

# The Changing Face of Learning Disorder Diagnosis and Response



**Mandy Nayton**

Educational and Developmental Psychologist  
DSF Literacy and Clinical Services

# Overview

- A Quick Reflection
- Response to Intervention (RTI)
- What is a Specific Learning Disorder (SLD)?
- Assessing SLDs (including Imputed Disability)
- Determining Level of Functional Impact (and appropriate adjustments)
- Next Steps.

# Numerous models have been adopted

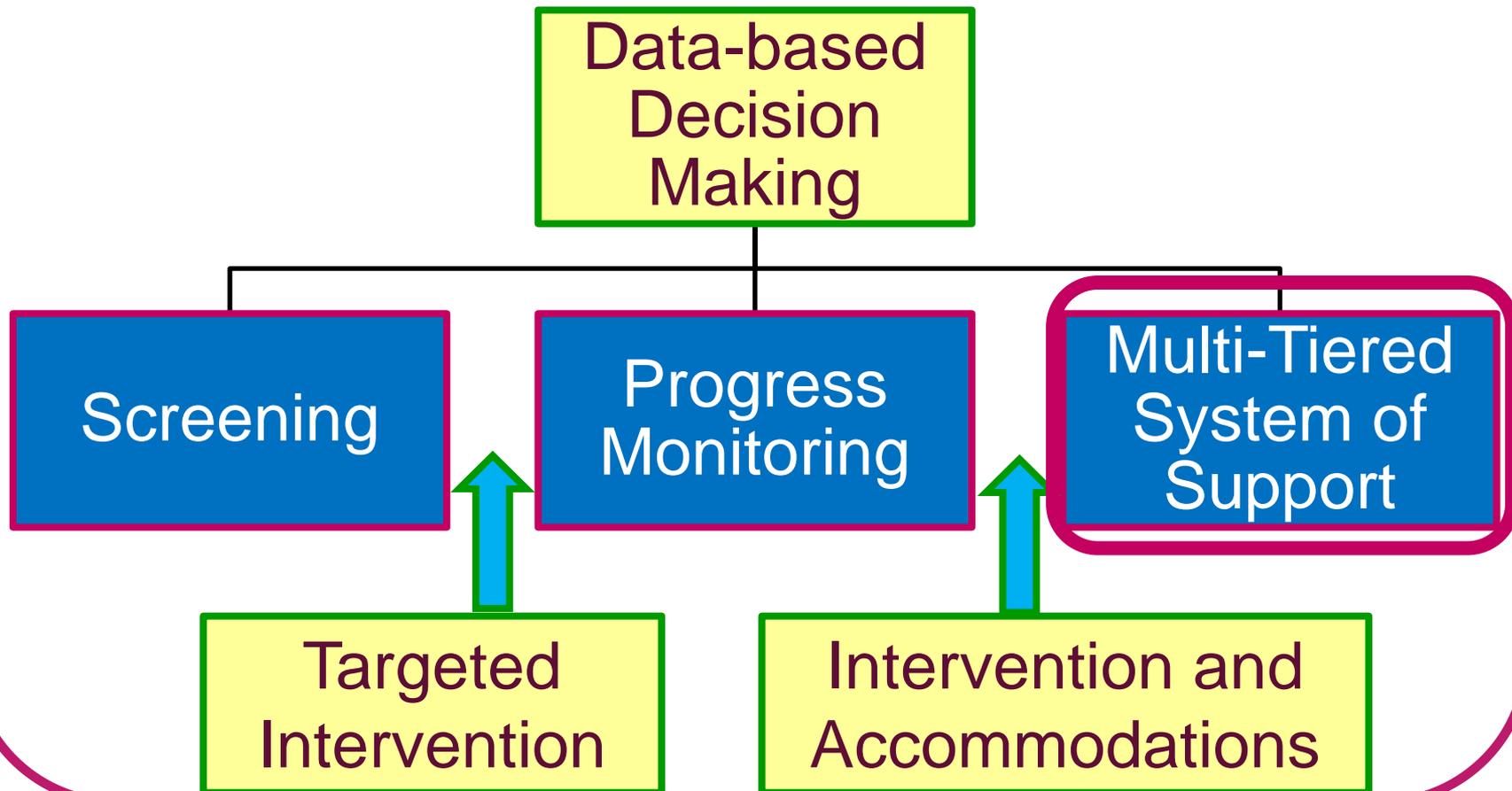
- Aptitude-achievement discrepancy
- Low achievement
- Intra-individual differences (e.g. ACID and SCAD profiles)
- Hybrid Model – incorporating RTI (Response to Intervention)
- Exclusionary criteria

# Exclusionary criteria

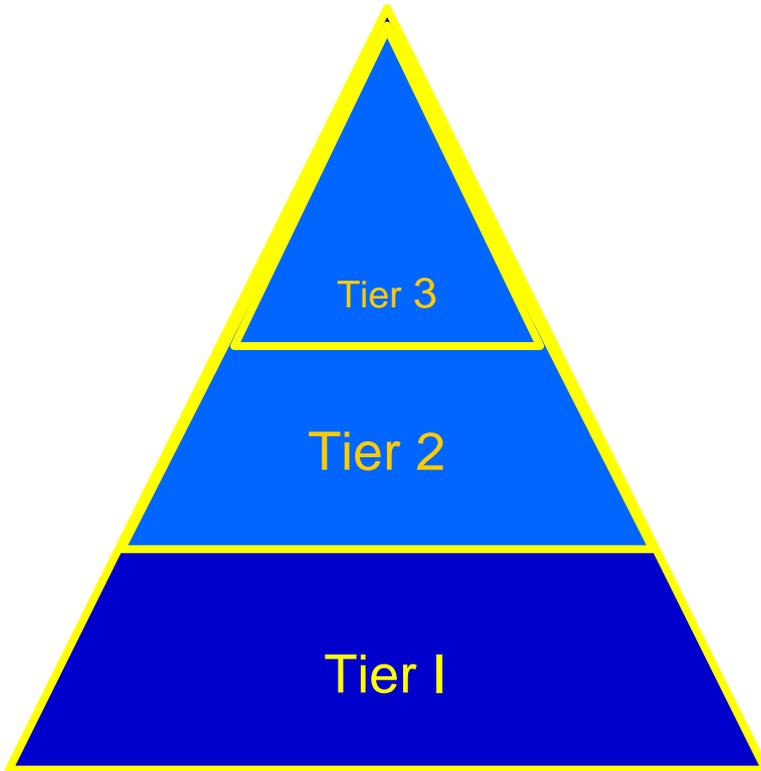
“Learning Disabilities are not considered to be the direct result of intellectual disability, physical and sensory deficits or emotional difficulties. Neither do they appear to derive directly from inadequate environmental experiences, or a lack of appropriate educational experiences.” \*

*\*Note: exclusionary criteria in DSM 5*

# Response to Intervention



# MTSS - Three Tier Model



# RTI does not...

- Classify
- Individualise
- Diagnose

It is important to remember that RTI is essentially a service delivery model not a diagnostic tool.

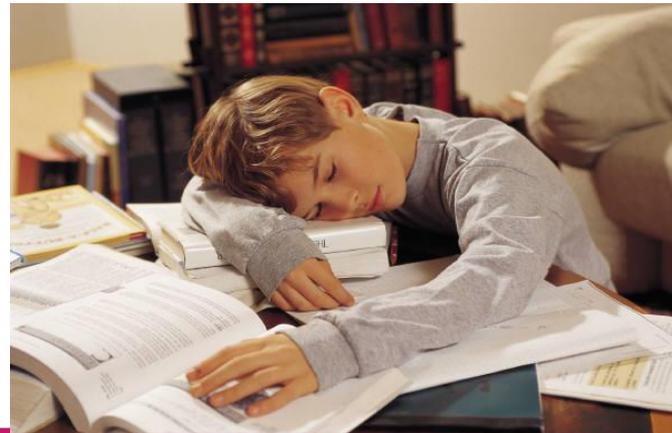
*It does, however, contribute to diagnosis in DSM 5*

# Determining RTI beyond the school years

Identifying how well an individual has responded to any intervention provided during the school years can be extremely challenging at a post-secondary level.

Determining whether there have been persistent and enduring problems in the key academic area of concern during school may be the best that can be achieved.

# What are Specific Learning Disorders (SLDs)?



# DSM 5 and the DDA

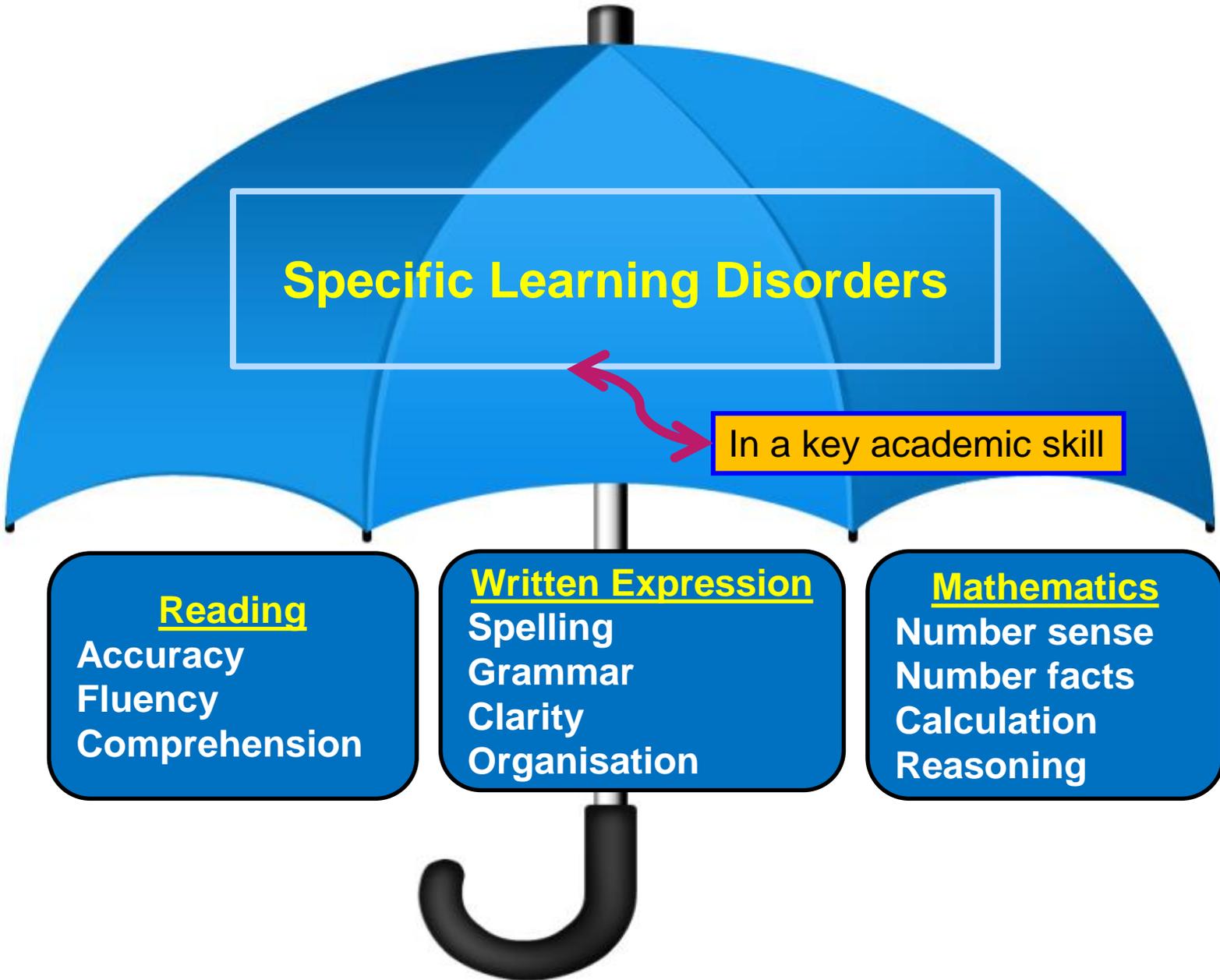
Specific Learning Disorders (SLDs) are classified as Neurodevelopmental Disorders in DSM 5.

In the Disability Discrimination Act, 1992 (DDA) a specific learning disorder is viewed as:

4. 1. (f) a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction.

# Terminology

- The terms **disability**, **disorder** and **difficulty** are all used in different contexts, but essentially are largely interchangeable.
- For a formal diagnosis, the term **Specific Learning Disorder** (with impairment in reading, written expression or mathematics) is used in line with DSM 5 and ICD 10.



## Specific Learning Disorders

In a key academic skill

### Reading

Accuracy  
Fluency  
Comprehension

### Written Expression

Spelling  
Grammar  
Clarity  
Organisation

### Mathematics

Number sense  
Number facts  
Calculation  
Reasoning

Neurobiological /  
Genetic

Behavioural /  
psychosocial factors

## Specific Learning Disorders

In a key academic skill

### Reading

Accuracy  
Fluency  
Comprehension

### Written Expression

Spelling  
Grammar  
Clarity  
Organisation

### Mathematics

Number sense  
Number facts  
Calculation  
Reasoning

Persistent and enduring

May be associated with  
processing weaknesses

## Executive Functioning

- planning
- executing
- active and purposeful reading, writing, problem-solving

## Visual Processing

- rapid scanning
- analysis of letter shapes, numbers, symbols, orthographic patterns, and common phrases
- (connected to linguistic system for processing)

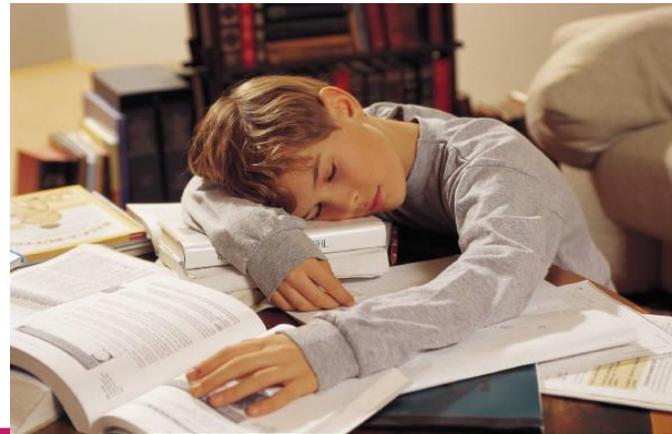
## Linguistic Processing

- phonological information,
- analysis of stored semantic knowledge, interpretation
- association with unique episodic memories.

# Three Years Data DSF (1367 Cases identified with RD) – Results falling 1SD below pop mean / less than the 16<sup>th</sup> percentile

	Fdn – Year 2 (326)		Year 3 – Year 6 (703)		Secondary (338)	
Working Memory (WM)	84	25.77%	236	33.57%	160	47.34%
Phonological Awareness (PA)	108	33.13%	235	33.43%	85	25.15%
Rapid Automatised Naming (RAN)	162	49.69%	407	57.89%	193	57.10%
Phonological Memory (PM)	181	55.52%	366	52.06%	182	53.85%

# Assessing Specific Learning Disorders (SLDs)



# Assessment of SLDs

Students with SLDs are often missed during primary and secondary schooling if they are surrounded by other students also underachieving ...

AND ..

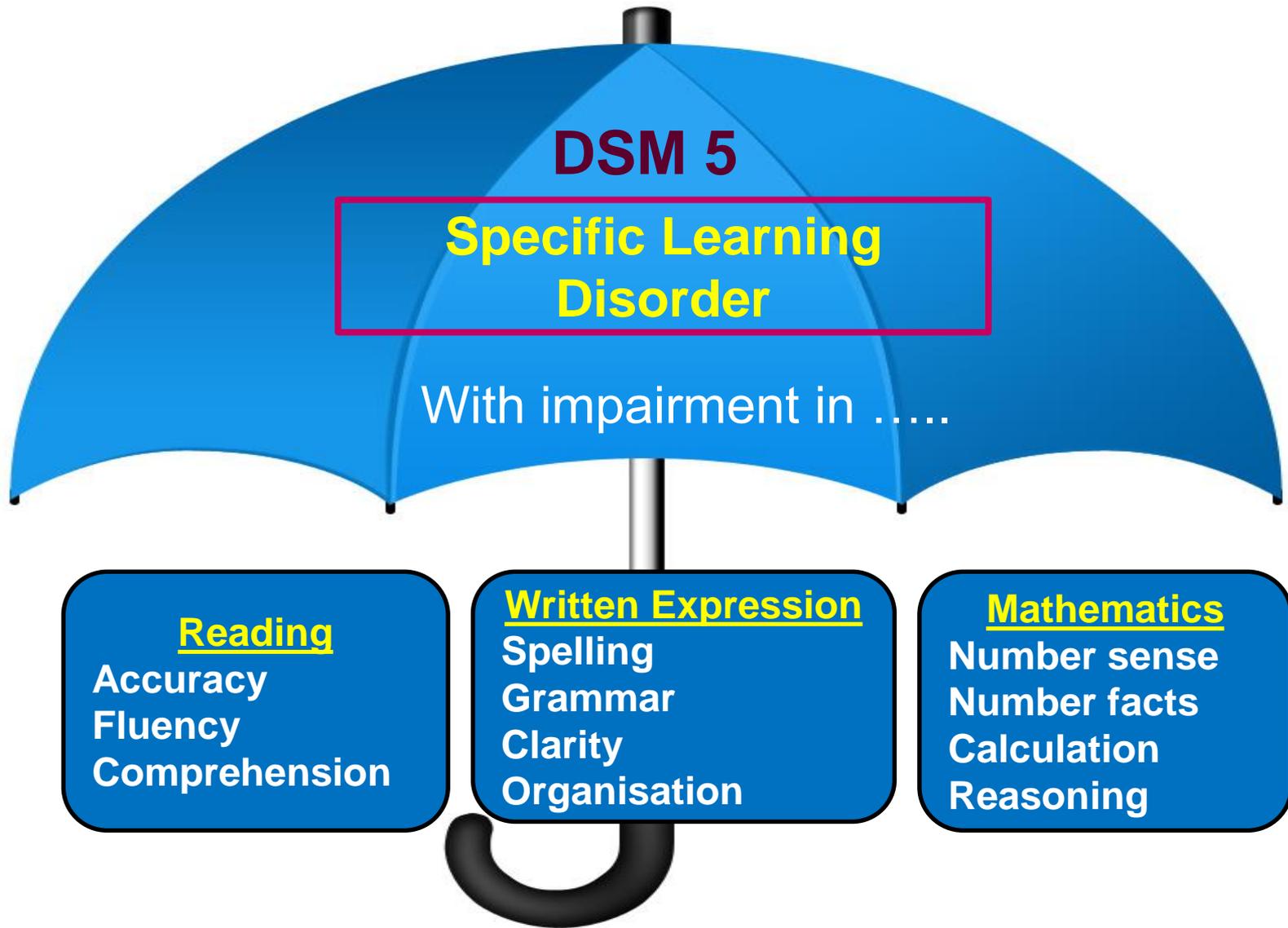
They may drop out of the more challenging subjects and are therefore not identified as underachieving ...

# Psycho-educational assessment

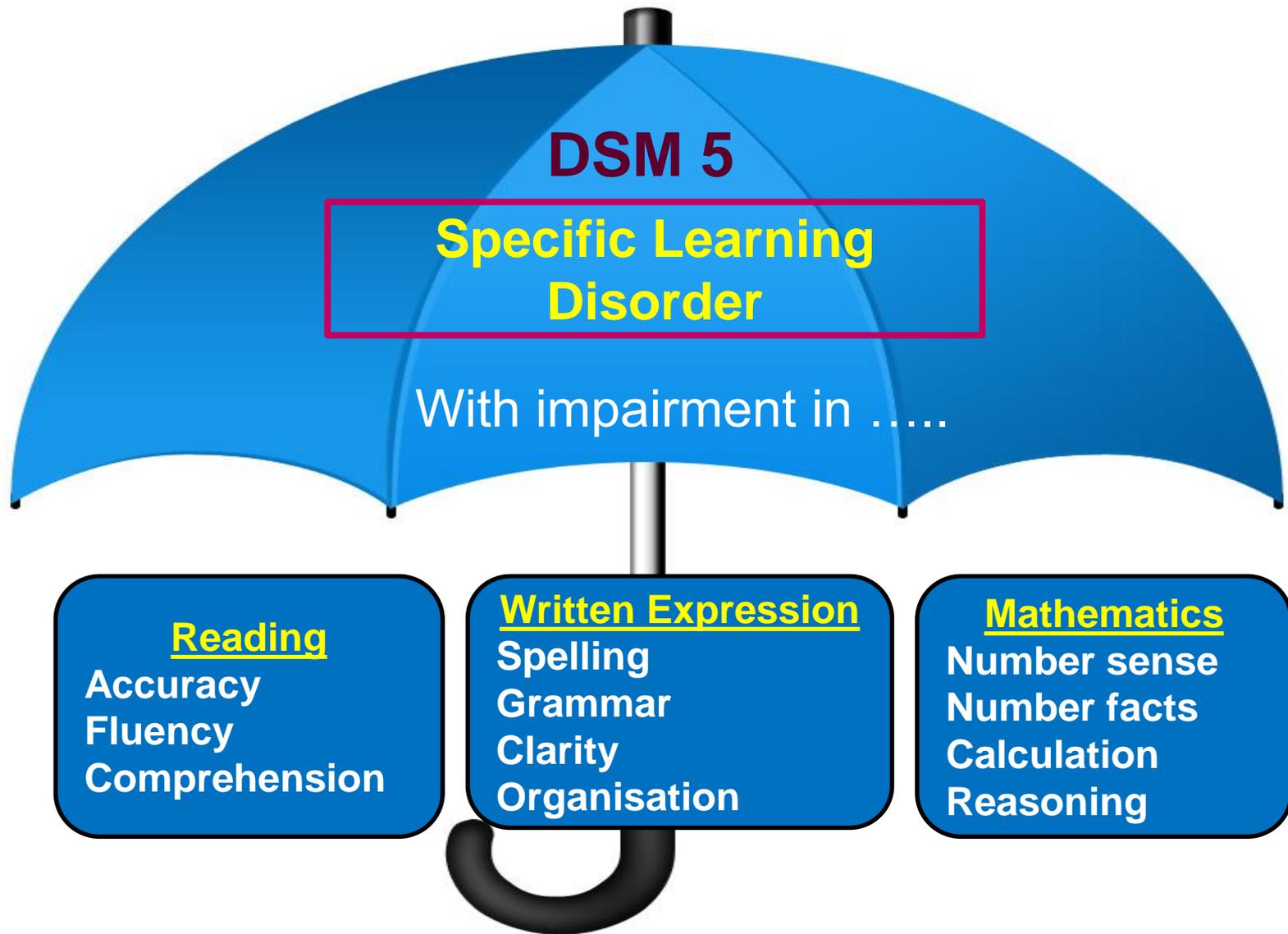
Must be combined with observations and information from relevant education provider, employer and / or family members

Provides a detailed assessment of cognitive strengths and weakness, and academic skills

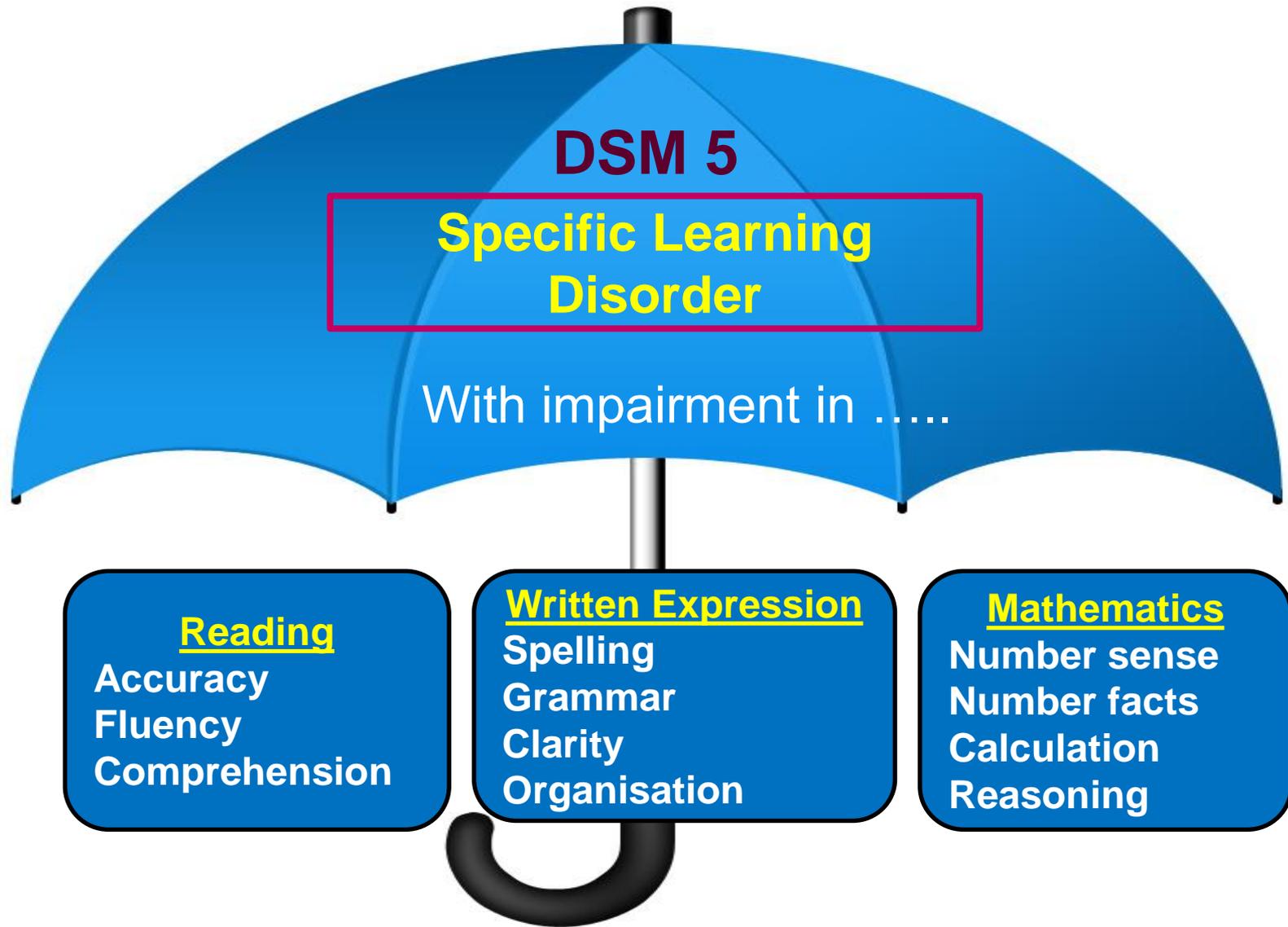
Provides information regarding implications for learning, and suggestions for intervention and accommodations (or adjustments)



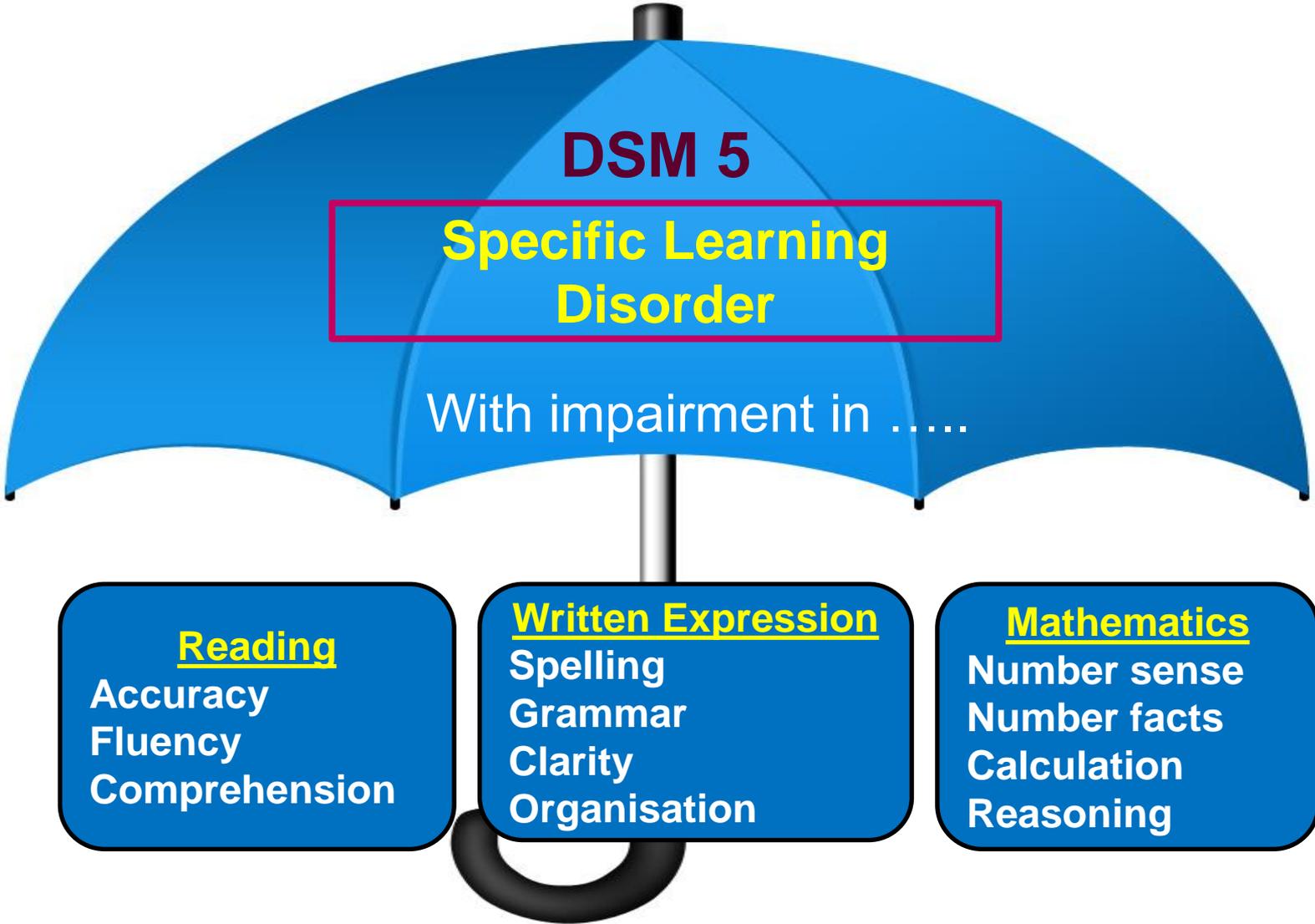
**A. Persistent and enduring** difficulties in key academic area (despite targeted intervention **for at least six months**).



B. Student performs **well below chronological age** on standardised tests in key academic skill.



C. Difficulties begin in the school age years.



**DSM 5**

**Specific Learning Disorder**

With impairment in .....

**Reading**

Accuracy  
Fluency  
Comprehension

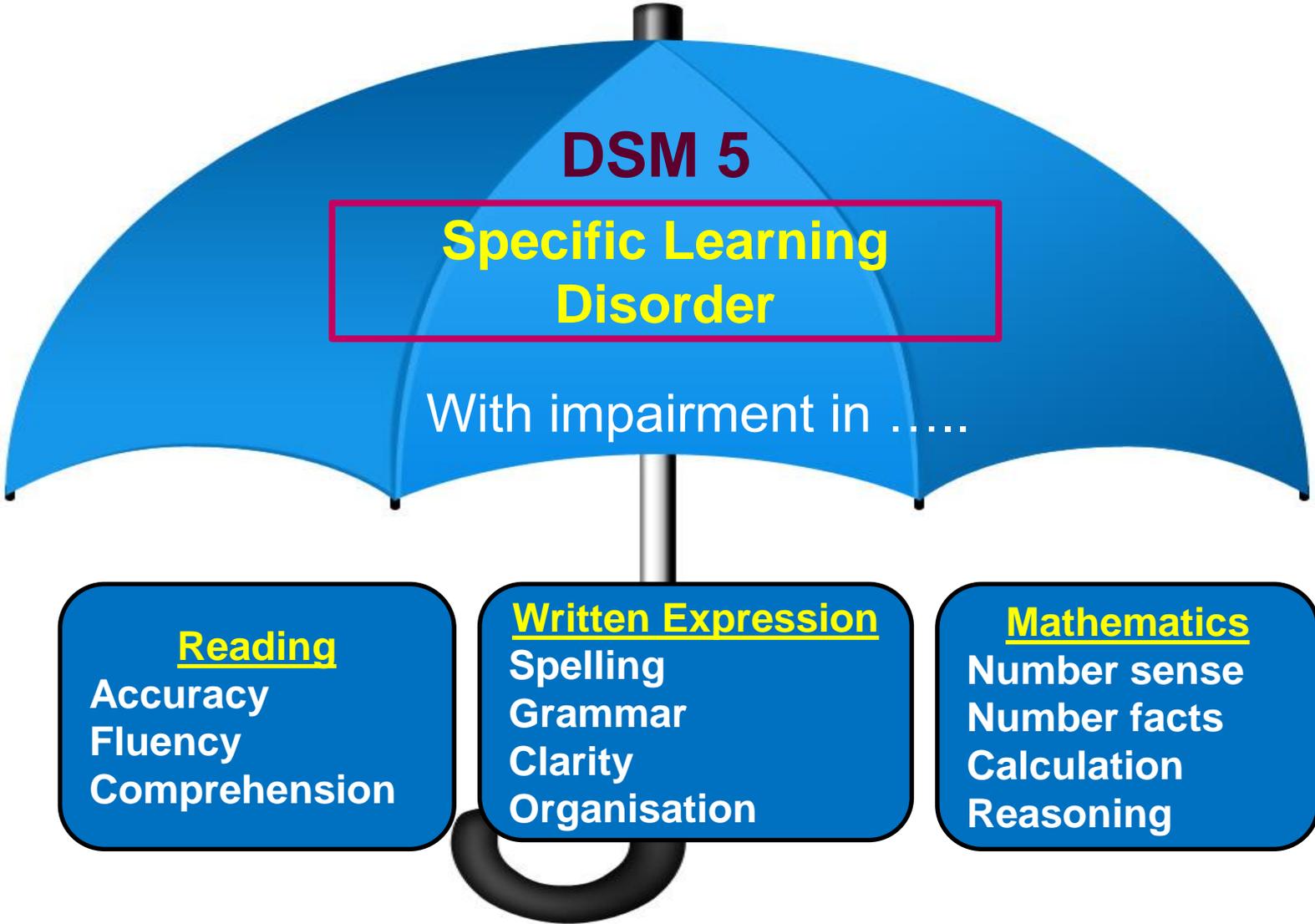
**Written Expression**

Spelling  
Grammar  
Clarity  
Organisation

**Mathematics**

Number sense  
Number facts  
Calculation  
Reasoning

D. Difficulties are not better accounted for by other factors (e.g. EAL/D, DLD, cog. disability, sensory imp., lack of instruction)



## DSM 5

### Specific Learning Disorder

With impairment in .....

#### Reading

Accuracy  
Fluency  
Comprehension

#### Written Expression

Spelling  
Grammar  
Clarity  
Organisation

#### Mathematics

Number sense  
Number facts  
Calculation  
Reasoning

In order to diagnose a Specific Learning Disorder (SLD), the assessment results should meet all four criteria. **A + B + C + D**

# Comorbidity

SLD commonly co-occur with other neurodevelopmental or mental disorders.

Clinical judgement is required to attribute such impairment to learning difficulties.

If there is an indicator that another diagnosis **could** account for the difficulties in learning the academic skill, SLD should not be diagnosed.

# Levels of Severity..

The level of severity should be specified as:

- **Mild**
- **Moderate, or**
- **Severe**



# Levels of Severity

- Consistent with definitional scheme of DSM-5
- Refers to levels of support needed to function at apparently corresponding levels of independence (**functional impact** of the SLD)
  - Requiring limited support (**Mild**)
  - Requiring moderate support (**Moderate**)
  - Requiring very substantial support (**Severe**)

# Levels of Severity..

## **Mild:**

- **Some difficulties** learning new concepts and skills in one or two academic domains, but of mild enough severity that the individual may be able to **compensate or function well when provided with appropriate accommodations or support services.**

# Levels of Severity..

## **Moderate:**

- **Marked difficulties** learning skills in one or more academic domains, so that the individual is **unlikely to become proficient without some intervals of intensive and specialised teaching.**
- **Some accommodations or supportive services are likely** to be needed to complete activities accurately and efficiently.

# Levels of Severity..

## Severe:

- **Severe difficulties** learning new content and skills, affecting most academic domains, so that the individual is **unlikely to learn the content / skills without ongoing intensive individualised and specialised teaching.**
- Even with an array of appropriate **accommodations** or services, the individual is likely to struggle to complete all activities efficiently and/or to a high standard.

# Do SLDs need to be reassessed?

SLDs are, by definition, persistent and enduring (although diagnostic criteria changes from time-to-time).

Targeted intervention and appropriate adjustments will reduce the impact on the individual's educational experience and outcomes.

Changes in symptoms or functional impact occur with age so that an individual may have a persistent or shifting array of difficulties across the lifespan.

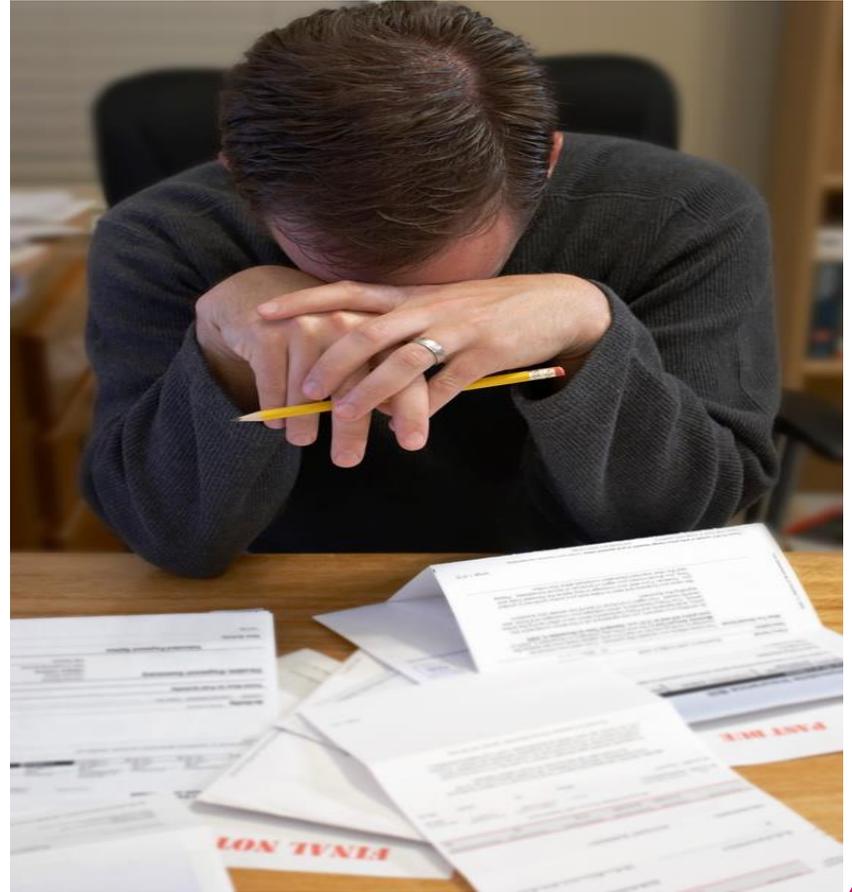
# Do SLDs need to be reassessed?

A full psycho-educational assessment does **not** usually need to take place if the student has been assessed against up-to-date (and agreed) criteria previously. If the student has been assessed against out-of-date (or alternative) criteria – or was very young at the time of the assessment, it should not be used.

The level and type of functional impact being experienced by the student **does** need to be assessed (including current achievement levels in the specific academic skill in which the student struggles). Assessment of functional impact needs to have taken place (perhaps) 2 – 3 years prior to commencing.

# Functional Impact

In order to determine appropriate intervention, accommodations, and support strategies, the level of functional impact (apparent degree of disability) must be determined.



# Adjustments required

**Mild** / may need extra working time in some or all written subjects depending on capacity to respond under timed conditions.

**Moderate** / highly likely to need extra working time and perhaps additional aids (e.g. recorded questions / a scribe / a laptop).

**Severe** / will require adjustments in response to functional limitations.

# Functional Impact – will vary

- Poor reading and writing fluency\*
  - Slow and/or inaccurate reading / writing
  - Poor comprehension of questions and editing of own work
  - Greater cognitive load resulting from the assessment task

\* *Fluency – the capacity to read / write accurately, effortlessly, with comprehension / meaning, at a reasonable rate.*

# Functional Impact – Will vary

- Poor working memory\*
  - Poor comprehension (particularly if unable to highlight / make notes).
  - Difficulty planning and writing complex sentences / paragraphs / essays.
  - Will need to reread questions (and answers) many times and is likely to repeat / omit information in their written responses.

\* A person's capacity to store and process information simultaneously – reduced further by stress.

# Functional Impact – Will vary

- Low processing speed\*
  - Slow sentence / paragraph / essay production.
  - Slow response to visual / graphic prompts
  - May result in poor rate of reading

\*Usually considered to be a measure of an individual's visuo-motor capacity (e.g. handwriting is a visuo-motor task)

# Functional Impact – Will vary

- Difficulties with transcription
  - Illegible letter and word formation
  - Possible pain with prolonged periods of writing
  - Impacts on fluency (writing becomes very effortful)
  - Quality of writing effected by shifting of focus to transcription process

# Examples of Possible Adjustments

Poor Reading Fluency	Additional reading time / the opportunity to make notes or highlight in RT / extra working time / recorded examinations
Poor Writing Fluency	Extra working time / possible use of a laptop (or equivalent)
Low Working Memory	the opportunity to make notes or highlight in reading time / extra working time
Low processing speed	Extra working time
Transcription difficulties	Rest breaks / use of a laptop (or equivalent) / extra working time

# What About Imputed Disability?

In cases where a student's disability has **not** been formally diagnosed, it may be possible to 'impute' disability for the purposes of determining appropriate support (including accommodations).

# Imputed Disability (SLD)

Based on reasonable grounds and supported by documented evidence.

Evidence of functional impact resulting from the assumed undiagnosed disorder (**not** an alternative cause).

Consistent with definition of disorder in DDA and Education Standards.

Adjustments being recommended have been trialled.

It is important to remember that:

No single data source is sufficient for either SLD diagnosis – or for the determination of imputed disability.

# Imputed Disability should be in line with diagnostic criteria in DSM 5

	<b>Criteria</b>	<b>Supporting Evidence</b>
<b>A</b>	Persistent and enduring difficulties in key academic area despite targeted intervention for at least six months.	Student consultation and documentation that demonstrates the persistent and enduring nature of the difficulties being experienced. Reported evidence of some intervention and support as well as the benefit of specific strategies and tools (including ICT).
<b>B</b>	Student performs well below peers on standardised tests in key academic skill.	Standardised assessment results (if available) <b>or</b> <u>documentation</u> (previous reports, assignments, capacity to 'keep up' with course demands.) Observations of the students access participation and achievement in the course they are undertaking.

# Imputed Disability should be in line with diagnostic criteria in DSM 5

	<b>Criteria</b>	<b>Supporting Evidence</b>
<b>C</b>	Difficulties begin in the school age years (or only become apparent with the introduction of complex tasks).	Supplied documentation, consultation with student in terms of history and current factors underpinning the difficulties being experienced (e.g., demands associated with reading lengthy, complex texts, heavy academic loads, extended writing tasks, tight deadlines, timed examinations. etc.)
<b>D</b>	Difficulties are not better accounted for by other factors (linguistic background, family disruption, language or other disorder, poor instruction etc.).	It is important to identify the underlying drivers that are causing the difficulties the student is experiencing and determine (as best one can) whether or not they are due to an undiagnosed SLD - or in response to other external factors or circumstances.

# Current Focus and Challenge

There is currently a shift (in some school systems) towards imputed disability as a means of creating a more equitable system. Although efforts have been made to have similar approaches in all States and Territories, there is still a lot of variation.

The challenge will be ensuring that the policies and procedures developed will actually serve to identify students with undiagnosed learning disorders, rather than students struggling to perform for a multitude of other reasons.

# Thank you!



Dyslexia - SPELD Foundation  
LITERACY SERVICES

Follow me on twitter .... @mandynayton

[www.dsf.net.au](http://www.dsf.net.au)    [support@dsf.net.au](mailto:support@dsf.net.au)    08 9217 2500