

I See the World as Loud

By Lisa Harp, Founder of Harp Learning Institute

I call them our throw-away kids. They are bright, usually personable and talented children and teens, and normal by all appearances. They aren't flapping their arms or shouting in public. They don't have wheelchairs or prostheses for their legs. Their scars are not visible, but they do run deep within their minds, and more importantly, within their psyches. These scars, unfortunately define not only what they can and can't do, they define who they are. Sadly, if you were to ask these children, most would say they would prefer a handicap that is visible over the invisible one that plagues them every hour, every minute, every second of the day.

So, who are these throw-away kids that I refer to, those who God forbid would prefer a horrible, visible handicap than the unseen one that they bear? They are cursed with a disorder called dyslexia, and they are being shoved aside at massive rates, left behind in classrooms, ignored because they are so bright, pushed to succeed academically not only by teachers, but parents and peers as well. They are often bullied, being called names such as dumb or stupid, when in fact, most of them are brilliant. These dyslexic students are expected to perform in ways that are not only difficult but often physically painful for them. Parents, who wouldn't ask their children to walk on a broken leg, regularly force their children to read, even though the pain may be just as intense.

Autism has taken the front seat in education, and since dyslexic students usually score high on intelligence tests, these students are indeed tossed into the sea of education, left to sink or swim. Too many sink. Often, they present themselves early on at the top of classes, shining above their peers. But by the time that they reach third or fourth grade, where the print becomes smaller and multi-syllabic words are introduced, they fall behind. Each year compounds until they are lost, failing, and losing self-esteem. Teachers are stymied. Parents are frustrated. "Try harder," these students are told on a regular basis, when indeed they are working at capacity.

Dyslexic students are often ignored, misunderstood, placed on potent ADD/ADHD medications, and ultimately fill almost half of our prisons when they become adults. Dr. Kathryn Currier Moody reports, "While the prevalence of dyslexia in the general population is about 20%, the prevalence of dyslexia in prisoners is more than twice that, or 48%, according to a scientific study my colleagues and I conducted at the University of Texas Medical Branch in conjunction with the Texas Department of Criminal Justice." (published 2000)

Dr. Currier Moody was the director of the dyslexia program and a member of the Department of Neurology at the University of Texas Medical Branch when the study was conducted. At the cost of approximately \$35,000 per year to house an inmate, I agree with Dr. Currier Moody. We need to rehabilitate, not incarcerate. That money could better be spent helping dyslexic students early on learn to navigate school and the world in a much better manner than throwing them out on their own once they reach adulthood, where life can be a turbulent ocean without a boat or

paddle. In essence, these people do not have the tools they need to survive, starting with basic reading, spelling, and writing skills.

Learning to read and spell is difficult for a dyslexic child. Navigating life can be harder. Sadly, most of our dyslexic students in the United States fall through the cracks early on, that high IQ usually the reason that they are not getting the help they need. Parents expect more, and so do teachers, because their handicap is invisible and they are obviously intelligent. To top it off, there are only so many resources available...so many teachers...so many aides...so many hours in a day. Way too many autistic students gobble up the special education funds. I don't deny autistic students what they need, I simply beg for help for our dyslexic students.

One in five has dyslexia, so that means twenty percent of our students are not receiving the help they need. Sure, there are some schools and programs that help the dyslexic student, but overall most dyslexic students are left to wander alone in the vast desert that we call the education system. We have become experts at putting band aids on their disorders and never really delving into the why or the how to fix them.

Dyslexia is not just a disorder where students transpose letters and words and struggle to read and spell. It is indeed a neurological disorder. In essence, these students' brains are not wired correctly. Where once it was believed that dyslexia was just a visual problem, new research indicates that there is an auditory component as well. How could there not be? By its very definition, dyslexia is a disorder that involves the inability to understand or learn phonemes, the smallest meaningful units of sound in our language. In addition, the cognitive deficit responsible for the disorder is related to the language system. These students struggle with decoding phonemes into words that have meaning and then in turn, hold those sounds in short-term memory long enough so that they can blend a word together and remember its meaning. Phonemes are not just seen, they are heard as well.

Researchers at the Massachusetts Institute of Technology have found that people with dyslexia have more trouble recognizing voices than those without dyslexia. If a student has a difficult time recognizing voices, then of course, recognizing small units of sound (phonemes) will be difficult as well.

Dr. Sally Shaywitz, a director of the Center for Dyslexia and Creativity at Yale University, commented that the study demonstrates the centrality of spoken language in dyslexia – that it's not a problem in meaning, but in understanding the sounds of speech.

“In dyslexia, the seemingly invariant relation between intelligence and reading breaks down,” she adds. This breakdown reflects a deficiency in the processing of distinctive linguistic units, the phonemes that are so crucial to reading efficiently.

With over thirty years of working with students who have dyslexia, I have found that this break down is what leads to transposed letters and words, the inability to read fluently, weak phonemic awareness, jumbling of sounds heard, poor spelling ability, and general weak language skills that present themselves as the disorder coined as dyslexia.

According to the International Dyslexia Association, “Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.”

This is what intrigues me. It is neurobiological – having to do with the nervous system. The nervous system is a complex collection of nerves and specialized cells known as neurons that transmit signals between different parts of the body. It is essentially the body’s electrical wiring.

Structurally, the nervous system has two components: the central nervous system and the peripheral nervous system. According to the National Institutes of Health, the central nervous system is made up of the brain, spinal cord and nerves. The peripheral nervous system consists of sensory neurons, ganglia (clusters of neurons) and nerves that connect to one another and to the central nervous system. (Kim Zimmerman)

All too often educators fail to consider that the brain is directly involved in the learning process and that the body and the brain are connected by this nervous system. We know more about the brain now than we ever have, but I still see classrooms that are modeled in the exact same way as when I went to school in the 1960’s. The teacher stands before the classroom and presents a lecture, sometimes modeling a skill. Students sit at desks and write on paper. The papers are turned in and graded. Because of this, the dyslexic student is at an extreme disadvantage. His brain is not taking in the information as it should, and even worse, he can’t manipulate that information and spit it out to pass a test or complete homework independently.

It is often thought that by repetition alone the dyslexic student will somehow have an “aha” moment and learn to read. Sadly, this rarely happens. With repetition, the dyslexic student merely learns to memorize enough to get by, but when new information is presented, the student is still at the same place as before – not really understanding what is expected of her.

Of course, my schooling took place before MRI’s and PET scans were readily available, before we knew the exact sections of the brain that perform certain chores. With this new technology, we now have the ability to see where brain activity is, and even better, how to build new neural pathways in the brain. It is imperative that we deal with the brain when helping dyslexic students. The brain has plasticity at any age, and because of this, the brain can ultimately be “re-wired” for learning and life success. But, this is only one area for rehabilitating these bright students.

As the founder of Harp Learning Institute, I early on realized that academics were important, but I also listened to dyslexic students, starting with my own son. I asked him how he viewed the world. His answer? “It is always moving, like when we go to the movies.” Why don’t we stop and ask more dyslexic students how they view the world? We might then get better answers as to what is going on in their brains. Can you imagine how difficult reading would be if your world is in constant motion?

Here is the caveat. Wouldn't it be easy if all dyslexic students viewed the world like a movie? We could easily figure out a solution, and bam, there you have it. Fixed students right and left. I didn't stop asking questions with my son, though. I was curious. Believe me, these kids are astute, bright, and want to please. To top it off, they just "know" something isn't right in their world, that they are somehow different. They will often say they are dumb or stupid. Their parents say they are lazy. Their teachers say they aren't working hard enough.

I continued to ask, student after student how they viewed the world, their books, their assignments. Some students told me that they saw the world as tipped or upside down. Some said it was fuzzy or spinning. Halos were around words for some dyslexic students. It was misty or dark for others. One student said he saw his book, his school, his world as loud. (Yes, he *saw* the world as loud.) The list goes on.

Dyslexic students learn to read like they learn to survive in a world that is moving or upside down – where sounds might enter their ears like airplane engines or whispers that can't be heard, where the stairs are moving, so each step must be taken extra carefully. It isn't just difficult, it can be frightening, causing the student to lash out with anger or retreat inside herself, where it seems safer.

I have come to believe, from the thousands of students I have tested and worked with, that we need to take a comprehensive approach to helping the dyslexic student, and like I mentioned before, the first thing to consider is the brain.

Babies are not wired for every skill at birth, therefore, we can go back, even at older ages, and re-wire the student's brain for a particular skill. Just like when a baby crawls and looks up and to the left, he is "plugging" in visual memory, we can recreate the wiring of that skill by simulating the baby's experience.

But I found that wasn't enough. Like the early pioneers who tried to fix dyslexia, I discovered that treating visual skills was imperative. It is paramount that the student needs to "see" correctly in his brain. We take in light with our eyes, but we actually perform the process of "seeing" in our brains. Students at the Harp Learning Institute centers spend months refining such skills as tracking across a page, visual memory, visual closure, visual discrimination, eye/hand coordination, visual figure-ground, perceptual skills, directionality, visual motor integration, and perceptual skills.

Auditory skills are equally important. Similarly, we take in sounds with our ears and perform the act of "hearing" in our brains. The brain can be taught to hear sounds correctly, to filter out background noises, to focus and attend to a teacher's voice. Some students hear a computer whirring in the background, fluorescent lights humming, their neighbor's pencil scraping across the paper. Imagine trying to focus in a world like this. Too often, these are symptoms of ADD/ADHD, and the student is medicated, when in fact, it isn't ADD/ADHD but the inability to process sounds correctly.

Just like the ever important visual skills, we set to work early on with auditory skills such as auditory memory, auditory discrimination, auditory closure, auditory synthesis, auditory figure ground, and sequential auditory memory.

From the thousands of tests I have performed over the years, I have found that dyslexic students are generally weak in visual and auditory memory skills. This in turn, leads to a weak working memory is vitally important for reading efficiently and successfully. Visual and auditory memory are stepping stones to the more important working memory, but I have found that it is difficult for a student to excel at working memory, dyslexic or not, without strong visual and auditory skills.

Dyslexic students are an anomaly in many ways. They can come home from a movie and tell you in detail the entire plot, colors of costumes, and the exact words of actors, but when it comes to remembering the silent e in words, they are lost. I often refer to their parents as suicidal, because one day a dyslexic student seems to know “everything” and the next day, she knows “nothing”. Parents get that glimmer of hope, and then it is squashed. Too many tears ensue, from both parent and child. It is a rickety ladder that may fall at any moment, and believe me, that fall is hard.

That is why phonemic awareness is so important for the dyslexic student. Most programs available for dyslexic students deal strictly with phonemes. Some work with visual and auditory skills as well, but not nearly enough. I rarely see any that work with the brain or gross motor skills. But phonemes alone are not enough. Phonemes need to be added to the above mentioned “cock-tail” for the dyslexic student to thrive.

The student needs to be taken back and taught these little sound units in a multi-disciplinary method. Yes, Orton-Gillingham is fantastic, but stand-alone it just isn’t enough. Students with dyslexia need to move to learn. They need color and pictures. They need a reason for what they are doing, not just being told to memorize spelling rules or move tiles. They need the sensory activities (visual and auditory) as well as the re-wiring of the brain.

Dyslexic students don’t read like the rest of us. They read by guessing and memorizing. Sight words are torture for these kids because they can’t place an actual image with the word. A dyslexic student might easily read the word “dinosaur”, which in itself is a difficult, multi-syllable word, but ask him to read the word “for”, and it may come out “or”, “fun”, “fur”, or a multitude of other combinations. At some point the dyslexic student taps out and can no longer memorize every word. That is usually when she just gives up, maybe copying off of a neighbor’s homework, getting “sick” on test days, or a host of other coping mechanisms that help her through the exceedingly long school day and the grueling homework session afterward.

According to a recent study at Cambridge University, the human mind doesn’t need to read every letter by itself in order read, only that the first and last letter are in the correct place. The brain will fill in the missing pieces and use context clues so that reading makes sense. This is especially difficult for a dyslexic student, who may transpose the first or last letters of a word, something I have seen over and over again. In addition, they are often unable to add the correct letters or make sense of the letters in the middle of multi-syllable words. The word “delivery” is

read as “discovery”, or any other combination of legitimate letters that would start with “d”, end in “y” and fit in the overall shape of the word. It could even end up as “bakery”, which isn’t even close to the original word and will change the meaning of the reading passage.

In addition, a dyslexic student has a difficult time “chunking” groups of letters together into sensible phonemic units. This leaves him guessing and flogging along, hating to read and spell. There enters the emotional brain.

People do not learn when they are in fight-or-flight. They are in survival mode. Think about it. Have you ever lost a toddler and the security guard at the mall asks you what she was wearing? You can’t even remember the color of her hair, much less her outfit.

That is because we are acting out of fear in order to save our lives. Too many children and teens spend the entire day in fight-or-flight, sitting on the edge of their seats just waiting for the teacher to call on them, dreading to be chosen to read out loud, knowing they are dumb and trying to keep it from the rest of the world.

The sad truth is that they are not dumb. The educational system that has led them to this situation is the cause of their fear, and it needs to be abolished, re-created, and re-designed from the ground up to help learning disabled students, especially dyslexics, and keep them from slipping through the cracks, from being our throw-away kids who have a strong chance of ending up in prison as adults.

My true desire is to change the way we treat the dyslexic student as well as plead for some sympathy and awareness for their plight.

I have a different twist to the dyslexic student than most. I have raised one and just found out my grandson suffers the same disorder. I have made it my career to help these beautiful kids reach not only life success, but academic success. I will now share my own list of symptoms of dyslexia, and it may differ somewhat from the norm, but through these thousands of students I have worked with and tested, I have found that the dyslexic student:

- Seems to be in a “fog” a lot of the time, lost, spacey, dreamy
- Circles o’s from the bottom to the top or not in a counter-clockwise motion
- Slumps in a chair or over a desk
- Is extremely frustrated because he is intelligent and knows something is wrong
- Learns to survive by copying, manipulating, distracting, etc.
- Has a high vocabulary but struggles to read and spell
- Has difficulty with directionality – will start a paper from the middle or the wrong side
- Can talk about “deep” subjects with ease but fails to understand telling time
- Is intuitive – can “feel” when something is about to happen or when someone is sick or in a bad mood
- Tilts head to the side when reading or writing
- Turns papers when writing
- Pushes hard on a pencil when writing
- Has an incorrect pencil grip

- Needs to take a long, circuitous route to come up with a simple word or answer
- Is unorganized
- Spells words phonetically
- Often has poor visual motor integration skills, even though she might be very agile or good at sports
- Is creative and artistic, can sing or build with Legos quite well
- Skips lines when reading
- Avoids reading at all costs
- Can understand high concepts of reading material, but fluency is poor

There are numerous other symptoms for dyslexia, but these are my gold standard. It is my hope to bring awareness to the dyslexic student's situation as well as help as many dyslexic students as possible. There is no reason why one of our children should grow up scared, frightened, struggling to read, and "seeing the world as loud."