problems. Allow students to draw a picture to help them understand the problem and ensure they take time to look at any visual information such as charts and graphs.

If the student does not have co-existing reading difficulties, encourage him/her to read problems aloud.

In the early stages of teaching new mathematical skills ensure that the mathematical problems are free of large numbers and unnecessary calculations.

Provide examples and try to relate problems to real-life situations.

Provide students with graph paper/squared paper and encourage them to use this to keep the numbers in line.

Ask to explain verbally how he/she arrived at particular solutions.

Explain new concepts in a logical manner.

Encourage students to teach a concept back in order to check understanding.

Ensure worksheets are uncluttered and clearly laid out and provide ample room for uncluttered computation. Ensure that the page does not look intimidating.

Limit copying from the board.

Allow students to use computers and calculators, especially to self-correct.

Provide students with extra time to complete tasks and encourage the use of rough work for calculations.

Directly teach the language of Mathematics.

Always bear in mind the language of Mathematics differs significantly from spoken English.

Use consistent mathematical language both in your classroom and throughout the school.

Make use of mnemonics and visual prompting cards to assist students in memorising rules, formulae and tables. Repetition is also very important.

Always match the strategy to the student’s identified needs and abilities.
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Additional Resources/References


4. Dyslexia Association of Ireland (Maths and Dyslexia), website: http://www.dyslexia.ie/maths.htm


8. Other websites/links related to dyscalculia:
   - http://www.dyscalculiainfo.org/
     Cognitive Centre, Malmo, Sweden.
   - http://www.dyscalculia.org/
     A free e-book in relation to dyscalculia can be obtained from this site.
   - http://www.standards.dfes.gov.uk/primary/faqs/inclusion/56233
     This e-book offers general information on dyscalculia as well as a question and answer session with Steve Chinn.


Simply put it is a disorder of handwriting primarily that causes my handwriting to be illegible to many people … and makes it next to impossible for me to learn spelling. My verbal IQ however is in the 99th percentile - the highest possible score. So clearly bad spelling has nothing to do with my actual mastery of the English language.

I have Dysgraphia, Angela Dark, taken from the Experience Project http://www.experienceproject.com/uw.php?e=97767

Dysgraphia affects a student’s ability to write coherently, regardless of their ability to read. Types identified include:

**Type 1: dyslexia dysgraphia** where written work that is created spontaneously is illegible, copied work is good and spelling is poor. A student with dyslexia dysgraphia does not necessarily have dyslexia.

**Type 2: motor dysgraphia** where the condition may be caused by poor fine-motor skills, poor dexterity and/or poor muscle tone. Generally written work is poor to illegible, even if it is copied from another source. While letter formation may be legible in very short samples of writing, this is usually after extreme efforts and the dedication of unreasonable amounts of time on the student’s part. Spelling skills are not impaired.

**Type 3: spatial dysgraphia** where the condition is caused by a defect in spatial awareness and students may have illegible spontaneously written work as well as illegible copied work. Spelling skills are generally not impaired.

In general, written work may be presented with a mixture of upper/lower case letters, irregular letter sizes and shapes, and unfinished letters. Students struggle to use writing as a communication tool, and as so much effort goes into the actual writing process there may seem to be little imagination or thought in their work. They may have unusual writing grips, odd wrist, body and paper positions, and may suffer discomfort while writing. Excessive erasing may be evidenced as may a misuse of lines and margins. Students may also poorly organise writing on a page. Other difficulties may be observed in a poor organisation of ideas, poor sentence and/or paragraph structure and a limited expression of ideas. They may be reluctant to complete writing tasks or refuse to do so.
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Tips for Learning and Teaching

- Provide support with additional recording mechanisms where appropriate (e.g. charts, diagrams, dictaphones, models, voice recognition software and word processors).
- Minimise the amount of writing a student is required to do.
- Encourage oral responses.
- Use paper with lines that are raised; this will act as a sensory guide to help the student to stay within the lines.
- Try different pens and pencils to find one that the student is most comfortable working with.
- Explore concepts such as mindmapping®, spider diagrams and concept maps as a means of exploring topics or demonstrating learning.
- Adapt written activities and worksheets (e.g. instead of expecting a student to write full sentence answers, either encourage the student to fill in the missing word or circle the correct response).
- Use workbooks where appropriate to reduce the need to copy material from books.
- When organising written work, particularly projects, create a list of keywords.
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- Use assistive technologies, such as voice-activated software, if the mechanical aspects of writing remain a major hurdle.
- Experiment with a variety of writing utensils (e.g. thick/fine-tip marker, use of grips on pencils, etc).
- Break tasks into small steps and allow adequate time for completion.
- Select and highlight most important errors not all errors – focus on the nature of the errors (quality) rather than the number of errors (quantity).
- Give regular constructive praise and encouragement and maintain high expectations.
- Limit copying from the board.
- Acknowledge that extra time is needed by students in order to complete written tasks.
- Explicitly teach organisational skills, for example POWER for essay writing:
  
  PLANNING
  ORGANISING
  WRITING
  EDITING
  REVISING

http://www.sess.ie/

2. National Center for Learning Disabilities (US) offers tips to teachers of both primary and post-primary students regarding dysgraphia, website: [http://www.ldonline.org/article/12770](http://www.ldonline.org/article/12770)


Notes