A Comprehensive Model for Specific Learning Disability Evaluations

COLORADO
Department of Education

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

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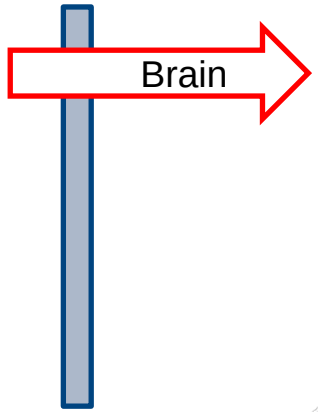
Module 1.2: Guidepost 1

Understanding the Brain in Special Education Evaluations



Important Note

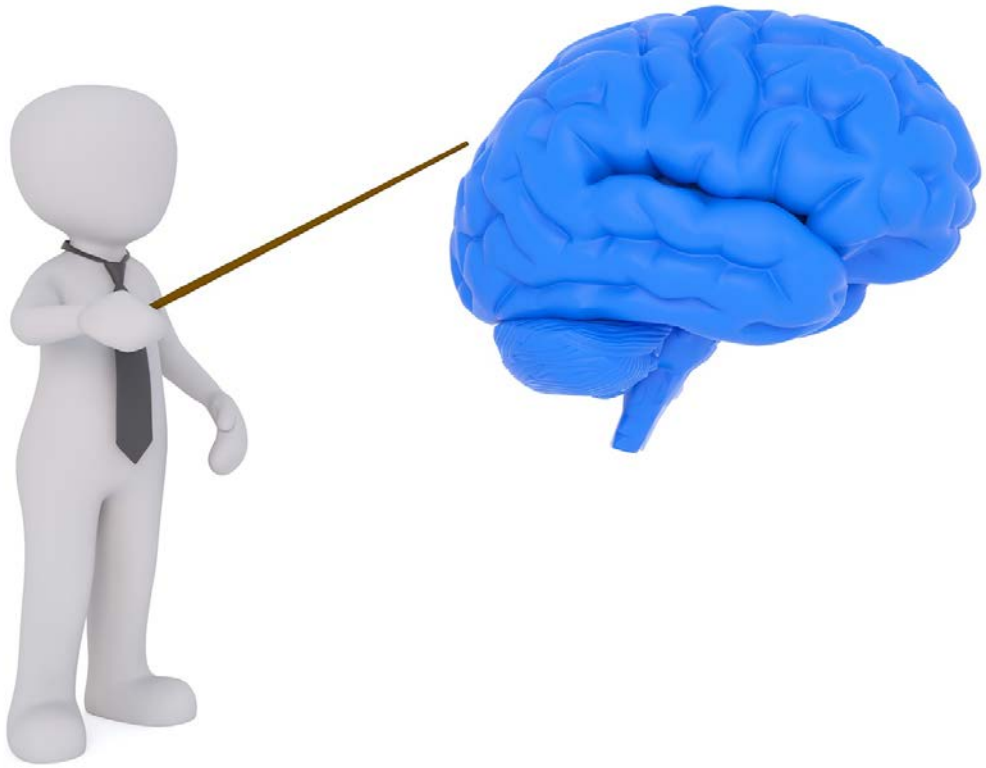
The information, concepts, and models provided in this presentation are intended to give practitioners a framework when conducting special education evaluations. It is emphasized that nothing in this presentation is meant to be directive or prescriptive. Professionals are free to use some, or all of 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.**

Learning Objectives

- Why it's important to understand the brain
- Appreciation for complexity and how the brain works
- Understand student difficulties from a neurocognitive perspective

Brain Basics: The Why

- Enormously complex, 100 billions neurons, neurochemicals, fluids, lobes
- People have tendency to vastly over-simplify its organization and function, desire for simple answers
- We must understand the brain if we are to educate others



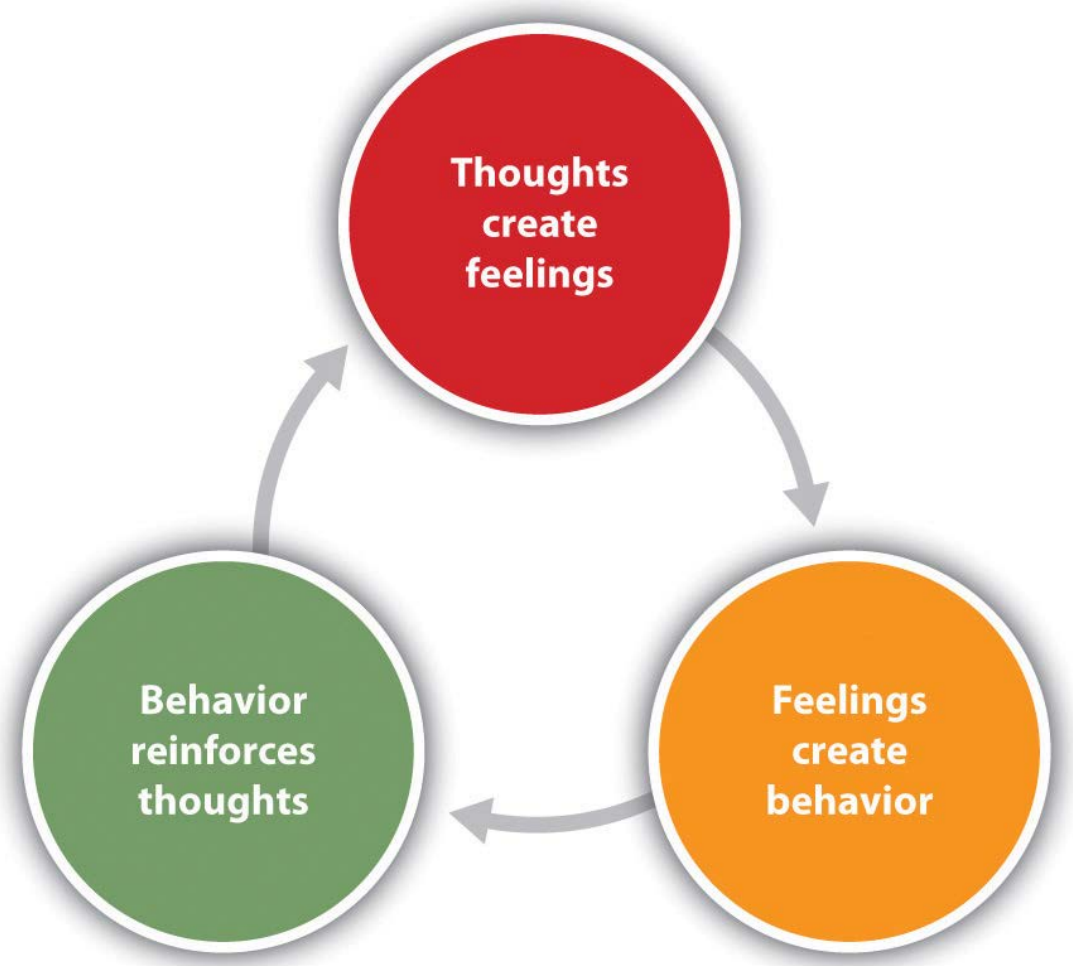
Educators need to understand the brain because they are, in fact, human software engineers

SLD Definition: *Always* a Brain Issue

The Individuals with Disabilities Education Act defines a specific learning disability as “a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.” This disability category includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia (a type of language disorder).

Brain is Responsible for ***All*** Functions

- **The brain creates the Triad of human function**
- **All learning is intricately and solely tied to brain functioning**
- **In all evaluations, brain function must be assessed and understood as it will help you understand the "why"**



Basics: Organization

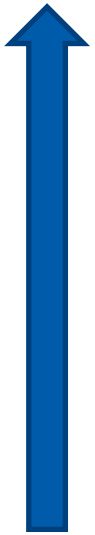
Cortex and Subcortical

Lobes

Hemispheres

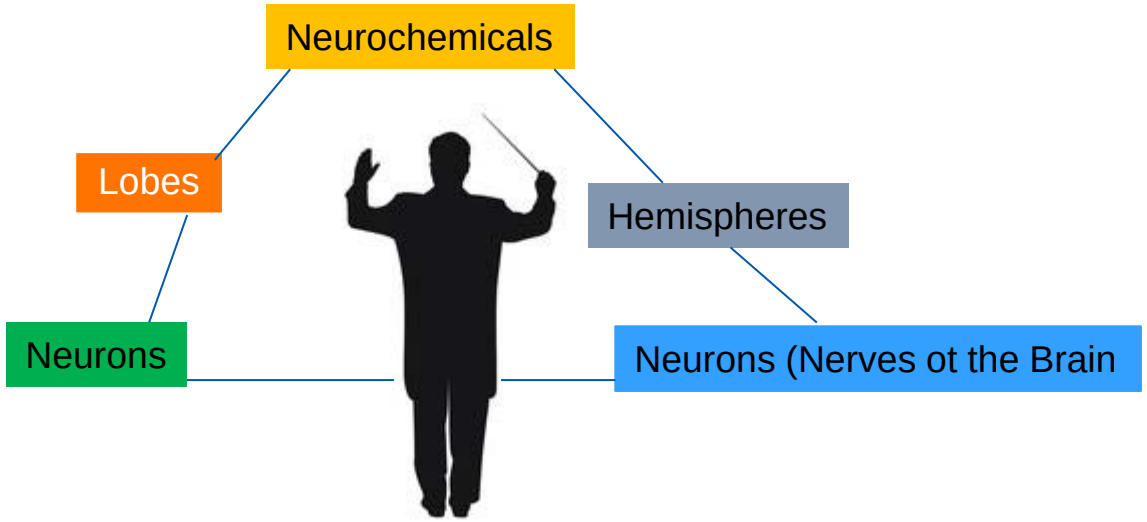
Neurochemicals

Neurons (Nerves ot the Brain)

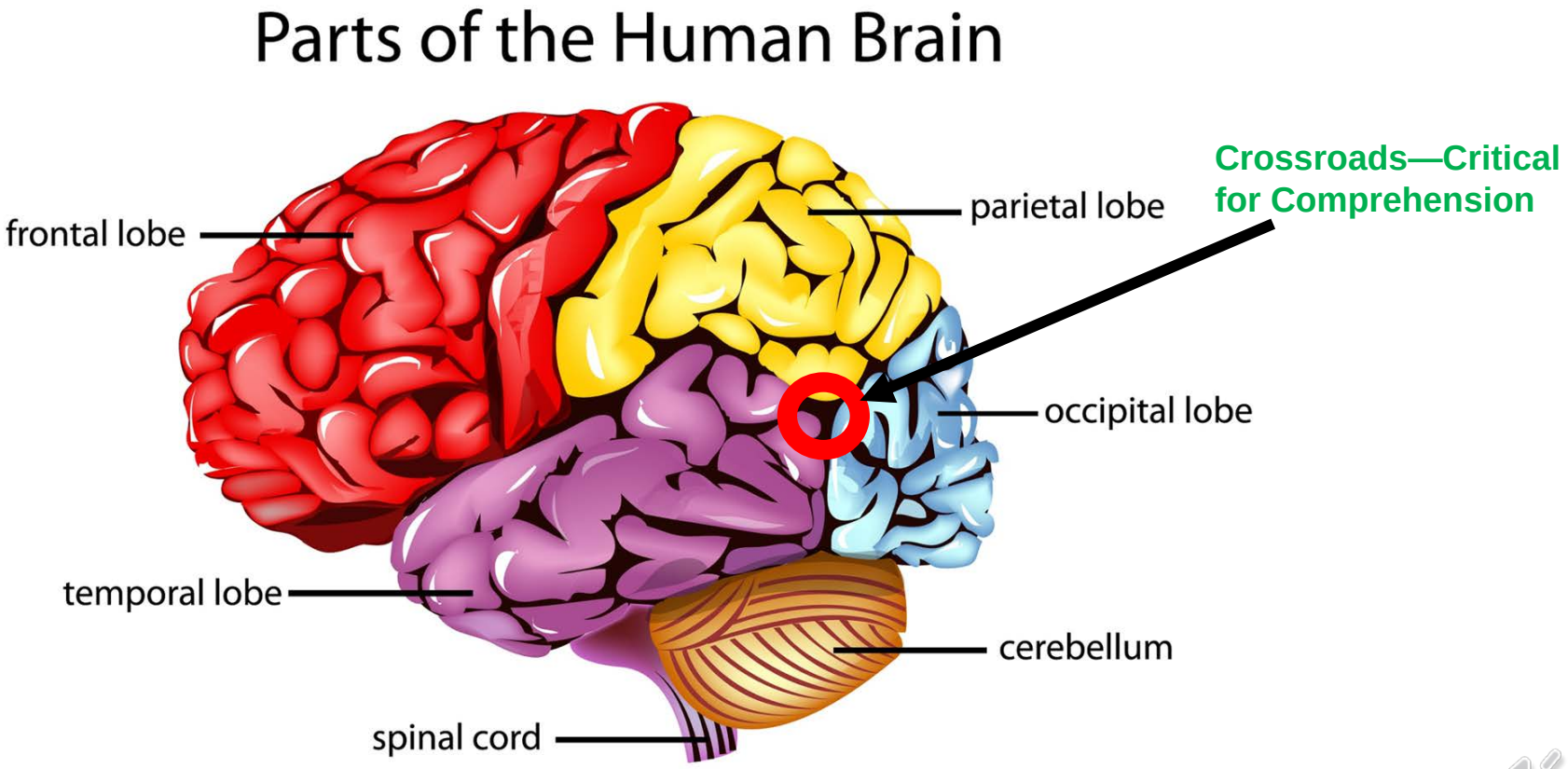


Key Points

- Brain must act as an integrated unit to function properly
- All brain parts are interdependent on each other
- Much like an *orchestra,* all instruments play in harmony
- Complexity=Countless avenues for brain to become dysfunctional



Some Major Areas and Related Functioning



Obvious Points, But Emphasized

All learning disabilities are:

- The direct result of a brain issue
- A neurocognitive dysfunction
- Various causes of neurocognitive dysfunction
- Learning disabilities can be highly persistent

Summary

1. The brain is obviously the most important part of being human. It is responsible for all learning.

2. The brain is eminently complex, and while brain models greatly oversimplify its functioning, some models form the bases for scientific school-based assessments.

3. While the brain has specific parts that do specific functions, the brain must work as an integrated unit for learning to take place. Complexity increases avenues for dysfunction.

4. School staff, especially teachers, are really human software engineers.

End of Module 1.2
Thanks for Listening

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