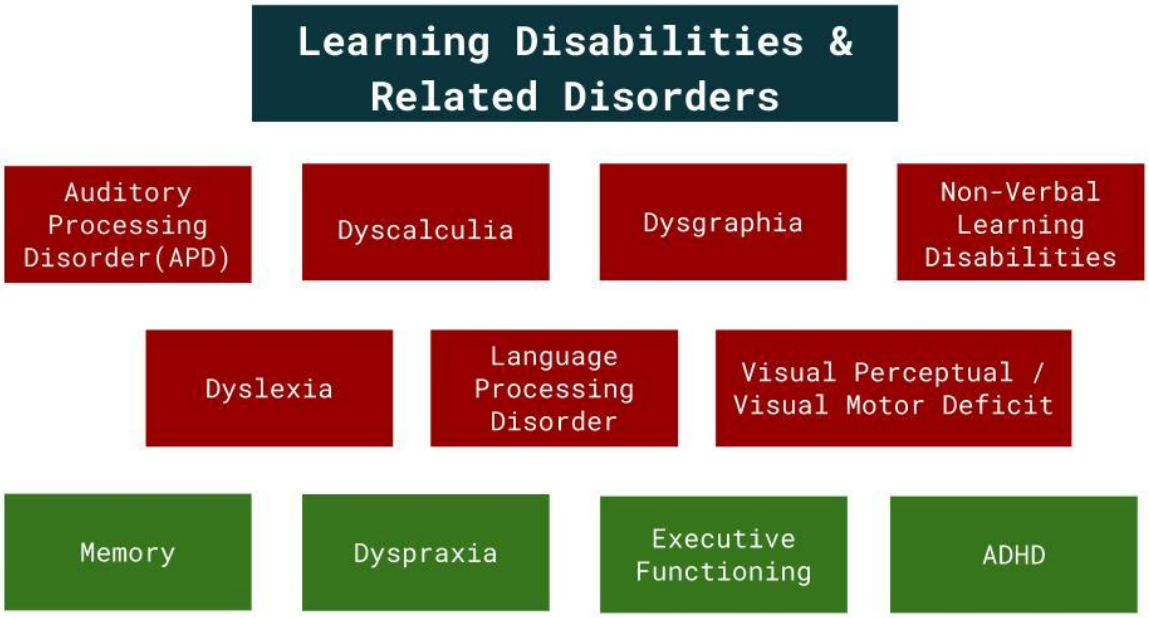
Types of Learning Disabilities



Learning disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills such as reading, writing and/or math. They can also interfere with higher level skills such as organization, time planning, abstract reasoning, long or short term memory and attention. It is important to realize that learning disabilities can affect an individual's life beyond academics and can impact relationships with family, friends and in the workplace.

Since difficulties with reading, writing and/or math are recognizable problems during the school years, the signs and symptoms of learning disabilities are most often diagnosed during that time. However, some individuals do not receive an evaluation until they are in post-secondary education or adults in the workforce. Other individuals with learning disabilities may never receive an evaluation and go through life, never knowing why they have difficulties with academics and why they may be having problems in their jobs or in relationships with family and friends.

Learning disabilities should not be confused with learning problems which are primarily the result of visual, hearing, or motor handicaps; of mental retardation; of emotional disturbance; or of

environmental, cultural or economic disadvantages.

Generally speaking, people with learning disabilities are of average or above average intelligence. There often appears to be a gap between the individual's potential and actual achievement. This is why learning disabilities are referred to as "hidden disabilities": the person looks perfectly "normal" and seems to be a very bright and intelligent person, yet may be unable to demonstrate the skill level expected from someone of a similar age.

A learning disability cannot be cured or fixed; it is a lifelong challenge. However, with appropriate support and intervention, people with learning disabilities can achieve success in school, at work, in relationships, and in the community.

In Federal law, under the Individuals with Disabilities Education Act (IDEA), the term is "specific learning disability," one of 13 categories of disability under that law.

"Learning Disabilities" is an "umbrella" term describing a number of other, more specific learning disabilities, such as dyslexia and dysgraphia. Find the signs and symptoms of each, plus strategies to help below.

LDA believes that every person with learning disabilities can be successful at school, at work, in relationships, and in the community – given the right opportunities. Join LDA in creating those opportunities.

Specific Learning Disabilities

1. **Auditory Processing Disorder (APD)**
2. **Dyscalculia**
3. **Dysgraphia**
4. **Dyslexia**
5. **Language Processing Disorder**
6. **Non-Verbal Learning Disabilities**
7. **Visual Perceptual/Visual Motor Deficit**

Related Disorders

1. **ADHD**
2. **Dyspraxia**
3. **Executive Functioning**
4. **Memory**

1. Auditory Processing Disorder (APD)

Also known as Central Auditory Processing Disorder, this is a condition that adversely affects how sound that travels unimpeded through the ear is processed or interpreted by the brain. Individuals with APD do not recognize subtle differences between sounds in words, even when the sounds are loud and clear enough to be heard. They can also find it difficult to tell where sounds are coming from, to make sense of the order of sounds, or to block out competing background noises.

Adversely affects how sound that travels unimpeded through the ear is processed and interpreted by the brain.

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Signs and Symptoms

- Has difficulty processing and remembering language-related tasks but may have no trouble interpreting or recalling non-verbal environmental sounds, music, etc.
- May process thoughts and ideas slowly and have difficulty explaining them
- Misspells and mispronounces similar-sounding words or omits syllables; confuses similar-sounding words (celery/salary; belt/built; three/free; jab/job; bash/batch)
- May be confused by figurative language (metaphor, similes) or misunderstand puns and jokes; interprets words too literally
- Often is distracted by background sounds/noises
- Finds it difficult to stay focused on or remember a verbal presentation or lecture
- May misinterpret or have difficulty remembering oral directions; difficulty following directions in a series
- Has difficulty comprehending complex sentence structure or rapid speech
- "Ignores" people, especially if engrossed
- Says "What?" a lot, even when has heard much of what was said

Strategies

- Show rather than explain
- Supplement with more intact senses (use visual cues, signals, handouts, manipulatives)
- Reduce or space directions, give cues such as “ready?”
- Reword or help decipher confusing oral and/or written directions
- Teach abstract vocabulary, word roots, synonyms/antonyms
- Vary pitch and tone of voice, alter pace, stress key words
- Ask specific questions as you teach to find out if they do understand
- Allow them 5-6 seconds to respond ("think time")
- Have the student constantly verbalize concepts, vocabulary words, rules, etc.

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Excerpted from the LDA of California and UC Davis M.I.N.D. Institute "Q.U.I.L.T.S." Calendar 2001-2002

Additional Information

7 Things I Wish People Knew About Parenting a Child With Auditory Processing Disorder

When my son was in first grade, his teacher complained to me that he "didn't pay attention" in class. She said he wasn't listening. To her, this was an act of defiance.

I explained that my son has auditory processing disorder (APD). He's usually a very well-behaved boy, but the classroom was too chaotic and noisy for him. With all the background sound, my son simply couldn't make out what she was saying to him, no matter how hard he tried.

For people who don't have APD, it can be a puzzling challenge. Even my husband, who tries to understand, often struggles to see the world from the perspective of my son.

I've learned a lot from parenting a child with APD. And because I have APD myself, I think I'm a good person to explain. Here are some things I wish people understood about me, my son and APD.

1. **He isn't being defiant.**

   With APD, the brain doesn't always process spoken words smoothly. So when my son doesn't respond right away or doesn't understand what you're saying, he's not doing it to be rude or defiant. He simply didn't *comprehend* what you said.

   My son wants to understand you—more than anything. People like my son and me sometimes give up on conversations, though, because we're afraid of seeming rude. Sadly, it's part of life for someone with APD.

2. **The link between APD and hearing can be confusing.**

   Having APD isn't the same as being hard of hearing. My son's hearing is actually very good. In fact, that can be part of the problem.

   For example, my husband's electric shaver makes a high-pitched, irritating sound when it's charging. At least it does according to my son and me. No one else in our family seems to notice the sound we complain about.

   It may seem counterintuitive. He notices sounds no one else does but still can't seem to "hear" what someone else is saying. That's because APD is an information processing issue, not a hearing issue.

3. **Competing sounds and noises make understanding harder.**

   When I'm talking to my child, my voice is competing with a thousand other noises. It could be the rush of air blowing out of the air conditioner. Or footsteps coming from down the hallway. Or the buzz of an overhead, fluorescent light. That's why I try not to start a complex conversation with my son in a loud or

chaotic environment.

If you have something important to share and it's noisy, text or write down the message. Better yet, when you need to have a real conversation, talk to him in a quiet place. Speaking directly to him and making eye contact also helps.

4. **Telling him to "pay closer attention" or "listen harder" doesn't help.**

   Some people confuse APD with ADHD, but they aren't the same.

   Yes, APD can include problems with attention. After all, it's hard to focus if you can't understand what's being said around you.

   But telling my son to "pay closer attention" or "listen harder" doesn't help when his brain is scrambling the sounds coming in. That'd be like someone telling you to "listen harder" to a foreign language you barely speak.

5. **Rephrasing is more helpful than repeating.**

   When my son responds with "What?" to something I said, it's tempting to repeat exactly what I just said and in a louder voice.

   But what he really needs is for me to say what I said *in a different way*. That's because certain phrases and sentences can be more difficult to process. The sounds may be too similar. The word combinations may be too complex.

   Rephrasing—not repeating the same words louder—can really help. When struggling with my own APD, I've learned to say, "Can you please say what you said again, but with different words?"

6. **He wants to feel safe to ask you to say something as many times as he needs.**

   Most people don't like to say the same thing over and over. I understand that. My son does, too. That's why it's hard for him to ask.

   But if he knows you're OK with repeating and rephrasing something a few times, he'll be more comfortable asking. It's wonderful when people are willing to do this for him—and for me. We appreciate it more than you can imagine.

7. **It's OK to be frustrated, as long as you try to understand.**

   Even though I have APD, I get frustrated with my son sometimes. I lose my patience. So I know others might too.

   My son's first teacher never did come around to understanding his challenges. In the end, though, we were lucky that a new teacher replaced her. This new teacher was wonderful. The only difference between her and the first teacher was the willingness to try to understand APD.

2. Dyscalculia

A specific learning disability that affects a person's ability to understand numbers and learn math

facts. Individuals with this type of LD may also have poor comprehension of math symbols, may struggle with memorizing and organizing numbers, have difficulty telling time, or have trouble with counting.

Affects a person's ability to understand numbers and learn math facts.

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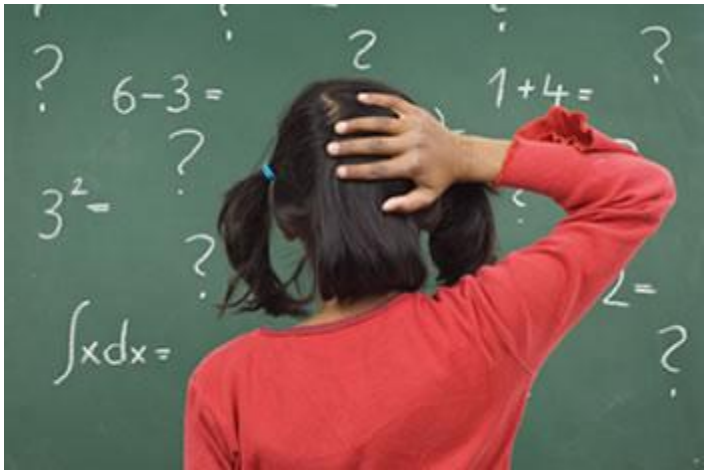

Signs and Symptoms

- Shows difficulty understanding concepts of place value, and quantity, number lines, positive and negative value, carrying and borrowing
- Has difficulty understanding and doing word problems
- Has difficulty sequencing information or events
- Exhibits difficulty using steps involved in math operations
- Shows difficulty understanding fractions
- Is challenged making change and handling money
- Displays difficulty recognizing patterns when adding, subtracting, multiplying, or dividing
- Has difficulty putting language to math processes
- Has difficulty understanding concepts related to time such as days, weeks, months, seasons, quarters, etc.
- Exhibits difficulty organizing problems on the page, keeping numbers lined up, following through on long division problems

Strategies

- Allow use of fingers and scratch paper
- Use diagrams and draw math concepts
- Provide peer assistance
- Suggest use of graph paper
- Suggest use of colored pencils to differentiate problems
- Work with manipulatives
- Draw pictures of word problems
- Use mnemonic devices to learn steps of a math concept
- Use rhythm and music to teach math facts and to set steps to a beat
- Schedule computer time for the student for drill and practice

Excerpted from the LDA of California and UC Davis M.I.N.D. Institute "Q.U.I.L.T.S." Calendar 2001-2002

Additional Information

Is There Such a Thing as Orton–Gillingham for Math?

My child has issues with math. Another parent told me there's something called "Orton–Gillingham for Math." Is this a real thing, and should I look into it for my child?

Brendan R. Hodnett

Special Education Teacher

This question comes up often—and there's a lot of confusion about what the term even means.

Orton–Gillingham (OG) is a style of instruction that focuses on certain features. They are: multisensory, structured, step-by-step, driven by data and personalized.

OG was developed around research on how people learn to read and write, and why some people struggle with it. This approach is designed to be used with direct one-on-one or small group instruction. A number of reading programs for kids with dyslexia are based on OG—and with great success.

Now educators are using this type of instruction with kids who struggle in math. (It's important to note that the research behind OG didn't involve math instruction or learning.)

When a program is described as "Orton-Gillingham Math" it generally refers to a multisensory approach. And it follows a progression of "concrete-representational-abstract."

All that means is that kids first learn new math concepts using hands-on materials (concrete). Then they move on to drawing or using pictures (representational). The last step is converting the information into numbers and symbols (abstract).

Kids who struggle with math often have trouble making sense of the abstract—the numbers and symbols. This OG-type instruction helps kids connect what they learn through their senses to numbers and symbols.

Numerous studies have shown that multisensory math instruction is good for all learners. It gives kids a broader understanding of concepts. But when you add personalized instruction that builds on each concept, it can *really* help kids with math issues.

You've asked if your child might benefit from this type of instruction. I don't know your child, or the nature of his math issues. But for most kids who struggle with math, the answer is yes.

Just bear in mind that the OG approach was designed to address difficulties with reading. It's based on research involving reading and writing, not math. Programs described as Orton–Gillingham math instruction haven't been around as long as OG

reading interventions have. And they don't have the same evidence of success.

As you're investigating math intervention programs, here are some features to look for:

- Multisensory
- Data driven
- Direct connection between previously learned and new material
- Immediate feedback

It is also important to read reviews of the program. See how popular it is with parents and teachers, and how long it's been in use. There's no guarantee these programs will improve your son's performance in math. But they definitely have benefits for many kids with math difficulties.

Understanding Your Child's Trouble With Math

By Amanda Morin

At a Glance

- Math difficulty often involves trouble with counting and memorizing facts.
- A learning issue called dyscalculia is a common source of math trouble.
- There are many ways to help kids get better at working with numbers.

Do you often wonder why your child has such a hard time learning math? If she has trouble counting or remembering basic math facts, it could be due to a learning issue called dyscalculia. But other issues can also make it hard to work with numbers. Learn more about what might be causing your child's trouble with math, and how you can help.

What You Might Be Seeing

The signs of a math issue can vary depending on what's causing it and how old your child is. If dyscalculia is to blame, the symptoms may change over time as she uses math in different ways.

Math Trouble in Preschool or Kindergarten

- Finds it hard to learn to count by 10s, up to 100
- Has trouble pointing to and counting each object in a group
- Has trouble understanding that a number can be used to describe any group with that amount in it—for example, knowing that 5 can be used for a group of 5 fingers, 5 bananas and 5 cats

- Has difficulty recognizing and writing numbers up to 20
- Skips numbers when counting, long after other kids the same age are able to count in order (children typically can count to 100 by 1s and 10s at end of kindergarten)
- Doesn't tend to recognize patterns and may not be able to sort items by size, shape or color

Math Trouble in Early Elementary School (Kindergarten Through Second Grade)

- Difficulty counting by 2s, 5s, and 10s
- Unable to mentally calculate basic addition and subtraction problems
- Difficulty recognizing basic mathematical signs such as plus or minus
- Difficulty recognizing numbers, confusing 381 for 38 and 1 or 3, 8, 1

Math Trouble in Upper Elementary School or Middle School

- Doesn't understand the concept of "more than" or "less than"
- Struggles to learn and remember basic math facts, such as 5 + 5 = 10
- Doesn't make the connection between related math facts or "fact families," such as 5 + 5 = 10, so 10 – 5 = 5
- Has trouble recognizing written numbers (also known as numerals)
- Still uses fingers to count instead of doing the calculation in her head
- Struggles to line numerals up neatly in columns when solving math problems
- Doesn't know left from right
- Avoids games that involve strategy like checkers or Sudoku
- Has a hard time telling time

Math Trouble in High School

- Has difficulty using math in real life, including things like budgeting or doubling a recipe to make it for more people
- Has trouble understanding maps and charts
- Hesitates to participate in activities that require a good sense of speed and distance, such as running track or learning to drive

If you've seen some of these signs in your child for at least six months, it's a good idea to talk to her teacher or doctor. Together you can come up with a plan for figuring out what's causing these problems and what may help.

"You may not know exactly what's causing your child's trouble with math. But even before you find out, there are steps you can take now to make things a little easier for your child."

What Can Cause Trouble With Math

For someone to do math well, many skills need to come together. These include language and memory skills, and the ability to picture things. If your child is doing fine in other subject areas and mainly seems to be struggling with math, then dyscalculia may be the cause of her issues. Here are some common causes of math

trouble.

Dyscalculia: This brain-based condition makes it hard to work with numbers and number concepts. It may not be as well known as dyslexia, but it isn't uncommon. Research suggests that anywhere from 7 to 14 percent of people have it.

Dyscalculia isn't a sign of low intelligence. In fact people with this condition often do well or even extremely well in non-math areas.

Not all kids show the same signs of dyscalculia. Some may have a hard time learning to count or figuring out how many items are in a group. Others might struggle to remember math facts or use math-related vocabulary like "greater than" or "less than."

Dyslexia: This common condition is mainly known for its impact on reading skills. But it can also affect spelling, writing, speaking and math skills. If your child is having trouble learning to count and doing word problems, dyslexia could be the cause. Many kids have both dyslexia and dyscalculia.

Math anxiety: Children with math anxiety are so worried about doing math that it lowers their performance on math tests. Some kids may have both math anxiety and dyscalculia.

Visual processing disorder: You may see your child struggling to recognize patterns, line up math problems on the page and read maps or charts. These are all signs of a visual processing disorder.

ADHD: Not paying attention to math isn't the same as not understanding it. If your child can't seem to focus on her math work, or makes a lot of careless errors, you might want to look into ADHD.

How You Can Get Answers

If your child is having trouble with math, there's a lot you can do to help. By knowing what's causing the issues, you and her teachers can find the most effective ways to build math skills and self-esteem. Getting answers make take a little work, but it's not as tough as you may think. Here are some steps you can take:

- **Talk to your child's teacher.** This is a great first step toward finding out why your child is struggling with math. See what the teacher has observed in class and share what you've been seeing at home. You can ask the teacher for a list of the skills that students are expected to learn by the end of the school year. That can give you a sense of what your child needs help with and how far behind she may be. The teacher may try different strategies to help your child build math skills and understand concepts. You also can talk about whether your child might be eligible for a 504 plan. That plan would put some official strategies and accommodations into place.
- **Look into an educational evaluation.** Either you or your child's teacher can request that the school evaluate your child for special supports or services. (The school can't do it without your permission.) If the school agrees, you won't have to pay anything. Depending on the results your child might be entitled to an Individualized Education Program (IEP). This plan will detail the free services and supports the school will provide to help your child learn math.
- **Talk to your child's doctor.** This is another good place to start getting answers. The doctor will ask you to describe your concerns and help you find out whether certain medical conditions such as ADHD might be causing the issues. The doctor may also suggest you see a learning specialist to help figure things out.

- **Talk to a specialist.** The professionals who focus on learning issues are called educational psychologists. They are trained to give specific tests that look at how children think and learn. These tests can help pinpoint which areas a child is struggling with. The specialists who can check for ADHD are a psychologist or neurologist.

What You Can Do Now

You may not know exactly what's causing your child's trouble with math. But even before you find out, there are steps you can take now to make things a little easier for your child. Here are a few options to consider:

- **Make math a game.** Practicing math skills doesn't have to feel like homework. Doing it in a less pressured way may improve your child's understanding of numbers and reduce math anxiety. Ask your child to help you sort the laundry and pair up the socks. Or have her measure out ingredients to cook with or weigh things at the grocery store. Learn more about how games can help kids who struggle with math.
- **Check out apps and technology.** Kids who have trouble with math facts and concepts can benefit from apps that boost math skills. Other types of assistive technology can help too. Using things like calculators may feel like "cheating." But if it's what your child needs to be able to manage the workload, it's simply another learning aid.
- **Boost your child's confidence.** Struggling with math can affect your child's overall self-esteem and social life. Help your child recognize her strengths and build on them. Reminding her of what she does well can help improve her self-esteem and resilience.
- **Observe and take notes.** The first step to finding help for your child is to observe her behavior and take notes on when she has difficulties. This can help you pick up on patterns and specific issues that you can begin to work on. Your notes will also be helpful when you talk to your child's teacher, doctor or other professional.
- **Try different strategies.** There are things you can do at home to help your child build math skills. You may also want check out some of the advice from our experts in Parenting Coach. Get suggestions for helping your child with things like poor self-esteem and anxiety problems.
- **Connect with other parents.** Although it may feel like you're the only family dealing with these issues, you're not. This site can help you find parents whose kids are struggling with math. These parents know what you're going through and can share insights and strategies.

Understanding what's behind your child's trouble with math is the best way to get support for her—and for you. The more you know, they better able you'll be to help her build her math skills and her confidence.

Key Takeaways

- Dyscalculia is not a sign of low intelligence.
- Speaking with professionals can help you get answers and find the most effective solutions.
- Math trouble can affect self-esteem, but there are many ways you can focus on your child's strengths and boost confidence.

3. Dysgraphia

A specific learning disability that affects a person's handwriting ability and fine motor skills. Problems may include illegible handwriting, inconsistent spacing, poor spatial planning on paper,

poor spelling, and difficulty composing writing as well as thinking and writing at the same time.

Affects a person's handwriting ability and fine motor skills.

A person with this specific learning disability may have problems including illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling, and difficulty composing writing as well as thinking and writing at the same time.

Signs and Symptoms

- May have illegible printing and cursive writing (despite appropriate time and attention given the task)
- Shows inconsistencies: mixtures of print and cursive, upper and lower case, or irregular sizes, shapes or slant of letters
- Has unfinished words or letters, omitted words
- Inconsistent spacing between words and letters
- Exhibits strange wrist, body or paper position
- Has difficulty pre-visualizing letter formation
- Copying or writing is slow or labored
- Shows poor spatial planning on paper
- Has cramped or unusual grip/may complain of sore hand
- Has great difficulty thinking and writing at the same time (taking notes, creative writing.)

Strategies

- Suggest use of word processor
- Avoid chastising student for sloppy, careless work
- Use oral exams
- Allow use of tape recorder for lectures
- Allow the use of a note taker
- Provide notes or outlines to reduce the amount of writing required
- Reduce copying aspects of work (pre-printed math problems)
- Allow use of wide rule paper and graph paper
- Suggest use of pencil grips and /or specially designed writing aids
- Provide alternatives to written assignments (video-taped reports, audio-taped reports)

Excerpted from the LDA of California and UC Davis M.I.N.D. Institute "Q.U.I.L.T.S." Calendar 2001-2002

Additional Information

Understanding Dysgraphia

By Erica Patino
Share & Save

What You'll Learn

You probably hear a lot about learning and attention issues like dyslexia and ADHD. But chances are you don't hear much about dysgraphia. If your child has trouble expressing himself in writing, you may want to learn more about this condition.

Writing difficulties are common among children and can stem from a variety of learning and attention issues. By learning what to watch for, you can be proactive about getting help for your child.

There's no cure or easy fix for dysgraphia. But there are strategies and therapies that can help a child improve his writing. This will help him thrive in school and anywhere else expressing himself in writing is important.

What is dysgraphia?

Dysgraphia is a condition that causes trouble with written expression. The term comes from the Greek words *dys* ("impaired") and *graphia* ("making letter forms by hand"). Dysgraphia is a brain-based issue. It's not the result of a child being lazy.

For many children with dysgraphia, just holding a pencil and organizing letters on a line is difficult. Their handwriting tends to be messy. Many struggle with spelling and putting thoughts on paper.[1] These and other writing tasks—like putting ideas into language that is organized, stored and then retrieved from memory—may all add to struggles with written expression.

Different professionals may use different terms to describe your child's struggle with written expression. The *Diagnostic and Statistical Manual of Mental Disorders-5* (DSM-5) doesn't use the term dysgraphia but uses the phrase "an impairment in written expression" under the category of "specific learning disorder." This is the term used by most doctors and psychologists.

Some school psychologists and teachers use the term dysgraphia as a type of shorthand to mean "a disorder in written expression."

To qualify for special education services, a child must have an issue named or described in the Individuals with Disabilities Education Act (IDEA). While IDEA doesn't use the term "dysgraphia," it *describes* it under the category of "specific learning disability." This includes issues with understanding or using language (spoken or written) that make it difficult to listen, think, speak, read, write, spell or to do mathematical calculations.

Whatever definition is used, it's important to understand that slow or sloppy writing isn't necessarily a sign that your child isn't trying hard enough. Writing requires a complex set of fine motor and language processing skills. For kids with dysgraphia, the writing process is harder and slower. Without help, a child with dysgraphia may have a difficult time in school.

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How common is dysgraphia?

Dysgraphia is not a familiar term. But symptoms of dysgraphia are not uncommon, especially in young children who are starting to learn how to write. If a child continues to struggle with writing despite plenty of practice and corrective feedback, it's a good idea to take a closer look to see whether dysgraphia is an underlying cause.

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What causes dysgraphia?

Experts aren't sure what causes dysgraphia and other issues of written expression. Normally, the brain takes in information through the senses and stores it to use later. Before a person starts writing, he retrieves information from his short- or long-term memory and gets organized to begin writing.

In a person with dysgraphia, experts believe one or both of the next steps in the writing process go off track:

1. Organizing information that is stored in memory
2. Getting words onto paper by handwriting or typing them

This results in a written product that's hard to read and filled with errors. And most important, it does not convey what the child knows and what he intended to write.

Working memory may also play a role in dysgraphia. A child may have trouble with what's called "orthographic coding." This is the ability to store unfamiliar written words in the working memory.[2] As a result, he may have a hard time remembering how to print or write a letter or a word.

There may also be a genetic link, with dysgraphia running in families.

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What are the symptoms of dysgraphia?

The symptoms of dysgraphia fall into six categories: visual-spatial, fine motor, language processing, spelling/handwriting, grammar, and organization of language. A child may have dysgraphia if his writing skills lag behind those of his peers and he has at least some of these symptoms:

Visual-Spatial Difficulties

- Has trouble with shape-discrimination and letter spacing
- Has trouble organizing words on the page from left to right
- Writes letters that go in all directions, and letters and words that run together on the page
- Has a hard time writing on a line and inside margins

- Has trouble reading maps, drawing or reproducing a shape
- Copies text slowly

Fine Motor Difficulties

- Has trouble holding a pencil correctly, tracing, cutting food, tying shoes, doing puzzles, texting and keyboarding
- Is unable to use scissors well or to color inside the lines
- Holds his wrist, arm, body or paper in an awkward position when writing

Language Processing Issues

- Has trouble getting ideas down on paper quickly
- Has trouble understanding the rules of games
- Has a hard time following directions
- Loses his train of thought

Spelling Issues/Handwriting Issues

- Has a hard time understanding spelling rules
- Has trouble telling if a word is misspelled
- Can spell correctly orally but makes spelling errors in writing
- Spells words incorrectly and in many different ways
- Has trouble using spell-check—and when he does, he doesn't recognize the correct word
- Mixes upper- and lowercase letters
- Blends printing and cursive
- Has trouble reading his own writing
- Avoids writing
- Gets a tired or cramped handed when he writes
- Erases a lot

Grammar and Usage Problems

- Doesn't know how to use punctuation
- Overuses commas and mixes up verb tenses
- Doesn't start sentences with a capital letter
- Doesn't write in complete sentences but writes in a list format
- Writes sentences that "run on forever"

Organization of Written Language

- Has trouble telling a story and may start in the middle

- Leaves out important facts and details, or provides too much information
- Assumes others know what he's talking about
- Uses vague descriptions
- Writes jumbled sentences
- Never gets to the point, or makes the same point over and over
- Is better at conveying ideas when speaking

The symptoms of dysgraphia also vary depending on a child's age. Signs generally appear when children are first learning to write.

- **Preschool children** may be hesitant to write and draw and say that they hate coloring.
- **School-age children** may have illegible handwriting that can be mix of cursive and print. They may have trouble writing on a line and may print letters that are uneven in size and height. Some children also may need to say words out loud when writing or have trouble putting their thoughts on paper.
- **Teenagers** may write in simple sentences. Their writing may have many more grammatical mistakes than the writing of other kids their age.[3]

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What skills are affected by dysgraphia?

The impact of dysgraphia on a child's development varies, depending on the symptoms and their severity. Here are some common areas of struggle for kids with dysgraphia:

- **Academic:** Kids with dysgraphia can fall behind in schoolwork because it takes them so much longer to write. Taking notes is a challenge. They may get discouraged and avoid writing assignments.
- **Basic life skills:** Some children's fine motor skills are weak. They find it hard to do everyday tasks, such as buttoning shirts and making a simple list.
- **Social-emotional:** Children with dysgraphia may feel frustrated or anxious about their academic and life challenges. If they haven't been identified, teachers may criticize them for being "lazy" or "sloppy." This may add to their stress.[4] Their low self-esteem, frustration and communication problems can also make it hard to socialize with other children.

While dysgraphia is a lifelong condition, there are many proven strategies and tools that can help children with dysgraphia improve their writing skills.

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How is dysgraphia diagnosed?

Signs of dysgraphia often appear in early elementary school. But the signs may not become apparent until middle school or later. Sometimes the signs go unnoticed entirely. As with all learning and attention issues, the earlier signs of dysgraphia are recognized and addressed, the better.

Dysgraphia is typically identified by licensed psychologists (including school psychologists) who specialize in learning disabilities. They will give your child academic assessments and writing tests. These tests measure fine motor skills and

written expression production.

During testing, the professional may ask your child to write sentences and copy text. They'll assess not only your child's finished product, but also his writing process. This includes posture, position, pencil grip, fatigue and whether there are signs of cramping. The tester may also test fine motor speed with finger tapping and wrist turning.[5]

Special education teachers and school psychologists can help determine the emotional or academic impact the condition may be having on your child.

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What conditions are related to dysgraphia?

Many children with dysgraphia have other learning issues. These conditions, which can also affect written expression, include:

- **Dyslexia:** This learning issue makes it harder to read. Dyslexia can also make writing and spelling a challenge. Learn more about the difference between dysgraphia and dyslexia.
- **Language disorders:** Language disorders can cause a variety of problems with written and spoken language. Children may have trouble learning new words, using correct grammar and putting their thoughts into words.[6]
- **Attention-deficit hyperactivity disorder (ADHD):** ADHD causes problems with attention, impulsivity and hyperactivity.
- **Dyspraxia:** Dyspraxia is a condition that causes poor physical coordination and motor skills. It can cause trouble with fine motor skills, which can affect physical task of writing and printing. Learn about the differences between dysgraphia and dyspraxia.

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How can professionals help with dysgraphia?

If your child is found to have dysgraphia and qualifies for special education services, you and a team of teachers and specialists at the school will develop an Individualized Education Program (IEP). This may include intensive instruction in handwriting as well as personalized accommodations and modifications.

If your child isn't eligible for an IEP, another option is to request a 504 plan. This is a written plan that details how the school will accommodate your child's needs.

But even without an IEP or 504 plan, you may be able to get help in other ways:

- Response to intervention (RTI) is an approach some schools use to screen students and provide small group instruction to those who are falling behind. If a child doesn't make progress, he may receive intensive one-on-one instruction.
- Informal supports are strategies your child's teacher can use, such as giving your child copies of class notes or using assistive technology tools like voice-to-text (dictation) software.

There are many ways to help a child with dysgraphia. Generally, support falls into these categories:

- **Accommodations** are changes to *how* your child learns. Accommodations include typing on a keyboard or other electronic device instead of writing by hand. Apps can help

some children stay organized through voice-recorded notes.

- **Modifications** are changes to *what* your child learns. Examples of modifications include allowing a student to write shorter papers or answer fewer or different test questions than his classmates.
- **Remediation** is an approach that targets foundational skills your child needs to master. Some children may practice copying letters, using paper with raised lines to help them write in straight lines. An occupational therapist may provide exercises to build muscle strength and dexterity and increase hand-eye coordination.

There is no medication for treating dysgraphia. However, children who also have ADHD sometimes find that medication for ADHD alleviates symptoms of dysgraphia.

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What can be done at home for dysgraphia?

There are many things you can do at home to help your child with dysgraphia. Here are some strategies to consider.

- **Observe and take notes.** Taking notes about your child's writing difficulties (including when they occur) will help you find patterns and triggers. Then you can develop strategies to work around them. Your notes will also be useful when you talk to your child's doctor, teachers and anyone else helping your child.
- **Teach your child writing warm-up exercises.** Before writing (or even as a break when writing), your child can do a stress-reliever exercise. He could shake his hands quickly or rub them together to relieve tension.
- **Play games that strengthen motor skills.** Playing with clay can strengthen hand muscles. A squeeze ball can improve hand and wrist muscles and coordination.

It's best not to try too many strategies at once. Instead, add one at a time so you know what is (or isn't) working. Praise your child for effort and genuine achievement. This can motivate him to keep building skills. Many kids overcome and work around their writing difficulties. With support, your child can, too.

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What can make the journey easier?

Whether you're just learning about dysgraphia or your journey is well underway, this site can help you find support your child.

- **Know your child's issues.** If your child hasn't been identified with dysgraphia, consider having him evaluated by the school or by an outside professional. Knowing which issues your child has is the first step toward getting the best help.
- **Request an evaluation.** If your child is found to have dysgraphia, consider asking your school district if he qualifies for an IEP or a 504 plan.
- **See it through your child's eye.** Get a better sense of what your child is experiencing. The more you understand, the more you can help.
- **Connect with other parents.** Remember that you're not alone. You can visit our online community to find other parents who are dealing with the same issues.
- **Get advice from experts.** Use Parenting Coach to help navigate behavior and emotional issues that may come up along the way.

Difficulty with writing doesn't need to hold your child back. Explore and experiment

with different tools and strategies. Eventually, you'll find ways to help your child succeed.

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Key Takeaways

- Dysgraphia makes written expression challenging.
- There are resources available to get free or low-cost help for your child.
- When given the appropriate help, kids with dysgraphia can succeed.

4. Dyslexia

A specific learning disability that affects reading and related language-based processing skills. The severity can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a Language-Based Learning Disability.

Affects reading and related language-based processing skills.

The severity of this specific learning disability can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a Language-Based Learning Disability.

Signs and Symptoms

- Reads slowly and painfully
- Experiences decoding errors, especially with the order of letters
- Shows wide disparity between listening comprehension and reading comprehension of some text
- Has trouble with spelling
- May have difficulty with handwriting
- Exhibits difficulty recalling known words
- Has difficulty with written language
- May experience difficulty with math computations
- Decoding real words is better than nonsense words
- Substitutes one small sight word for another: a, I, he, the, there, was

Strategies

- Provide a quiet area for activities like reading, answering comprehension questions

- Use books on tape
- Use books with large print and big spaces between lines
- Provide a copy of lecture notes
- Don't count spelling on history, science or other similar tests
- Allow alternative forms for book reports
- Allow the use of a laptop or other computer for in-class essays
- Use multi-sensory teaching methods
- Teach students to use logic rather than rote memory
- Present material in small units

Excerpted from the LDA of California and UC Davis M.I.N.D. Institute "Q.U.I.L.T.S." Calendar 2001-2002

5. Language Processing Disorder

A specific type of Auditory Processing Disorder (APD) in which there is difficulty attaching meaning to sound groups that form words, sentences and stories. While an APD affects the interpretation of all sounds coming into the brain, a Language Processing Disorder (LPD) relates only to the processing of language. LPD can affect expressive language and/or receptive language.

Affects attaching meaning to sound groups that form words, sentences and stories.

A specific type of Auditory Processing Disorder (APD). While an APD affects the interpretation of all sounds coming into the brain (e.g., processing sound in noisy backgrounds or the sequence of sounds or where they come from), a Language Processing Disorder (LPD) relates only to the processing of language. LPD can affect expressive language (what you say) and/or receptive language (how you understand what others say).

Signs and Symptoms

- Has difficulty gaining meaning from spoken language
- Demonstrates poor written output
- Exhibits poor reading comprehension
- Shows difficulty expressing thoughts in verbal form
- Has difficulty labeling objects or recognizing labels
- Is often frustrated by having a lot to say and no way to say it
- Feels that words are "right on the tip of my tongue"
- Can describe an object and draw it, but can't think of the word for it
- May be depressed or having feelings of sadness
- Has difficulty getting jokes

Strategies

- Speak slowly and clearly and use simple sentences to convey information
- Refer to a speech pathologist
- Allow tape recorder for note taking
- Write main concepts on board
- Provide support person or peer tutor
- Use visualization techniques to enhance listening and comprehension
- Use of graphic organizers for note taking from lectures or books
- Use story starters for creative writing assignments
- Practice story mapping
- Draw out details with questions and visualization strategies

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6. Non-Verbal Learning Disabilities

A disorder which is usually characterized by a significant discrepancy between higher verbal skills and weaker motor, visual-spatial and social skills. Typically, an individual with NLD (or NVLD) has trouble interpreting nonverbal cues like facial expressions or body language, and may have poor coordination.

Has trouble interpreting nonverbal cues like facial expressions or body language and may have poor coordination.

Non-Verbal Learning Disability (NVD or NVLD), is a disorder which is usually characterized by a significant discrepancy between higher verbal skills and weaker motor, visual-spatial and social skills.

Signs and Symptoms

- Has trouble recognizing nonverbal cues such as facial expression or body language
- Shows poor psycho-motor coordination; clumsy; seems to be constantly “getting in the way,” bumping into people and objects
- Using fine motor skills a challenge: tying shoes, writing, using scissors
- Needs to verbally label everything that happens to comprehend circumstances, spatial orientation, directional concepts and coordination; often lost or tardy
- Has difficulty coping with changes in routing and transitions
- Has difficulty generalizing previously learned information
- Has difficulty following multi-step instructions
- Make very literal translations
- Asks too many questions, may be repetitive and inappropriately interrupt the flow of a lesson
- Imparts the “illusion of competence” because of the student’s strong verbal skills

Strategies

- Rehearse getting from place to place
- Minimize transitions and give several verbal cues before transition
- Avoid assuming the student will automatically generalize instructions or concepts
- Verbally point out similarities, differences and connections; number and present instructions in sequence; simplify and break down abstract concepts, explain metaphors, nuances and multiple meanings in reading material
- Answer the student’s questions when possible, but let them know a specific number (three vs. a few) and that you can answer three more at recess, or after school

- Allow the child to abstain from participating in activities at signs of overload
- Thoroughly prepare the child in advance for field trips, or other changes, regardless of how minimal
- Implement a modified schedule or creative programming
- Never assume child understands something because he or she can “parrot back” what you’ve just said
- Offer added verbal explanations when the child seems lost or registers confusion

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7. Visual Perceptual/Visual Motor Deficit

A disorder that affects the understanding of information that a person sees, or the ability to draw or copy. A characteristic seen in people with learning disabilities such as Dysgraphia or Non-verbal LD, it can result in missing subtle differences in shapes or printed letters, losing place frequently, struggles with cutting, holding pencil too tightly, or poor eye/hand coordination.

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Signs and Symptoms

1. May have reversals: b for d, p for q or inversions: u for n, w for m
2. Has difficulty negotiating around campus
3. Complains eyes hurt and itch, rubs eyes, complains print blurs while reading
4. Turns head when reading across page or holds paper at odd angles
5. Closes one eye while working, may yawn while reading
6. Cannot copy accurately
7. Loses place frequently
8. Does not recognize an object/word if only part of it is shown
9. Holds pencil too tightly; often breaks pencil point/crayons
10. Struggles to cut or paste
11. Misaligns letters; may have messy papers, which can include letters colliding, irregular spacing, letters not on line

Strategies

- Avoid grading handwriting
- Allow students to dictate creative stories
- Provide alternative for written assignments
- Suggest use of pencil grips and specially designed pencils and pens
- Allow use of computer or word processor
- Restrict copying tasks
- Provide tracking tools: ruler, text windows
- Use large print books
- Plan to order or check out books on tape
- Experiment with different paper types: pastels, graph, embossed raised line paper

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Related Disorders

1. ADHD

A disorder that includes difficulty staying focused and paying attention, difficulty controlling behavior and hyperactivity. Although ADHD is not considered a learning disability, research indicates that from 30-50 percent of children with ADHD also have a specific learning disability, and that the two conditions can interact to make learning extremely challenging.

Affects focus, attention and behavior and can make learning challenging

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Attention Deficit Hyperactivity Disorder is a condition that becomes apparent in some children in the preschool and early school years. It is hard for these children to control their behavior and/or pay attention. It is estimated that between 3 and 5 percent of children have attention deficit hyperactivity disorder (ADHD), or approximately 2 million children in the United States. This means that in a classroom of 24 to 30 children, it is likely that at least one will have ADHD.

ADHD is not considered to be a learning disability. It can be determined to be a disability under the Individuals with Disabilities Education Act (IDEA), making a student eligible to receive special education services. However, ADHD falls under the category "Other Health Impaired" and not under "Specific Learning Disabilities."

Many children with ADHD Ã¢â‚¬â“ approximately 20 to 30 percent Ã¢â‚¬â“ also have a specific learning disability.

The principle characteristics of ADHD are inattention, hyperactivity, and impulsivity. There are three subtypes of ADHD recognized by professionals. These are the predominantly hyperactive/impulsive type (that does not show significant inattention); The predominantly inattentive type (that does not show significant hyperactive-impulsive behavior) sometimes called ADD; and the combined type (that displays both inattentive and hyperactive-impulsive symptoms).

Other disorders that sometimes accompany ADHD are Tourette Syndrome (affecting a very small proportion of people with ADHD); oppositional defiant disorder (affecting as many as one-third to one-half of all children with ADHD); conduct disorder (about 20 to 40% of ADHD children); anxiety and depression; and bipolar disorder.

**National Institute of Mental Health, 2003*

2. Dyspraxia

A disorder that is characterized by difficulty in muscle control, which causes problems with movement and coordination, language and speech, and can affect learning. Although not a learning disability, dyspraxia often exists along with dyslexia, dyscalculia or ADHD.

Problems with movement and coordination, language and speech.

A disorder that is characterized by difficulty in muscle control, which causes problems with movement and coordination, language and speech, and can affect learning. Although not a learning disability, Dyspraxia often exists along with Dyslexia, Dyscalculia or ADHD.

Signs and Symptoms

- Exhibits poor balance; may appear clumsy; may frequently stumble
- Shows difficulty with motor planning
- Demonstrates inability to coordinate both sides of the body
- Has poor hand-eye coordination
- Exhibits weakness in the ability to organize self and belongings
- Shows possible sensitivity to touch
- May be distressed by loud noises or constant noises like the ticking of a clock or someone tapping a pencil
- May break things or choose toys that do not require skilled manipulation
- Has difficulty with fine motor tasks such as coloring between the lines, putting puzzles together; cutting accurately or pasting neatly
- Irritated by scratchy, rough, tight or heavy clothing

Strategies

- Pre-set students for touch with verbal prompts, “I’m going to touch your right hand.”
- Avoid touching from behind or getting too close and make sure peers are aware of this
- Provide a quiet place, without auditory or visual distractions, for testing, silent reading or work that requires great concentration
- Warn the student when bells will ring or if a fire drill is scheduled
- Whisper when working one to one with the child
- Allow parents to provide earplugs or sterile waxes for noisy events such as assemblies
- Make sure the parent knows about what is observed about the student in the classroom
- Refer student for occupational therapy or sensory integration training
- Be cognizant of light and light sources that may be irritating to child
- Use manipulatives, but make sure they are in students field of vision and don’t force student to touch them

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3. Executive Functioning

An inefficiency in the cognitive management systems of the brain that affects a variety of neuropsychological processes such as planning, organization, strategizing, paying attention to and remembering details, and managing time and space. Although not a learning disability, different patterns of weakness in executive functioning are almost always seen in the learning profiles of individuals who have specific learning disabilities or ADHD.

Affects, planning, organization, strategizing, attention to details and managing time and space.

An inefficiency in the cognitive management systems of the brain that affects a variety of neuropsychological processes such as planning, organization, strategizing, paying attention to and remembering details, and managing time and space. Although not a learning disability, different patterns of weakness in executive functioning are almost always seen in the learning profiles of individuals who have specific learning disabilities or ADHD.

4. Memory

Three types of memory are important to learning. Working memory, short-term memory and long-term memory are used in the processing of both verbal and non-verbal information. If there are deficits in any or all of these types of memory, the ability to store and retrieve information required to carry out tasks can be impaired.

Affects storing and later retrieving information or getting information out.

Three types of memory are important to learning, "working memory", "short term memory" and "long term memory." All three types of memory are used in the processing of both verbal and non-verbal information.

1. **"Working memory"** refers to the ability to hold on to pieces of information until the pieces blend into a full thought or concept. For example, reading each word until the end of a sentence or paragraph and then understanding the full content.
2. **"Short-term memory"** is the active process of storing and retaining information for a limited period of time. The information is temporarily available but not yet stored for long-term retention.
3. **"Long-term memory"** refers to information that has been stored and that is available over a long period of time. Individuals might have difficulty with auditory memory or visual memory.

How does it all work together to learn?

One reads a sentence and holds on to it. Then the next and the next. By the end of the paragraph, he pulls together the meaning of the full paragraph. This is working memory. He continues to read the full chapter and study it. Information is retained long enough to take a test and do well. This is short-term memory. But, unless the information is reviewed and studied over a longer period of time, it is not retained. With more effort over time, the information might become part of a general body of knowledge. It is long-term memory. If there are deficits in any or all of these types of memory, the ability to store and retrieve information required to carry out tasks can be impaired.