

# A Comprehensive Model for Specific Learning Disability Evaluations



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

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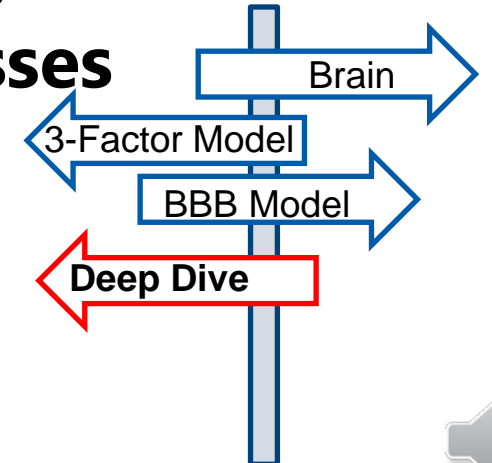




# Module 3.2 Guidepost 4

The Building Blocks Brain Model

**A DEEPER DIVE: Intermediate Processes  
Learning Processes**



# 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

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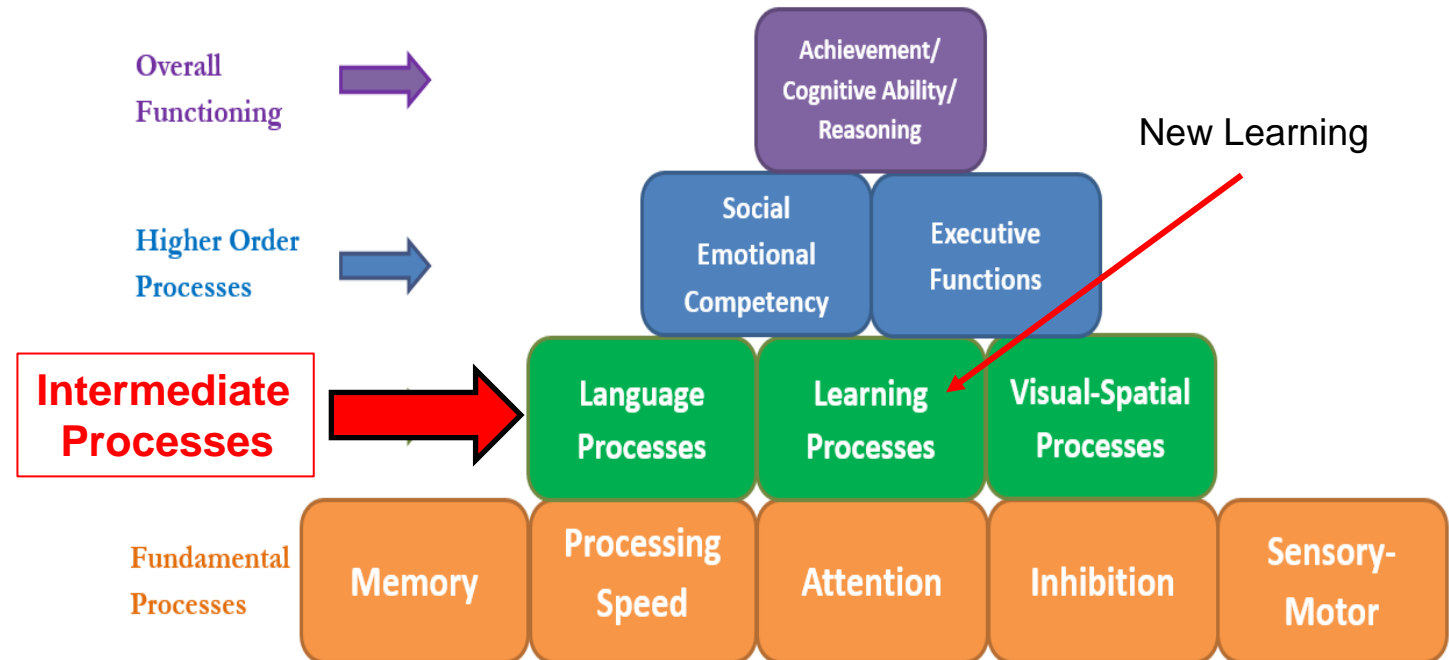
- How does new learning take place?
- What are the “Look-Fors” for students that have difficulty with new learning?
- How to properly assess specific learning deficits



## What Are Intermediate Processes? Impact on Learning and SLD

- Success within this level is based on proper functioning of fundamental processes
- Critical difference is the integration of functions to process complex information
- Acquisition of specific information and broad knowledge-critical for later use-(skills)

## 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 Fiorello 2004.

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



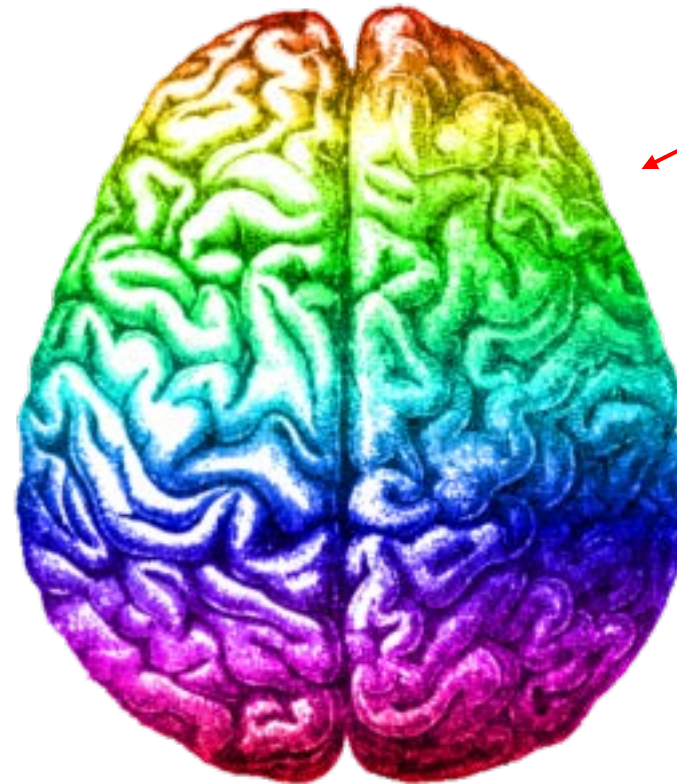
# Intermediate Processes: New Learning and SLD

- *Two Critical Factors in **All Learning**: Crystallized Knowledge and Fluid Reasoning.* Learning takes place when novel information is “fused” (integrated) with existing knowledge.
- Learning is a complex neurocognitive process that needs the successful integration of several brain-based functions—especially memory.
- New learning (novel learning) is essential for problem solving, reasoning, and the acquisition of knowledge that results in what we know as “wisdom.”
- Ability to put smaller details together to see the “big picture” or main point.
- Right brain hemisphere is important for learning new information.



## *New Learning Processes in the Brain*

- Novel learning heavily influenced by right hemisphere
- Merges new information to existing knowledge
- Related to “creativity”
- Takes place with help of frontal lobe--attention, working memory; and “crossroads” of brain--marginal gyrus



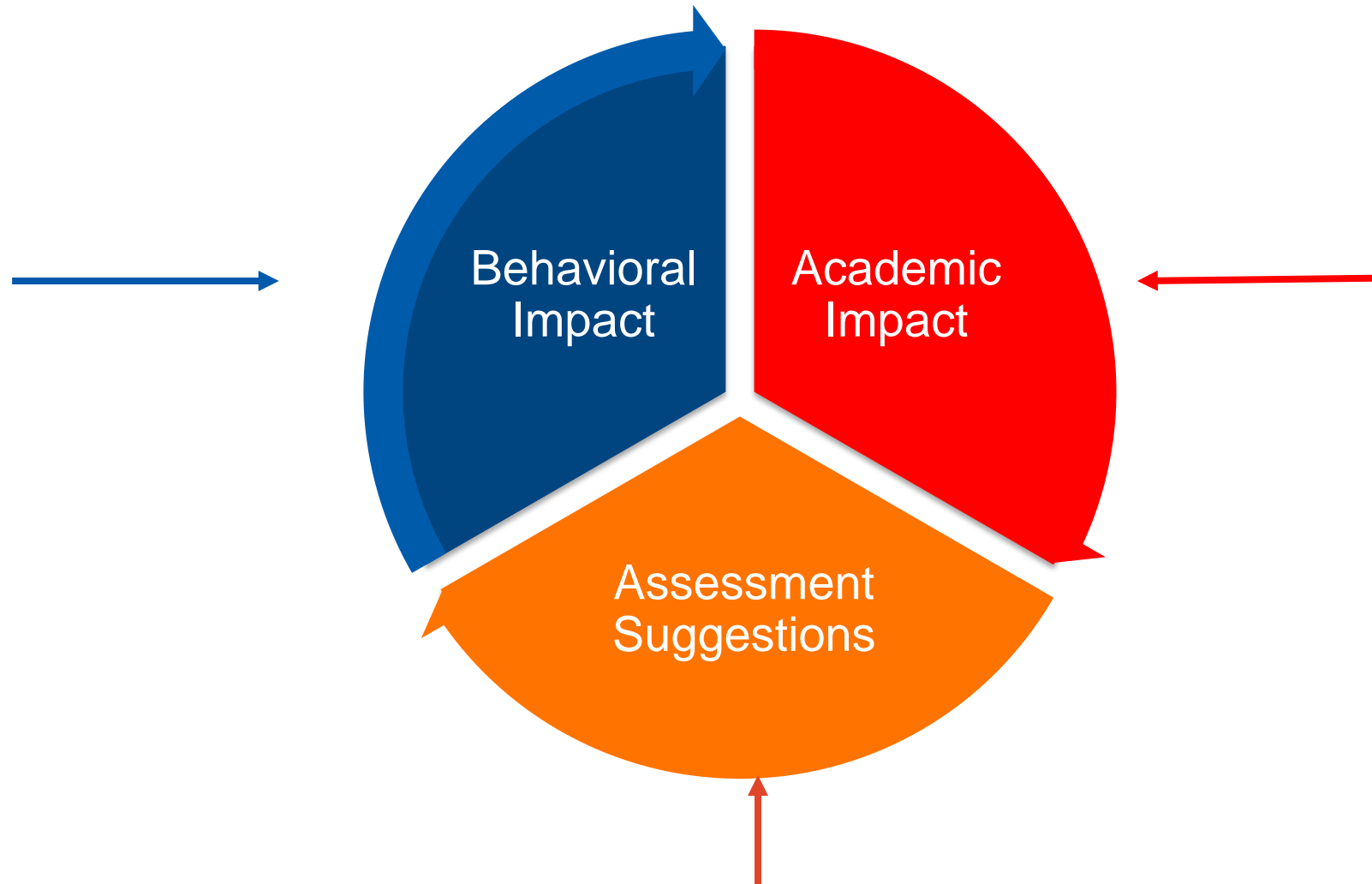
### Right Hemisphere

- New Learning
- Larger Picture
- Gist
- “Why” something is important



# New Learning: 3 key Aspects to Consider in SLD Evaluations

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# *Behavioral* Impacts (Look-Fors): **Learning**

- Easily confused, lost, frustrated or overwhelmed
- Angry outbursts or meltdowns
- Can be misclassified as lazy
- Can seem defiant—but doesn't understand
- Cheat or copy other people's work
- Follower
- Forgetful
- Makes things up to save face
- May not exert effort when new material is presented



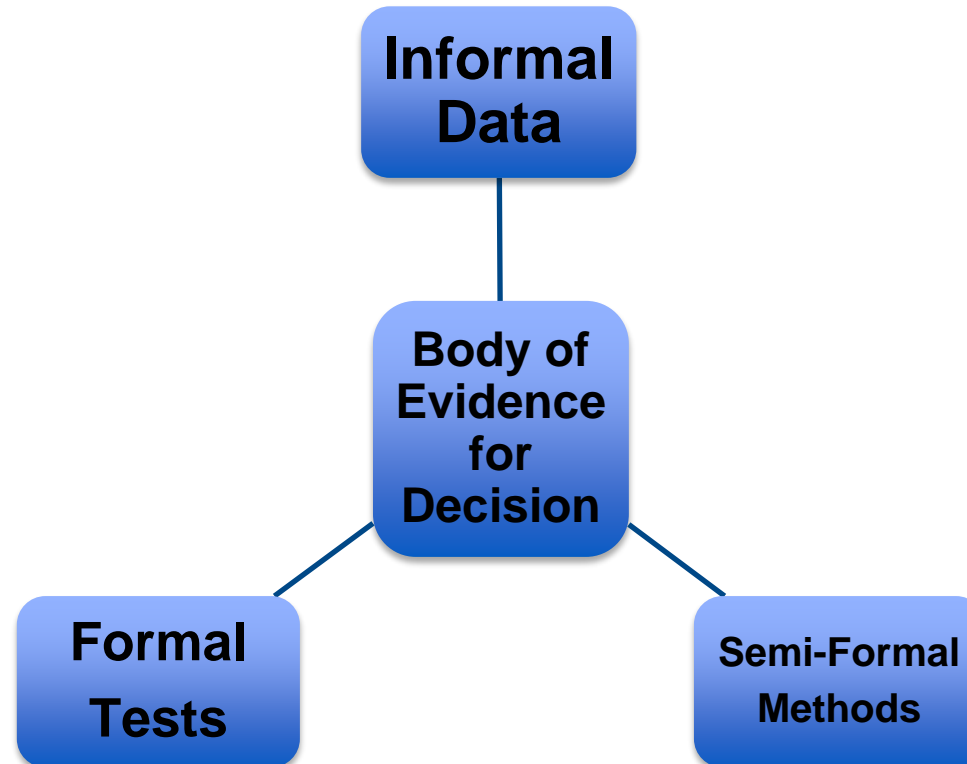
## *Academic* Impacts (Look-Fors): **New Learning**

- Cannot generalize or over generalizes information
- Can't grasp material, grade level concepts
- Misses main point, fails to see big picture
- Forgets people and names
- Inconsistent performance day to day
- Struggle with applying information
- Poor results / grades despite of extensive effort



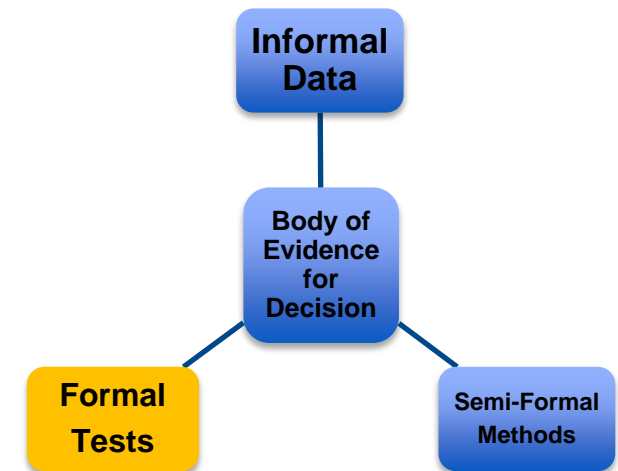
# Assessment Suggestions: New Learning

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



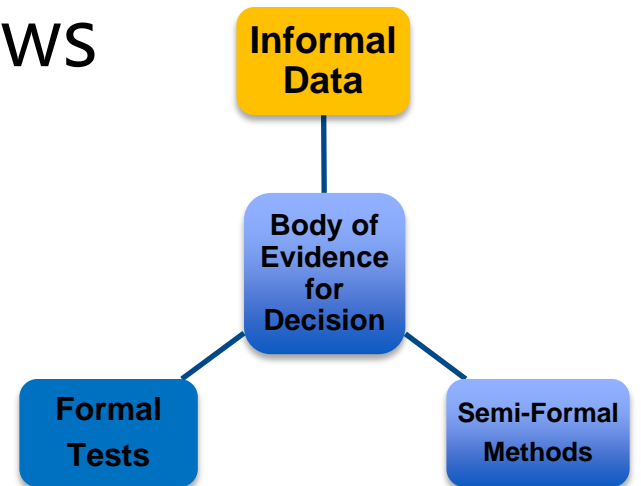
# Formal Methods: New Learning

- Aligned with “Nonverbal” or abstract reasoning type of tests
  - Matrices / Pattern Tests
  - DAS-2, WISC, WCJ-Cog
- Learning and Memory Subtests / Tests
  - Recall of Objects (DAS-2)
  - WRAML, TOMAL-2 (Learning Index)
- NEPSY-2



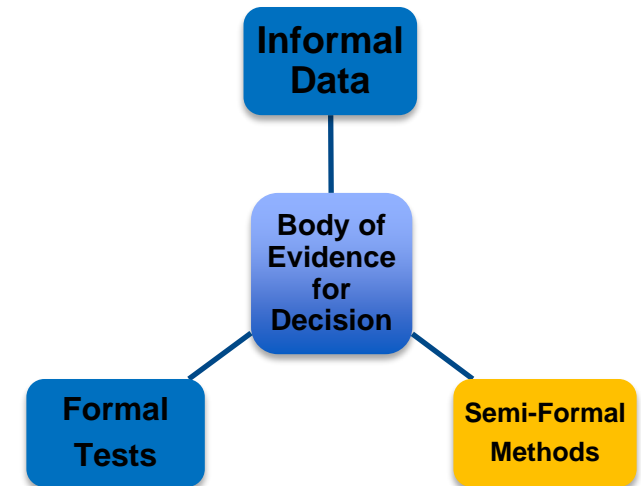
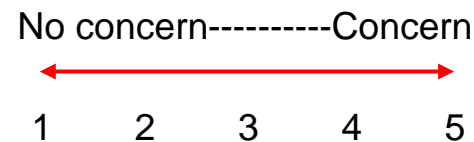
# Informal Methods: New Learning

- Observations: (student seems “lost” in classroom)
- Observations during testing
- Records: Grades / work samples (quality)
- Parent, teacher and student interviews
- History, TBI, ABI

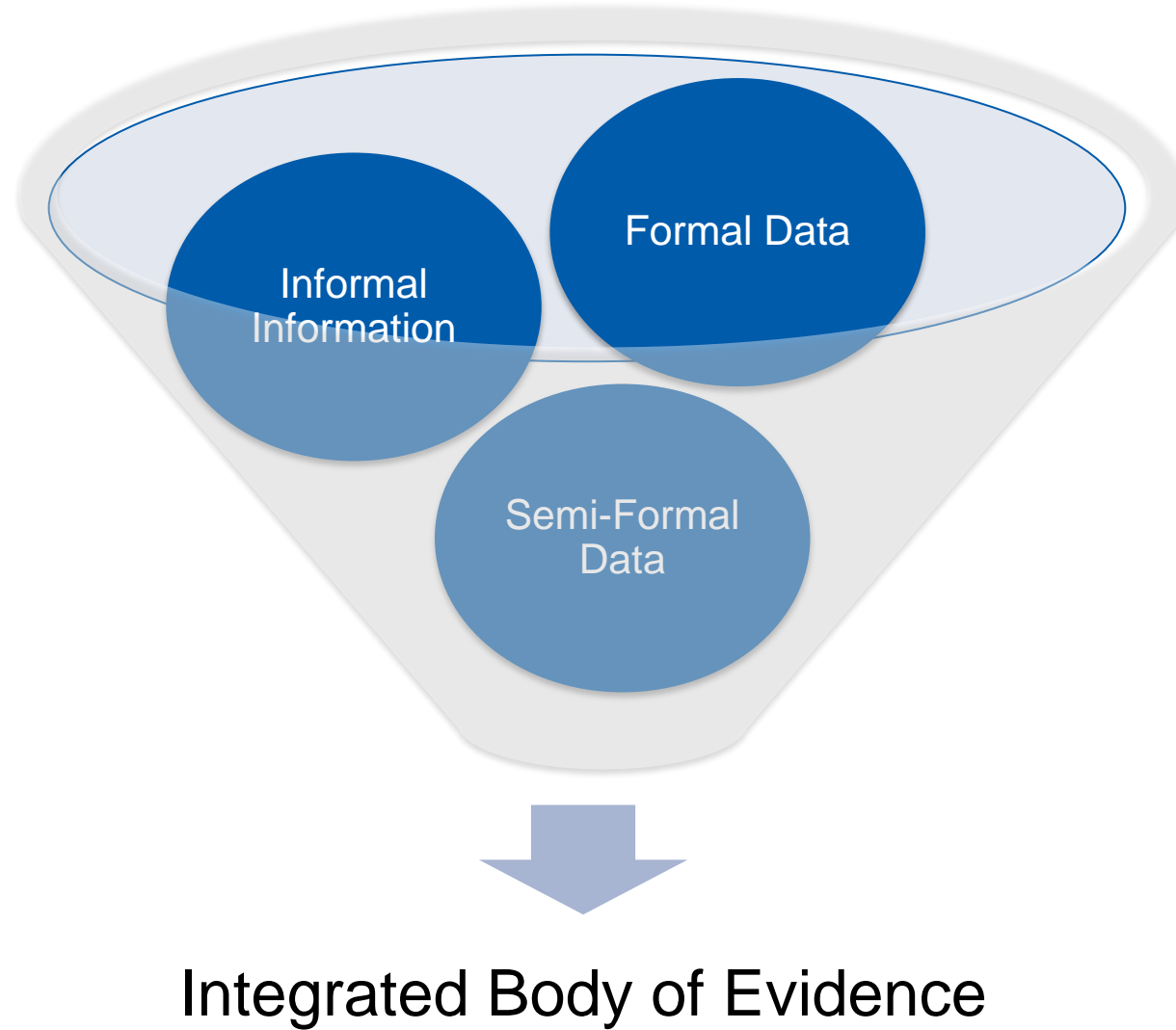


# Semi-Formal Methods: New Learning

- Structured Interviews
- NEF
- Self-Created Rating Scale
  - To Staff, Parents, Student



# Evaluating Learning Difficulties



# Summary: Intermediate Level: New Learning

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- Understand that the “Intermediate Processes” of the BBBM rely on the fundamental processes (blocks) and the integration of other brain functions.
- Learning takes place when new information is fused with existing knowledge. Learning involves the right hemisphere and several other brain areas that must be integrated.
- Students that struggle with new learning typically have poor grades, difficulty grasping new concepts despite effort, often look confused, become emotional and defiant.
- Nonverbal, abstract, and matrix reasoning subtests are highly correlated with the new learning.







# End of Module 3.2

## Learning Processes



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

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