

A Comprehensive Model for Specific Learning Disability Evaluations



Using the *Building Blocks Brain Model* of Development to Understand and Assess Learning Disabilities

Peter Thompson, Ed.S., Ph.D.

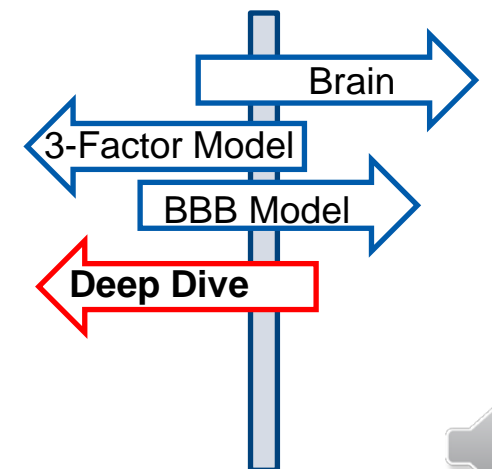




Module 2.6 Guidepost 4

The Building Blocks Brain Model

A DEEPER DIVE: Sensory and Motor



Important Note

The information, concepts, and models provided in this presentation are intended to give practitioners a framework when conducting special education evaluations. It is emphasized that nothing in this presentation is meant to be directive or prescriptive. Professionals are free to use some, or all of the information presented, but they are not required to do so in their practice. **Always consult with your special education director for clarity around district policies and expectations for special education evaluations.**



IMPORTANT 

Learning Outcomes

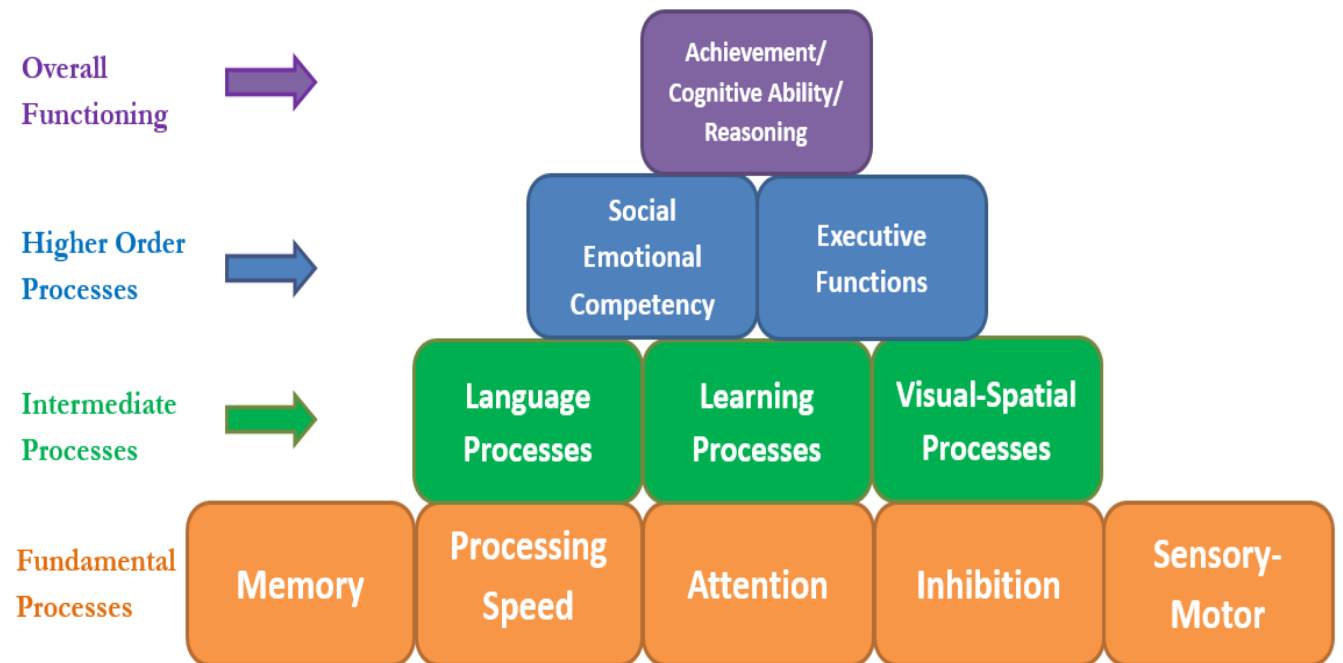
- What are Sensory and Motor functions?
- Behavioral and academic “Look-Fors”
- How to properly assess sensory and motor functions



Key Points: Sensory- Motor's Impact on Learning

- **Two distinct but integrated functions**
- **“Sensory” entails information that is processed and used from our senses**
- **Motor skills entail movement, muscle tone, balance, posture, visual tracking**
- **Humans must regulate senses and motor functions to engage in their learning environment. S/M functions support our perceptions**

Building Blocks of Brain Development ©



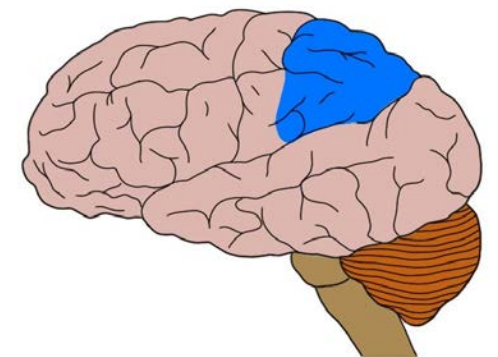
The Hierarchy of Neurocognitive Functioning © - created by Peter Thompson, Ph.D. 2013, adapted from the works of Miller 2007; Reitan and Wolfson 2004; Hale and Snodgrass 2004.

The Building Blocks of Brain Development © – further adapted by the CO Brain Injury Steering Committee, 2016.



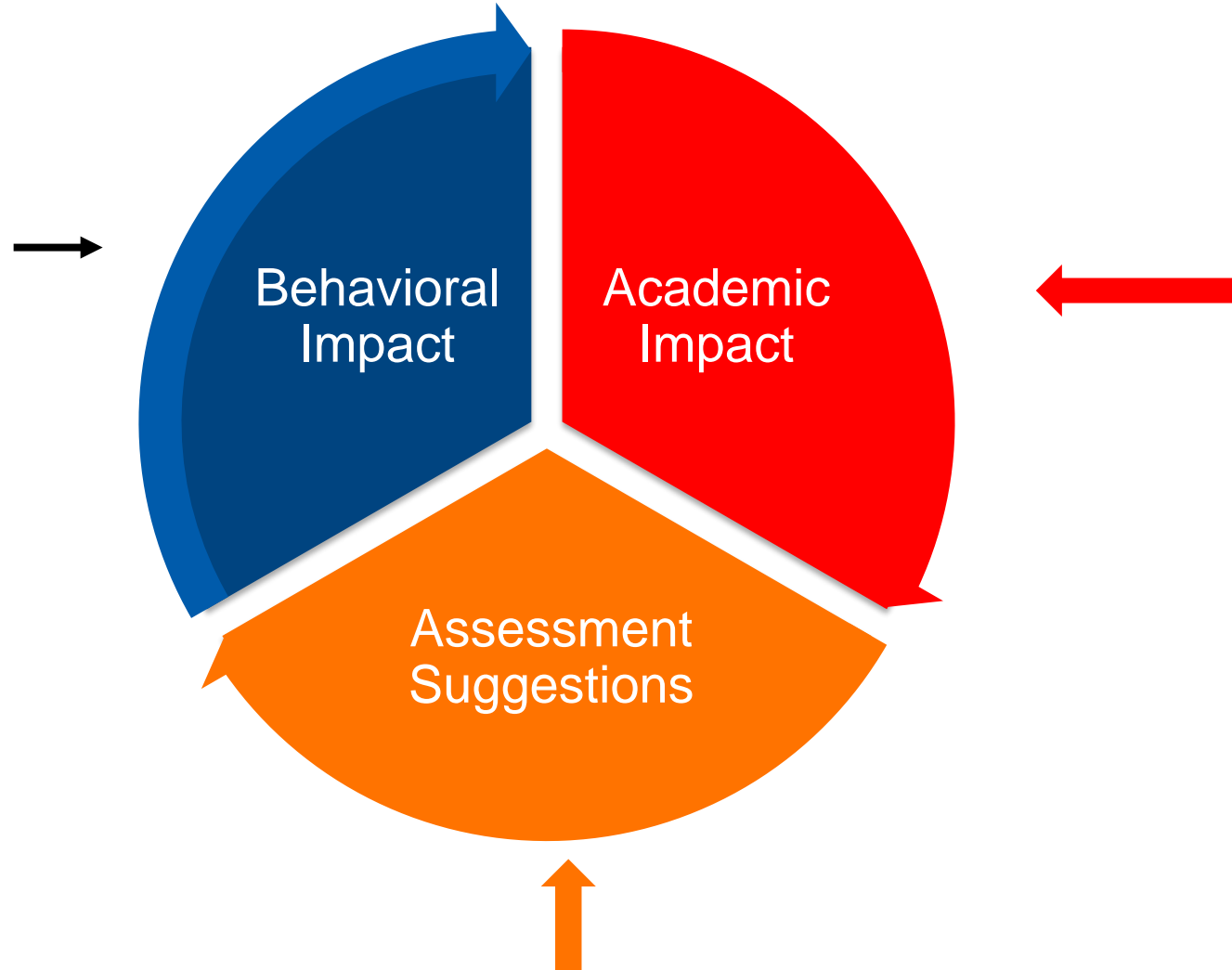
Sensory / Motor-Definitions

- Sensory and motor development is the process whereby a child gains use and coordination of his/her muscles of the trunk, arms, legs and hands (motor development), and begins to experience, through sensory input, the environment by sight, sounds, smell, taste and hearing. (Nicklaus Children's Hospital, 2020) .
- Sensory / motor functions and processes can be complex and multifaceted. Includes, balance, fine motor, gross motor, proprioception and other issues related to the senses.



Sensory-Motor: 3 key Aspects to Consider In SLD Evaluations

Note: Separate over and under sensory stimulation categories



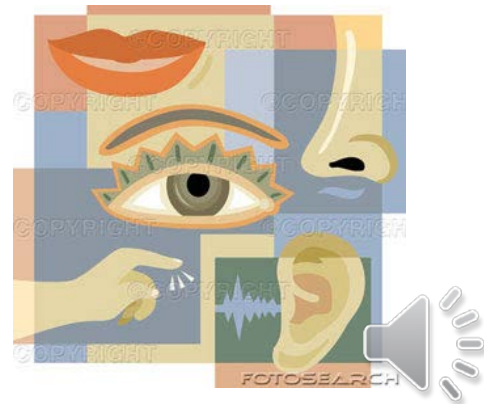
Behavioral Impacts (Look-Fors) Over-stimulated

- Appears overwhelmed—sensitive to environment-defensive
- Behavior may appear oppositional (wearing hat to cover eyes)
- Clothes are disheveled due to tugging—loose clothes
- Emotionally melt down, irritable, short tempered



Behavioral Impacts (Look-Fors) Over-stimulated

- Fidgety, nervous rubbing
- Overly excited / upset in stimulating environments
- Tunes out due to over stimulation
- Covers ears, eyes—tries to block stimulation



Behavioral Impacts (Look-Fors) Under-stimulation

- Takes a lot of sensation to stimulate the child – seeks out more stimulation
- Always touching people or things
- Motor – can appear clumsy and run into objects/people
- Motor – constantly on the move
- Tactile – seeks out touch or being held
- Taste – picky eaters



Academic Impacts (Look-Fors): Over-stimulated

- Difficulty completing worksheets with too many items on them
- Difficulty shifting from various academic tasks
- Difficulty transitioning
- Difficulty with group work and group discussion



Academic Impacts (Look-Fors): Over-stimulated

- Difficulty with reading due to visual stimuli
- Gets overwhelmed in crowded / noisy classrooms
- Incomplete work
- Messy papers, school-work is not well-organized
- Poor handwriting



Academic Impacts (Look-Fors): Under-stimulated

- Difficulty following verbal directions
- Tactile – difficulty registering pain or pressure
- Difficulty with sustain attention
- Seeks stimulation in classroom-behavioral issues



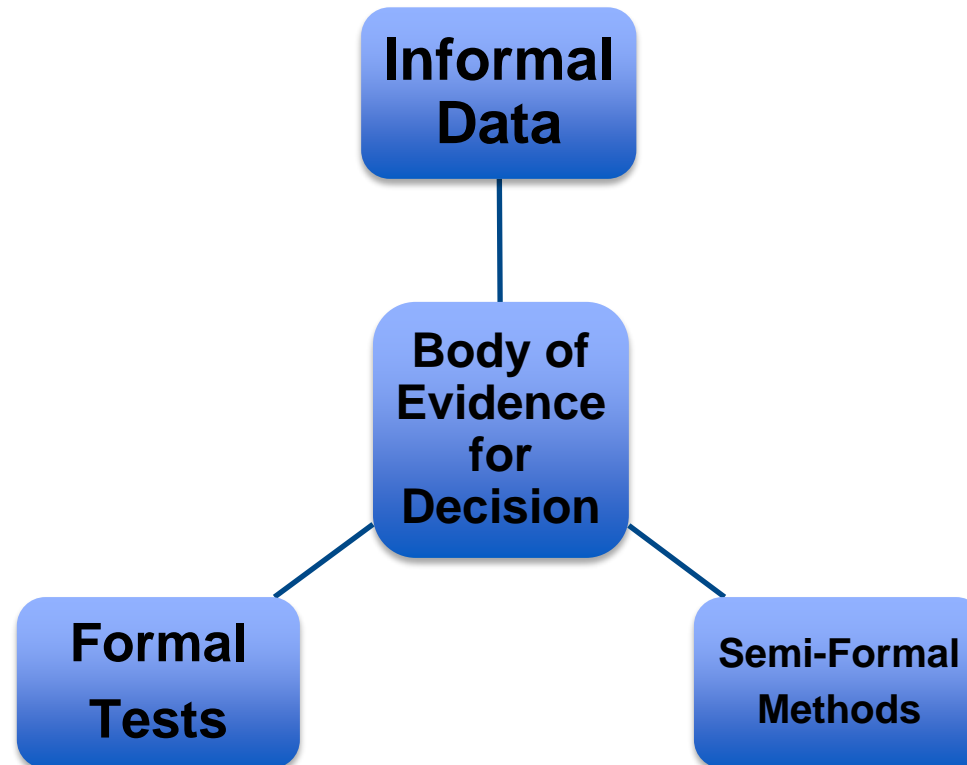
Motor Issues

- The behavioral and academic traits of motor issues are combined as they are readily obvious.
- “Look-fors” include:
 - odd pencil grip
 - clumsy gait
 - balance problems
 - eye-tracking issues, motor integration
 - visual-spatial difficulties (perception)
 - poor handwriting



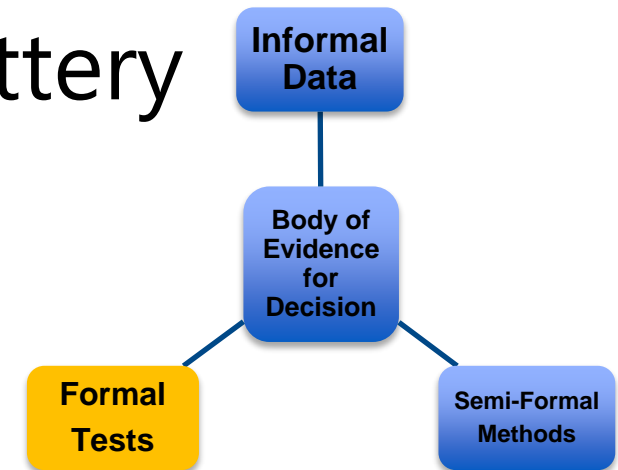
Assessment Suggestions: Sensory/Motor

- Use 3-Factor Model for Assessment
 1. Formal
 2. Informal
 3. Semi-Formal



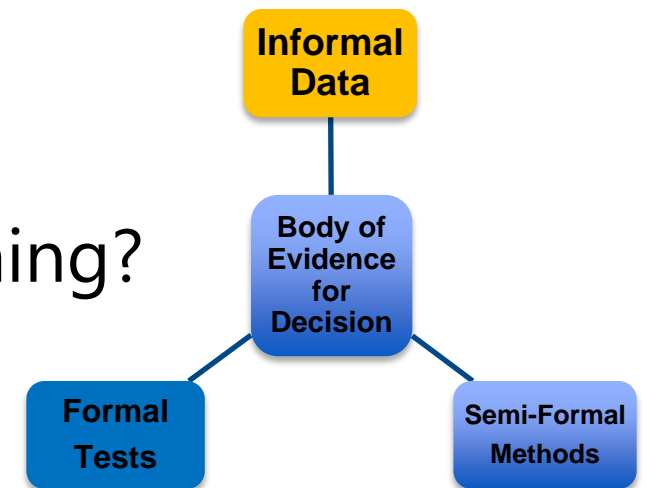
Formal Methods: Sensory/Motor

- Sensory Profile-2
- Sensory Processing Measure (SPM)
- Sensory Integration Inventory
- Dean-Woodcock Sensory Motor Battery
- NEPSY-II: Sensorimotor Subtests
- Berry VMI-6th
- Peabody DMS



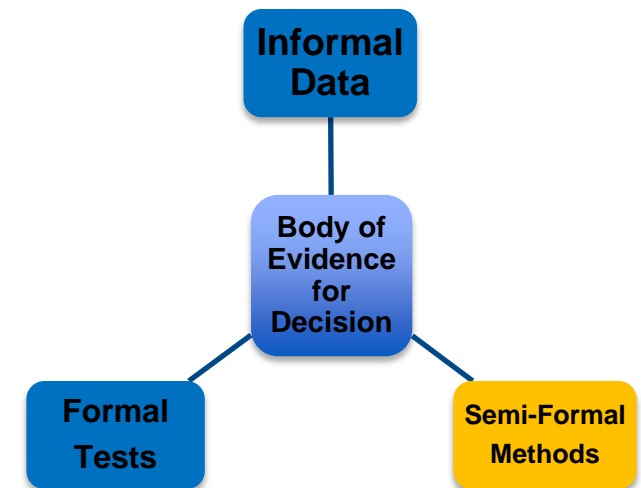
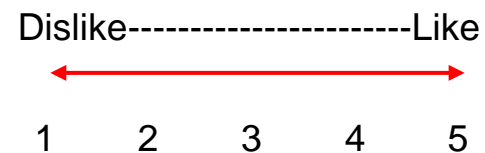
Informal Data: Sensory/Motor

- Parent, student, staff interviews (student is key)
- Records review- Family history- (Discipline Records)
- Medical history -TBI/multiple cx / FAS
- Observations-multiple settings
 - Watch how the student writes
 - Noise sensitivity? Tight/ loose clothing?
- Work samples-handwriting

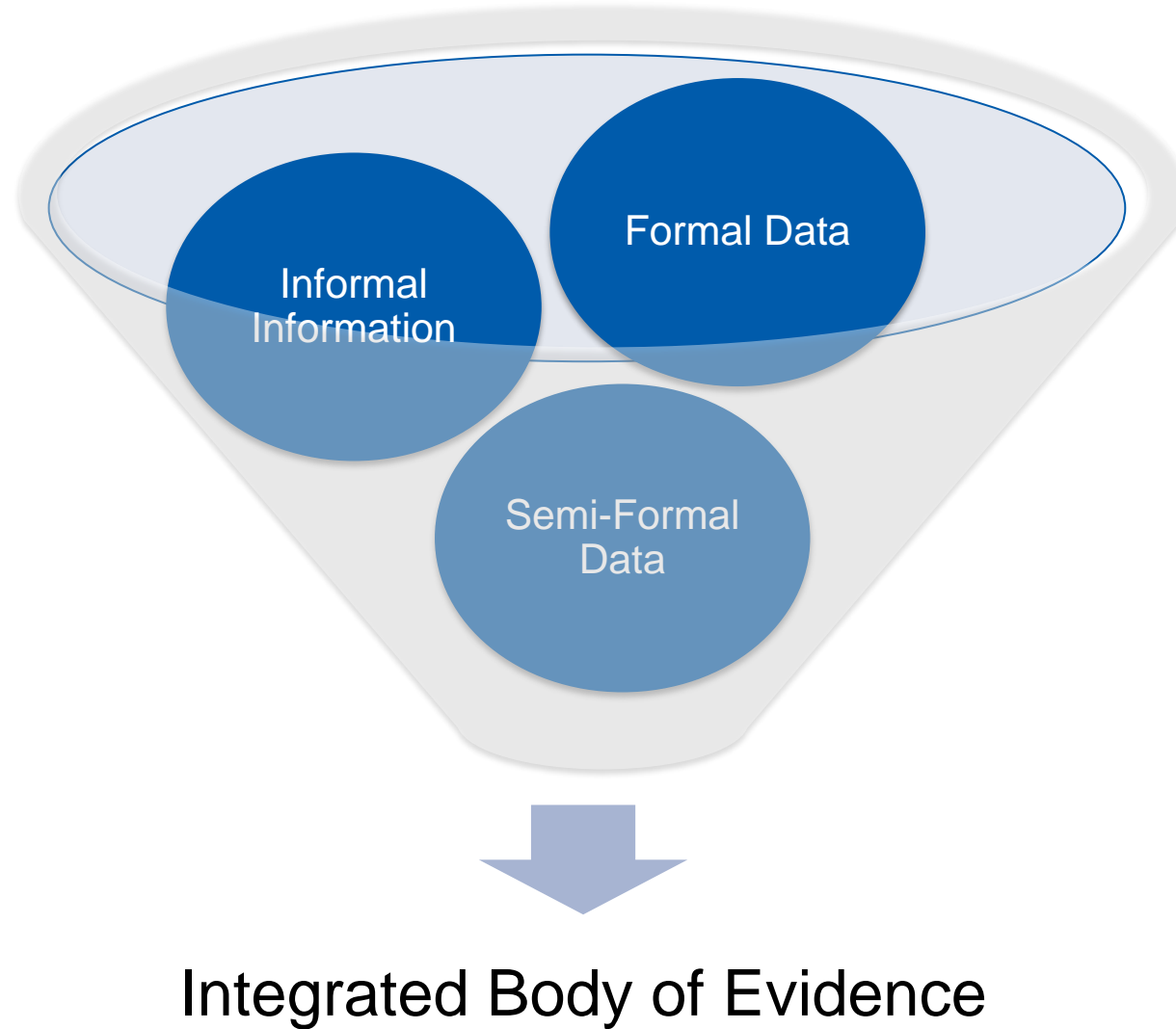


Semi-Formal Methods: Sensory/Motor

- NEF (CDE)
- Self-Created Rating Scale
 - Rate on sensory input
 - Like or dislike , noise, light, touch




Examining Sensory / Motor Functions



Summary: Sensory and Motor

- Sensory / Motor's key function is the regulation and integration of senses (and motor abilities) for a person to experience and participate in the environment.
- Sensory / Motor entails widespread functions related to physical and sensory processes. Key for brain growth as environment input is critical for development.
- Sensory issues may be related to over or under stimulation problems. Motor issues related to visual-tracking, coordination, gross, and fine muscle factors.
- Informal methods are very effective in the evaluation process.





End of Module 2.6

Thanks for Listening



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