

Understanding and Managing Dyslexia

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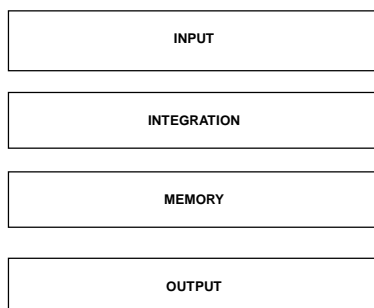
WHAT IS DYSLEXIA?

- Dyslexia should not be thought of simply as difficulty with reading or spelling but that the reading and spelling problems of a dyslexic person are part of a wider disability which shows itself whenever symbolic material has to be identified and named.
- There is no contradiction in saying that a person is dyslexic whilst nevertheless being a competent reader.
- Dyslexia is a syndrome - 'a family of lifelong manifestations that show themselves in many other ways than poor reading.'
- (Tim Miles, 1983, 1990, 1998)

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Specific Learning Difficulties

KIRK AND KIRK



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Understanding and explanation

We should be looking for 'the loveliest explanation'; the one which provides the most understanding.

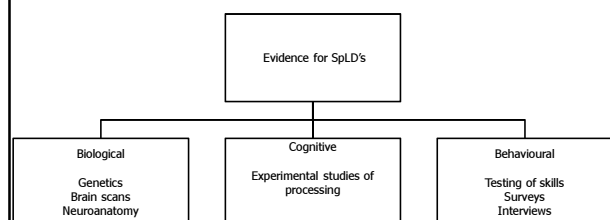
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Models of dyslexia

- Explain all difficulties
- Predict what might be difficult in the future
- Provide a rationale for skill and strategy development

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Research evidence for dyslexia



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Genetics

Genetics – the structure and consequent functioning of the brain is inherited.

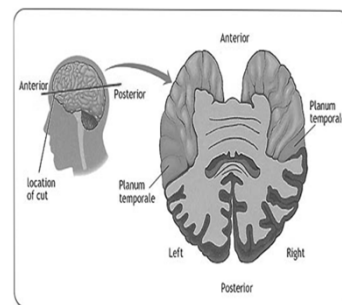
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Neurology – macroscopic structural

Planum temporale, involved in auditory and language processing symmetrical.

Usually larger in left hemisphere.

(Galaburda, 1987)



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Neurology – microscopic structural

Ectopias or clusters of misplaced cells in left hemisphere areas associated with language processing.



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Neurology - functional

Non - dyslexic readers only show activity in the left hemisphere

Dyslexic readers show activity in the right hemisphere as well

Dyslexics process image first and then the word.

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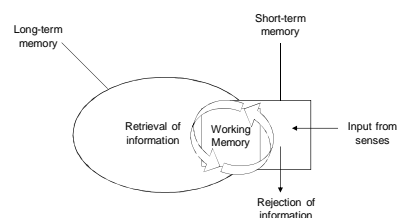
Cognition

The processes associated with learning and performance:

- Phonological memory/processing
- Rapid naming
- Executive functioning

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Working memory



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WORKING MEMORY

Automatic control of a previously learned skill while other incoming information is processed simultaneously. Viz. MULTI-TASKING



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Central Executive

- Planning
- Sequencing
- Maintaining attention
- Resisting interference
- Changing set
- Time estimation

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Visuospatial Sketchpad

- Storage and manipulation of spatial and visual information
- Stores form and colour information
- Stores spatial/movement information

It has a limited capacity

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Phonological Loop

- Remembering serial information
 - Temporary storage for unfamiliar words while they are being remembered
 - Preserves the order in which words are presented
 - It is very important to language learning
 - Underlies grammar and syntax
- It has limited capacity

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Implications: Difficulties

- Organisational difficulties
- Problems with memory tasks
- Time management/estimation
- Problems with literacy
- Dealing with change

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GOOD DAYS/BAD DAYS

- Dyslexic and non-dyslexic adults experience good days and bad days
- Non-dyslexic adults define bad days in emotional terms, e.g. moodiness, depression
- Dyslexic adults experience an exacerbation of the difficulties associated with dyslexia (Freeman, 2003)

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Implications: Skills and Abilities

- Global visual-spatial processing ability (Von Karolyi, 2003)
 - the big picture
- Use visual and visual - spatial processes in reasoning - innovative and divergent in thinking
- Deployment v ability (Bacon & Handley, 2010)

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Episodic Buffer

- Integrates/binds information from a range of sources into a single structure or 'episode'
- Acts as an intermediary between the Central executive, phonological loop and Visual spatial sketchpad
- Conscious awareness is the principal mode of retrieval from the buffer

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Implications: Affective

Working Memory

Hedonic detector – stress and depression
(Baddeley, 2007)

Executive functions – self-regulation
(Blair & Ursache, 2011)

Dyslexic people might be prone to stress, anxiety and depression.

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Strategy Development: Principles

- Strategies serve different purposes
- Strategies must be individualised
- Strategies do not eliminate processing difficulties
- The best strategies come from experience
- The law of parsimony – they should achieve the goal, consuming as few intellectual processes as necessary

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Skills, Compensation/Strategy Accommodation

- The **Skills** people need to develop e.g. write reports and assignments, take calls, and self advocacy
- **Compensation** are what people can use to help them e.g. practical or technological aids
- **Adjustments** are the changes that can be made to help them: extra time, proofreading, specialist coaching/mentoring

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The 3 M's

Make it Manageable - reduce the load on working memory

- avoid dual processing
- look for patterns in and/or chunk series
- work for short periods
- read what you need to read
- plan written work
- use technology

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The 3 M's

Make it Multi-sensory -increase the power of encoding by using a variety of stimuli

- use videos and CD-Roms
- lists, wall charts etc
- talk and discuss
- role play
- colour code
- do

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The 3 M's

Make use of Memory Aids - to facilitate recall

- Notes
- Record
- Review/summing up
- Visual imagery
- Logic

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Final thoughts: Cures

Extravagant claims have been made for:

- Coloured glasses/Eye exercises
- Diet
- Balance exercises/Patterning

If something looks too good to be true.
It probably is!

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Final thoughts: Success

- Understand yourself
- Find your niche
- Work with your strengths
- Develop skills and strategies
- Tell/show what you can do

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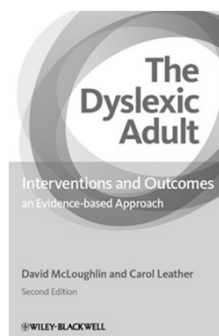
Disclosure

- Never just tell people you are dyslexic
- Always tell people you are dyslexic which means that..... so.....
- Just tell people how you.....

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Further reading

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