

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.

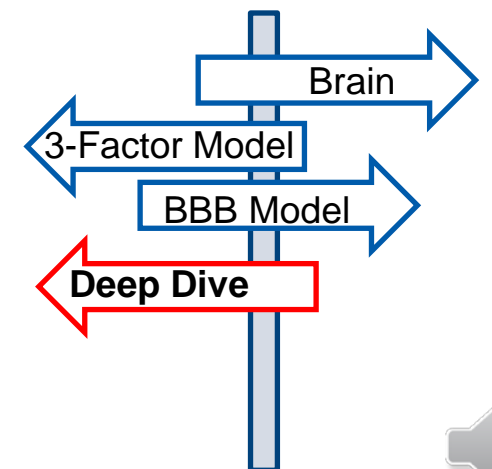




Module 3.1 Guidepost 4

The Building Blocks Brain Model

**A DEEPER DIVE:
Intermediate Processes: Language**



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

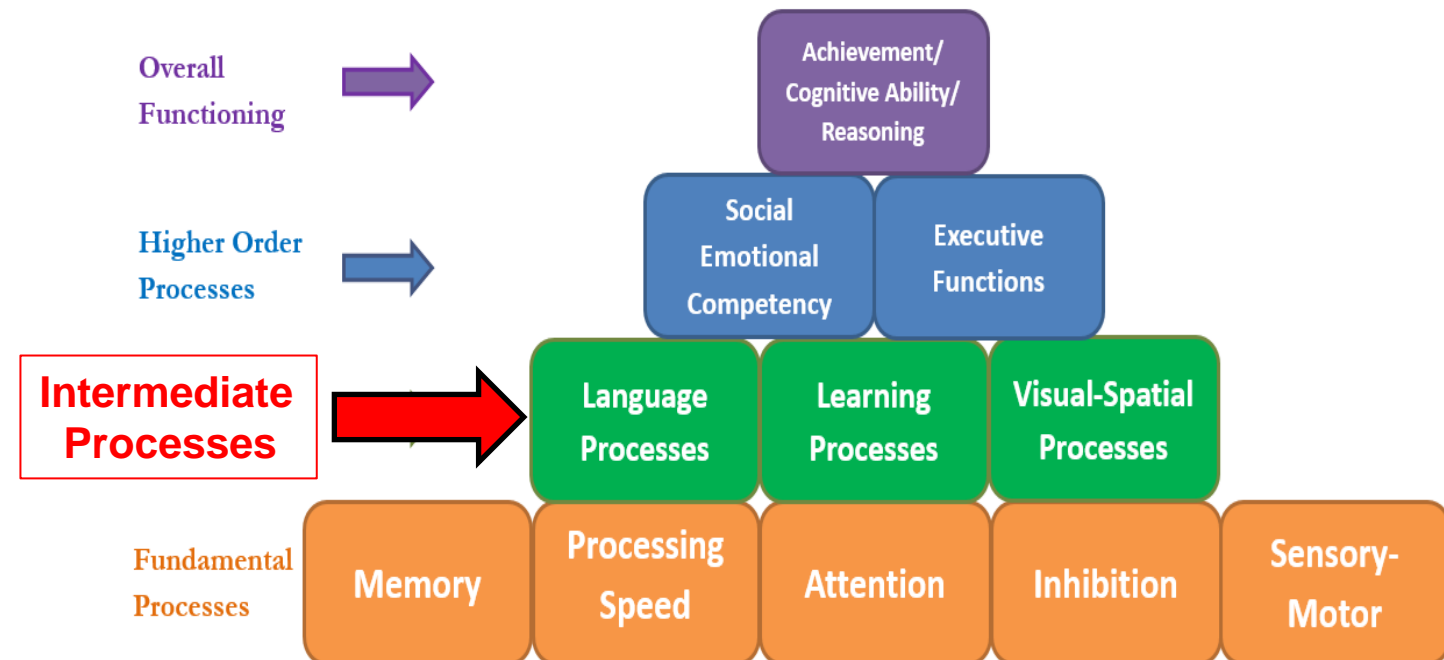
- How are the brain's ***intermediate processes*** different from its fundamental processes?
- What are the "Look-Fors" for students that have difficulty with language processes?
- How to properly assess language difficulties



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.

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Intermediate Processes: Language and SLD

- Language is a complex neurocognitive process that needs the successful integration of several brain-based functions. *"Language is the vehicle for thought."*
- Essential for communication, deep thinking, creativity, problem solving, connection with others based on language.
- Importance is seen in an entire brain hemisphere dedicated to language, the left hemisphere.
- Phonological processes subsumed within this block-critical for reading.

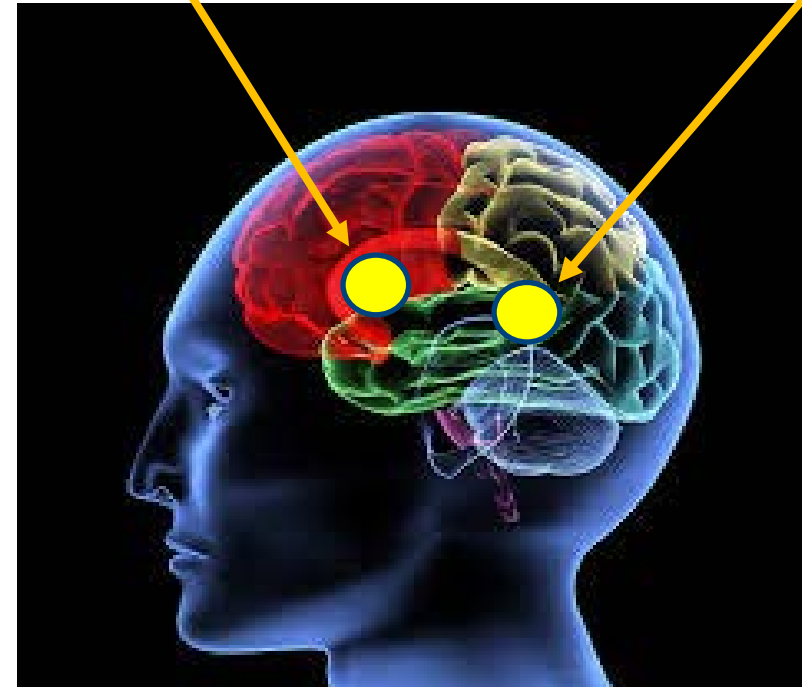


Language Processes in the Brain

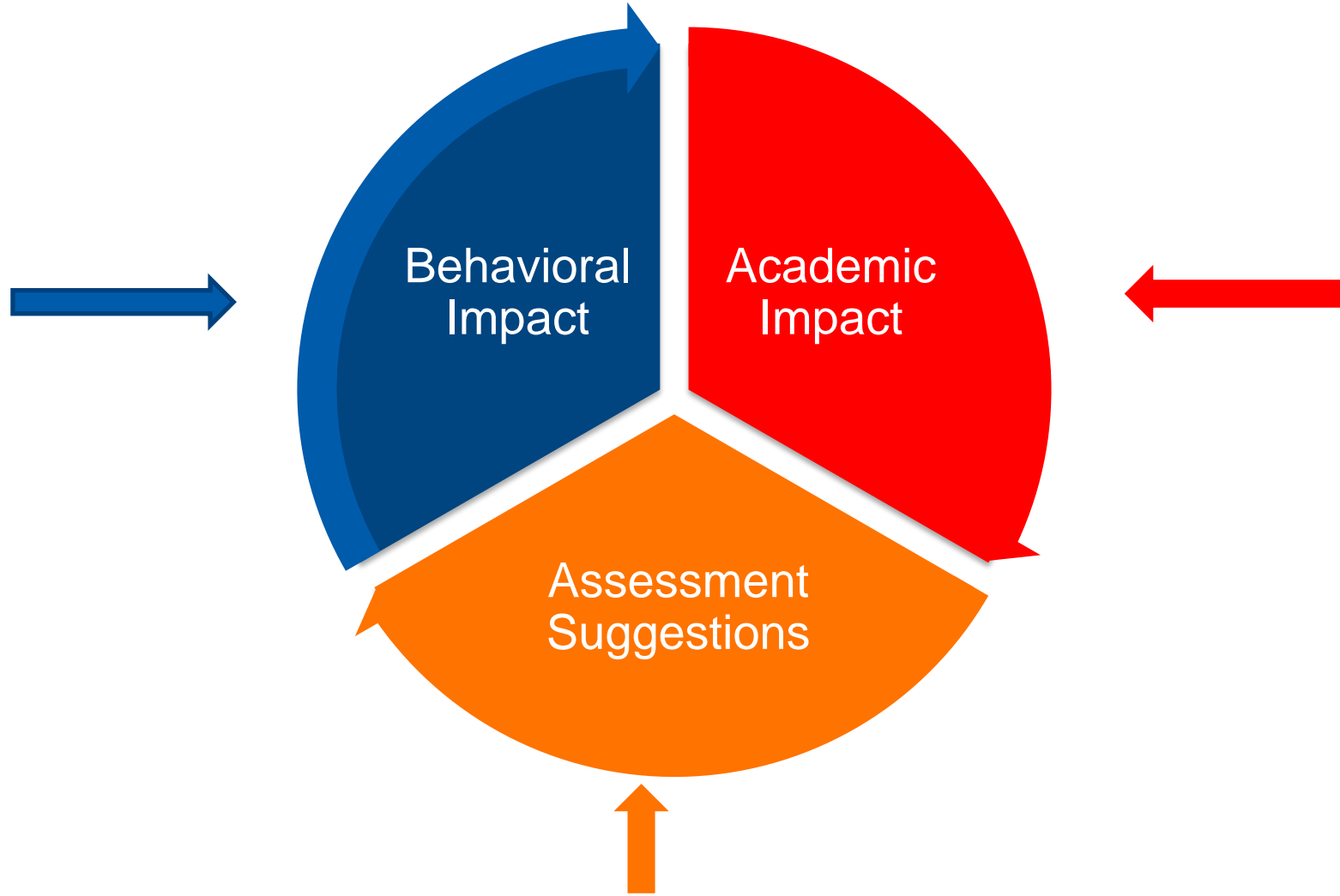
- Language heavily influenced by left hemisphere
- Specific (focal) areas, Broca's and Wernicke's area
- Two types of language processes; Expressive and Receptive
- Takes place with help of frontal lobe-attention, working memory, retrieval.

Broca's Area

Wernicke's Area



Language: 3 key Aspects to Consider in SLD Evaluations



Behavioral Impacts (Look-Fors)- Receptive

- Behavioral problems-acts out
- Presents as confused
- Difficulty understanding auditory information
- Do not understand multiple meaning words, inferential, figurative and more complicated abstract language
- Student is typically a “follower”



Behavioral Impacts (Look-Fors)- Receptive

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- Loses focus easily due to not understanding
- Says, "I don't understand" or "uh" often
- Slow or does not respond to directions
- Social withdrawal



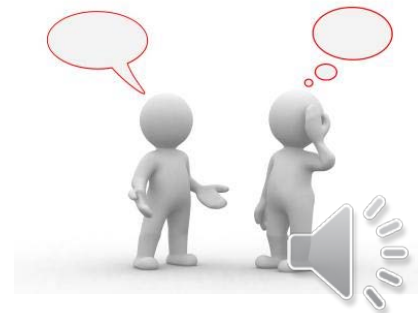
Behavioral Impacts (Look-Fors)- Expressive

- Word retrieval, difficulty using words –Hard time expressing
- Uses poor grammar or immature speech
- Breakdown in logical sequencing of ideas
- Circumlocution (Talks around issue, can't get to the point)
- Difficulty starting and maintaining peer conversations



Academic Impacts (Look-Fors): **Receptive**

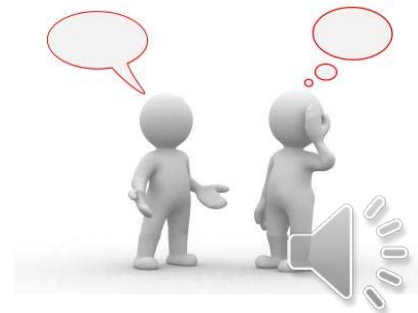
- Poor reading comprehension
- Reading and/or writing weaknesses
- Difficulty understanding complex ideas or direction
- Answers wrong question



Academic Impacts (Look-Fors): Receptive

(cont)

- Difficulty problem solving—verbally laden schoolwork
- Difficulty understanding homework assignments
- Difficulty with math word problems
- Slow to understand, seems confused in classroom



Academic Impacts (Look-Fors): **Expressive**

- Difficulty providing important details
- Difficulty summarizing (reading or verbal)
- Difficulty articulating thoughts, needs in classroom
- Often repeats the same idea rather than providing more or different information about a topic



Academic Impacts (Look-Fors): **Expressive**

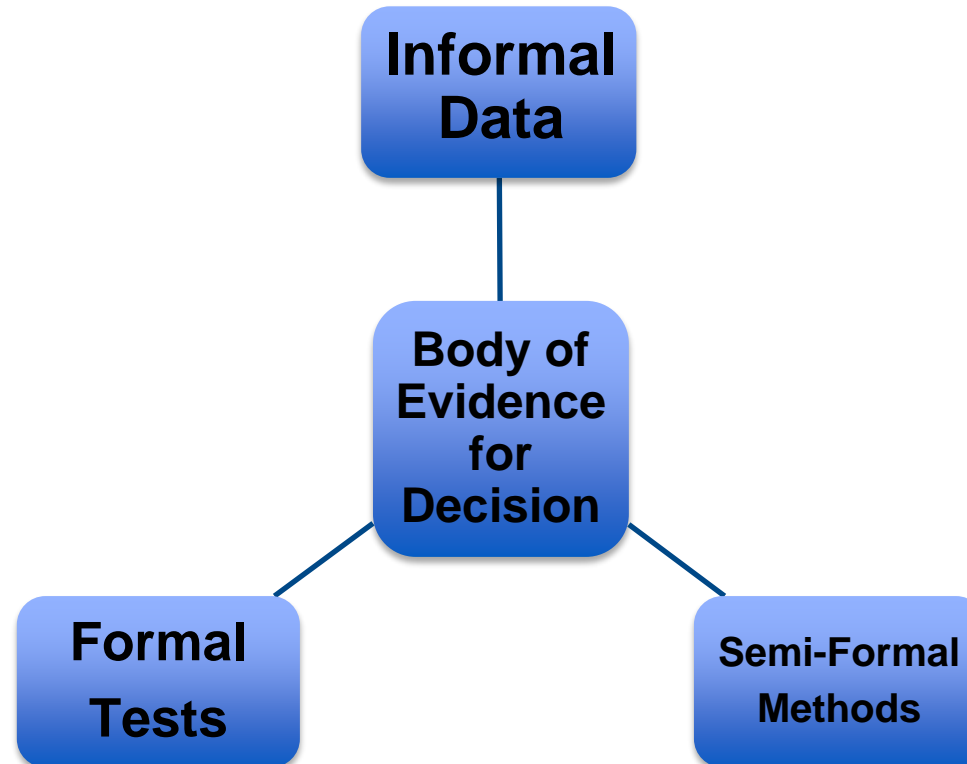
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- Responses may be short without much elaboration on topic
- Trouble participating in class discussions
- Trouble writing essays, taking notes, or re-telling stories
- Poor vocabulary tests



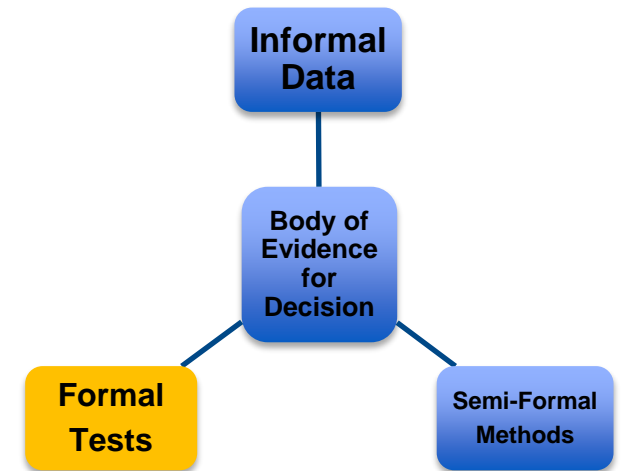
Assessment Suggestions: Language

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



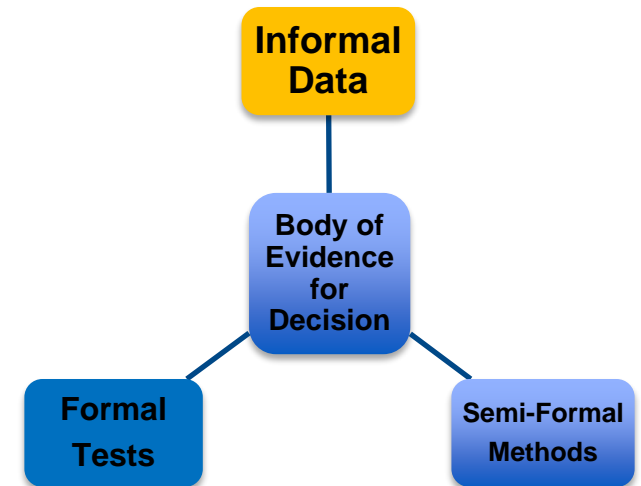
Assessment: Formal Methods-Language

- Clinical Evaluation of Language Fundamentals, 5th (CELF-5):
- Comprehensive Assessment of Spoken Language, 2nd (CASL-2)
- Oral and Written Language Scales, 2nd (OWLS-II)
- Peabody Picture Vocabulary Test, 4th (PPVT-4)
- Test of Language Competence, (TLC-E)
- Test of Problem Solving, 2nd(TOPS-2)
- Verbal domain on cognitive assessments



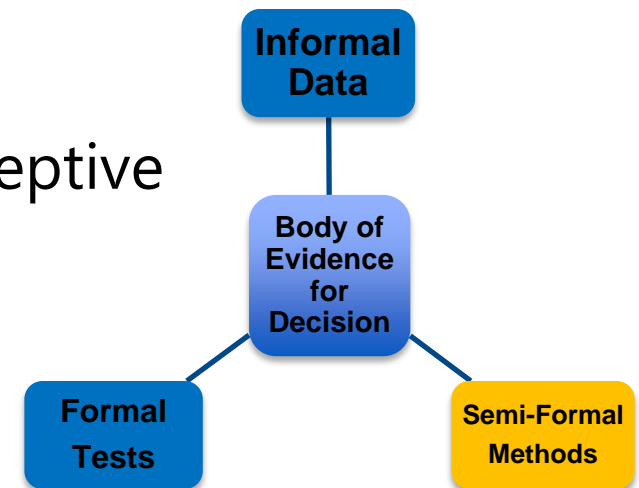
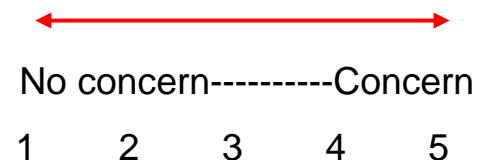
Assessment: Informal Methods- Language

- Observations: Note when talking, listening
- Observe when engaged in naturalistic social conversation
- Observations during testing
- Work sample (written expression)
- Parent, teacher and student Interviews
- History-ear infections, TBI, ABI

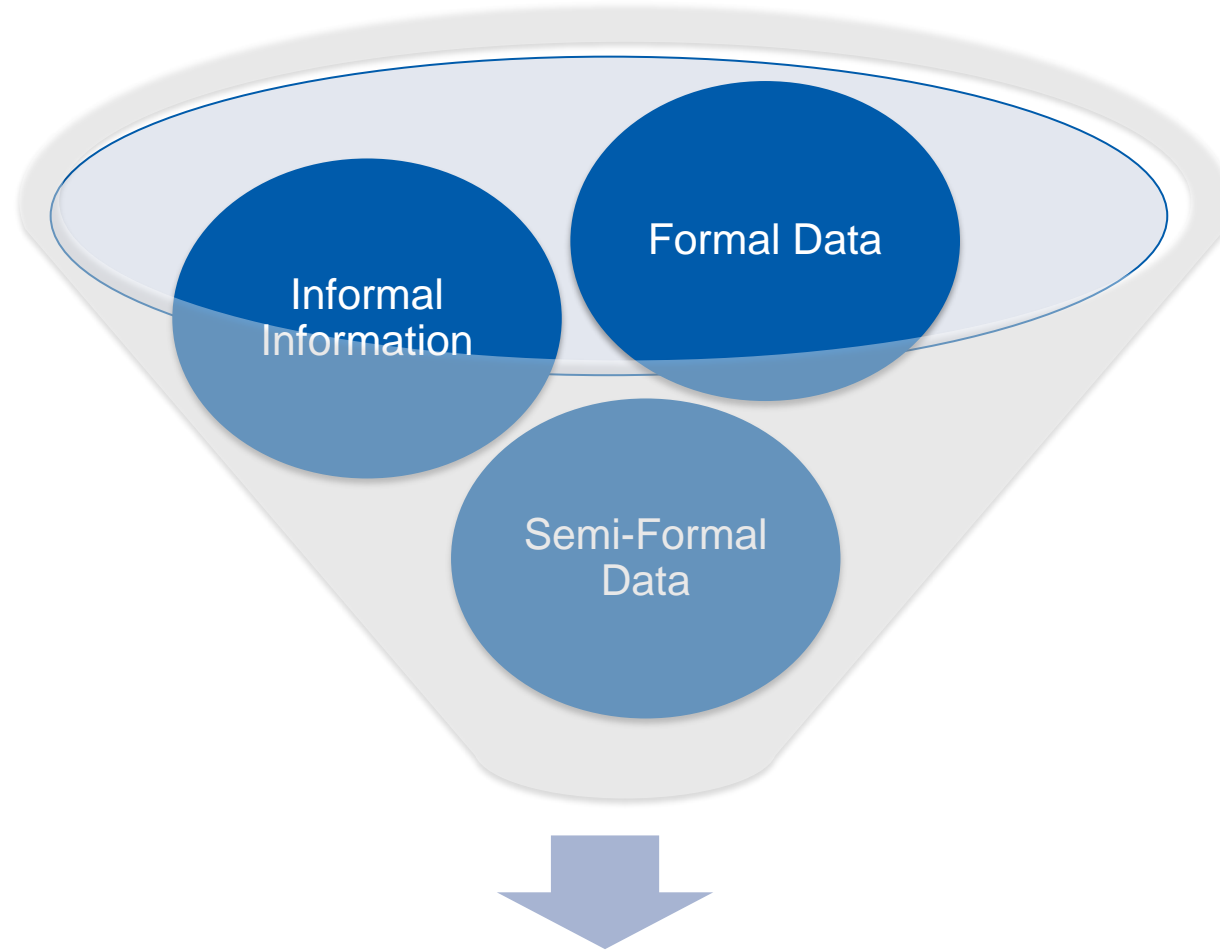


Assessment: Semi-Formal- Language

- Add standardization / structure to informal methods
- NEF (CDE)
- Self-created rating scale
 - To staff /parents
 - Ask questions related to expressive / receptive



Language Processes




Integrated Body of Evidence



Summary: Intermediate Level of Language

- Intermediate processes are founded upon lower fundamental processes and incorporate the “integration” of brain functions to learn complex information and to create one’s knowledge base. The Intermediate level is where information is acquired.
- Students with language issues typically seem confused, have difficulty understanding material, expressing their needs, and have reading and writing problems.
- Several excellent formal measures can be used to support informal and semi-formal findings.





End of Module 3.1

Thanks for Listening



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