



**The
HANDLE®
Institute**

To find out more, or to schedule an evaluation for a child you know, contact:

The HANDLE Institute
1300 Dexter Avenue North
Suite 110
The Casey Family Building
Seattle, WA 98109

Phone: 206-204-6000
E-mail: support@handle.org
Website: www.handle.org

**Holistic
Approach to
Neuro-
Development and
Learning
Efficiency**



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THE REAL REASONS KIDS DON'T LEARN



A guide for parents and professionals

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In this booklet, the term “parent” is used to represent parents, caregivers, educators and anyone who works with children. The terms “child,” “children,” “kid” and “kids” are used to represent children of all ages.

Resources

The HANDLE Institute specializes in identifying and addressing the root causes of a wide range of learning disorders and behavioral issues.

Some others to consult:

Pediatricians: It’s always a good idea to start with a general check-up from your pediatrician, family doctor, or naturopathic physician to identify underlying health problems.

Developmental Optometrists: These vision specialists look at how the two eyes work together and may offer therapy.

Physical Therapists and Occupational Therapists: These professionals can help determine and treat various sensory motor disorders.



Interhemispheric Integration

Weak connections between the two sides of the brain can be implicated in many academic, social and behavioral challenges, as it's necessary to pull from both sides of the brain to balance logic with emotion, details with the bigger picture, and achieve optimal proficiency with language and learning at all levels.

Clues that may indicate weaknesses in interhemispheric integration include:

- Delayed language acquisition
- Problems comprehending directions
- Difficulty finding the right word
- Challenge to tie shoelaces
- Trouble getting dressed (e.g. pulls on pants with two legs together, needs help getting arms into sleeves)
- Difficulty learning to swim or pedal a bike
- Weak organizational skills
- Significant reading problems
- Trouble understanding concept of consequences or cause and effect

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Introduction

We know a lot about the physical development of children, and we are comfortable with the concept of employing developmental milestones, such as first steps and first words, to gauge a child's progress. We test and evaluate a child's educational growth, sometimes even before they've reached school age. We have even begun to recognize the importance of mental health in children. When you think about how much we do know about children and their development, it's hard to understand why there are so many that continue to struggle with learning and/or behavior.

All children possess the potential to learn; the possibilities are unlimited. And just as crawling sets the foundation for walking in a child's physical development, there are building blocks—neurodevelopmental systems—that pave the way for academic, social and behavioral learning. As you learn more about the neurodevelopmental systems that we touch upon in this booklet, you will see that the systems of some children are weak, and that, until strengthened, these children simply have to work harder.

Each neurodevelopmental system:

- must be functional,
- must be able to work with other systems,
- must work in the right sequence,
- must not interfere with other systems at inappropriate times.

It may sound like it would be difficult to figure out, but actually kids are providing us with clues all the time. Their behaviors and reactions to learning are a result of their systems' attempts



Differentiation

Differentiation is the ability to move one body part without the unintentional movement of other parts. The ability to move one's eyes independently from the head is required for reading. Differentiation of fingers, one from another, is needed for fluid writing. Differentiation also allows us to mentally prioritize and focus on the task at hand.

Clues that may indicate a weakness in differentiation include:

- Knocking things over at the table
- Startle reactions
- Unintentional body movement often interpreted by others as misbehaviors when standing in line, sitting at circle time, etc.
- Unintentional movement of the head or jaw when the eyes are tracking
- Unintentional movement of the opposite hand when one hand is engaged
- Unintentional movement of the legs when one hand is engaged
- Tics that involve more than just the eyes
- Difficulty sorting out fingers for fine-motor coordination
- Movement of the tongue and/or mouth when concentrating

at telling us what is going on with them. As you begin to understand how to look at these behaviors and reactions differently, you will also begin to understand how to better help your child.

So read on and learn. You may recognize your child, or a child you know. The HANDLE approach has provided thousands of individuals with the tools they need to strengthen weak neurodevelopmental systems, opening doors to academic, social and behavioral success.



This booklet is not intended to provide a comprehensive explanation of all neurodevelopmental systems. Rather, it is an introduction to a new way of viewing behavior and reactions in children. As you read each section, you may question whether to be concerned about your child or a child you know. If a specific behavior, or set of behaviors, are interfering with everyday life, it's time to look for help. We have provided a list of resources for you in the back of this booklet.

The Vestibular System

The inner ear, where the Vestibular System is housed, is not only responsible for our ability to hear, but it also provides us with the ability to process information about movement, gravity, balance and space. The vestibular system is foundational to many other neurodevelopmental systems, and a weaknesses in vestibular functioning can cause pervasive problems from inaccurate auditory sequencing to reading difficulties to motion sickness.

Clues that may indicate a weakness in the vestibular system include:

- Excessive rocking
- Avoidance of carnival rides, merry-go-rounds, swings
- Obsessive watching of things that spin, or excessive spinning of self
- Dizziness or nausea caused by watching things move
- Reports of never having felt dizzy or nauseated
- Problems of vertigo and/or balance
- Difficulty walking on uneven ground
- Need to move fast
- Motion sickness
- Dislike of crowded and noisy environments
- Delayed language development (understanding and using)
- Reading difficulties
- Inability to read or write in cursive
- Hearing problems
- Problems of auditory sequencing
- Inability to sustain listening without moving or rocking
- Placing hands over ears



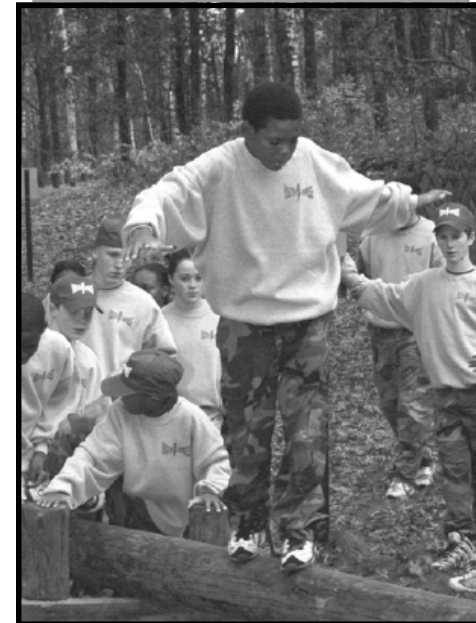
Kinesthesia

Kinesthesia is your body's sense of movement. Memory from muscle movement is responsible, in part, for a child's success in activities such as riding a bicycle and writing.

Clues that may indicate a weakness in kinesthesia include:

- Inability to carry on a conversation while walking
- Clumsiness in using eating utensils
- Difficulty expressing ideas in writing
- Slow articulation of words or ideas
- Awkwardness in dressing and grooming skills
- Difficulty in acquiring rapidity in typing, using a 10-key, computer keyboard, etc.
- Trouble getting dressed, etc. in the dark or with eyes closed

- Need for repetition of words and phrases
- Word incomprehension
- Difficulty regulating speaking voice
- Dislike of music
- Avoidance of chewing
- Difficulty falling asleep or staying asleep if there is any noise or what most people perceive as "no noise"



The Visual System

The importance of eyesight in learning and behavior is well recognized, and children are tested regularly on visual acuity. But visual health goes far beyond 20/20 vision. The ability of the eyes to work together to focus on a single point (binocularly) and to move smoothly over a line of print (visual tracking) is crucial to success in all academic areas.

Clues that may indicate a weakness in the visual system include:

- Difficulty in sustaining eye contact
- Poor eye-hand coordination
- Pain, watering or discomfort when required to perform visual tasks
- Inability to read without losing place
- Rubbing of eyes after use
- Frequent headaches after visual work
- Frequent stomachaches after visual work
- Difficulty copying from the board
- Skipping words while reading
- Reversal of letters and words while reading
- Generalized light sensitivity
- Poor three dimensional perception
- Insecurity going down stairs

- Difficulty grasping mathematical concepts
- Accident-prone behaviors
- Insecurity going up stairs



Proprioception

Proprioception is the brain's unconscious sense of where the body is in space. If the brain is receiving inaccurate information from the body about its position in space, sleep, attention and social interaction may suffer.

Clues that may indicate a weakness in proprioception include:

- Need to be held, swaddled, snuggled
- Unusual need to have physical contact with another person; clinging
- Hysteria over hair washing or pulling of shirts over the head
- Avoidance of activities that require closing the eyes (such as Pin the Tail on the Donkey)
- Discomfort or disorientation in the shower
- Difficulty falling asleep and staying asleep
- Sleep walking
- Falling out of bed
- Feeling of floating
- Extreme restlessness while sleeping
- Difficulty getting up and moving after sleep (as if strings were cut)
- Need for heavy covers or clothing or a backpack to feel grounded
- Need to have a light on to sleep (fear of the dark)
- Avoidance of team sports
- Dislike being in crowds
- Preference for and greater skill in swimming than in other sports
- Clumsiness, tripping over own feet, bumping into things



The Tactile System

Take a look at the human body and notice how much of it is covered by skin. The sense of touch plays a significant role in our understanding of ourselves and how we respond to the world around us. Dysfunction in the tactile system can lead to problems with writing, grooming, and social interaction.

Clues that may indicate a weakness with tactility include:

- Extreme ticklishness
- Aversion to being sticky, dirty, sandy, messy, etc.
- Unaware of being sticky, dirty, sandy, messy, etc.
- Dislike of being physically guided (being taken by the hand or given gentle guidance with a hand on the back)
- Tendency to touch other people or objects excessively
- Unusual pencil grasp (e.g. with the tip of the thumb off the writing implement)
- Dislike of (or reaction to) synthetic fabrics
- Avoidance of touch (by hands or mouth) of anything ‘mushy’ or ‘slimy’ or having mixed textures
- Intolerance of haircuts, hair brushing, face washing, finger nail cutting
- Unusual reaction to the application of lotion
- Intolerance to socks with seams, loose threads, loose elastic
- Need to remove tags from clothing
- Inability to sleep with a top sheet on the bed, or with a top sheet that is not tucked in military style
- Sensitivity to elastic waistbands, belts or starched or stiff clothing

