

Learning & Learning Difficulties in Children and Adolescents

Learning involves the acquisition and retention of new information. The learner must be interested in the new learning topic, having some motivation to learn, and having sufficient exposure to the information in order to acquire the new concept or skills. Then, practicing to improve accuracy and to increase speed, generalizing the skills across a range of settings, and adapting the skill to fit new situations is necessary. It is believed that learning occurs on a continuum:

Learning Disabilities

In childhood, learning is usually thought of in terms of gaining academic skills in reading, writing and mathematics. Most children and adolescents learn normally (*Typical Learning*) as they develop. However, *Learning Differences* or *Learning Disabilities* can result when a child has an uneven pattern of cognitive, or thinking, skills. Other factors that contribute to learning differences include biological or genetic factors such as the presence of disorders (*developmental delays, ADHD, emotional issues, etc.*) and environmental factors such as the type of academic instruction received.

Learning Differences

Typical Learning

Due to the complexity of factors affecting learning, there is controversy regarding the definition and identification of *Learning Disabilities (LDs)*. In general, LD involves significant problems achieving in certain academic areas (*resulting in academic performance that is far behind the child's cognitive ability*), despite having received high-quality academic instruction. Usually, a child with an LD shows some significant inconsistencies in his/her child's cognitive pattern that are contributing to the learning problems. There are two major patterns used to understand LDs: *Language-Based Learning Disabilities (LBLDs)* and *Nonverbal Learning Disabilities (NVLDs)*. Yet, some children can have varied or mixed patterns. And, in addition to these broad categories, there are more specific ways of classifying LDs based on the academic skills most significantly impacted, including reading disabilities (dyslexia), writing disabilities (dysgraphia), and math disabilities (dyscalculia). (*For more information about these specific disabilities, refer to additional handouts.*)

LANGUAGE-BASED LEARNING DISABILITIES (LBLDs)

- LBLDs are neurodevelopmental in nature and include learning problems due to communication disorders. Not all children with language delays have learning problems, but this increases the risk of having learning problems.
- Delays are present in language-based learning and auditory skills, such as the following:
 - Early Speech Development (*although learning differences may occur when early communication development was normal.*)
 - Vocabulary Knowledge
 - Verbal Reasoning
 - Phonological Skills/Auditory Processing
 - Parts of Memory
 - Receptive Language (*understanding*)
 - Expressive language (*speaking*), such as:
 - Narrative skills (*describing and explaining*)
 - Articulation
- In comparison with the child's language skills, some abilities are relatively well-developed:
 - Visual Perception and Visual-Spatial skills (*viewing and understanding information that is seen*)
 - Parts of Memory
 - Nonverbal Problem-Solving (*abstract thinking*)
- In school, verbal weaknesses affect most aspects of reading and writing, often resulting in dyslexia (*reading disorder*) and/or dysgraphia (*disorder of written expression*). Language-based weaknesses may also affect comprehension of word problems in math.
- Frustration or behavior problems associated with communication and learning difficulties may occur. Children with severe communication difficulties are at risk for having social difficulties as well.

NONVERBAL LEARNING DISABILITIES (NVLDs)

- A NVLD is a neurodevelopmental disorder characterized by weaknesses in nonverbal learning and executive functioning such as the following:
 - Visual-Spatial Organization
 - Visual Perception and Memory
 - Fine Motor and Eye-Hand Coordination
 - Novel Problem-Solving and Decision-Making
 - Working Memory
 - Processing Speed
 - Goal-Setting, Planning and Persistence
 - Emotional Regulation and Impulse Control
- Relative strengths are seen in skills such as the following:
 - Early Speech and Vocabulary Development
 - Auditory Perception, Attention, and Memory
 - Rote Memory
 - Acquisition of Basic Reading and Spelling Skills
- NVLDs are often associated with weaknesses in math, written expression, reading comprehension, and science, resulting in dyscalculia (*math disorder*), a form of dysgraphia (*disorder of written expression- often related to motor coordination/visual motor difficulties*), or a form of dyslexia (*reading disorder*).
- Social, emotional, and behavioral impairments in the following areas also are common:
 - Understanding of nonverbal communication (*such as body language, social cues, and social judgment*)
 - Adjusting to new and/or complex situations
 - Low frustration tolerance and behavior problems

Learning & Learning Difficulties in Children and Adolescents, *continued*

MORE ABOUT LEARNING DISABILITIES (LD)

Identification in the School Setting

- Many public schools use a tiered instruction approach based on a framework called *Response to Intervention* (RTI). When a child shows first signs of learning difficulty, low-intensity interventions are provided. If he/she does not show progress (i.e., “respond” to the intervention) after a certain amount of time, the intervention is changed and may become more intense. If the child does not respond adequately to a series of interventions over time, an evaluation may be done to determine if he/she has LD.
- A psycho-educational evaluation conducted by a psychologist is usually part of the LD identification process. The evaluation includes a test of intelligence and a test of academic achievement. In order to determine if LD is present, the child’s instructional background, progress over time, and ability to perform in his/her grade-level curriculum should be considered in addition to discrepancies in test scores.
- In the public K-12 school system, the term “specific learning disability” is used, involving a more specific breakdown of learning issues which may be present in one of eight areas:

○ Oral expression	○ Listening comprehension
○ Reading fluency	○ Written expression
○ Basic reading skills	○ Reading comprehension
○ Math calculation	○ Math reasoning

PROACTIVE AND SUPPORTIVE INTERVENTIONS

In General

- Talk to child’s educators to discuss his/her progress and available supports. Communication and collaboration among the family, student, teachers, tutors, and other professionals involved is key.
- Get help *early*. Supports put in place at an early age can potentially prevent or lessen future learning problems and the stress associated with untreated learning issues (*which can negatively affect self-esteem and behavior*). Consider early developmental cues to possible learning difficulties (*fine motor or speech-language delays, etc.*) and obtain early supports (e.g., occupational therapy or speech-language therapy).
- Seek a comprehensive psycho-educational evaluation to understand the child’s learning strengths and differences and how to best support his/her success.
- Consider the need for evaluation and treatment (e.g., medication, counseling) to address common secondary issues such as ADHD, anxiety, etc.

PROACTIVE AND SUPPORTIVE INTERVENTIONS

At School

- Most schools offer intervention to students with difficulties, even if not identified as having LD:
 - Small group assistance using direct, explicit instruction in reading or math
 - Highly repetitive instruction several times a week
 - Extra phonics support (e.g., computer programs)
 - After school tutoring programs
- Speech-language therapy is offered in schools for students with speech-language impairments (often associated with LBLDs) and can also be provided privately. *Note: A child with an IEP for a speech-language impairment can be provided other learning/resource supports as well, if needed.*
- A school plan with goals and accommodations should be developed for children with LDs. This may be a general plan created by educators and parents or, in public schools, an Individualized Education Plan including special education services with a teacher trained in teaching children with LDs. (*See www.wrightslaw.com for more information*).
- Research indicates that repeating a grade is *not* usually the best intervention. Without specialized instruction, learning difficulties are not likely to improve.

At Home

- Provide parental supervision/assistance with homework and extra practice with academic skills.
- Give encouragement to the child and monitor his/her self-esteem and stress level.
- Investigate community options for extra academic help (e.g., tutoring with a professional trained in working with children with learning difficulties).
- Investigate summer programs to ensure continuous academic progress (e.g., summer reading camp).

REFERENCES AND MORE INFORMATION

- National Center for Learning Disabilities website: <http://www.nclld.org/>
- National Center on Response to Intervention website: <http://www.rti4success.org/>
- National Joint Committee on Learning Disabilities website: <http://www.ldonline.org/njclld>
- Website on NVLD: www.nldonline.ca
- More Intervention Ideas: www.interventioncentral.org
- American Speech-Language-Hearing Association: <http://www.asha.org/>