

**Why Is My Child
Struggling in School?**
the *Basics* of Learning Disorders

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Learning Disorders

- Neurologically-based processing problems
- Identified via **psychological/educational testing**
- **Affect 1 in 20** US public school children; 2.4 million children (USD OE,2012)
- **Outcome can be improved** with specific interventions
- Can exist in **isolation or combination**

Terminology

- Learning **Differences**
- Learning **Disorders**
- Learning **Disabilities**

- DSM 5 – Diagnostic & Statistical Manual of Mental Disorders (2013 American Psychiatric Association)

- IDEA – Individuals with Disabilities Education Act

NOT “Learning Problems”

- Involve impairment in areas of hearing, vision and motor function
- Emotional disturbances
- Cultural, economic, or environmental disadvantage
- Intellectual disabilities

LDs Interfere With

- **Acquisition of skills**: reading, written expression, oral expression, or math
- **Executive skills** such as organization, time management, planning, attention, memory, analysis skills
- Can affect **social interaction** and relationships with others

Signs of Learning Disorders

- Do not make adequate progress and keep up with their peers academically
- Are inconsistent in their ability to understand and complete schoolwork
- May show scatter in their standardized test scores
- But have average or above average IQ levels

Other Characteristics of LDs

- POOR MOTOR ABILITIES
- SOCIAL SKILLS DEFICITS
- DISORDERS OF ATTENTION
- INFORMATION PROCESSING DEFICITS
- POOR EXECUTIVE FUNCTIONS

Identifying LDs

- If a student is not making adequate progress in the following areas, educational evaluation should be considered

Oral Expression

Listening Comprehension

Reading Mechanics

Mathematical Calculation

Written Expression

Reading Comprehension

Reading Fluency

Mathematical Reasoning

Each LD Profile is **Unique**

- Different combinations of strengths and weaknesses within a diagnosed LD
- LDs may exist in combination or alone
- Need specific teaching methods and accommodations matched to the individual's needs
- Life long
- **Not a roadblock to success**

Common Terms Used w LD

- **Dyslexia – LD Reading**
- **Dysgraphia – LD Writing**
- **Dyscalculia – LD Math**

- **Processing Disorders –
Language, Auditory, Visual**

APD vs LPD vs ADHD

AUDITORY PROCESSING DIFFICULTIES	LANGUAGE PROCESSING DIFFICULTIES	ADHD
Difficulty hearing in noise	Difficulty getting to the point	Inattentive
Difficulty following directions	Difficulty organizing and expressing thoughts	Distracted
Poor listening skills	Difficulty getting started with open-ended questions	Hyperactive
Academic difficulties	Uses vague language	Fidgety/restless
Poor auditory association	Difficulty knowing what to say	Hasty/impulsive
Input disorder	Difficulty reading and responding to social cues	Interruptive/intrusive
Executive function difficulties (secondary)	Word-finding difficulties	Output disorder
Mishears words	Difficulty remembering lengthy directions	Blurts out answers
Attention deficits (secondary)	Pronounced differences between performance and verbal abilities	Management includes meds

Related Disorders

- **Executive Dysfunction**
- **ADHD - Attention Deficit Hyperactivity Disorder**
- **Dyspraxia – Sensory Integration Disorder**
- **Memory Disorders**

What is **Dyslexia**?

- Language-based LD
- Evidence supports **genetic** inheritance
- **Structural brain differences**
- Affects the “**processing mechanics**” of reading, writing, spelling, math
- Brains also show **unique strengths**

Signs of **Dyslexia**

- **Decoding errors**, difficulty segmenting words, transpose, insert or omit letters
- **Slow reading, lacking fluency** which can affect comprehension of material
- **Poor spelling** skills, lack of recognition of patterns of words (i.e. like, mile, sale)
- **Pronounce a word many different ways** within the same reading passage

Dyslexia Signs Cont'd

- **Substitute** one word for another (for/of, were/where, are/and, was/saw)
- May struggle with the ‘**vocabulary**’ of **math** and understanding **word problems**
- May have difficulty **recalling words** for both oral and written expression
- Often **attempt to hide their struggles**
- **Self esteem** may be very **low**

Help for **Dyslexia**

- Specific programs and methods of **teaching** that can significantly improve the acquisition of skills
- Find a teacher/tutor trained in an approach like **Orton/Gillingham, Lindamood-Bell, Phonographix** or any similar systematic, multi-sensory, explicit method for teaching the elements of language

Strategies to Help **Dyslexia**

- **Teach the ‘rules’ of language**, which include the sounds paired with symbols (letters, vowel teams, types and rules of syllables, doubling rule, etc.)
- Begin **As Soon As Possible** – but it is never too late to improve skills
- **Technology** can also assist greatly

Dyslexia Classroom Strategies

- Pair audio books (read aloud programs) with written text to improve vocabulary and comprehension while building decoding skills
- Use printed worksheets that are well-organized, well spaced and uncluttered
- Present material in small units
- Allow oral expression of information for assessments

Dyslexia Classroom Strategies

- Offer a **note frame** for simple fill in during class discussion or a **classmates/teachers complete notes**
- **Grade** spelling and writing mechanics **separately or not at all** when they are not the purpose of an assessment
- Use **visual supports and manipulatives** during lectures and math lessons

Dyslexia Classroom Strategies

- Use of **voice recognition software** such as *Dragon Naturally Speaking* or a **scribe** to get ideas onto paper
- **Use of a laptop** or word processor if typing skills are sufficient – **allow spelling and grammar check**
- As **skills improve, decrease accommodations / modifications** when possible

What is Dysgraphia?

- **Neurologically based** learning disorder that affects writing, spelling, and math, which require a complex set of motor and information processing skills
- Lack of automaticity in writing, thought to be caused by **deficiency in normal muscle memory, visual & sensory deficits, and message delivery** brain-hand-brain

Early Signs of **Dysgraphia**

- The earliest detectable signs are **fine motor issues**
- **Lack of interest** in coloring, drawing, writing, puzzles, difficulty with scissors
- **Late acquisition of skills** with zippers, buttons, snaps, shoelaces, eating utensils
- **Poor sensory feedback**

Academic Signs of **Dysgraphia**

- Slow and/or **messy writing**, inconsistent letter formation
- Excessive or poor **pressure** in writing
- Frequent **failure to erase** errors, simply write over other symbols
- **Unusual/awkward pencil grasp**
- **Complains of a sore hand** when writing
- Complains about the **feel of the paper** as hand slides over

Other Indicators: **Dysgraphia**

- Fine motor weakness
- Visual-spatial weakness; lack attention to visual detail
- Clumsy, lack awareness of body in space
- Difficulty with handling papers, binder, etc.
- Difficulty with visual tracking

Strategies: **Dysgraphia**

- **Early intervention** with an Occupational Therapist to develop fine motor skills
- **Use of** tri-grasp pencils, pencil grips, wide-lined paper, graph paper, slant boards
- **Reduce need for writing**
- **Enlarge worksheets** and leave plenty of space for answers

More Strategies for **Dysgraphia**

- **Specific instruction in keyboarding** - daily use of computer, voice recognition software
- **Give copy of notes**
- Teach **skills for tracking** details
- **Do not deduct** for spelling, punctuation errors, consider grading separately for content/mechanics

Dysgraphia Final Notes

- Dysgraphia is neurologically based and the strengths and weaknesses vary greatly from student to student
- Is NOT an issue of not trying hard enough
- Repeated practice of writing letters and numbers will not ‘fix’ the problem because automaticity does not develop

Dyscalculia

- Difficulty in mathematics as a result of **impairment to particular parts of the brain**, but without a general difficulty in cognitive function (Kosc 1974)
- Mathematics involve **visual spatial, language, and digital processing** in the brain
- Dyscalculia refers to a **wide range of lifelong learning disabilities involving math**

Symptoms of **Dyscalculia**

- Difficulty **visualizing patterns, understanding spatial direction, memorizing facts, making comparisons**
- Language processing problems can make it difficult for a person to get a grasp of the **vocabulary of math**
- **Difficulty following multi-step procedures** and inability to identify critical information needed to solve equations and more complex problems

Dyscalculia in Young Children

- Trouble recognizing printed numbers
- Poor memory for numbers
- Difficulty learning to count
- Difficulty connecting numbers to real world application (3 bowls, 3 spoons, 3 girls)
- Difficulty organizing objects by shape

Dyscalculia in School

- Trouble learning math facts (+, -, x, ÷)
- Difficulty developing math problem-solving skills
- Poor long term memory for math procedures
- Difficulty recalling/defining math vocabulary
- Difficulty measuring things
- Difficulty with counting, estimating, comparing

Dyscalculia in School II

- Difficulty **estimating costs**
- Difficulty **learning math concepts** beyond the basic math facts
- Poor **ability to budget or balance** a checkbook
- Trouble with **concepts of time**, such as sticking to a schedule or approximating time
- Trouble with **mental math**
- Difficulty **finding different approaches** to one problem

Strategies: **Dyscalculia**

- Use **graph paper**
- Work on finding **different ways** to approach math facts
- Allow use of a **calculator**
- **Practice estimating** – logical answer
- **Highlight** symbols and key words
- Work with a tutor/teacher one to one to allow **extra explanation, practice, variation of approach**

Strategies: **Dyscalculia II**

- Introduce new skills with **concrete** examples moving **to** more **abstract** applications
- For vocabulary difficulties, explain ideas and problems clearly and encourage questions; **offer visual math charts**
(Quick Study Academic) by Inc. Bar Charts
- Use **visuals and manipulatives**

Executive Functions

- Skills involved in **higher order thinking** which are the cognitive processes of planning, analyzing, evaluating, initiating, monitoring, transitioning, organizing both materials and ideas
- Think “**personal secretary**” in your brain

A Developmental Continuum

- Executive Functions are part of a developmental process and DO improve with age
- Most are in the prefrontal cortex, but also involve communication among other parts of the brain
- Not fully developed until the age 25

Executive Dysfunction

- Neurological disability involving short term and working memory, organization of materials, time, and space, and regulation of attention and focus
- When a child's ability to complete tasks appropriate for their age is below expectations, they may have Executive Dysfunction

Signs: **Executive Dysfunction**

- Consistent **inability to keep track** of personal items
- **Disorganized** binder, locker, desk
- **Messy** bedroom
- No “sense of time”
- **Leave** assignments to last minute
- Difficulty in **starting** an activity, **evaluating** progress and **navigating** to completion

Signs: **Exec. Dysfunction II**

- Consistent difficulty in **remembering** and **following** multi-step processes/directions
- Difficulty **transitioning** between activities within a class or at home
- Consistent need to **have someone else keep them on track**

Help for **Exec Dysfunction**

- Guidance and support in keeping organized
- Use a **homework folder**
- Put **lists in locker** for items needed for each class – **color** code
- Use a **monthly calendar** to write in test dates, long term assignments, special events

More Help **Exec Dysfunction**

- Insist on a **homework log**
- **Symbol** for “need book” in hw log
- **Read hw log at locker** to fill backpack
- Create a **portable supplies box** - home
- Choose a task, **set a timer** – 20 minutes
- **Mark off** assignments as complete
- Pack up bookbag **at night** and leave by door

ADHD

- **Attention Deficit Hyperactivity Disorder** – possible causes: genetics, environmental factors, nutrition, brain injury
- **ADHD** involves the neurological development of the brain cortex and the regulation of natural chemicals in the brain

ADHD Diagnosis

- **ADHD** is diagnosed when there is an inability to maintain attention & focus, organize materials, remain on task, transition between tasks, control physicality, wait appropriately, or remember a series of steps or items - appropriate for age level

ADHD Subtypes

- **Hyperactive** – characterized by excessive physical activity, fidgeting, inability to settle in an age appropriate manner
- **Inattentive** – lose track of activity, conversation, “tune out”
- **Combined-type** – both hyperactive and inattentive characteristics

Signs of **ADHD**

Vary depending on the subtype

- May **interrupt** conversations or blurt answers
- Have **difficulty waiting** turn
- Frequently **do not complete** tasks
- **Not know** where class is when called on
- **Frequently** ask to go to bathroom

More Signs of ADHD

- Inability to sit appropriately for age level
- High level of physical activity all day
- Difficulty falling asleep at night
- Quiet and attention fades away
- Weak Executive Functions
- Frequently leave assignments incomplete
- Difficulty with Written Expression

Strategies for ADHD

- ADHD is best managed through a combination of behavioral and pharmacological measures
- Seek support of teachers, doctors, school counselors, learning specialists
- Keep channels of communication open
- Use of preferential seating, fidgets, cuing, breaks, timers, pair auditory w/text, scribe

Specific Learning Disorders

- **Dyslexia – LD Reading**
- **Dysgraphia – LD Writing**
- **Dyscalculia- LD Math**

Related Disorders

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- **ADHD - Attention Deficit
Hyperactivity Disorder**

Summary

- Every child has a unique profile of strengths and weaknesses depending on the learning disorder and/or combination of learning disorders
- There are many strategies to assist each student in finding success in school and life
- Contact your school to request an evaluation if you suspect your child has a learning disorder
- Communication between parents, school personnel and outside practitioners is essential

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Structural Brain Differences in Kids with Dyslexia

<http://www.greatschools.org/special-education/LD-ADHD>

Organizing Your Child/Helping with Study Skills

<http://www.idaofgreaterbaltimore.com>

Contact the Parenting Center in your state for info on evaluation

<http://www.parentcenternetwork.org/parentcenterlisting>

Helpful information about LD

http://www.helpguide.org/mental/learning_disabilities.htm

U.S. Department of Education IDEA website

<http://idea.ed.gov/explore/home>

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