Behavioral Resources And Institute for Neuropsychological Services

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In this Issue:

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Edited by: Rochelle Manor, PhD & Michael Wolff, PsyD

"Good teaching is more a giving of right questions than a giving of right answers." quote from Josef Albers

Learning Disabilities: Warning Signs, Evaluations, & Support

Article By:
Dr. Rochelle Manor &
Dr. Mary Rozendal

Getting back to school each fall can be an exciting time – new clothes, nicely organized backpacks, boxes of crayons with nice sharp tips. The crispness in the air, the flashing red lights of the school bus, the squeals of the children on the playground all signal a new season of learning.

But, for many children, teens, and their families, going back to school brings apprehension, fear, and dread. Do these comments sound familiar?

"He has the ability, if he just tried harder, he could do it. He chooses not to do the work."
"If she would just pay attention, she would get it."
"After I give the instructions, he sits there and stares at his paper. He is not motivated."
"Maybe he needs medication. He just can't focus."
"I hate going to parent-teacher conferences feeling blamed for not making him do more homework, but it's just a meltdown night after night."

So many students are easily labeled with motivation problems, ADHD, or emotional disorders, but are we actually missing an underlying processing disorder that affects learning?

What signs might suggest a learning disability?
The symptoms of learning disabilities are a diverse set of characteristics that affect development and achievement. Some of these symptoms can be found in any child at some point or another. However, a person with learning disabilities has a cluster of these symptoms, which do not diminish as s/he grows older.

Most frequently displayed symptoms of a learning disability:
- ***Short attention span***
- ***Poor memory***

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- ***Difficulty following directions***
- ***Poor reading and/or writing ability, or poor math skills***
- ***Eye-hand coordination problems***
- ***Disorganization and other sensory difficulties***

Other characteristics that may be present:

- ***Things change from day to day***
- ***Says one thing, means another***
- ***Difficult to discipline***
- ***Does not adjust well to change***
- ***Difficulty telling time and knowing right from left***
- ***Difficulty sounding out words***
- ***Reverses letters or numbers***
- ***Difficulty understanding words***
- ***Delayed speech development***

Common behavioral characteristics of individuals with learning disabilities:

- Struggles to read cues
- Struggles with making and keeping friends
- Poor judgment; little thought about logical consequences
- Poor impulse control
- Need for immediate gratification
- Inability to set realistic goals
- Inappropriate conclusions because of poor reasoning ability
- Immature and "bossy" behavior
- Low frustration tolerance resulting in disruptive behavior

How do I know if a learning disability is really the cause of these symptoms?

The process of testing for learning disabilities varies, depending on the setting. School criteria for determining a learning disability hinges upon the eligibility for special education services. Just because a child has learning difficulties does not mean s/he will be eligible for Special Education as a student with a Specific Learning Disability. When a school is performing testing, their main focus is eligibility.

In the past, learning disabilities used to be determined by measuring the discrepancy between intellect and academic achievement. If there was a large enough span between IQ and achievement test scores, a learning disability was diagnosed. However, this model of diagnosis is currently shifting.
Locally, this shift is toward a Pattern of Strengths & Weaknesses model that helps educators gather data from multiple points (individual testing, classroom performance, grades, standardized testing scores, etc). Because the purpose of testing is to decide if the student needs assistance to do the academic work, the criteria focuses primarily on academic performance factors. This allows schools to better understand several settings or circumstances that might also affect performance. If concerns are noted, to meet educational criteria for a specific learning disability a student often must be performing below the 12th percentile in a given subject, and they must have strengths in other subjects or domains. In this way, a "pattern of strengths and weaknesses" shows that the student has a specific weakness(es) in one or a few areas, but has abilities in others.

But current guidelines also suggest that the student must be performing low enough in the "weak" subject to necessitate Special Education services (Kent ISD *Special Education Evaluation and Eligibility Manual* – August, 2009, pg. 8). For example, a student who is intellectually gifted in reading and writing but is struggling in Math may still be getting average grades.

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Institute for Teaching and Learning
2845 Wilson Ave. SW, Ste. D,
Grandville, MI 49418
616-530-2224

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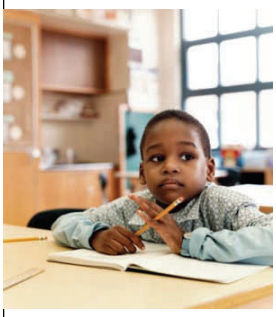

Parents see the student's struggle to learn Math, but because the student's grades are still average s/he is not able to get assistance. The school is not required to provide additional supports to bring up the Math grades to the performance levels for Reading and Writing. This also impacts students with a learning disability but also have a strong work ethic that enables them to get passing grades. This process can be quite frustrating for parents, who don't want to see their child slip to the bottom of the class before getting help.

Some schools are employing a Response to Intervention Model (RTI) in the elementary grades. This model provides supports for any student who doesn't meet specific benchmarks. In this model all students in the class are regularly measured for specific skill proficiency. If anyone fails to show mastery of the skills s/he might be offered small group intervention, additional instruction, and/or other intervention within the regular classroom setting. This often means students get help earlier than in the past, but the interventions aren't necessarily customized to the student and if a student truly has a disability and doesn't respond to the intervention, the special education evaluation process begins.

A Neuropsychological Perspective to LD:

From a neuropsychological perspective, however, we don't have to wait until a student has "failed" or is struggling significantly to understand where the "glitches" are. Different areas of the brain are involved in thinking and learning, and processing difficulties might signal an area of the brain that is not interpreting what it sees or hears, or regulating the sensory inputs. For example, there can be a variety of processing difficulties that can cause a reading disorder. Neuropsychological testing can help understand exactly where the processing breakdown occurs.

Neuropsychological testing may also be able to identify any potential problems long before the student actually shows evidence of lower grades. While RTI may help students who do not have "true" LD but need extra support to catch up, the process may delay identification of a learning disability and the necessary early intervention. As Dr. Sally Shawitz notes in her book, *Overcoming Dyslexia,* "The human brain is resilient, but there is no question that early intervention and treatment bring about more positive change at a faster pace than an intervention provided to an older child" (pg. 120).

Even children as young as 4-5 years of age may exhibit specific auditory or visual processing disorders that can hinder their learning in pre-school or kindergarten. Similarly, attention difficulties don't necessarily stem from ADD/ADHD or frontal lobe impairment. There are a multitude of concerns that can make it difficult for a student to focus on academic content, but unless we evaluate the various areas of processing, we are just guessing about what might be helpful.

Furthermore, the goals of a neuropsychological perspective are not just about formal diagnosis or Special Education. Rather, this information can arm a family with in-home strategies, accommodation options, or exercises to improve the skill. Based on the theory of neuroplasticity, we know that

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the brain can build new neural-networks and develop alternate ways of processing. The more we know about the brain's strengths, the better we can use these to develop intervention plans to shore up weaker areas. If the school does not determine a student qualifies for assistance as someone with LD that doesn't mean s/he has to continue to struggle. Parents can still provide home-based or outpatient based interventions, or educational therapy that can help build learning skills. Understanding the brain's strengths and weaknesses can be helpful for anyone, at any age.

What is my child is older? Is it too late for a high school or college student with learning disabilities?

The brain's ability to learn, adapt, and compensate never stops. The frontal lobe, the area responsible for attention and organization, matures through late adolescence or early adulthood for everyone, so there is an ongoing window of opportunity to teach critical thinking, studying, and organizing skills that are necessary for academic success. Even "old dogs" can learn new tricks. Customized interventions can help functional and academic success.

What can we do?

BRAINS and EnCourage Institute for Teaching and Learning are working together to offer a range of assessment and intervention services for students of all ages with learning challenges. Whether your child has had prior testing for learning disabilities or is just now exhibiting some signs of difficulty Drs. Manor or Wolff can assist with an evaluation or developing recommendations to help.

Mary Rozendal, Ph.D. of the EnCourage Institute offers educational therapy and instructional strategies to match the neuropsychological profile. In this way, the strengths can be utilized most efficiently and weaknesses can be improved.

Whether a student meets educational criteria for Special Education services at school or not, we will collaborate with parents and teachers to help For more information, visit the web sites at brainspotential.com encourageinstitute.com .

The Connection Between Memory and Learning

By Lynn Carahaly, M.A., CCC-SLP from The Alcott Center for Cognitive Enhancement

Children who receive poor grades in reading and mathematics, have problems finishing schoolwork, and have a hard time paying attention are often labeled "unmotivated" by parents and teachers. The challenge may not actually be a lack of intelligence or even a lack of motivation for many struggling students, but simply a poor memory, in particular a poor *working memory*.

Working Memory is a critical cognitive function that refers to the ability of the brain to hold and manipulate verbal and visual information in the mind for brief periods of time. An example of working memory is remembering a telephone number or remembering someone's name 30 seconds after they have introduced themselves. Working memory precedes short term memory. It works like a mental notepad to help us store important information to carry out tasks.

Children with working memory deficits are easily distracted, struggle to remember instructions, and have diffi-

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culty starting, prioritizing and finishing tasks. Studies have shown that they also have difficulty in school, particularly with reading comprehension and math, due to their inability to hold in mind sufficient information to allow them to complete the task at hand.

Having a limited working memory capacity often results in losing crucial information when trying to follow instructions and details of what to do next. If information is not stored properly, or at all, a child most certainly cannot retrieve this information for future tasks or build upon prior information for learning. Children with working memory deficits demonstrate difficulty remembering information from one lesson to the next. Children with working memory deficits often:

- Get poor grades in reading and math
- Are easily distracted
- Have problems finishing classroom assignments
- Have trouble following directions from teachers
- Are reluctant to answer questions in class.

Studies conducted at York University concluded that working memory skills at 4 years old are excellent predictors of children's achievements three years later on national assessments in reading, writing and mathematics. Children with good working memory skills perform better in school. In contrast, children who did not achieve at expected levels in national assessments in literacy and mathematics typically have weaker working memory skills compared to their age-matched peers.

Many researchers in the field of cognitive skills related to academics believe working memory is the most important predictor of learning, much more so than a student's overall IQ score. Working memory gives us an isolated measurement of what a student is capable of learning. It measures a child's potential to learn and not just what they have *already* learned.

Working memory plays a key role in Attention Deficit Disorders. Poor working memory leads to poor attention, and good working memory results in good attention. Many children diagnosed with AD/HD also have a limited working memory capacity. Research shows that children with AD/HD have an average working memory level roughly equal to that of a non-AD/HD seven year old. Strengthening working memory can help to reduce the social, academic and other challenges that children with AD/HD face every day.

There is good news for students with poor working memory skills: there is something that can be done about it. The human brain has the ability to reshape and rewire itself. This is called neuroplasticity. Neuroplasticity, also referred to as brain plasticity or cortical re-mapping, is the brain's ability to change shape and re-network, creating new connections between neurons, as well as establishing new pathways in the brain. Working memory impairments can be addressed using a combination of research-based working memory training techniques to actually create a neurological change in the brain's ability to expand working memory capacity, and directly teaching and implementing memory strategies in the classroom and everyday life.

For further information on working memory deficits and interventions, please visit www.AlcottCenter.com.

Resources:
The Alcott Center for Cognitive Enhancement, LLC
Locations: Richland and Grand Rapids, MI 800-588-5805
www.AlcottCenter.com

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Pre-Concussion Screenings:

For the 3rd consecutive year, BRAINS is offering pre-concussion screenings for $20. This is a chance for athletes to have data available prior to an injury so that in the event of a concussion, the professionals working with the family and athlete can make a determination around returning to performance and to assist with school accommodations through the recovery time.

Please call today to schedule for a screening. The screening takes approximately 15-20 minutes.
Call BRAINS to schedule individual or team: 616-365-8920
www.mayoclinic.com/health/concussion-in-children/AN02059

Anat Baniel In Michigan

Amy & Carl Geib

You are invited to attend a two-day workshop to help transform the lives of children with special needs, taught by Anat Baniel, founder of the Anat Baniel Method of Feldenkrais, November 13 and 14, in Kalamazoo. This workshop is open to parents, grandparents, therapists, teachers- anyone who works with children!

In this workshop, through experiential movement lessons, theory, practice, Q & A, and demos, you will:
-Help children become powerful learners
-Learn ways to communicate effectively with the brain
-Experience innovative movement exercises to apply with children
-Understand when and why to use assistive devices
-Address the unique challenges of children with special needs
-Acquire guidelines for creating effective home programs

Early registration through November 1: $325/person, $395 for a family of two
Full price after November 1: $395/person, $495 for a family of two
For groups of three of more, first person pays full price and each additional person pays $285

For more information or to register, contact Amy Geib:
ageib1@charter.net, 269-330-1102

An Evening with Stereo Sue

The Michigan College of Optometry (MCO) is hosting an informative and educational event featuring Dr. Susan Barry, "Stereo Sue". Dr. Barry is a scientist, educator, author, and patient, who had crossed eyes as an infant which prevented her from seeing in 3-D (stereopsis). Decades later she regained her stereopsis, even though the accepted theories believed that the adult brain was incapable of such change.

Join us for this unique opportunity to meet Dr. Barry and learn her compelling story. The event includes a social reception-book signing, plated dinner and presentation.

Friday, Sept. 17, 6:00pm

St. Cecilia Music Center

Downtown Grand Rapids.

If you wish to learn more about neuroplasticity and regaining visual and cognitive function, you can come early (3:00 – 6:00pm) for scientific presentations by three experts in the area. (Drs. can earn 3 CE credits)

Dr. Dan Fortenbacher, OD, FCOVD:
Applying Neuroplasticity to Optometric Vision Care 3:00 - 3:50pm

Dr. Michael Wolff, PsyD, ABPdN:
The Science of Neuroplasticity: Rewiring the Brain 4:00 - 4:50pm

$175/person

All proceeds will go to supporting the pediatric clinical education program at MCO and its affiliated children's vision care projects.

Registration and full event details may be found at
www.ferris.edu/mco/stereosue

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BRAINS Foundation

Fall Fundraising Kick Off

The Giving Tree

Brenda Sipe of Kendall College of Arts and Design of Ferris State University and the BRAINS Foundation, have teamed together to create a magnificent giving tree. The tree is ready to start receiving leaves of giving for our fall fundraising kick-off.

The tree leaves and base plate plaque offer opportunities for various levels of giving.

Giving Levels:
Bronze leaf - $100-$249
Silver leaf - $250-$499
Gold leaf - $500-$999
Tree plaque - above $1,000

For each giving level, a leaf with your name or organization will be created and placed on the tree, filling the tree with leaves to acknowledge your generous support. You will also receive a tax deductible receipt for your contribution.

The BRAINS Foundation is an IRS Tax Exempt Organization.

Non-Profit Tax Identification Number: 37-1545165

We appreciate you joining us to support ongoing services!

Services Currently Offered through the BRAINS Foundation:

- Neuropsychological Evaluation
- Psychological Assessment
- Learning Disability Evaluations
- Counseling
- Behavioral Consultation

Additional services are anticipated as funding makes the opportunities possible.

Year in Review

The BRAINS Foundation is reaching families with medical or mental health concerns influencing neurocognitive, emotional and/or behavioral abilities who would otherwise not be able to receive the help they need. The families receiving services have had to eliminate anything beyond their primary needs such as meals and housing. Yet by not receiving the current services available, they are at very high risk for discipline problems, learning disorders, dropping out of school, illegal activity, severe mood disorders, or becoming disabled. We are fortunate to be able to help West Michigan.

Statistics about Qualifying Individuals:

- Average Annual Income for families served: $12,246.38
    - Average # of members in family = 3.15
- Average Out of Pocket Cost per Hour: $6.27
- Total Collections Resulting from Family Payments: $1040.00

Value of Services:

- Total Value of BRAINS Foundation Services to the Community and Those Served as a Result of Sliding Fee Scale: $104,828.00
- Percent of Individuals Receiving No Cost Care: 82.2%