Dyscalculia

Dyscalculia is a specific learning challenge for math and math-related language/fact retention. This LD can make life extremely difficult for someone, especially a student. For example, students with dyscalculia can struggle with concepts like quantities and connecting number sense together. It is not uncommon for students to be unable to comprehend the 'worth' of numbers and the commutative properties that they have (for example, 3+5 is the same as 5+3).

Having dyscalculia often goes hand in hand with having a weak working memory. Students will struggle to recall key math facts, or will perhaps forget the order in which to complete the steps necessary to solve a problem. Often students with dyscalculia will understand logically what they need to do to solve a math problem but will not be able to choose the correct operation or apply a formula to solve it.

Dyscalculia is often referred to as 'mathematics learning disability' or sometimes even 'maths/number dyslexia'.

TYPES OF DYSCALCULIA

- **Verbal dyscalculia:** difficulty naming and understanding math concepts when presented verbally
- **Practognostic dyscalculia:** difficulty translating abstract concepts into real-life concepts
- **Lexical dyscalculia:** difficulty reading and understanding mathematical symbols, numbers and expressions
- **Graphical dyscalculia:** difficulty writing mathematical symbols
- **Operational dyscalculia:** difficulty completing calculations; the numbers are understood but the process and order in which to perform it are not

COMMON ISSUES WITH DYSCALCULIA

- Struggling with sorting and ordering objects (shape, size, colour) coupled with weak object and number association
- Difficulty recalling basic facts e.g. unable to memorize times tables
- Graphs and pictograms have little meaning and visual representations often will not have any scales
- Word problems become challenging; students can often explain what they have to do but 'forget' the order of operations

- Games that involve number and strategy hold little interest and can become very frustrating
- Disinterest and avoidance in math class

HOW WE SUPPORT STUDENTS WITH DYSCALCULIA

- ✓ Using a multisensory kinaesthetic approach
- ✓ Creating a highly structured learning environment and ensuring mastery is met at each level before building in additional skills
- ✓ Chunking units into smaller skills
- ✓ Focusing on verbal reasoning; "talk through" math problems and concepts
- ✓ Training students in assistive technology and apps to support math learning

"People think I'm the 'funny' friend who gets lost, doesn't know left from right and will overspend at the shops. What they don't know is that my LD isn't just numbers; it affects me everyday"

- Ava

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LEARNING SPACE