

# The REAL Reason That Kids Don't Learn

by

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Learning challenges are usually thought of as reading, writing, attention and behavior problems. These problems all seem very different and, in fact, are handled very differently by schools, parents and therapists. However, there is a common bond at the root of these problems that potentially holds the key to fixing them. All of these 'learning problems' have deeper roots in the way the sensory systems of the body communicate with each other. These 'sensors', called receptors, take in and process information. If there is a problem with the reception, then there is a problem with understanding.

The senses include the eyes for vision, the ears for sound, the vestibular organs for balance, and pressure sensors in the skin and joints. Our ability to integrate the information coming in from the environment simultaneously from these sensory receptors governs how well we learn, communicate, behave and everything else!

Surveys of children with learning disorders including ADD and ADHD routinely show sensitivities that not only prevent learning, but also manifest in other ways. These sensitivities may be to light, certain textures, temperature, touch, confined spaces, certain sounds and foods. Motor planning, coordination and gastrointestinal function can also be involved. In addition, the behavior of children who are struggling with sensory processing problems varies widely. Their behavior patterns can range from shyness to a short attention span, poor vocabulary, poor organizational skills, lack of athletic ability, low tolerance for frustration, procrastination, fear, low self-esteem and depression.

## **MULTIPLE APPROACHES**

Most educational and psychological approaches address learning, behavior, and other types of sensory dysfunction by focusing on behavior modification to reinforce specific, desired outcomes. This approach may be warranted if the skills taught are useful in everyday life, but how can we expect someone to cope with situations that they have not been trained to deal with? Imitation is no substitute for capability. Educational inadequacies are often addressed by reinforcing material presented. This may be effective in strengthening short-term memory, but may not be a long-term solution.

Medical approaches, on the other hand, view learning problems as an issue involving maturity. Many physicians view learning, behavior and other sensory problems as conditions that will improve over time with or without a specific treatment program. Where necessary, pharmaceuticals are prescribed to accelerate brain function, and control hyperactivity or depression. The good thing here is that this approach acknowledges the biological relationship between neurological development and learning disabilities, but it still is not a long-term fix.

## **WHAT IS LEARNING ANYWAY?**

The advances in neuroscience over the past ten years are revolutionizing the way we can help our students to increase their *ability to learn*.

Learning is the result of the brain actually growing, molding and expanding to understand, store and use new material. For example, when a student is introduced to algebra, their brain has to change and grow in order to understand the new complex material being presented to it. With proper instruction and repetition over time, a healthy student's brain will adapt and eventually understand, memorize and be able to use the material. This is called Brain Plasticity or the brain's ability to adapt and change.

Learning is actually based on two principles:

1. The material being presented "**CONTENT**"
2. The brain's ability to expand and grow "**CONTEXT**"

This understanding has been achieved in part due to three scientific breakthroughs:

1. the discovery that the human brain produces new cells and new networks throughout life – Plasticity.
2. a better understanding of how brains rewire themselves and how sensory and learning experiences affect the brain
3. a new understanding of the vestibular system in the brain and how vestibular function (balance) affects behavior, learning, and language

These advances have provided a clear method for promoting and brain development. By simply respecting the basic principles of how brains process and store information and how they build networks, it is possible to achieve dramatic progress in language, social, emotional, and motor development.

### **NEURO-ENHANCEMENT APPROACH: PROMOTING SENSORY INTEGRATION AND BRAIN EXPANSION**

The Neuro-Enhancement Therapy approach used at the Long Island Spectrum Center is a scientifically based learning system combining a sensory-rich environment (lights, music, vibration and movement) to expand the participants 'context' and a personalized special education program designed specifically for your child to address their 'content' needs.

Neuro-Enhancement Therapy is a non-invasive, drug-free developmental approach used to address learning and behavioral problems including ADHD, ADD, Autism and learning difficulties as well as other sensory problems. This unique approach provides stimulation to the four main sensory systems and encourages the development of neurological pathways that influence both processing and organization.

Participants ranging from 3 years to adult have experienced substantial benefits from this fun Neuro-Enhancement approach.

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