

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

Module 3: The Intermediate Processes

- Module 3.1 Language
 - Language is a complex neurocognitive process that needs the successful integration of several brain-based functions
 - Behavioral Impacts
 - Receptive
 - Acting out
 - Presents as confused
 - Difficulty understanding auditory information
 - Does not understand multiple meaning words, inferential, figurative, and more complicated abstract language
 - Typically, a “follower”
 - Loses focus easily due to not understanding
 - Says, “I don’t understand” or “uh” often
 - Slow to or does not respond to directions
 - Social withdraw
 - Expressive
 - Difficulty with word retrieval
 - Uses poor grammar, immature speech
 - Circumlocution
 - Difficulty starting and maintaining peer conversations
 - Academic Impacts
 - Receptive
 - Poor reading comprehension
 - Reading/Writing weaknesses
 - Difficulty understanding complex ideas or directions
 - Answers wrong question
 - Difficulty problem solving especially verbally laden schoolwork
 - Difficulty understanding homework assignments
 - Difficulty with math word problems
 - Slow to understand, seems confused in classroom
 - Expressive

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

- Difficulty providing important details
- Difficulty summarizing
- Difficulty articulating thoughts, needs in classroom
- Often repeats the same idea rather than providing more or different information about a topic
- Responses may be short without much elaboration on topic
- Trouble participating in class discussions
- Trouble writing essays, taking notes, or re-telling stories
- Poor vocabulary tests
- Assessment Suggestions for Language
 - Formal
 - CELF-5
 - CASL-2
 - OWLS-II
 - PPVT-4
 - TCL-E
 - TOPS-2
 - Informal
 - Observations: when talking, listening, in naturalistic social conversation, during testing
 - Work samples: written expression
 - Parent, teacher, student interviews
 - Medical history
 - Semi-Formal
 - Add standardized/structure to informal methods
 - NEF
 - Self-created rating scale
- Module 3.2 New Learning
 - Learning takes place when novel information is fused with existing information
 - New learning is essential for problem solving, reasoning and the acquisition of knowledge that results in “wisdom”
 - Behavioral Impacts
 - 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

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

- Makes things up to save face
- May not exert effort when new material is presents
- Academic Impacts
 - Cannot generalize or over generalized 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
 - Struggles with applying information
 - Poor results/grades despite extensive effort
- Assessment Suggestions for New Learning
 - Formal
 - Nonverbal or abstract reasoning tests
 - Learning and memory subtests
 - NEPSY-2
 - Informal
 - Observations
 - Records: grades/work samples
 - Parent, teacher, student interviews
 - Medical history
 - Semi-Formal
 - Structured interviews
 - ENF
 - Self-Created Rating Scales
- Module 3.3 Visual-Spatial
 - Visual systems orients our visual world, makes sense of complex visual material, understand space and allows us to solve problems with the use of nonverbal reasoning abilities
 - Behavioral Impacts
 - Difficulty with reading social cues or facial expressions
 - Can experience behavior issues due to frustration or not understanding visual materials
 - Appears overwhelmed in visually laden contexts
 - Complains that "it all blends together"
 - Difficulty organizing materials/objects
 - Difficulty with proprioception
 - Gets lost
 - Increased headaches during visual tasks
 - Academic Impacts
 - Depth perception issues

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

- Difficulty with writing, spelling, and notetaking
- Difficulty using charts, maps, and graphs
- Difficulty with mathematics/geometry
- Handwriting issues
- Struggles with mental rotation and object construction/visualizing
- Reading difficulty (orthographic dyslexia)
- Orientation difficulty
- Assessment Suggestions for Visual Spatial
 - Formal
 - Visual Subtests on Cognitive Assessments
 - Block Construction, Recall of Designs
 - Rey-Osterrieth Complex Figure Test
 - BEERY VMI
 - TVPS-3
 - NEPSY- Visual Spatial Subtest
 - Informal
 - Observations
 - Records: Work Samples
 - Parent, teacher, student interviews
 - Medical history
 - Semi-Formal
 - Structured interviews
 - ENF
 - Self-Created Rating Scales