Dyscalculia Overview for Administrators

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Agenda

- What is Dyscalculia
- Identification
- Misconceptions
- Manifestation in the Classroom
- Steps for Administrators

Dyscalculia

- Brain-based condition
- Difficulty with:
  - number sense
  - math concepts
  - working memory
- Developmental and acquired
- Anxiety exacerbates the problem

What is Dyscalculia
Classification

• Specific learning disability in the DSM V
• Diagnosis
  – Interviews
  – Assessments
  – Grades
  – Performance
• 504 or IDEA (special education services)

Frequency

5 - 10%

Misconceptions

• Grow out of it
• Lazy
• Linked to intelligence
• Gender, ethnic, socio-economic specific

Indicators

Trouble with:
- Understanding quantities
- Recognizing numbers and equivalent word
- Working memory – lists
- Number sense – ordering, sequencing
- Estimation
- Assumptions and inferences
- Reading graphs
- Visual, spatial orientation
Approximating Number Systems

Equivalents

Three

\[ \downarrow \]

3

\[ \downarrow \]

\[ \bullet \bullet \bullet \]

Equivalents

Sequencing

\[ \frac{1}{4} \]

\[ \frac{1}{2} \]

0 10 30
Dyscalculia Overview for Administrators

Operations

$$15 + 26 = 14$$
$$1 + 5 + 2 + 6 = 14$$
$$\frac{15}{311} + 26 = 77$$
$$1 + 6 = 7$$
$$15 + 26 = 77$$
$$5 + 2 = 7$$

Thought

Seeing these examples, do you recognize any of your students?

Examples in Elementary

- Finger counting
- Skips numbers
- Base 10 system
- Symbol confusion
- Avoids games with scoring
- Time and money mismanagement
- Anxiety and frustration

Examples in Secondary

- Longer to complete work
- Errors in calculations
- Measurement and time problems
- Charts and graphs
- Estimation
- Avoids games with scoring

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Steps for Administrators

- Awareness of the disability
- Review testing and grades
- Professional development
- Identify and support students
- Support teachers and staff

Math Learning Series Site


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