

The Science of Learning

Parents Guide

By ADDvantages Learning Center



ADDvantages

LEARNING CENTER

Pathways to Independent Learning™

"We don't just tutor ~ we train the brain!"™

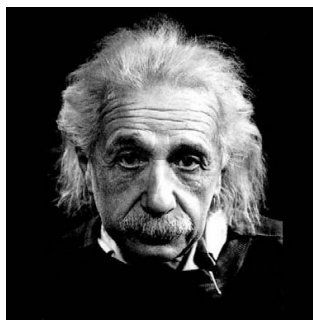


The Science of Learning Difficulties

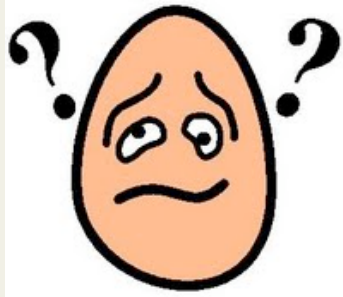
"New developments in the science of learning raise important questions about the design of learning environments -- questions that suggest the value of rethinking what is taught, how it is taught, and how it is assessed"

Bransford, Brown, & Cocking (2000)

There is a reason for learning and attention difficulties. The symptoms of these difficulties can only be seen on the surface, just like one can only see the tip of an iceberg. The surface symptoms of learning problems are trouble learning, reading, math, spelling, comprehension, and writing. Scientific research has opened a whole new world of possibilities for struggling learners. We now know the causes of learning difficulties stems from the brain. The brain, weighing less than three pounds, controls every aspect of life. It is our command center. This report will teach you the exact causes of learning problems, consequences, the impact they have on learning, choices of treatment, and the most efficient and effective way to help your child. Most importantly there is now hope and help for these children and adults to achieve their potential for a brighter future!



Can you believe Albert Einstein was once labeled a slow learner?



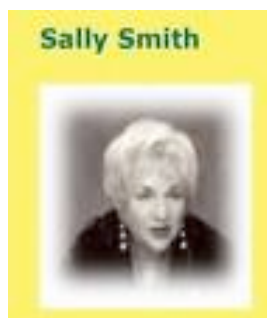
WHAT ARE THE CAUSES OF LEARNING PROBLEMS?

- **10% Poor Instruction** - Solved by short –term tutoring
- **5% No Motivation** - Trying hard with little success
- **5% Sensory** – Hearing and Vision
- **80% Underdeveloped Cognitive Processing Skills (neuropsychological) ***

Based on research from a variety of studies in the United States

“The cause is neurophysiological. Parents and teachers can help make it better or worse, but can’t cure it. Researchers explain there is faulty wiring of the brain. The latest brain research in America uses the new MRI technology to demonstrate that there is a different architecture of the brain in people with learning disabilities and ADHD. In typical brains, neurons are contained in certain places; but in the brains of children with learning disabilities, the neurons are scatter-shot all over the place.”

Sally Smith



The late Professor Sally Smith has been a key influence and inspiration to the field of attention and learning difficulties. She had more than 30 years' of experience in the field of learning disabilities. She was both an educator and a mother of a child with learning difficulties. She was the Founder and Director of the Lab School of Washington, a school internationally recognized in the field of learning disabilities. She had also been head of the graduate program in special education at the American University in Washington DC.



SHORT & LONG TERM RESULTS of POOR COGNITIVE PROCESSING SKILLS

Low Self-Esteem

Poor Academics

**Loss of
Motivation**

Depression

Anxiety

Dislike of School

**Choosing Wrong
Friends**

Poor Social Skills

Limited Success

**Behavior
Problems**

**Dropping Out of
School**

Don't discount the impossible. Some of the very irritating negative behaviors that have worn out parents and teachers, and lead to school failure, have helped youngsters with learning disabilities and ADHD demonstrate astonishing creativity and awesome talent in adult life. The negative behaviors we often see in the child frequently turn into positive attributes in adulthood. Parents, take note: There is often a light at the end of the tunnel.

Learning-disabled and ADHD/ADD children often learn to wear common "masks" to protect their self-esteem . . .

Class Clown, Victim, Know it All, Sickly, Loner, Rebel, Contempt, Not Caring, People Pleaser, Ego-Centric, and the Strong Silent Type

WHAT ARE COGNITIVE PROCESSING SKILLS?



Cognitive Processing skills are the required skills necessary for learning to take place, just like a house needs a strong foundation. If a house is built with poor or weak materials, it will fall down and become uninhabitable. So too with learning problems, poor or underdeveloped cognitive processing skills will not allow for learning to take place easily and efficiently. Learning will continue to be a struggle until these are intact. The following is a brief and general description of processing skills.

Cognitive Processing Skills	Definition	Learning Difficulties
Auditory Processing (not a hearing problem)	Analyzing, blending, segmenting individual units of sound. Mind interprets incoming verbal information.	reading, spelling, following directions, taking notes, learning new concepts
Visual Processing (not due to poor vision)	Reduced ability to interpret incoming visual information.	reading comprehension, disorganization, poor written work, copying from the board, proofreading
Processing Speed	The rate and accuracy the mind processes incoming information. Poor processing speed leads to less efficient thinking and learning.	takes a long time to complete tasks, slower in learning new concepts, homework completion, needs more time to finish assignments, math equations
Memory (long term, short term, and active)	Different types of memory. Retain what was learned and to hold in place as new information is being processed.	Needs repetition to learn, cannot retain taught concepts in academic areas
Logic & Reasoning	Making comparisons and contrasts, adjustments from new information to existing information.	Math word problems, planning, organization, decision making

TYPES OF HELP AVAILABLE

Like most parents you want the best for your child and are looking for a solution to your child's learning difficulties. Maybe you are "waiting and hoping" things will get better and tell yourself next year things will improve with a new teacher, a fresh start, or your child will outgrow as he matures. If so, you may be waiting a very long time, and forego the opportunity to help your child avoid negative outcomes now and in the future.



Which Option Will You Choose?

1. Accommodations

Views learning difficulties as a permanent life-long condition by allowing students to learn in a different format and/or providing instruction on their performance levels. The problem here is students never seem to catch up to their appropriate age level performance.

2. Compensatory Strategies

Ignores the causes of learning problems by going around them by ignoring weaknesses and focusing on strengths. The student continues to struggle to learn and experience frustration. Strategies are good, but not good enough, more of a "band-aid" approach.

Identify the Cause, Overcome, Achieve

3. Assessment and training is the best choice for a long-term solution, if processing skills are determined to be the root cause. Developing these skills removes the barriers to learning and allows your child to become an independent learner.



“Like a set of muscles, the brain responds to use and disuse. For the first time, we are learning to see mental weaknesses as physical systems in need of training and practice. The brain is a dynamic, highly sensitive yet robust system that may adapt, for better or worse, to almost any element of its environment. If we are going to set about training our brains to succeed in the world, we certainly need to learn about the various factors that can influence brain functions.”

DR. JOHN J. RATEY

Professor of Psychiatry, Harvard Medical School

Assess and Identify

Identifying the cause of learning problems is the best way to determine how to help your child for long-term life success. You don't necessarily have to spend hundreds of dollars on expensive testing to begin getting help for your child. An assessment will determine what your child's individual difficulties are, as it is not the same for everyone, even though it may appear that many struggle in similar ways. Poor processing skills can go virtually undetected over a lifetime, causing much frustration and pain.



Cognitive Skills Profile



A cognitive skills profile is not a diagnosis. It measures your child's processing skills by age and percentile and provides you with the knowledge to determine the type of help and training your child requires to overcome learning challenges and difficulties for long-term life success.

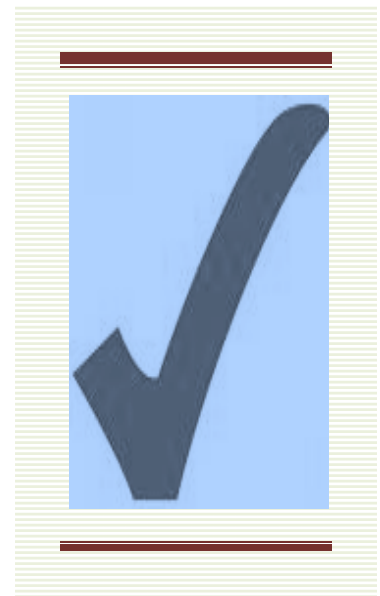


Training vs. Teaching/Tutoring

Research in the field of neuroscience indicates the student to teacher ratio of one on one training is the most beneficial way to "train the brain." The trainer is able to provide immediate feedback for the duration of the session, along with undivided individualized attention.

Components

- Develops specific identified weak skills
- Building skills upon mastered skills
- Repetitive skill practice frequently
- Immediate feedback
- Challenging fun activities
- Incentives and rewards
- Skills grow stronger and automatic with training (i.e. practicing guitar, sports, or a hands on activity, vs. lecture)



RESULTS

Cognitive retraining is considered successful if performance on a behavior related to a particular cognitive skill has improved, measured before and after training. It is ultimately successful when students can receive the benefit of



classroom instruction and allows them to become independent learners. Significant gains can be achieved on an average from 8 – 24 weeks based on your child's individual needs. It is the most effective intervention for learning problems and poor school performance. Other options based on the same principles are often delivered in group settings that can take a minimum of a year or longer without ever correcting the root causes. The key to achieving results in cognitive training is by following an intensely structured program with frequent one on one consistent sessions. Average gains are a minimum of 2 years and above based on individual needs.



Why is Cognitive Skills Training the Best Investment to Unlock Your Child's Learning?

In this day and age we as a nation are more than ever concerned about finances and budgets. Coping with learning problems can become quite an expense. However, cognitive training is a one-time investment, reducing the need for continual tutoring and support each school year. At the rate of \$50.00 and up once or twice a week you will spend thousands of dollars over the course of your child's educational years. Why waste time and money? Not to mention the additional costs of addressing the emotional and behavioral problems, as a result of coping with frustration, lack of success, and negative feelings on daily basis. Once your child's processing skills are

intact, he will learn easier and faster, get better grades, and become an independent learner. There will be no more homework battles and best of all your child will not experience the emotional pain and its affects, this means better behavior, increased flexibility, and confidence! Learning struggles begin to fade once the underlying skills are developed, and continue to strengthen long after the training ends.

Success Stories

Pictures are representations of students/parents to protect privacy. Some names are changed, as others are not, per parent's permission. Below are original comments from ADDvantages parents and students.



"The biggest improvement Katie has made is not giving up when the work becomes difficult. She had a defeatist attitude and that had been replaced by a positive attitude. Her concentration and focus have greatly improved. I am appreciative of the help she has received and have already recommended ADDvantages Learning Center to other parents."

Diane Rankin, ADDvantages Parent



"When my mom first told me I had to go to ADDvantages Learning Center I cried because I had already been to two other learning centers." I know this sounds unbelievable, but I feel smarter. Now it seems like the right answers just pop into my head." **Samantha R., ADDvantages Student**



"I used to study for tests and forget everything the next day. But I just got an A on my science test and I'm spelling better, too. I guess those memory exercises really worked. I got my social studies project finished and it's not even due until Monday!" **Andrew Laskin, ADDvantages Student**

**For more information about the unique services
ADDvantages Learning Center offers, visit our website at:**

www.ADDvantagesLearningCenter.com

Linda Karanzalis, M.S. / Founder

ADDvantages learning Center in Cherry Hill, New Jersey

856-482-0756