



SPECIFIC LEARNING DISABILITIES

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CALIFORNIA EDUCATION CODE (CCR TITLE 5, SECTION 3030)

Specific Learning Disability means:

*A disorder in one or more of the **basic psychological processes** involved in understanding or in using language (spoken or written), that may manifest itself in the imperfect ability to **listen, think, speak, read, write, spell, or do mathematical calculations***



IDENTIFICATION OF SLD: DISCREPANCY MODEL

Severe discrepancy between intellectual ability and achievement in one or more of the following areas, requiring specialized academic instruction.

oral expression

basic reading skill

listening comprehension

reading fluency skills

written expression

reading comprehension

mathematical calculation

mathematical reasoning

Other models:

Response to Intervention (RtI)

Patterns of strengths and weakness (PSW)



BASIC PSYCHOLOGICAL PROCESSES


1. Attention
2. Visual processing
3. Auditory processing
4. Sensory motor skills
5. Cognitive abilities including association, conceptualization, expression

Executive processing is integrated into each of these areas






VISUAL PROCESSING

- Visual spatial processing; visual organization (simultaneous)
 - Visual memory (immediate vs delayed; retrieval vs recognition)
 - Visual working memory
 - Visual speed and efficiency
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AUDITORY PROCESSING

- Phonological processing (phonological awareness, phonological memory, rapid naming)
 - Auditory sequencing
 - Auditory working memory
 - Auditory memory (immediate vs delayed; retrieval vs recognition; discrete vs contextual)
 - Auditory comprehension
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AUDITORY PROCESSING ITEM EXAMPLES

PHONOLOGICAL PROCESSING

Say *doughnut*. Now say *doughnut* but don't say dough.

Say *spider*. Now say *spider* but don't say *d*

SEQUENCING/WORKING MEMORY


Repeat in numerical and alphabetic order, numbers first:

4 m 7 a 2 f 3 c





SENSORY MOTOR SKILLS

- Visual motor integration: copy shapes
 - Precision/accuracy vs speed: mazes with time points
 - Hand strength and dominance: finger tapper, hand dynamometer, pegboard
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Cognitive Abilities

Association, Conceptualization, Expression

Auditory

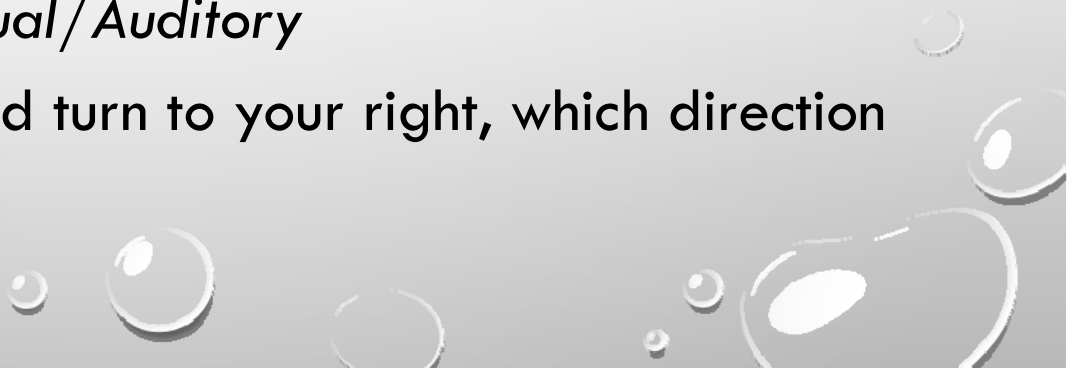
How are blue and red alike? How are rubber and paper alike? What is the color of the small grey horse? What is a cow? What is a fable? What does unanimous mean?

Visual

matrix tasks (analogies); fluency tasks; find the pictures that go together; find the correct missing piece


Visual/Auditory

If you were facing west, and turn to your right, which direction will you be facing?





DSM V SPECIFIC LEARNING DISORDER

- **Unexpected academic underachievement**
 - Similar to ed code but statistical significance is not defined as 1.5 standard deviations.
 - Affected skills must be substantially and quantifiably below those expected for individual's chronological age
 - Must cause significant interference with academic or occupational performance as confirmed by individually administered standardized achievement measures
 - Must begin during school age years
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DSM-V TYPES OF LEARNING DISORDER

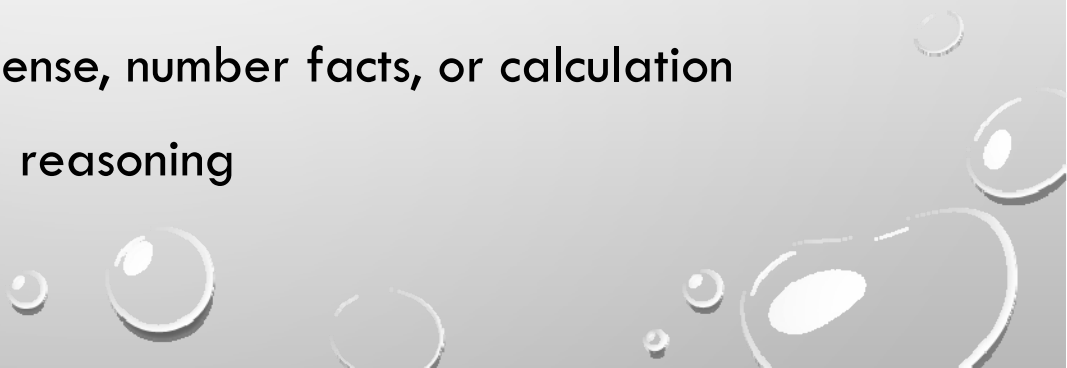
SLD WITH IMPAIRMENT IN READING

- Inaccurate or slow and effortful word reading
- Difficulty understanding what is read

SLD WITH IMPAIRMENT IN WRITTEN EXPRESSION


- Difficulty spelling
- Difficulty with written expression

SLD WITH IMPAIRMENT IN MATHEMATICS

- Difficulty mastering number sense, number facts, or calculation
 - Difficulties with mathematical reasoning
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DYSLEXIA AND DYSCALCULIA

- Dyslexia – pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling
 - Dyscalculia- pattern of learning difficulties characterized by problems processing numerical information, learning arithmetic facts, and performing accurate or fluent calculations
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HOW TO TREAT SLD

- Research based interventions, applied consistently and with fidelity. Progress monitoring to assess progress.
 - Accommodations: many are easily implemented in K-12 setting. At college level, documentation will allow access to waivers. Bookshare, Audible, and iTunes are invaluable!
 - Self-advocacy
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EARLY INDICATORS AND WARNING SIGNS

PRE-SCHOOL AGE

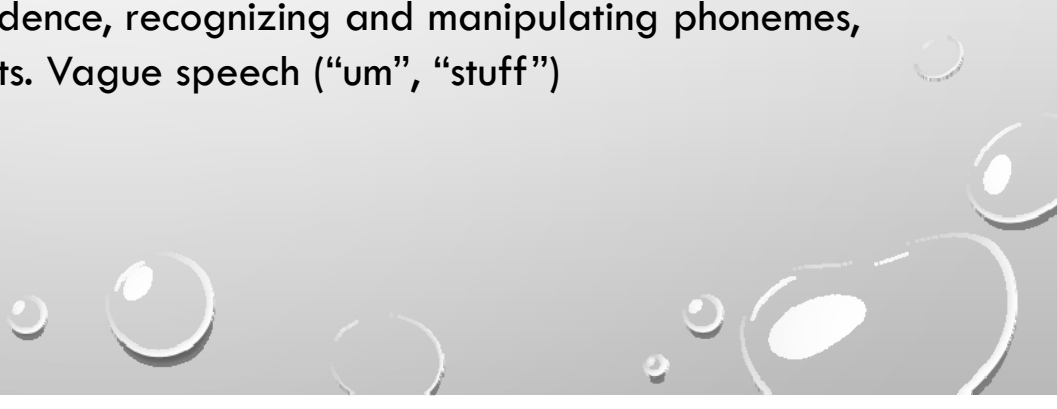
Late onset of speech. Difficulty with pronunciation after expected age. Lack of interest in language-based play (rhyming, repetition, difficulty learning nursery rhymes). Does not recognize letters in name or pick out environmental word. Does not give one, give one more.

KINDERGARTEN

Difficulty recognizing and writing letters, breaking words into syllables, connecting letters with sounds. Does not show one-to-one correspondence.

GRADES 1-3

Difficulty with sound symbol correspondence, recognizing and manipulating phonemes, sequencing, remembering number facts. Vague speech (“um”, “stuff”)





WARNING SIGNS




GRADES 4-6

Difficulty pronouncing and/or reading multisyllabic words, trouble remembering dates, names, phone numbers or passwords, trouble completing work. Slow effortful reading, poor comprehension, written work minimal and not cohesive.

ADOLESCENTS

May read words but slow and effortful. May have poor comprehension, poor organization of written work. Poor mastery of math facts, difficulty with word problems.



RESOURCES

Overcoming Dyslexia, by Sally Shaywitz

Executive Skills in Children and Adolescents, a Practical Guide to Assessment and Intervention (1st or 2nd edition), by Peg Dawson and Richard Guare

www.understood.org

www.nclid.org

www.ldonline.org

www.smartkidswithld.org