

Sensory Learning™

A New Way to Retrain the Brain?

By John W. Steinert, PT

I have always had a belief that an isolated, single minded approach to solve a problem would limit your results. That mindset can be useful in many different situations, especially when it comes to retraining your brain.

Starting in the 1970's Jean Ayres, a pioneer in the field of Occupational Therapy and Sensory Integration found that a structured sensory stimulation approach for treating dysfunctions in her patients was extremely effective in reorganizing the way the client processed information. The client was then able to more effectively perform routine tasks such as learning, normal behavior responses and activities requiring advanced coordination. Fast forward to 2003 and sensory integration has taken a quantum leap into the future.

Sensory integration is directly correlated with how we experience and perceive our environment. How we hear (auditory processing), how we see (visual processing), and our relationship to objects in our environment (vestibular processing). The ability to perform all of these tasks well is the foundation for optimal development and brain function. If you are lacking in one or more of these areas you may notice many signs and symptoms of poor sensory integration and processing. Auditory processing difficulties may include poor attention and lack of concentration, over-stimulation in loud and busy areas, and sensitivity to certain sounds such as a vacuum, lawn mower or school bell. Visual processing difficulties may include poor reading and retention, sensitivity to light or poor night vision, and difficulty running or walking on uneven surfaces. Vestibular processing difficulties may include poor body awareness, difficulty on moving surfaces such as an escalator or on a train, intermittent dizziness, poor attention, concentration

and difficulty keeping your eyes focused on a target.

The significance of these systems working properly is fundamental, but of critical importance is how these three systems work together. The tasks each system performs is interrelated with each of the other systems. Therefore, when one is affected they all respond as one, in order to properly integrate and process what the person is experiencing and, more importantly, to control the quality of that experience.

Let's take an example: If you have ever been really scared you will notice that your perception is very different. It is called the fight or flight response: your eyes dilate to let in more light, your hearing is more acute, and your nervous system is very sensitive to its environment because it senses danger and it is a primal reflex to protect yourself. But what if there was a way to retrain those systems to work together more efficiently without the fight or flight response and create an improvement in learning, coordination, language skills, clarity of thought, and overall mental processes? There is, and it is called Sensory Learning™—a Supra-Modal Integrative Learning Experience (SMILE).

Mary Bolles, founder of the Sensory Learning Institute in Boulder, Colorado, developed the Sensory Learning™ program over 15 years ago, an approach that utilizes three proven therapies simultaneously to retrain the way the client is processing information. The Sensory Learning™ program can best be described as a very unique learning experience. The client is lying on their back on a specially modified table; either flat or on special positioning wedges that are sup-

portive of the entire body. The client is looking up at a computerized light instrument that will generate each color of the visible spectrum one at a time through a 2" round opening. The program will start at one end of the visible spectrum from magenta and work its way through to violet. The client wears a set of headphones that will play modulated music customized to the client's needs based upon their initial evaluation process. The table is then turned on and will move in either a left-to-right direction (horizontal plane) or a head-to-toe direction (vertical plane). While going through the program, the table will move in an alternate direction each day.

The simultaneous use of therapeutic light, sound and motion creates a very relaxing, surreal experience that without effort re-educates the sensory systems to work together more efficiently. The results are fantastic for many clients. I work with clients that have severe difficulties such as autism or brain injuries to stockbrokers and artists that go through the program to enhance their mental performance. Most clients thoroughly enjoy the experience and feel it definitely helped them.

Studies from many different publications and professional journals support the use of vestibular therapy as well as auditory retraining and vision therapy. What makes the Sensory Learning™ program (SMILE) so unique is that the three therapies are done at the same time, the way your brain naturally learns.

John W. Steinert, PT is the founder of SIRRI – Sensory Integration Research and Rehabilitation Institute – with locations in Tempe, Arizona and Huntington, New York.

For more information on the Sensory Learning™ program, call 480-777-7075 or visit www.sirriaz.com. AZH