(Excerpts from article by Dr. Ken Gibson, Founder and CEO of LearningRx)

Assessing Mental Skills

Determining Your Child's Weaknesses

"The mind is not a complex network of general capabilities such as observation, attention, memory, judgment, and so forth, but a set of specific capabilities, each of which is, to some extent, independent of the others and is developed independently. Learning is more than the acquisition of the ability to think; it is the acquisition of many specialized abilities for thinking about a variety of things."

--Lev Vygotsky

Is it possible to find clues to determine the relative strength of your child's cognitive skills without testing? Yes, it's possible to judge the strength of your child's cognitive skills by stepping back and observing him in the midst of his daily activities.

In learning and working, each activity requires certain underlying capabilities. To determine strengths and weaknesses you can evaluate all the activities that your child is involved in on a daily basis. Think through the day.

- What's easy or hard for your child?
- What does he try to avoid?
- What is he eager to do?

Those are your first clues about underlying strengths and weaknesses. If your child's underlying cognitive skills are all strong, activities are easy and probably enjoyable. If an underlying skill is weak, an activity will be somewhat troublesome for your child. The LSRS (Learning Skills Rating Scale) in the previous chapter is a limited example of this approach.

I do want you to know, though, that there is a serious limitation with this approach in determining your child's cognitive strengths and weaknesses through performance. Doing this observation and activity analysis can take a considerable amount of time. It would require a comprehensive understanding of underlying skills and the role each plays in your child's activities. For example, if a child has difficulty completing a jig-saw puzzle, is it due to inattention, being able to see a piece rotated 90 degrees, or remembering where a piece was last put aside? Unfortunately, although symptoms are helpful they often fail to pinpoint the specific weakness.

Think of it this way. A highly trained and experienced mechanic would not rely solely on symptoms. Sure, if it's a flat tire, no problem, but if it's an engine problem, then what? What you described combined with what the mechanic observes is sometimes not enough for an accurate diagnosis. The car should be taken to the garage and hooked up to special diagnostic equipment for testing to verify his first round diagnosis.

Just as a mechanic uses diagnostic equipment to get an accurate diagnosis, cognitive tests are given to look into underlying mental skills to verify diagnoses made from observations.

Testing cognitive skills is one of the first steps in identifying and correcting weak skills. You can identify what's holding a person back from his learning or working potential by determining the quality of the learning tools a person possesses.

Work and academic performance is measured by grades, achievement tests, and production. Cognitive testing can tell you *why* there is a certain level of performance, and help direct the training program to target the most deficient skills. What was once weak can be made strong.

Past Barriers to Cognitive Skills Assessments

Detecting problems in a child's cognitive and processing skills normally takes a professional, like a clinical psychologist with awareness of these mental learning skills. Price, availability, and logistics are often barriers that limits who can have access to such testing and information.

As my years of research revealed to me just how important cognitive skills were to learning, and how relatively easy it was to strengthen weak skills, I began to look for ways to encourage every parent of a struggling child to get them tested and into some appropriate training. This proved to be quite frustrating.

Testing was expensive, and in schools, parents had to jump through many professional hoops just to get testing done. If they succeeded in finally getting the child tested, they were often kept from understanding, or even seeing the individual skill scores. Sometimes this was simply the result of the technical jargon used to report the scores. Other times, it seemed that the testing professionals were deliberately making it difficult to protect the professional 'mystique' that kept their clinics full and profitable.

Assessment Barriers Removed

In some parts of the country there is now an easy and affordable way for you to get such information about your child's cognitive skills. Appendix D list contact information of professionals that provide a very comprehensive cognitive assessment with fees that are 1/4 to 1/10 of the customary charges in their communities (this was confirmed by random survey of numerous professionals as this book was written).

A thorough cognitive assessment is a very minimal investment to identify your child's strengths and weaknesses. You'll read more about cognitive assessments later, but right now, I want you to remember that your child's cognitive skills can be identified, and enhanced. Armed with the right knowledge, you can then become the channel for your child's improvement.

Evaluating Cognitive Skills Test Results

What Tests Are Used

"Learn avidly. Question repeatedly what you have learned. Analyze it carefully. Then put what you have learned into practice intelligently."

--Confucius

There are numerous cognitive test batteries, some designed for the purpose of generating an IQ score and others for determining the quality of specific cognitive skill levels. In the later category is the highly regarded Woodcock Johnson III Tests of Cognitive Abilities. That, with its companion achievement test, the Woodcock Johnson III Tests of Achievement, will be the basis of our discussion in this chapter. The specific skills tested that we will discuss include:

Processing Speed: The efficiency and speed in handling incoming data.

Visual Processing: The proficiency in recognizing and manipulating visual images.

Working Memory: The ease and capacity to hold data in memory input while processing it.

Word Attack: The ability to sound out words, and accurately recognize letter combinations.

Auditory Processing: The ability to rhyme, delete, substitute and reverse spoken sounds.

Logic and Reasoning: The proficiency of making and recognizing logical connections between data.

Evaluation of Four Common Examples of Test Findings with Case Histories

Many students that are having difficulties with learning fall into one of the four typical categories discussed below. Each category is illustrated with a brief case history of a student, cognitive test results, and noteworthy findings on the LSRS that was discussed in Chapter 11. As you read through these examples, please note the cause and effect relationship between cognitive skills and academic and work performance.

Example 1: A Bright Student But Poor Reader And Speller

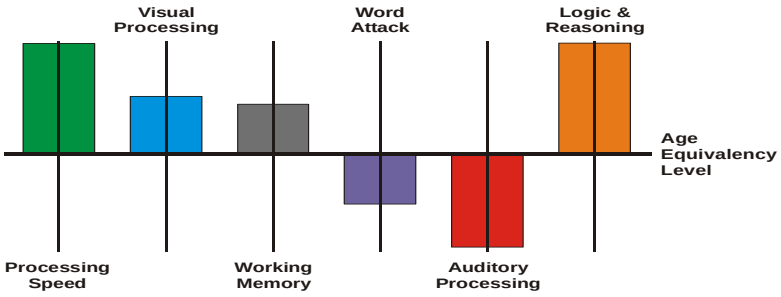

Figure 13.1: Cognitive Test Results For Example 1

LSRS RESULTS: Auditory learning was the only problem indicated.

DISCUSSION:

Ken is considered bright with an IQ around 140, but he has problems with reading and spelling. Because of some very strong compensation skills he developed in high school, he was able to continue his education and went on to earn a doctorate degree. He wanted to study law, but the writing requirements were too difficult for him so he decided to go into the medical sciences field.

Ken has mixed memory skills. In elementary school, he would study his spelling words five minutes before the spelling test and usually scored one hundred percent. He failed the six-week review tests though because he wasn't able to retain the spelling words in long-term memory. Because of his difficulty with spelling, his writing was grueling and quite laborious. He dropped out of two foreign language courses, and almost every year his lowest grades were in English.

In Ken's school, the students were taught to read by the whole-word method. His memory was above average so he was able to read fairly well the first few years of grade school. It became apparent in fourth grade though that reading was not easy for him. A student can only retain a certain number of words in visual memory. Because his vocabulary was growing, he could no longer compensate by memorizing the 40,000 – 50,000 words needed for reading comprehension.

The reason Ken struggled with reading and spelling was because his auditory processing skills were weak. He looked for words within words and considered the content of the sentence to determine unknown words. Also, illustrations helped him in comprehending what he had just read. He did not have the skills needed to sound out unknown words.

If Ken's teachers had taught Ken utilizing a phonics program, without strengthening his auditory processing skills, he would have still had difficulty in reading and spelling. However, had he received auditory analysis skills training before learning to read, he would have developed his ability to segment and blend sounds and become a good reader.

In graduate school, Ken had difficulty in classes such as bacteriology and pharmacology because the scientific words were long and difficult to remember. Despite being a doctor, in church and small groups, Ken refused to read passages of the Old Testament out loud for fear that he would sound like a fool. In his field he is extremely successful, but he avoided many things he wanted to achieve because of the difficulty he experienced when reading and writing.

In conclusion, strengthening weak auditory processing skills during childhood could have made a major difference in Ken's life. If evaluated by today's standards, he would be considered dyslexic. The right option for Ken, auditory processing training, was not available and thus he has struggled with reading, spelling and writing throughout his life. The case history referred to above, are the struggles of yours truly, the author of this book.

Example 2: A Slow Learner

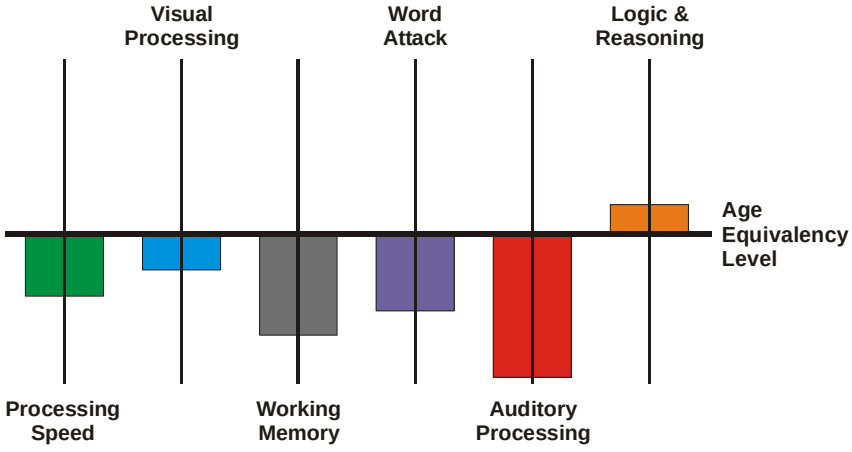

Figure 13.2: Cognitive Test Results For Example 2

LSRS RESULTS: Indications of problems in all areas: attention, auditory learning, visual learning skills and school performance.

DISCUSSION:

Steve has deficiencies in all areas tested. The deficiencies are apparent in school because all classes are difficult for him. He does not have the skills needed to succeed academically.

He does not qualify to receive special services because according to his skill levels (scores shown above) and achievement scores, he is considered to be working at his potential. The teachers consider him as slow and modify his class work so that he can perform at his current skill level.

This does not allow for him to progress in skills so that he can perform at the same level as his classmates.

His weak skills can be improved. It will take longer than average to improve his skills because he is low across the board but improvement *can* be made. If Steve were to enter a mental skills training program followed by an intensive sound-to-code reading program, he would have much better tools to allow for success in the classroom and in life.

Example 3: An Average Learner/Reader With Reduced Comprehension

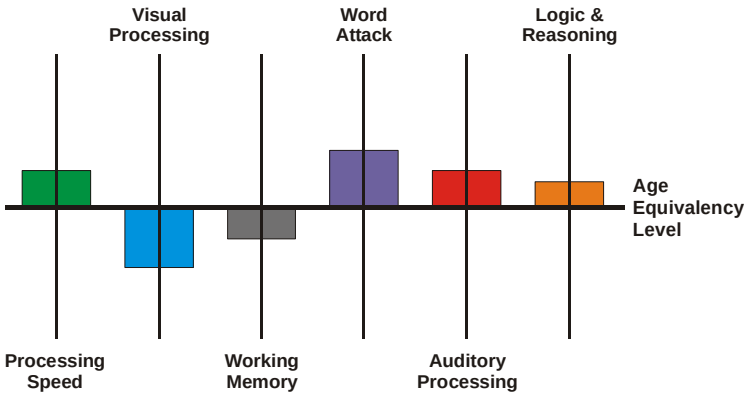

Figure 13.3: Cognitive Test Results For Example 3

LSRS RESULTS: Indications of problems with learning in general and with academic performance.

DISCUSSION:

Andy has difficulty with reading comprehension. He can read fluently and has a great vocabulary but he cannot remember what he has just read. The difficulty with comprehension also affects his math ability. Word problems are especially difficult for Andy.

One of the causes of Andy's difficulties in reading comprehension and math is poor visual imagery. Good reading comprehension requires that reading fluency, memory, visual imagery, and vocabulary are all strong. For Andy, two of those skills are weak which inhibits him from remembering what he just read.

Visual imagery is the ability to create mental pictures in your mind, which allows for better comprehension. Visual pictures aid comprehension because pictures are much easier to remember than if you had to just remember the words you just read. In completing math word problems, visual imagery is a critical skill. You need to be able to picture the problem so that you know how to take the appropriate steps in finding the solution.

The second cause of Andy's difficulty is working memory. This skill is needed to retain information long enough to process it. For example, when you are asked to do mental math, you need to be able to hold the numbers in your memory long enough to determine the answer and then you can move on to the next problem. When reading, strong working memory skills allow you to make connections to allow for a more complete concept formation.

In looking at his academic performance, teachers would assume he was an *average* student with *average* abilities. It's quite frustrating for Andy because his teachers and parents feel he just needs to try harder, to focus more while reading and doing math.

Looking at Andy's performance in isolation, not looking at the entire picture, the teachers are missing the cause of Andy's difficulties. If Andy were to be involved in cognitive training, his skills would be strengthened so that his reading comprehension and math skills wouldn't be so difficult. In turn, his self-esteem would most likely increase.

Example 4: A Good Learner

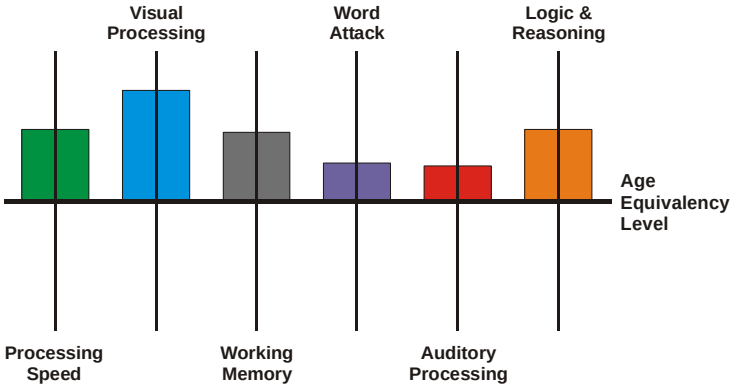

Figure 13.4: Cognitive Test Results For Example 4

LSRS RESULTS: No significant problems.

DISCUSSION:

Felicia is a student who is considered very bright and does not have any significant problems with learning. Her teachers and parents feel she is doing well in school. Even though her cognitive skills are strong, she could benefit from cognitive skill training.

In a highly academic world, strengthening her skills even more could give her a competitive edge. Learning could be easier and more efficient for Felicia, which could make the difference between attending a state college or an Ivy League University.

Effects Of Delays

The clues to a child's learning problems are often not recognized or acted upon until serious damage has been done. The National Center for Learning Disabilities states that at least 44% of parents who noticed their children exhibiting signs of problems with learning waited a year or more before acknowledging there might be a serious problem.

Often, parents fear that being labeled as learning disabled will have a negative effect on their child's self-esteem. Nearly two-thirds (63%) of parents feel that children with learning disabilities view themselves as different and not as good as other children. (Rogers, 2000)

I understand and share your fear. That is why I am glad to tell you that even though you discover the early signs of learning trouble in your child, there is no need or benefit to label them 'learning disabled.' Remember, that label is more useful to the education industry to justify isolating struggling kids than it is in helping the kids. You are reading this book so that you can correct the problem, not label it.

Early detection of learning and reading struggles is critical for recovery. The barriers rise so quickly around students who struggle in the early years of education that they become psychological obstacles. Recovery is more difficult as they get older.

This doesn't mean parents of older students should despair. Your kids can be helped successfully in most instances. I would just like to save parents and children the years of frustration by helping them as early as possible.