



# Dyslexia

A NeuroDevelopmental Perspective  
By: Certified NeuroDevelopmentalists



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## **Dyslexia – Reading Struggles**

By Jan Bedell, PhD, Master  
NeuroDevelopmentalist

In America the struggle of so many to read fluently is a pressing topic of conversation in our homes, schools, the workplace, and even government agencies. Our nation worries about the low literacy rate. Companies are concerned about their workers' ability to learn. School budgets and limited staff struggle under the weight of federal mandates and the learning challenges of their students. Homeschool moms often question their ability to teach even though there was success with other children. At the heart of the struggle is often the debilitating diagnosis of dyslexia, affecting an estimated 5-15% or more of U.S. children and often called the most frequently occurring learning disability and the most common disorder of childhood.

### **What is Dyslexia?**

Dyslexia, the word that strikes fear and dread in the hearts of thousands of parents each year, is a complicated and controversial diagnosis. A definition used to describe, identify and treat this malady was proposed by the World Federation of Neurology in the 1960s. It states: "Dyslexia is a disorder manifested by difficulty learning to read despite conventional instruction, adequate intelligence, and socio-culture opportunity." This definition seems to focus more on what dyslexia is *not* rather than what it is. Testing typically include diagnostic tests and questionnaires consisting of a list of symptoms. Parents are given this devastating diagnosis and are routinely told that teaching coping and compensating skills is the **ONLY** answer. They see this proverbial "pile of bricks" loaded on their child's back and are told he has to carry it around for the rest of his life. Instead of "labeling" a particular group of symptoms, it is much more productive to look for the root causes of these symptoms and treat the root. With the right kind of stimulation (different activities and influences from the environment), you can change in the brain's wiring system. No, this is not brain surgery! The correct stimulation takes the existing brain connections that

currently resembling "dirt paths" and causes them to become "super highways" in transporting information from brain to body for better overall function.

### **Exploring the Symptoms**

Over the past 100 years, dyslexic symptoms have been articulated by researchers, and include deficits in some or many of the following the area: phonological awareness, balance, motor control, visual discrimination, visual and auditory short term memory, and listening skills. Problems are often characterized by reversing or transposing letters, clumsiness, and heightened emotionality. More research appears to have resulted in less understanding and greater confusion. This seems unacceptable and scientifically unsound. The question remains, what is to be made of unexpected reading failure in otherwise average or above functioning students?

### **Current Approaches**

Despite the many symptoms common to people with this label, the majority of professionals seem to be set on a one-size-fits-all solution. It seems clear that with so many different symptoms, many aspects of human development are involved. Solutions, therefore, must be custom-fit to the individual instead of one standard treatment usually derived from an Orton/Gillingham phonics-based approach. Since Orton himself noted multiple symptoms of dyslexia, the neurodevelopmental question that begs answers is whether or not his treatment approach has been too narrow. After all, many symptoms not related to phonology were experienced. Although the evidence in favor of the phonological weakness of dyslexics has continued to dominate the scene recently, it does not diminish the importance of the visual perceptual problems that many dyslexics report as well as the myriad of other symptoms with various causes.

### **What is a Mom to do?**

When I reflected on my experiences while working with families whose children are labeled dyslexic or any label for that matter, it

reminded me of how I felt all those years ago, when I searched for help for my daughter who was developmentally delayed. As a mother, I mourned over the struggles my daughter faced but God brought me hope. He reminded me that we are all fearfully and wonderfully made and He introduced me to the understanding that the brain has great ability to change. It's called brain plasticity. God lent His comfort as I grew in my knowledge of what to do to stimulate my daughter's brain to produce better function. In addition to the comfort I received, I found that He is in the business of setting the captives free (those trapped in disorganized brains) which can mean the physical, emotional or spiritual needs. Before I found the help I sought, I often felt helpless to make a difference for my daughter. I continued to search and in His providence He brought me to The Neurodevelopmental Approach (ND) where she experienced life-changing results. That was the first time that anyone looked at her as a "whole person" instead of under a microscope of a certain professional area of expertise or certification. That perspective shaped a multi-pronged approach which is needed in addressing the root causes of the symptoms that produce labels like dyslexia, ADD/ADHD, SI, PPD, OCD, ODD and a myriad of others.

### **The Neurodevelopmental (ND) Approach**

It seem reasonable to NDs and hopefully is becoming clear to you, that reading struggles and dyslexia actually results from a combination of several different inefficiencies in the brain. The degree and sheer number of these issues cause a wide spectrum of difficulties from slight challenges to what some term "word blindness". Each case seems to have a unique set of causes that need to be addressed. This involves looking at the child globally, developing specific activities based on the findings and then treating the root causes. It is time to start looking at the whole child and focusing on the causes rather than the symptoms.

The ND Approach could be described as relating to *neuroplasticity*, the brain's amazing

ability to change and modify itself in response to stimulation from or enrichment of the environment. Plasticity of the brain is present as long as a person lives, otherwise, just think of it; if this ability to change was not present, stroke victims would have no hope of regaining function. It is comforting to know that it is never too late to change a person's function. Abilities can be enhanced with brain stimulating activities when applied with specific keys: frequency, intensity, and short duration over a particular period of time (see 3 Keys to Unlocking Learning - YouTube-Brain Coach Tips Channel). NDs believe that these three keys to input (information going into the brain instead of requiring an answer to come out), used in the stimulation of an individual's auditory, visual, tactile, manual, language and mobility systems, are the solution to causing low or non-functioning parts of the brain to gain function, thus reducing and often eliminating the many reading struggles experienced by so many.

So what is a mom to do? The situation is more involved than just stimulating the right or left brain or knowing your child's learning style as some propose. You have to think of it differently and find out what can make a real difference by peeling the proverbial "onion" to find the root causes to numerous symptoms. This can take some education on your part as you take that step to change your paradigm about your child's current situation and embrace the hope that the ND Approach embodies.

The ND Approach views learning difficulties as symptoms of incomplete development and inefficient communication between brain and body. Here is one example, if an infant is not allowed to move from the stages of random movement into more specific coordinated movement and experience cross patterning activities gained through normal progression of crawling and creeping; the organization of the brain will be left incomplete. A surprising 75% of students with diagnosed learning difficulties never belly crawled when they were babies. Crawling promotes a new level of brain organization, as indicated by more organized

EEG brain-wave activity in the thinking part of the brain.

### **A Key Elements**

The auditory system plays an important role in the acquisition of reading skills. Auditory memory refers to the ability to take in pieces of information and hold them in short-term memory. Language skills such as speech, reading, writing, and spelling develop only if the child has learned to listen and listen efficiently. Auditory deficits negatively affect progress with a phonics approach. This explains why many dyslexics make slow or minimal progress from phonetic instruction, while others benefit greatly. You might not have thought about it but phonics is an auditory approach to reading that requires decoding and holding sounds together to achieve words. If the auditory short term memory is low, the child could sound out three-letter words successfully but anything more complicated like remembering a rule in a longer word would be painful to watch. When auditory processing improves, it is easier to use phonics. Treat the root cause (short term memory problems) instead of listening while the child painfully struggles through trying to sound out a word. This is frustrating for everyone involved.

We have to realize that when low auditory processing exists, a different reading strategy is required until the auditory deficit can be fixed. See: Make Reading Easier (Youtube)

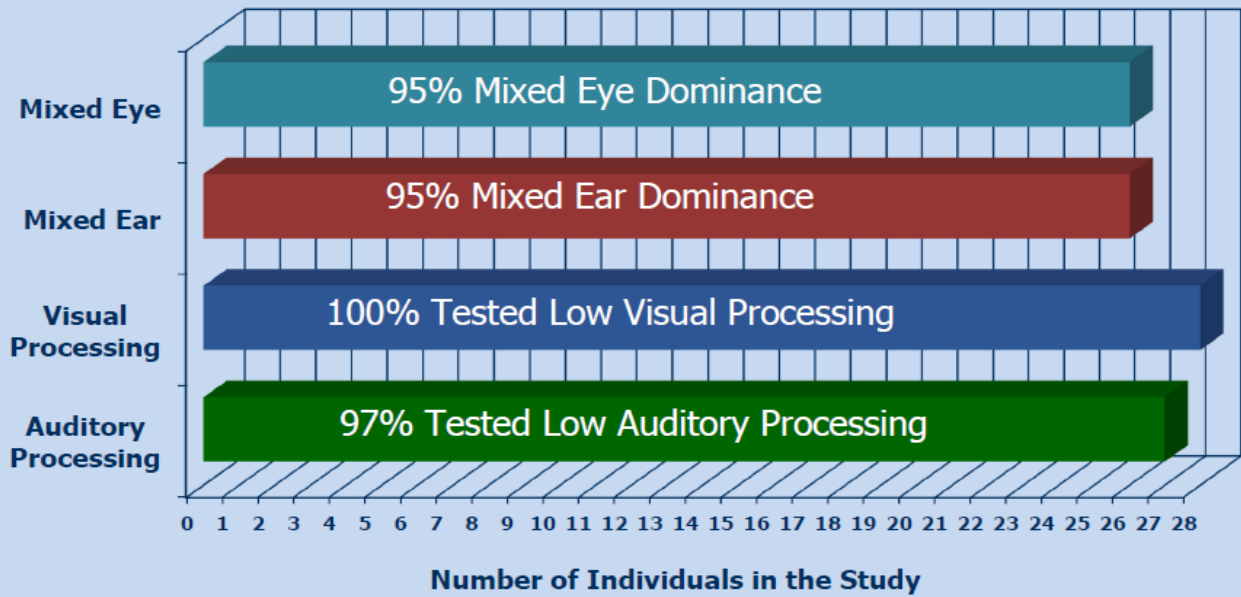
### **Other Root Causes To Consider**

NDs also agree with prominent learning disability researchers who noted issues with the visual system of dyslexics from eye-hand coordination to tracking and working together, to central detail vision issues, and even eye dominance. The visual system does not act alone but relies on the vestibular and proprioceptive systems for accurate information. An individual is indeed an integrated whole with different systems interacting and affecting each other. Eye dominance (a topic too extensive for discussion here, see: YouTube- DYSLEXIA ~ A Reading Roller Coaster) has proven a key factor in correction of dyslexic symptoms. Samuel Orton (1938/1989), said that "eyedness... is not so widely recognized as handedness, but it is probably of equal importance". NDs have found that when eye dominance coordinates with the dominant hand and additional inefficiencies are addressed, dyslexic symptoms diminish and often disappear entirely. See graph below.

### **Conclusion**

Now, perhaps for the first time, you have heard there is another approach to the seemingly debilitating diagnosis of Dyslexia. In this discovery process you have taken the first step toward unmasking its root causes and eliminating its effect on people you know and love! The adventure begins as you discover the root cause of those specific symptoms that are currently holding them hostage.

## NeuroDevelopmental Assessment Results in Dyslexic-labeled Children



## Dyslexia Screening by Jan Bedell, PhD, M.ND

This is a screening that gives indicators of Dyslexia. The “possible causes” in the last column are what a neuro-educational specialist would consider when looking for the root causes of these symptoms which can be changed with proper stimulation to the brain.

### Parent Check List

Please Answer the Following:	Yes	No	Possible Root Causes
Does your child have difficulty with reading, writing, or spelling?			Visual dominance, proprioception, visualizing skills and too many others to list here
Is your child able to blend words into sounds?			Low auditory processing
Does your child hesitate to read to you?			Fear of not getting help
Does your child reverse letters and groups of letters in words?			Mixed dominance
Does your child read slowly?			Visual issues, mixed dominance, low auditory processing, eye tracking
Does or did your child have trouble learning the names of letters and their sounds?			Possibly mixed dominance or poor visual discrimination
Does your child have difficulty recalling the names of familiar objects, colors, or letters of the alphabet?			Possibly mixed dominance or poor visual discrimination
Does your child expressing himself/herself clearly?			Mixed dominance, low auditory processing
Is your child disorganized?			Lower level brain disorganization
Does your child have directional confusions (left/right, before/after)?			Mixed dominance
Does your child appear to have a short attention span?			Low auditory processing
Does your child often forget or lose assignments?			Mixed dominance, neurological disorganization
Does your child have difficulty copying accurately from printed or written materials?			Visual acuity, visual convergence issue, central detail vision, near point/far point accommodation
Does your child confuse similar words such as “with” and “which”?			Poor central detail vision
Does your child have difficulty following directions?			Low auditory processing
Does your child spend more time than is appropriate on homework?			Neurological disorganization
Does your child appear disruptive in school?			Low auditory processing
Does your child appear to need instructions repeated often?			Low auditory processing

### Traditional advice often given by professionals in this field (Coping Skills):

- **Be supportive.** Having difficulty learning to read may affect your child’s self-esteem. Be sure to provide love and to support his or her talents and strengths.
- **Talk to your child.** Explain to your child what dyslexia is and that it’s not a failure on his or her part. The better your child understands this, the more likely he or she will cope with and compensate for this learning disability.  
**Don’t accept a list of current symptoms to define your child’s future. Find the root cause and fix it!**

# **THE NEURODEVELOPMENTAL APPROACH TO DEVELOPMENT**

By Linda Kane, Neurodevelopmentalist, Sound Therapy Specialist

The Neurodevelopmental Approach is like no other approach to human development. It is unique in its approach of looking at the whole individual, not the separate pieces. Taking the individual pieces without an understanding how they interrelate will severely impede the success you have working with individuals.

Whether you have received a label, should receive a label, or are searching for a label for your child; whether the labels are due to learning concerns, genetic disorders, or brain injury sustained, I encourage you to understand labels. Labels are nothing more than symptomatic identifications of problems or concerns. Labels do nothing but limit, nothing but lower expectations. The potential of any individual is based upon the opportunities presented them. If appropriate, specific opportunities are presented, there will be greater outcomes. If opportunities are not offered, often due to the limitations set forth by the self-fulfilling prophecy of the label expectations, less will be achieved.

Learning disability labels are interesting in nature. Most believe they are unchangeable conditions you must learn to live with. They are treated as diseases. The term disease gives one the impression that there is nothing you can do to change the situation. Left unchecked, Dyslexia, ADD, ADHD, etc. seldom see much change. Dyslexia, ADD, ADHD, etc. are not diseases. When you understand the root cause of symptoms of these learning disability labels, you can treat the cause and alter the symptoms. Often, you can eliminate the symptoms, and thus eliminate the label entirely. If not eliminated, you can improve the situation immensely. Treating some of these conditions with medication is nothing more than treating symptoms. Learning how to cope and compensate with these conditions will never bring you to the point of eliminating them. Only by addressing the root causal level will freedom from labels, with all their frustrations, pain, and limitations, be achieved.

When genetic labels are a concern, you have to reach beyond the expectations which have been set based on past observations. An example would be a label of Down Syndrome. The genetic condition of Down Syndrome was first identified by Dr. Langdon Down. Once Dr. Down identified the twenty-first chromosome abnormality, he began assessing the commonality of individuals who shared this condition. The individuals he observed were all people he worked with in the institutions. The assessment was made on individuals who had very limited opportunity presented to them. I would suspect any one of us would have far different outcomes had we spent our lives institutionalized. I challenge you to look beyond the expectations and reach for typical, normal function. You will never achieve typical, normal function for your brand new baby with genetic concerns if you have subnormal goals. No one really knows how much a person with a genetic condition can achieve. Without any question, though, normal function will never be achieved if that is not at least the targeted goal. Most all the individuals we have worked with have far surpassed the predictions and expectations their genetic conditions offered.

In the case of brain injury, roughly the same scenario occurs. Limited opportunity produces limited results. Traditional methods of dealing with the injury are typically insufficient to create the stimulation needed to produce change. The brain is a magnificent piece of creation. Modern science is now beginning to understand what Neurodevelopmentalists have known since the 1930's. The brain is not hard wired. There is incredible plasticity and redundancy of the brain. If you stimulate, with appropriate stimulation, you can improve function. If you stimulate with appropriate frequency, intensity, and duration there will be improved function. It has been erroneously thought that structure determines function. However, the truth is that function determines structure. By inputting the proper function, you can improve function, and thus alter and improve structure. With proper stimulation, appropriately administered, you can



have healthy parts of the brain take over the function of damaged, unhealthy parts of the brain. It is a matter of knowing what stimulation is needed. Traditional methods for working with brain injury do not follow the normal developmental progression.

Bypassing levels of development will only limit success. A typical example would be putting a non-walking child into a stander prior to that child going through crawling and creeping stages of development. Crawling (on the stomach as an army crawl) and creeping (on hands and knees) are the only activities that organize the lower levels of the brain. Bypassing these steps will make a very weak foundation for higher brain level function. A child is not born with their hip sockets developed. The activity of crawling and creeping develops hip sockets, in order to properly bear weight. If those imperative steps of crawling and creeping are missed, standing in a stander will put the hips and related structure in jeopardy. Correctly working with tone (whether high or low) is another area that is often misdirected. Ranging of muscles generally will cause high tone to increase; similar to stretching a rubber band. You may get that band to stretch out further. However, when the pressure is released it snaps back even tighter than previously. By knowing how to release the lower bodies own reflex system, you can work spastic leg muscles without risking injury to them.

Autism Spectrum Disorder is a concern with wide ranging problems. It is usually determined by a check list. When a certain number of symptoms on this checklist are associated with an individual, he will receive this label. Differing symptoms within the checklist will also determine if the label also includes Aspergers, Pervasive Developmental Disorder (PDD), or high functioning Autism. Most often, when working with children with this label, you are primarily working with children who have sensory dysfunction and metabolic problems. Getting to the root of the problem and aggressively addressing the sensory distortions can result in significant improvements, and in some cases, complete recovery for the individual.

From the time of birth, brain cells die. Every second, every minute, every day, brain cells die. Although brain cells continue to die, the brain does increase in size. The increase in size and weight of a maturing child's brain is a reflection of the growth of the connections between the brain cells. The brain grows those connections through stimulation, specific stimulation. There is a paramount difference between specific stimulation and random stimulation. Much of what is done is random stimulation. This will not produce change quickly or efficiently. It produces change almost by accident. A kindergarten classroom is usually covered with loads of stimulation. Colors splash across bulletin boards and posters. Items hang from the ceiling, and the walls are full. Unfortunately, the stimulation does not produce learning as it is too scattered and random. A room which offers little stimulation actually is far more successful in endeavors for learning.

Stimulation needs to be given with proper frequency, intensity, and duration. Frequency means having enough opportunity and repetition in order for the stimulation to produce a change in the brain and become learned information. Often, we are testing for output without ever properly putting in the information. Intensity refers to the strength of the input of the stimulation. Is the stimulation at a level where the individual is actively engaged with it, or have they tuned out because of lack of intensity? You can drag an individual through an activity, but without a high level of involvement and interaction, change or learning will not occur. Duration has dual meaning. It refers to the time the stimulation is being given. Usually the shorter the duration the higher the intensity. Five or ten minutes of mathematics will have a far greater impact than dragging a child through an hour of math. Duration also refers to staying with the stimulation for however long it takes to produce change. Specific stimulation will produce change. It may take time, though. Many times the stimulation is creating, developing, and building new pathways to the brain. Usually that work produces internal changes that are not always seen. Just because immediate improvements are not evident does not mean it is time to stop offering the stimulation. Again, specific stimulation does produce change, but one must stay in for the duration needed to see the outward

changes, which brings us back to the Neurodevelopmental (ND) Approach. By knowing what is specific, through the ND Approach of looking at things, you can have significant change.

The ND Approach uses a developmental profile to look at two primary areas. The first area addresses sensory input. In the area of sensory input, auditory, visual, and tactile function is identified. The second primary area addresses motor output. In the area of motor output, gross motor, fine motor, and language function is identified. You cannot have good output without good, clean input. It is important to look at the whole individual. If the tactility is not developed, you can have problems in all the other areas. If an individual cannot feel their feet, they will not stand unaided, no matter how many hours are spent in a stander. If an individual cannot feel their hands, it is hard for them to write. If an individual does not use their central detail vision properly they have a hard time formulating language, coloring within lines, and doing anything that requires detailed vision. They also can have many problems that develop through having an enhanced peripheral vision. An individual who does not process sequential information auditorily will have many problems. They will be limited in their ability to follow directions, stay on task, and keep up with normal conversational language. They will have problems with distractibility and conceptual thought processes. Language problems encompass looking at the tactility of the mouth, oral motor control, control and utilization of the lips, vital capacity, resonance, phonation, sinus passage development, auditory sequential and tonal processing, auditory processing rate, health, and the condition of the ears (ear canal, inner ear, middle ear, eardrum). All pieces need to be evaluated in order to effectively design a treatment program.

Most families desire to take primary responsibility for their children's welfare. Sadly, too often the family feels the least equipped to take on that role. They are overwhelmed by the needs of their child, the newness or complexity of the diagnosis, the medical community, and/or the educational community. The ND Approach gives the power back to the family, the true experts of their children. The ND Approach was created to equip the parents with the knowledge, expertise, and exact "how to" for working with their children. Once equipped, the family has the ability to make wise choices for their child. Families will have the on-going support of the Neurodevelopmentalist, as well as a network of parent's internationally who are actively guiding their children in the pursuit of reaching their maximum potential.

For more information regarding the Neurodevelopmental Approach to Child Development, please contact:

**Hope and a Future, Inc.**

Linda Kane, Certified Neurodevelopmentalist

# Make Learning Easier With a Strong Foundation

More and more parents are wondering why their children are struggling...

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Why is reading, spelling or math so difficult for my child? Why do they seem to know something one day and disorganized? Why does it him? I wonder if my child Dyslexia, ADD, ADHD, Low or something else? Does my Autism or Asperger's Syndrome?



not the next? Why are they so seem to take so long to teach has something called Auditory Processing Disorder, child have something like Why is she struggling so much

with reading comprehension? Something is just not right! Why is my bright child struggling to learn? If you have asked some of these questions, you are not alone...

These are all signs of a weak foundation.

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**Brain Sprints** ( [www.BrainSprints.com](http://www.BrainSprints.com) ) helps children who are struggling to learn as well as help in the prevention of learning problems. Learning difficulties do not have to last a lifetime or even exist at all. They are simply symptoms of a root cause.

## Why is my child struggling



The most important part of any structure is the foundation and that includes the brain. First, imagine a building that has cracks in the walls, door frames are pulling away, and the windows and doors do not close properly... all of these "problems" are symptoms of an underlying root cause, a weak foundation. When you fix the foundation, the "problems" are correctable. The same applies to a person. Struggling to learn is an indicator of a "foundation problem." The "problems" your child is experiencing are symptoms of an underlying root cause. When troubles appear, don't look to the symptoms, but to the source: repair the foundation of the brain.

## Why would my child have a "weak foundation"



A child may have a "weak foundation" when they are missing some developmental steps that are necessary for their brains to be organized, which is the very foundation of learning. We'll discuss a few here. When babies are born, they have a built-in, precise program that enables them to complete their developmental steps. If given the opportunity and placed on the floor on their tummies, babies will move through these steps. Unfortunately because of our societal practices of keeping babies upright in carriers, walkers, swings, etc. many are not given the opportunity to work through their developmental steps. In turn, this has affected every aspect of their life. We have progressed in the wrong direction wanting to keep our babies in various

contraptions which are detrimental and not developmental. As a result, any special programs, trying to teach with new learning styles or changing curriculums each year will not help a child until their "foundation" is fixed. There are exceptions, of course, that can naturally keep a child off the floor like surgeries or reflux problems, but when possible a baby should be on the floor in a clean, safe environment.

Influencing the "handedness" of a child is another huge aspect of learning. With children going to preschools and daycares earlier and earlier they are many times being influenced to use the wrong hand. Hand dominance is a huge factor in neurological efficiency.

We've moved from an auditory to a visual society in this nation; causing many to experience, "Low Auditory Processing". When a person increases their auditory processing, learning becomes easier. Our preoccupation in this nation with "screens" like video games, computers, TVs, iPhones, etc. can cause a child to be labeled ADD or ADHD for the reason that attending is an auditory skill.

Another societal change that has greatly affected the brains of our children is that we have become a very sedentary nation. Instead of children being outside playing ball, jumping rope, etc. they are sitting in front of a TV and playing video games – need we go on! Exercise is for the brain! Recess and P.E. classes have become a thing of the past, just like this nation's high math and science scores. Brain Sprints wants to help get this nation and your kiddos back on their feet again!

**The GOOD NEWS is that this is all fixable due to the neuroplasticity of the brain!!**



## What is neuroplasticity

Neuroplasticity is just a big word that means your child's brain is not hard-wired and is changeable... the developmental steps can be completed at any age! So whether a person is in those pivotal years from zero to six-years-old or any age, developmental steps can be completed! The foundation of the brain can become strong and in turn struggles with learning can disappear!

Armed with this new information, please check any areas listed below (which is not an exhaustive list by any means) where you see your child struggling and come talk to us about the "foundation repairs" needed to remedy your child's current symptoms to help put them back on the road to make learning easier!

Difficulty in reading or math

Difficulty with spelling

Overly sensitive to sound

Clumsy-poor sense of balance

Picky eater

Difficulty expressing themselves

Difficulty following directions

Socially immature

Difficulty grasping math concepts

Distracted and/or disorganized

Very emotional

Unable to retain information

Hyperactive or Hypoactive

High or low pain tolerance

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## Remember!

- **Learning difficulties and disabilities do not have to last a lifetime!!**
- **ASK YOUR QUESTIONS! We have the answers you are looking for today!**



# Brain Training

By Ruth Young B.A., ND

Have you ever had this experience? You recognized someone but cannot remember the name? Here's why: The image of a face is stored on one side of the brain and the name is stored on the other. You have to have a good bridge between the two sides to go across and retrieve the name quickly. This bridge is called the corpus callosum.

Dr. Leaf, a neuro-metacognitive learning specialist from South Africa, wrote *Who Switched off My Brain?* In her book she explains that the corpus callosum is the thinking part of our brain. This bridge between the two hemispheres pulls in information from each side to consider both perspectives. Your child answers all your questions on the bridge!



As you look at this picture, your brain is going back and forth to see a smiley face and then to notice that it is a puzzle. One side of your brain processes "detail to big picture" and the other side processes "big picture to detail." They both are mirror images of each other and work together to offer different perspectives. Here is another example: One side stores a detail, the fact of  $2 + 2 = 4$  while the other side understands the big picture that four is two groups of two.

It is important that the bridge between the two hemispheres is built strong from the foundation up with brain-organizing activities. Your child may be bright and know everything you ever taught him. However, if the bridge construction is sketchy, then he may have difficulty accessing what he knows, finding words to express his ideas and following through on what you ask him to do. Have you ever asked your child to go clean his room and an hour later walk by the room and see a bigger mess than before? It may not be an obedience issue; it could be the result of expecting organized behavior from a disorganized brain. The brain controls everything we do! The good news is that you and your family and even your school can do a brain training program. Then education will be easier for your children and life will be more manageable for you. When the brain works better, learning is faster and life is easier!

A brain training program includes stimulation to five specific levels of bridge construction for the corpus callosum, and you have probably heard of some of them:

- **Sensory Integration**: Your senses like seeing, hearing and touching are learning pathways. We have to be sure eyes and ears are working well and that other senses like smelling, tasting, and feeling pain are appropriate, too. For example, deep pressure to arms and legs sends signals up to the brain and back so a child can experience better brain/body connections for holding a pencil correctly, resolving bedwetting and becoming more coordinated for sports, among other things. This foundational part of the bridge must be organized and integrated for the rest of the structure to be built well.
- **Medulla**: Picture a golf tee in your mind. Now, imagine the tee as a spinal cord and the top of a tee as the medulla. This special part is responsible for autonomic functions like heartbeat, blood pressure, breathing and focus. Specific physical exercises can stimulate the Medulla area to integrate primary reflexes, mature the central nervous system and reduce stress.
- **Pons**: The lower level of your brain is responsible for perception of pain, heat, cold, hunger, threatening sounds, fight/flight responses, self-preservation, survival, life, empathy, bonding, attachment, interpretation of social cues, cause and effect and moral choices. Trauma at any age (including abuse, adoption, a difficult birth, surgery or high fevers) can compromise the Pons and produce anxiety if there is a new person in the room, a new food on the plate, going to the

park or sleeping alone in a bed. Perception and trust can be a big problem and manipulative behaviors can be an attempt to gain control when individuals feel they have little influence on the world around them. An army crawl can build the Pons for better behavior and to improve side-to-side eye tracking.

- **Midbrain:** The middle of your bridge construction impacts body chemistry, the endocrine system, immune system, allergies, controlling anger, sleeping well, waking up in the morning and motivation. The midbrain influences impulse control, memory for learning, emotional responses and eye/hand coordination for sports.
- **Cortex:** The upper level of a corpus callosum is organized and constructed with cross patterns like walking, jogging, marching and skipping. The cortex is responsible for formal reasoning, language, inner speech (thinking before acting), test taking and the ability to respond quickly and intelligently to new situations.

Everyone in the family, children, teens and adults, can benefit from a tune-up! Your time commitment for brain training can range from an hour a day to a full school day program four to five days a week. Each program is designed for four months and can be implemented for an entire year or more for amazing results.

Here are a few testimonies:

- Jonathan was seventeen, a senior in high school who bombed the ACT test with a score of 14. He wanted his brain to work better so he could raise his scores to get into college. Jonathan was faithful to work on a brain training program five days a week. Three months later he took the ACT again and scored 20!
- Mrs. S., age 55 was a Montessori teacher and did not read much because she didn't like to. She faithfully worked for four months on brain training. It was amazing to see her reading comprehension jump three and a half years without any type of reading program during that time! When her brain became more organized, she could easily access what she already knew.
- Mercy was eleven and in the fifth grade when she began a brain training program. In four months she advanced two years in maturity (auditory processing), jumped an entire year in reading comprehension and improved a whole year in understanding math concepts! She did math and reading every day for school but nothing was new in these subjects or out of the ordinary. It was the brain training program that helped organize her brain!

Make your plans to add brain training to your daily routine and organize your brain for a lifetime of success in learning at school and on the job. Choose a brain training program that strategically stimulates five levels of brain development for children and adults. Online instructions for every brain training activity are available. Many have video introductions and demonstrations. A shopping list of supplies is included with each program.

Building success for school, success as a leader, success in a career or success in managing a home can happen if you make your plans now to work toward a goal for gaining full potential. A brain training program of specific physical and mental activities for a year or more can result in a lifetime of academic benefit and learning pleasure.

**Author:**

Ruth Young, Certified Neurodevelopmentalist  
Little Giant Steps

## To Label or Not to Label? That is the Question! By: Dr. Jan Bedell

Parents say, “I know my child is struggling but the why of it all, escapes me.” It is indeed a confusing world for parents of children that are having academic, behavioral and social challenges.

Your research on the Internet may have left you wondering if your child should have a label like: Dyslexic, ADD, ADHD, CAPD (Central Auditory Processing Disorder), PDD (Pervasive Developmental Delay), SPD (Sensory Processing Disorder), ASD (Autism Spectrum Disorder) or some other of the myriad of learning or sensory labels popping up on the horizon.

Let me say from the outset that there is definite place for labels but it is also prudent to explore why we might be cautious about pursuing a label. Instances when it is definitely advisable to label will be a later part of this discussion.

Legitimate questions for consideration when considering testing for an official diagnosis:

- Will this be on a permanent record somewhere?
- What will we do if they recommend medication?
- What if some expensive program is suggested that is beyond our resources?
- Will this provide the help I need to make a difference for my child?
- What if they say that we shouldn't be homeschooling?

First let's establish this understanding from a NeuroDevelopmental perspective. The brain controls everything we do and in the case of learning struggles, the lack of brain development (neurodevelopment) is responsible for what we are not able to do or what we do at a lesser degree of adeptness. Does this lack of development mean the intelligence is lower, in no way! It simply means that there are gaps as in a wiring system with exposed wires.

The vast majority of labels are truly “symptomatic”. Those labels with a genetic basis like a chromosome abnormality or some insult to the central nervous system i.e. in-utero drug and alcohol exposure or oxygen deprivation are the exception to this labeling by a checklist. Typically a certain number of checkmarks on a list of characteristics or behaviors (symptoms) results in a label. The learning and behavior labels listed above have no blood test or brain scan. They are simply a list of symptoms and if there are enough checks on the list, the individual receives one or more labels.

Reasons you might **not** want to pursue a label:

### ***1. Labels could put you on the wrong path for a remedy.***

Timothy was labeled dyslexic because he was having trouble reading and had enough checks on the checklist to “qualify”. He was struggling in 2<sup>nd</sup> grade despite the typical dyslexia protocol and pull out classes in his local public school. After a NeuroDevelopmental (ND) evaluation, it was discovered that he was using the wrong hand for his dominant hand. Going against the

genetic coding by using the wrong hand for writing was one of the main sources of Timothy's struggles, not dyslexia. After 1 ½ years of home school with the ND approach, Timothy reentered school as a successful, left-handed 4<sup>th</sup> grader.

## **2. Labels can limit potential.**

Samuel T. Orton, who coined the term "dyslexia", stated that there were a number of characteristics commonly found in this population: poor balance, eyes not working together or poor tracking, underdeveloped central detail vision, cross dominance in eye or ear. Inadequate coordination, letter reversals, and phonemic awareness challenges also made the list.

John had this label and judged himself wrongly ("I'm not a very smart little boy.") because he struggled to do what the other children did in class. John's mom was desperate to find help for her son even after the two years of traditional dyslexia phonetic approach had brought him to grade level reading. She knew he was not reaching his potential. She said, "He just works way too hard and still has many symptoms listed in the dyslexia checklist."

After sixteen months of the ND intervention administered by Mom at home, John's reading comprehension went to 10<sup>th</sup> grade even though he was 6<sup>th</sup> grade age. Turns out John was brilliant (130 IQ) and this approach released more of his full potential by addressing all the root causes originally found by Orton.

## **3. Labels can be devastating!**

This distressing experience happened to David's parents when he was diagnosed "probable schizophrenic" at age 8. The prognosis was grim - David would never drive, have a fulltime job, live on his own or get married. At age 12, the new label was PDD/NOS (Pervasive Developmental Disorder/Not Otherwise Specified) meaning that there was a lot going wrong in David's central nervous system. The report offered a few vague recommendations of coping and compensating but the new label didn't help make the future any brighter. After picking themselves up off the floor from the blows of these labels, David's parents went to work finding help for their son instead of just accepting the pronounced outcome. At 13 he started on a ND program that addressed the root cause of the inefficiencies in the central nervous system. The work was arduous and took several years but the result is that David started driving at 18, has been working fulltime for 12 years, he has lived on his own for 2 ½ years, at 32 he got a new job at close to \$40 an hour and is now engaged to be married.

## **4. Labels often come with medication recommendations**

Parents are often met with a very hard decision. They want the best situation for their child's success but are concerned about the side effect that all medication by definition possess. For Aaron's parents, this was a significant concern. Ritalin had been his routine for 4 years making it possible for him to function in the classroom. Puberty changed everything as he had hallucinations with an increased dose. This caused an urgency for a different solution. After nine months on a ND program, he was off all medication, doing well in school and now is a co-



owner of a successful business. This change for Aaron came from a multi-pronged approach that includes help for the metabolic and/or chemical issues and through specific stimulation to the brain.

### **My child already has a label, now what?**

Many parents come to Little Giant Steps (soon to be BrainSprints.com) with a thick report and a confused and sometimes heartbroken look on their face. Their child was tested and received a label. What they thought was going to be an answer turned into a packet of mostly indiscernible language, some vague coping and compensating recommendations and a list of limitations the child will carry for life. NeuroDevelopmentalist recommend: Don't accept limitations! Press in to find out how the outcome can be different. The ND approach can help unlock your child's fullest God-given potential.

My encouragement is to take the testing information as a baseline. Recognize that the experience of the professional that gave this label is: individuals with these particular symptoms tend to always have these symptoms throughout life because nothing different was done. The experience achieved through ND is that individuals with these labels receive stimulation to the brain in specific areas, administered typically by the parent and a totally different outcome like that of Timothy, David, Aaron and thousands of others is achieved.

Every "glitch" in capability is caused by something in the brain and in turn, causes a negative ripple effect in abilities. These glitches shows up as functional, behavioral and/or academic challenges. The good news is that God has created brain plasticity or the brain's ability to change and grow new pathways that results in a ripple of improved function.

My encouragement to you, don't let devastation and limitation set in if you or your child already has a label. The outcome of a person's future is dependent on the opportunities presented to them. When there is stimulation presented to the brain, it changes and function improves! For free resources about how this stimulation takes place through *The NeuroDevelopmental Approach to Life*, visit [www.braincoachtips.com](http://www.braincoachtips.com) for podcasts or Brain Coach Tips (YouTube channel).

### **Reasons a label *should* be pursued:**

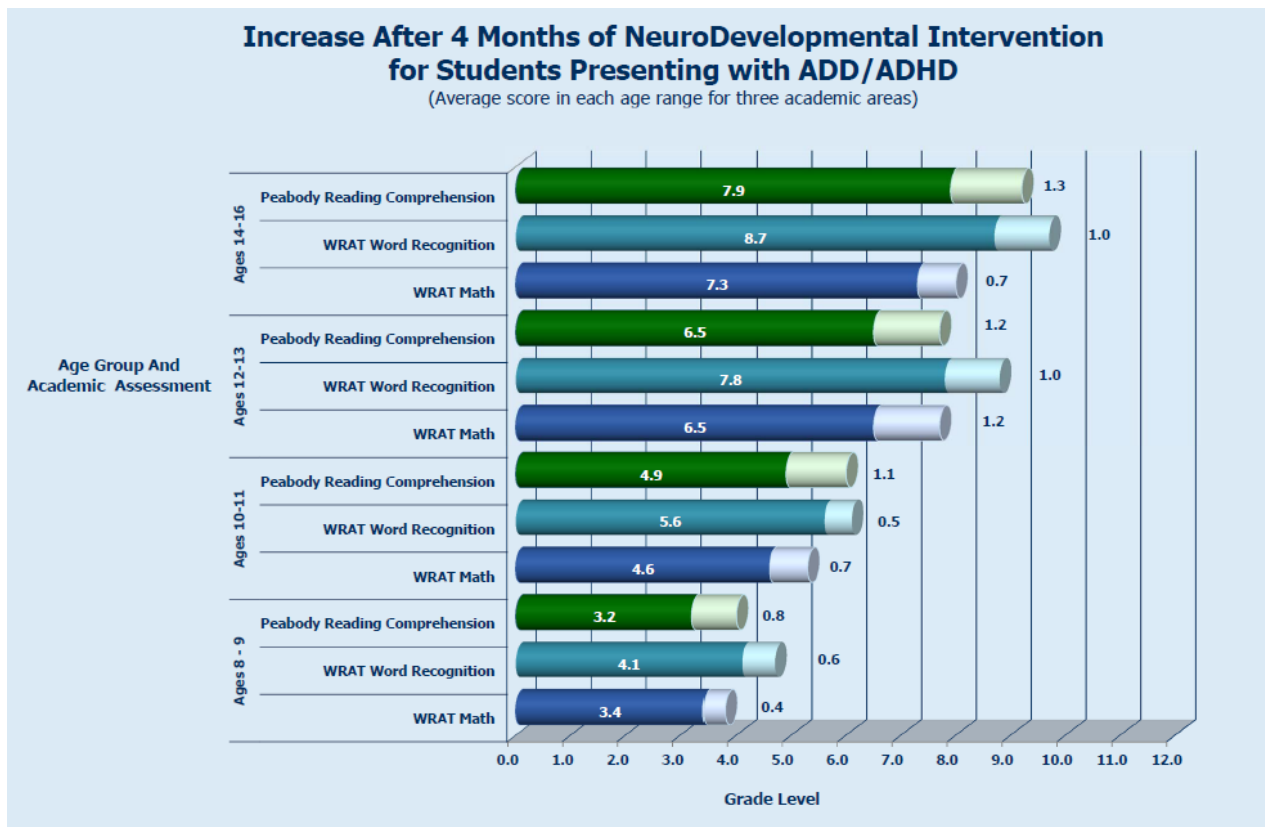
- When a label will facilitate insurance for expensive therapies such as speech, ABA, occupational and physical therapy
- When there is a disability (low IQ or physical disability) that will require outside support for life
- When modifications are needed in order to attend college

We firmly believe that parents are the experts on their children. Because our Little Giant Steps' families have been equipped with answers and tools, children who were uncomfortable in their clothes can now tolerate clothing textures, even those pesky seams in socks! Children who skipped lines or words when reading, now can read fluently. Children who couldn't stay on task or follow directions, now go through life without causing intense family conflicts. Children that

couldn't remember things from day-to-day are experiencing quick retrieval. It takes addressing the root cause! Changing the brain is like building a better road between Point A and Point B. When this happens in the brain, the functional changes are like cruising down the highway instead of bumping down a dusty country road.

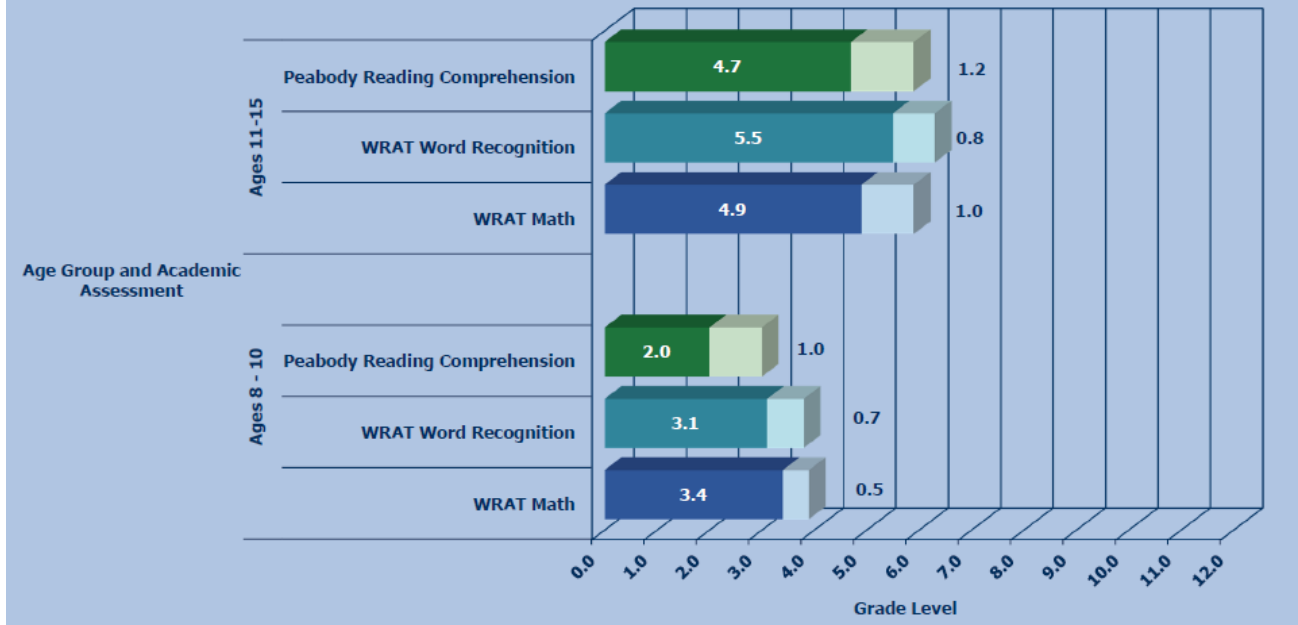
Most of our educational system is set up to test, label and put together a plan to remediate or lessen the academic load of those students who exhibit learning challenges. The result, students who get further behind in their academics with each passing year, often graduating with a non-functional education. What also exists are intelligent individuals who are able to cope and compensate to get through school but have a life-long struggle and rarely reach their full potential, because "life" doesn't come with concessions, only school settings do.

The result of ND intervention is typically accelerated academics instead of falling further behind with each passing year. See positive results in just four months in graphs below.



## Increase After 4 Months of NeuroDevelopmental Intervention for Students Presenting with Dyslexia

(Average score in each age range for three academic areas)



To be sure, the complex question, “To Label or Not to Label” remains. You must consider all the ramifications for your personal situation. My prayer is that, like my discovery years ago where help for my daughter turned into accelerated function for thousands, you will find answers outside of the traditional labels. For more information call 972-758-1260 to set up a free consultation or visit [www.BrainSprints.com](http://www.BrainSprints.com).

# Services

## DFW Center

Now available in the DFW area. Same excellent results, new coaching options. Trained Brain Coaches work with your child at our McKinney location on an NeuroDevelopmental Action Plan.

## In-Home Option

Partnering with parents to help eliminate learning challenges since 1995.

**Parents as Coaches** - You work one-on-one with your child from anywhere in the world on a NeuroDevelopmental Action Plan.

Let's go beyond tutoring to resolve academic and functional challenges at the source!



Many families come to us, frequently feeling hopeless and exhausted, after spending years searching for answers. When solutions like Brain Sprints come along, it's often difficult to know exactly where to start. Our goal is to help you find the best solution for your family's situation by providing options for your consideration.

To better understand your needs, please complete this questionnaire. You will then receive a link to schedule a free consultation. This process helps guide your decision about the path to better functional ability through The Brain Sprints' NeuroDevelopmental Approach to Life.

Free Consultation

## Free Auditory Processing Test Kit

Request your free test kit from the home page of our website. You will be equipped to determine the auditory short-term memory level of each individual in your family. Also included is how to improve this important auditory processing skill.

