

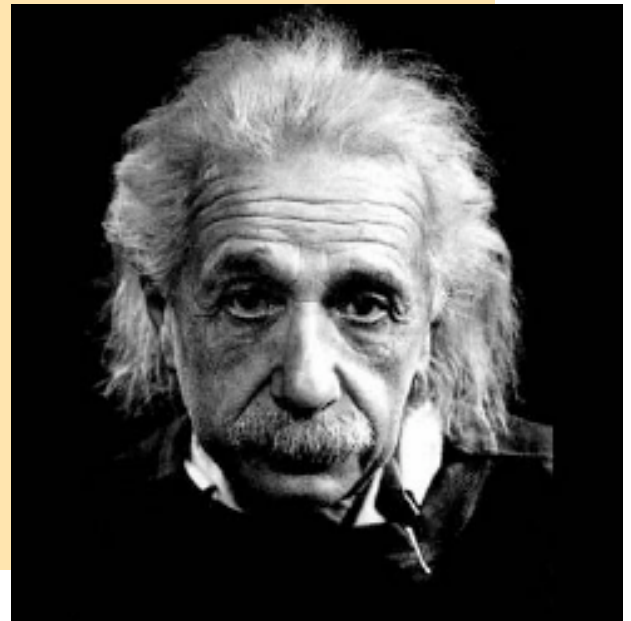
# Smart Choice

## The Learning CURVE

Contemporary science has opened up powerful new possibilities for those who struggle to learn or want to gain a competitive edge. There are causes behind learning and reading problems. What you see on the surface—when facing a persistent learning or reading struggle—is most often merely a symptom. The causes are deeper and sometimes more difficult to identify and understand.

Through a series of key questions these pages help you understand learning problems and explore the most common root cause: cognitive skills weakness. You will learn strategies and options available to overcome poor learning and reading if learning and reading brain skill weakness is the source.

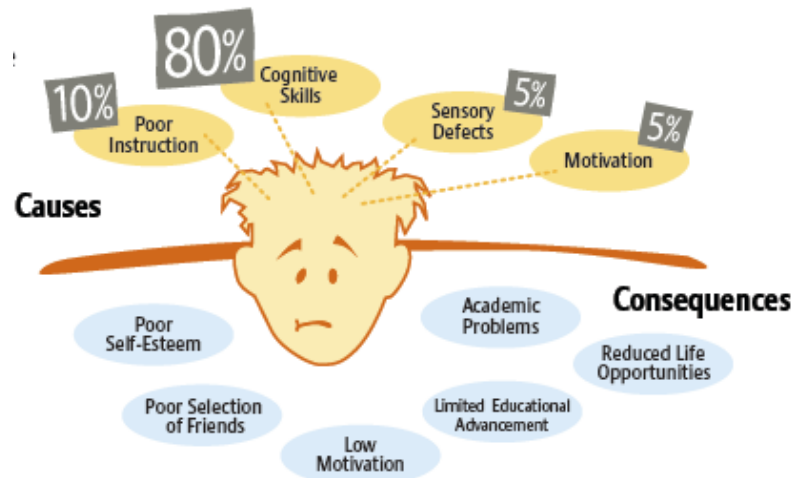
Poor learning and reading need not be a life-long problem!



**Did You Know?** Albert Einstein  
was once considered a slow learner.

## What are the CAUSES of most learning and reading problems?

There are a variety of reasons that can cause learning and reading difficulties. Drawing from numerous studies determining the prime causes of learning problems in the U.S., approximately 10% are due to poor or inadequate instruction. Another 5% are attributed to one or more sensory defects such as hearing or vision problems. Up to 5% can be blamed on low motivation. The balance — roughly 80% of learning or reading difficulties among U.S. students and adults — are the direct consequence of a cognitive skill weakness.



### FOR EXAMPLE:

After a ten-year public study, the National Institute of Health concluded that the cause of **88% of specific learning-to-read difficulties** resulted from a single weak cognitive skill known as **phonemic awareness** (an inability to blend, segment, and analyze sounds).

## What are the CONSEQUENCES of cognitive weaknesses?

Learning and reading struggles are the breeding ground for other serious problems including poor self-esteem, disruptive or withdrawn behavior, poor selection of friends, chronically low motivation, academic weakness, and limited educational advancement. These directly impact life opportunities such as earnings and lifestyle.

“ 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



## What CHOICES are available to help a struggling learner or reader?

Effective long-term strategies are surprisingly rare when trying to help someone with a persistent learning or reading struggle. One non-strategy is to pretend that the struggle will simply go away or be outgrown. This is rarely the case. When trying to take positive steps, you must choose one of three

approaches. You can try to accommodate the problem by expecting less. You can attempt to compensate by focusing only on strengths. Or, you can identify and overcome core cognitive weaknesses through testing and training. This has the potential to open the future to faster, easier learning and reading.

### THREE OPTIONS FOR THE STRUGGLING LEARNER

	<p>► <b>Accommodation</b> is a passive strategy that simply <i>accepts</i> the learning limits as permanent. Special programs that isolate underperforming students, or require long-term medication to control behavior, are examples of this approach. It is a common alternative, and is often justified in the name of preserving self-esteem.</p>
	<p>► <b>Compensation</b> is a never-ending approach to <i>work around</i> learning weaknesses. Typically it includes altering the student's environment or selecting challenges to fit individual strengths while ignoring their weaknesses. It trades the present appearance of success for future frustration and failure.</p>
	<p>► <b>Identifying and overcoming</b> the source of the struggle is the logical choice. If cognitive weakness is the root of a particular student's learning or reading struggles, then cognitive testing and training is clearly the most promising approach to provide both immediate <i>and</i> long-term answers. It's the only choice specifically designed to <i>overcome</i> barriers and <i>unlock</i> potential.</p>

### FOR EXAMPLE:

**Over 4 billion dollars are spent each year in the U.S. on tutoring and similar programs that focus on treating the external symptoms of learning struggles** (while producing little measurable change in underlying learning ability).\*

Correctly identifying the underlying cause of a learning problem is the only way to determine the correct treatment strategy. Even when there is limited success in a specific issue or subject, the underlying problem that caused the struggle in the first place remains. Identifying and treating the cause of a learning struggle is the best guarantee of long-term success.

\* Aimee Green - Newhouse News Service - Times-Picayune - July 31, 2005.

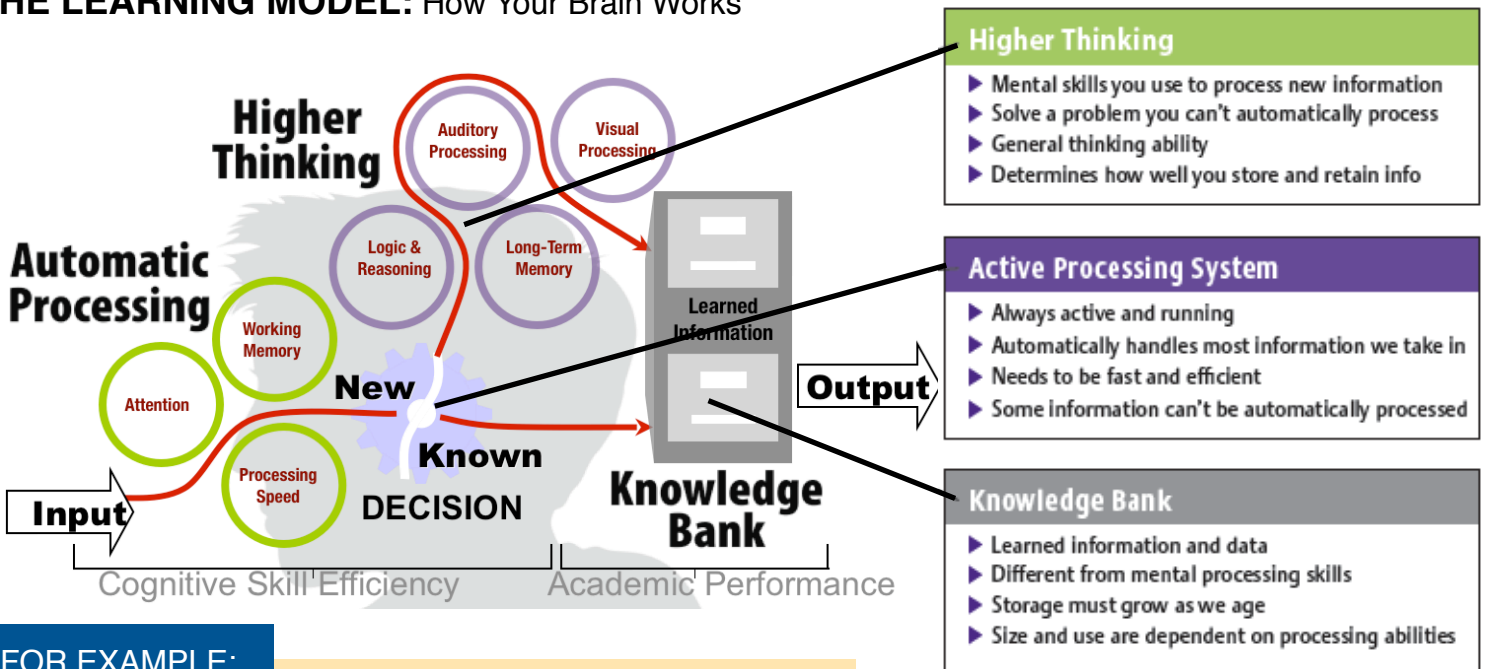


# Just what are cognitive skills, and how do they impact learning?

Cognitive skills are the underlying mental skills required for learning. Active skills are identified as Attention, Processing Speed, and Working Memory. These attend to, receive, sort, and prioritize incoming information. Higher Thinking skills are Auditory Processing, Visual Processing, Logic & Reasoning, Long-Term Memory, and Auditory Processing, Visual Processing, Long-Term Memory, and Logic and Reasoning.

The cognitive skills and processes used to learn are different than the information that is accumulated in our Knowledge Bank after learning. Cognitive skills process new and recalled information. Our Knowledge Bank stores and distributes information we have already processed.

## THE LEARNING MODEL: How Your Brain Works



### FOR EXAMPLE:

#### How well you do at a new mental task depends on...

- The strength and speed of your mental skills (Active Processing System plus Higher Thinking).
- The presence of data in your Knowledge Bank.

#### How smart you are =

- Active Processing System + Higher Thinking

#### What you know =

- Data stored in your Knowledge Bank.

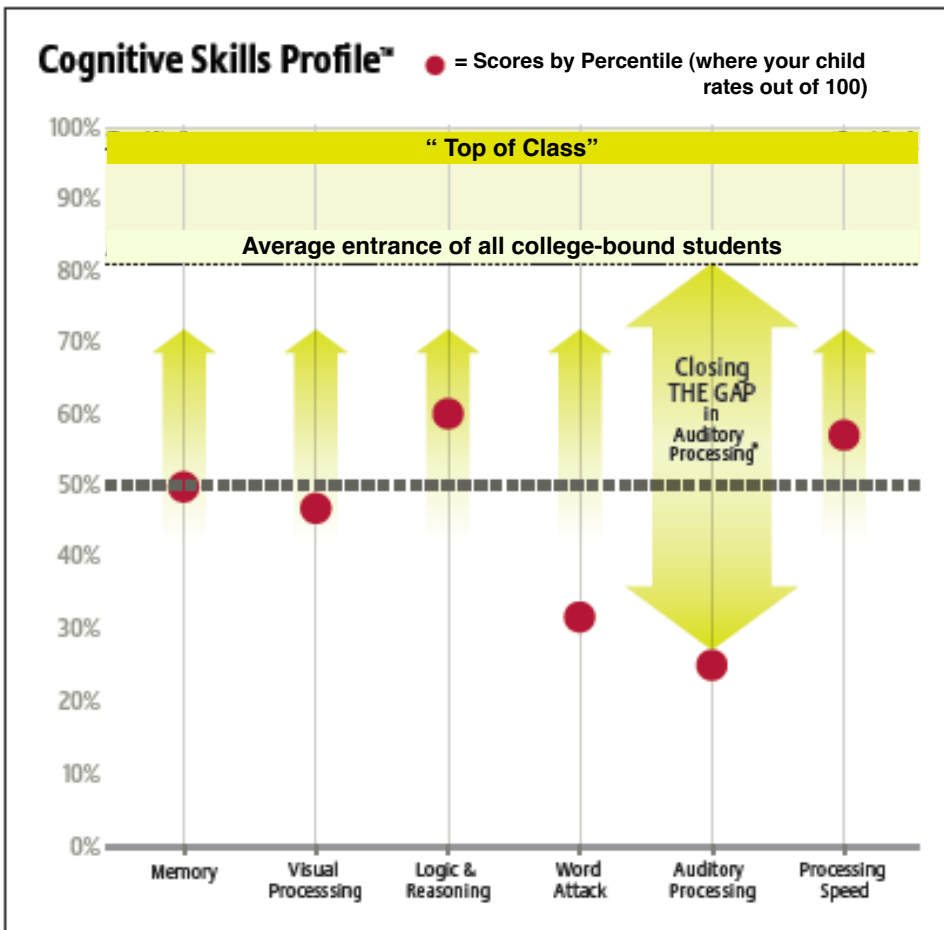
The Learning Model illustrated here helps point out the difference between the processing functions of Active Processing and Higher Thinking Systems on the left and the storage and distribution function of the Knowledge Bank on the right. All new or unfamiliar information must be processed before it is useful in life, work, or academic performance. Strong, efficient cognitive skills are essential to successful learning.



## Why is it so important to test individual cognitive skills?

A cognitive skills weakness is internal and specific. One struggling student might be weak in visual processing skills and another weak in long-term memory, but both may seem to struggle in a similar way. You must measure each student's individual cognitive skills to confirm the cause of his or her particular learning problem and formulate the right training. Untested, cognitive weaknesses can remain undetected for years while hindering a student's ability to learn or read successfully.

Guessing at the cause without testing can lead to frustration and wasted time and money. Your child's individual skills testing will create a personal Cognitive Skills Profile™. The profile will measure the strength or weakness of his or her individual cognitive skills by both age and percentile. It will also show you any gaps between current skill levels and the success you envision for your child. This knowledge will help you determine both the specific type and the amount of training required.



**STUDENT PROFILE:** The Cognitive Skills Profile™ shown here is typical of a student who struggles significantly with reading.

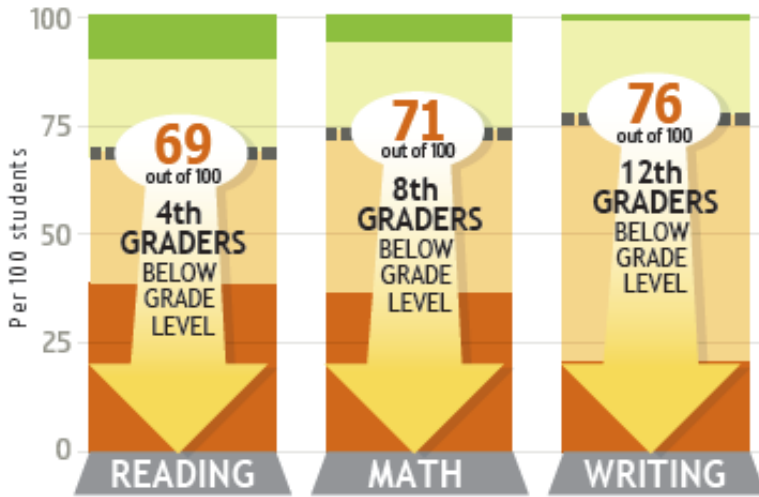
### How does “closing the gap” on cognitive skills weakness work?

**Example:** The average cognitive skills ranking of all entering freshmen students in the United States is the 81st percentile. If you desire your student to attend college and be successful, and his or her average score is lower than the 81st percentile, a cognitive skills “gap” needs to be overcome to increase the chance of realizing that college goal. This gap can be narrowed — and even closed — with appropriate cognitive skills training.

### FOR EXAMPLE:

**Cognitive skills play an essential role in learning.** Therefore, a significant weakness in Auditory Processing (also called Phonemic Awareness) will lead to poor reading regardless of other skill strengths. Any individual cognitive skill or ability that functions below age level expectation or scores below the 50th percentile in a standardized cognitive skills test is considered a weak skill. Learning skills can also be considered weak in relationship to individual goals. Skills in the 50th to 70th percentile are weak for the students hoping to attend college, for example.

## Average Performance – U.S. National Report Card



Achievement level results reported in 2002-2003 are not significantly different from the results reported in 2007 and 2009.

## IS AVERAGE GOOD ENOUGH?

It depends on your goals and desires. The average student in the U.S. is significantly below grade level in writing, math, and reading. Average students do not face a very bright future. Increasing demands in the Knowledge Economy and stiff competition from foreign students and workers make average far too low a goal for most students.

Source: The National Assessment of Educational Progress; 2002-2003.

### 2009 U.S. National Report Card results:

- Reading — 4th grade, 67% below proficient
- 8th grade, 67% below proficient
- Math — 4th grade, 61% below proficient
- 8th grade, 66% below proficient
- Writing — 2007, 67% below proficient

## Why must cognitive skills be trained, not taught?

Just as you cannot learn to play the piano with 12 weeks of classroom lectures (you will have to actually practice playing), cognitive skills grow stronger with training, not teaching or tutoring. Cognitive skills training must also feature specific methods if it is to be consistently effective.

Studies have shown that one-on-one training is the best vehicle to deliver essential training methods. A clinically-based, comprehensive online program also offers effective, undivided, individual attention.

Neuroscience research indicates the following are necessary elements of effective cognitive training:

**It must be skill-specific and targeted.**

...to close specific mental skill gaps

**It must be highly intense.**

...concentrated repetition builds skills quickly

**It must be properly sequenced.**

...small challenging steps build upon one another without overwhelming the student

**It must be progressively loaded.**

...properly increasing both difficulty and complexity makes skills automatic

**It must contain immediate, accurate feedback.**

...instant, effective reinforcement and correction keeps training focused and intense

**In addition, training benefits from being non-academic.**

...fun and game-like exercises get beyond student's frustration and defenses

FOR EXAMPLE:





## Just how effective is one-on-one cognitive skills training?

Because weak cognitive skills are the cause of most persistent learning or reading struggles, training that strengthens those specific skills is the most effective way to permanently correct most learning and reading problems. If testing reveals that the root cause of your child's struggle is cognitive weakness, the smart choice is to overcome it with properly designed, targeted, cognitive skills training.

Typically, significant gains can be achieved through cognitive skills training in only 8 to 15 weeks. Other non-cognitive based approaches are actually designed around schedules that take months or years, and most never promise to correct the cause of struggles. Well structured cognitive training also gives parents an opportunity to be fully aware of progress, making the training even more efficient.

Comprehensive cognitive skills training is not only the most effective, but also the most efficient way to increase learning or reading skills.

This chart demonstrates the dramatic changes possible with proven cognitive-based programs.  
Source: ThinkRx results from 1,711 students with 12 weeks of training.

### Average Gains: Cog1st Partner Programs

Cognitive Skill Tested	Average Gains in Years
Processing Speed .	2.73
Long-Term Memory	3.73
Visual Processing .	3.99
Logic & Reasoning .	3.47
Auditory Analysis .	5.48

**Cognitive First is associated with the best!** Access to the premier online cognitive skills evaluation, the Gibson Test, is available through Cognitive First.

In addition, Cog1st has providing partner relationships with:  
LearningRx (LRx) <http://learningrx.com>  
BrainSkills <http://www.brainskills.com>.

These relationships make testing the learning capacity of every child a reality. They also make brain training (building stronger learning and reading abilities) affordable and accessible for under-resourced, at-risk children nation-wide.

LearningRx is the nation's leading provider of clinical cognitive skill development and reading intervention.

BrainSkills is the digitized version of their brain-training program for enhancing mental skills – both learning and processing capabilities. BrainSkills makes learning or work easier and faster because it builds underlying learning

skills to give better tools to help individuals function far more effectively at school, at work, at play, or all three.

Working in close collaboration with over 1,000 independent educators, doctors, scientists, researchers and other professionals in more than 700 training locations, clinics, schools and hospitals, Dr. Ken Gibson developed a proven training program that has successfully helped students greatly improve their cognitive skills and overcome reading difficulties.

BrainSkills has converted the LRx one-on-one trainer-led cognitive skill exercises to an effective online format.

**Amazing Gains.** From its beginnings in learning skills training, BrainSkills home-based products have had an **average improvement of 3.6 years** in cognitive abilities. Frequently post-training test scores have been quantum leaps above pre-training scores. One of the core exercises, Sound Analysis, introduces

and drills the 17 most commonly used sounds in the English language. This one exercise builds the auditory processing and phonemic skills that are the foundation for reading and spelling. In just 3 months of completed training with the ten core exercises, average advances in learning techniques have revealed **4.6 years gained in concentration, 3.5 years gained in comprehension, and 2.9 years gained in processing speed.** The BrainSkills digitized products are also made available in LearningRx clinical directed programs under the branded name, Max.

BrainSkills is a complete and comprehensive solution — a proven breakthrough, easily administered and accessible online, whether at home, at school, or in a community organization.

Through an alliance with BrainSkills, the affordability and online accessibility to introduce a Cognitive First approach and empower the promise of education for every American child is now available.



# When you invest in a child’s learning abilities you will be helping a low-income, under-resourced and at-risk child have the same advantages!

Every child has cognitive abilities, but not every child's cognitive abilities are the same. There are innate skill differences that determine processing, learning and reading abilities. While some of the innate differences in potential are fixed, cognitive abilities can be evaluated and then strengthened. Your child can improve their cognitive capacity to learn and the speed and accuracy with which they learn. When they do, everything that relies on those cognitive abilities gets easier, faster and more efficient. **As examples, below are the primary underlying skills required to effectively execute everyday tasks:**

**Studying History:** Visual Processing, Auditory Processing, Long-Term Memory, Comprehension

**Math Word Problems:** Working Memory, Visual Processing, Auditory Processing Logic and Reasoning, Comprehension

**Playing Cards:** Working Memory, Logic and Reasoning, Visual Processing, Long-Term Memory.

**Driving a Car:** Visual Processing, Attention Skills, Processing Speed

**Writing a Letter:** Logic and Reasoning, Auditory Processing, Visual Processing, Comprehension

**Reading a Map:** Visual Processing, Logic and Reasoning, Working Memory

**Learning to Read:** Auditory Processing, Visual Processing, Working Memory, Long-Term Memory

**Assembling a Puzzle:** Visual Processing, Logic and Reasoning, and Working Memory

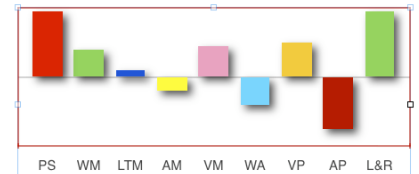
A parent or educator needs to know that any one weak skill area can limit a child’s overall academic performance.

Whether a child struggles with learning or is just needing an extra competitive edge to achieve their full potential, the place to begin is with an online evaluation of their individual skills. Parents can register a child, take a twenty question survey, have the child complete the 35 minute test, and be viewing their Cognitive Skill Profile™ and results compared to your observations of their abilities. In an hour you will know more about you child’s learning strengths and weaknesses than his or her teachers could tell you in twelve years of education! **Testing your child’s core learning abilities is an investment that matters.**

**Register Your Child Now** As a parent, you do everything you can to provide health, vision and dental care for your children, but what can you do about evaluating and cultivating their core mental skills? Historically, parents have either been unaware of the need, or unable to pay for cognitive skill testing. But weak cognitive (mental) skills can significantly impact academic success.

Cognitive First™ is working to make cognitive skill screening affordable and available to everyone. Children ages 7 and older can have an online cognitive skills screening—for \$29.95—and when you invest in knowing your child’s learning skills at that price the same evaluation will be given to an under-resourced, at-risk child. For more information and/or to register, go to: <http://cog1st.org>

**Receive Your Child’s Results** Your child’s results will be available to you immediately after they complete their evaluation. At your parent home page you will have a profile and report that you can view, print and give or send to teachers for more informed discussions regarding your child’s learning and reading strengths or weaknesses. This simple investment of a few minutes of your time could well lead to not only a better understanding of your child but a more successful academic future for your child.



**Review Your Available Options** Cognitive (mental) skills can be improved in as little as 8-15 weeks with comprehensive exercises that train the brain. Any child could benefit, but the place to begin is with greater awareness to know if any of the underlying areas that make up your child’s IQ need to be strengthened. Just knowing for some parents and their children changes everything! When a veteran urban educator saw his daughter’s cognitive scores he said with tears in his eyes, “My daughter is a senior and trying hard but **this report told me more about my daughter’s struggle in an hour than anyone in the twelve years of her education could explain. If only I had known sooner.**” You access to an evaluation and report that can inform you as a parent and provide not only a new understanding, but potentially a new beginning for your child that will last for a lifetime of learning. Don’t delay. Act now. Go to <http://cog1st.org> and register. You will be glad you did.