



1



2



Form & Functions of Behavior



3



Forms of Behavior

Externalizing Behaviors:

- Hitting
- Biting
- Tantrums
- Self-injurious behavior
- Throwing items
- Inappropriate language

Internalizing Behaviors:

- Isolation from peers
- Avoidance
- Withdrawal
- Preoccupation with certain interests



4

Functions of Behavior



Sensory



Escape



Attention

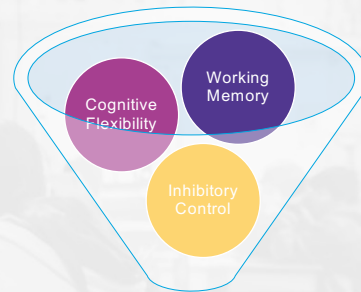


Tangible



5

Skills needed for Self-Regulation



Self-Regulation



6



Language Impact



7



Language Environment

A child's language environment is a critical factor for brain maturation. Brain maturation drives language development. Language Development is the foundation for social emotional skills, executive function skills, and academic skills.

(Fibla et al., 2023; Schneider et al., 2021; Deona et al., 2021; Huber et al., 2023; Korucu, Litkowski & Schmitt, 2020)



8



Students who exhibit challenging behavior are less likely to engage in instruction and social interactions, thus limiting their language learning opportunities.

Qi et al., 2006



9

Conversational Turns Impact...



- Brain Function
- Brain Structure
- Reading Skills
- Social-Emotional Development
- Executive Functioning
- Long-term Outcomes

(LENA ®)



10

Changes to Pre-K Learning Environments

- Children engage in 73% more conversational turns at home than in traditional early childhood childcare environments
- 20% of children are in language isolation, experiencing fewer than 5 turns per hour for most of the school day
- Most children experience 40% of their conversations and interactions within a single hour of the day and beyond that single hour, more than 2/3 of children experience fewer than 15 conversational turns per hour, on average.
- The difference in pre-k classrooms with higher amounts of conversational turns over the preschool year is around 2 million words
(Lena Project, 2021)



11

“Technoference”

- Brandon McDaniel coined the term "technoference"—encompassing things like checking phones for text messages and notifications during meals, playtime or other routine activities — *Esther Cepeda, syndicated column, 2 Feb. 2018*
- The findings showed that even low or seemingly "normal" amounts of technoference were associated with more behavioral problems in participants' children. However, the study didn't prove a cause-and-effect relationship, just that an association existed. — *Maureen Salamon, UPI (upi.com), 15 June 2017*



12

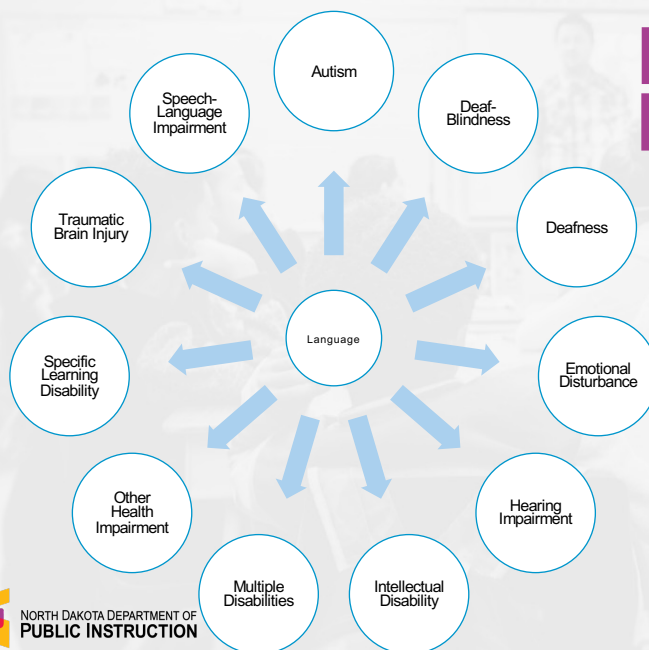
Role Models

- 95% of parents say their tech use interferes with daily opportunities for talking, playing and interacting with their child (Common Sense Media, 2020)
- Adults check their smartphones an average of 96 times a day, every 10 minutes, for an average of 5 hours and 24 minutes per day (Flynn, 2023)



13

Language and Disabilities



Language can be a core component of several IDEA eligibility categories. It can also be a comorbid condition to many eligibility categories.



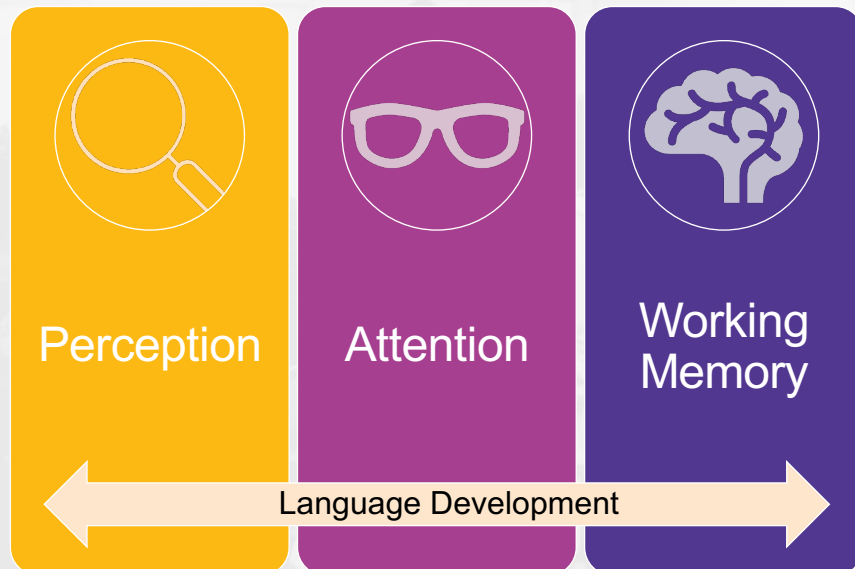
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81% of children with behavior disorders have clinically meaningful and unidentified language disorders.

Hollo, Wehby, & Oliver, 2014



15



16

When Emotions Are High...

Think about having to process the following, all at once:

- What someone is trying to say (intended meaning)
- What they actually say
- What was heard as the listener
- What was understood by the listener



(Emily Sanders, LMFT)

17

Supporting Language

- Create Language Rich Literacy Lessons
- Co-teach (SET, Ged Ed, SLP)
- Modify Instructional Language
- Wait Time
- Scaffolding Strategies



(Hollo et al., 2020) & (Chow et al., 2020a)

18

Evaluation

Evaluation for students with potential speech-language and behavioral overlap should consider:

- Social Skills Deficits
- Pragmatics
- Social Exchanges
- Additional Areas of Speech-Language Concerns

(Chow, Morse, Senter, 2022)



19

Executive Functions



20

Executive Function (EF)

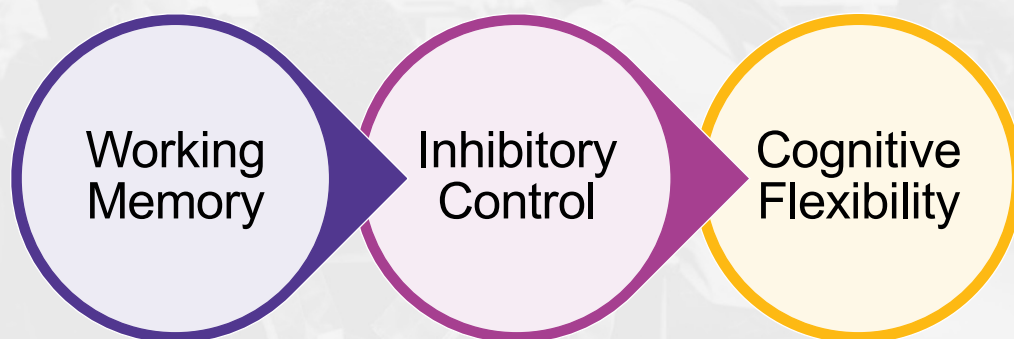
A set of cognitive processes and mental skills that help an individual plan, monitor, and successfully execute their goals.



[Executive Function | Psychology Today](#)

21

Executive Functions



22

Perspectives, Cont.

**George
McCloskey, Ph.D.**

- **Attention**
 - Perception, Focus, Sustained Attention
- **Optimization**
 - Self-Monitor, Self-Modulate, Balance, Self-Correct
- **Inquiry**
 - Anticipate, Gauge, Analyze, Estimate Time, Compare
- **Efficiency**
 - Sense Time, Pace, Sequence, Execute
- **Memory**
 - Hold, Manipulate, Store, Retrieve
- **Solution**
 - Generate, Associate, Prioritize, Plan, Organize, Decide
- **Engagement**
 - Energize, Initiate, Inhibit, Stop, Pause, Flexible, Shift



(McCloskey Executive Function Scales (MEFS))

23

Perspectives, Cont.

Tera Sumpter, MA,CCC-SLP

Root Skills:

- Perception
- Attention
- Verbal WM
- Non-Verbal WM
- Inhibition

Stem Skills:

- Inhibition
- Self-Monitoring
- Self-Modulation
- Self-Correcting
- Time Sense
- Pacing
- Flexibility

Flower Skills:

- Planning
- Anticipating
- Analyzing
- Generating
- Associating
- Prioritizing
- Organizing
- Decision Making



The Seeds of Learning

24

EF Development

- Children are not born with these skills, they are born with the potential to develop them
- Adults play a critical role in supporting the development of EF skills through play, first by helping them complete challenging tasks, and then by gradually stepping back to let them manage the process independently and learn from their mistakes

(Center on the Developing Child at Harvard, 2014)



25

More than Play

- Touch & Texture (visual/tactile) – handling different materials improves fine motor and strengthens pathways for problem-solving
- Sound & Listening (auditory) – distinguishing sounds sharpens auditory processing, helping with focus and comprehension
- Smell & Taste (olfactory/gustatory) – experimenting with scents and flavors encourages curiosity and adaptability
- Movement & Balance (proprioception/vestibular) – activities like jumping, running, or climbing enhance impulse control and spatial awareness



26

Reflexive Questioning

- Increases awareness
- Meets the child where they are
- Creates a positive environment



27

Perception

Sensory process that allows us to perceive and interpret signals from within our body.

- Hunger
- Thirst
- Heart rate
- Attention
- Emotional state



Supports:

- Using high-interest items or topics
- Use modalities that support the student's sensory preferences
- Increase their attention and awareness
- Teach them tools to self-direct their attention
- Provide them with opportunities to practice their attention self-direction tools

28

Attention



29

Verbal Working Memory

- **Self-Talk**
- **Inner Voice**
- **Phonology**
- **Supports:**
 - Simplify the amount of oral language used
 - Chunk oral directions or information into smaller amounts
 - Use cognitive anchors

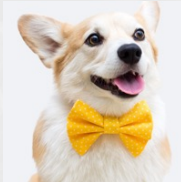
“Dog”



30

Non-Verbal Working Memory

- **Mental Representations**
- **Imagination**
- **Mind's Eye**



- **Ask**
 - What do you see yourself doing?
 - Ask them to think about their senses
 - Practice creating images in our mind



31

Inhibition

Requires:

- **Pre-experiencing a future goal (foresight)**
- **Stopping**



Support:

- **Create a plan**
- **Practice plan**
- **Use reflexive questioning to reflect and adjust**



32

Balancing Executive Function

Drains

- Transitions
- Inhibitory Control
- Learning New Concepts

Increases

- Physical Movement
- Rest
- Engaging Learning Activities



33

“A hallmark of executive function deficit is inconsistency in performance.”

Tera Sumpter, CCC-SLP



34

More than Basic Goals

Did the team find the root cause?

- Perception
- Attention
- Verbal Working Memory
- Nonverbal Working Memory
- Initiation
- Execution
- Self-monitoring



(Tera Sumpter)

35

Learning from our mistakes requires the ability to self-evaluate.

Self-Evaluation requires self-reflection.

Self-Reflection requires the ability to mentally travel backwards in time to re-experience a past event.

Re-experiencing a past event requires **nonverbal working memory** ability.



36

7 Ways to Support EF in Students

1. Stop giving timers & planners to students struggling
2. Put hard classes earlier in the day
3. DO NOT take away recess
4. Remove distractions and temptations
5. Support development of foresight and hindsight
6. Bring goals closer to the present moment
7. Use input and output for teaching



[Seven Ways Schools Can Support Executive Function — Tera Sumpter](#)

37

Learning Requires

Input

- Reading
- Watching videos
- Listening to an explanation
- Reviewing notes

Output

- Talking / expressing a response
- Writing
- Note taking / annotating
- Visualizing
- Acting out
- Creating
- Recall activities



(Tera Sumpter)

38

Additional Supports

- Direct instruction for lagging skills
- Supporting teachers in the use of classroom management strategies
- Teacher & parent training in the areas of: modeling, pro-social behavior, social problem-solving, comprehension and expression of emotions, impulse control and organizational skills
- Breaking tasks into smaller chunks
- Teaching self-advocacy
- Reviewing work prior to submission



39

Cognitive Load Theory



40

Cognitive Load Theory



Understanding Cognitive Load



What If...



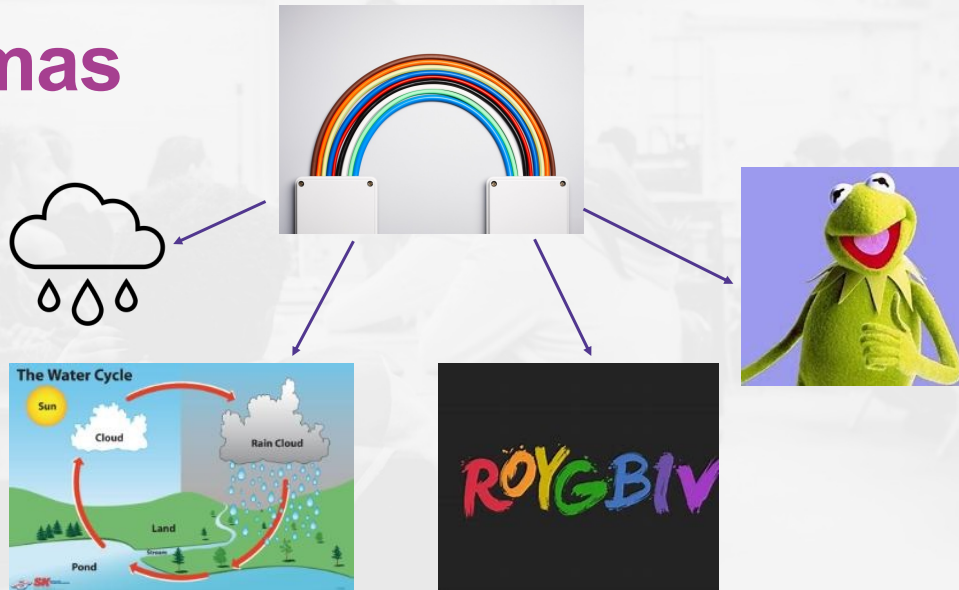
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Remember



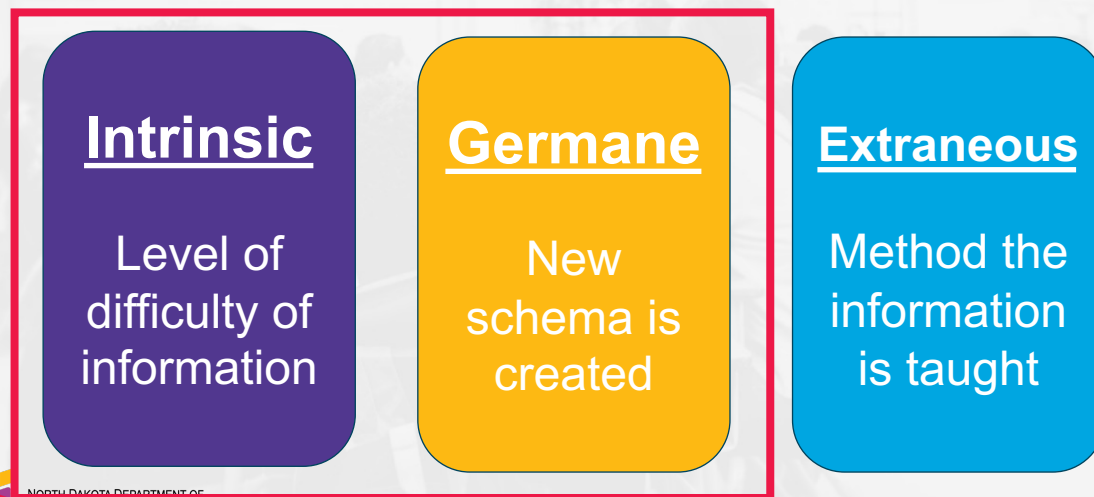
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Schemas

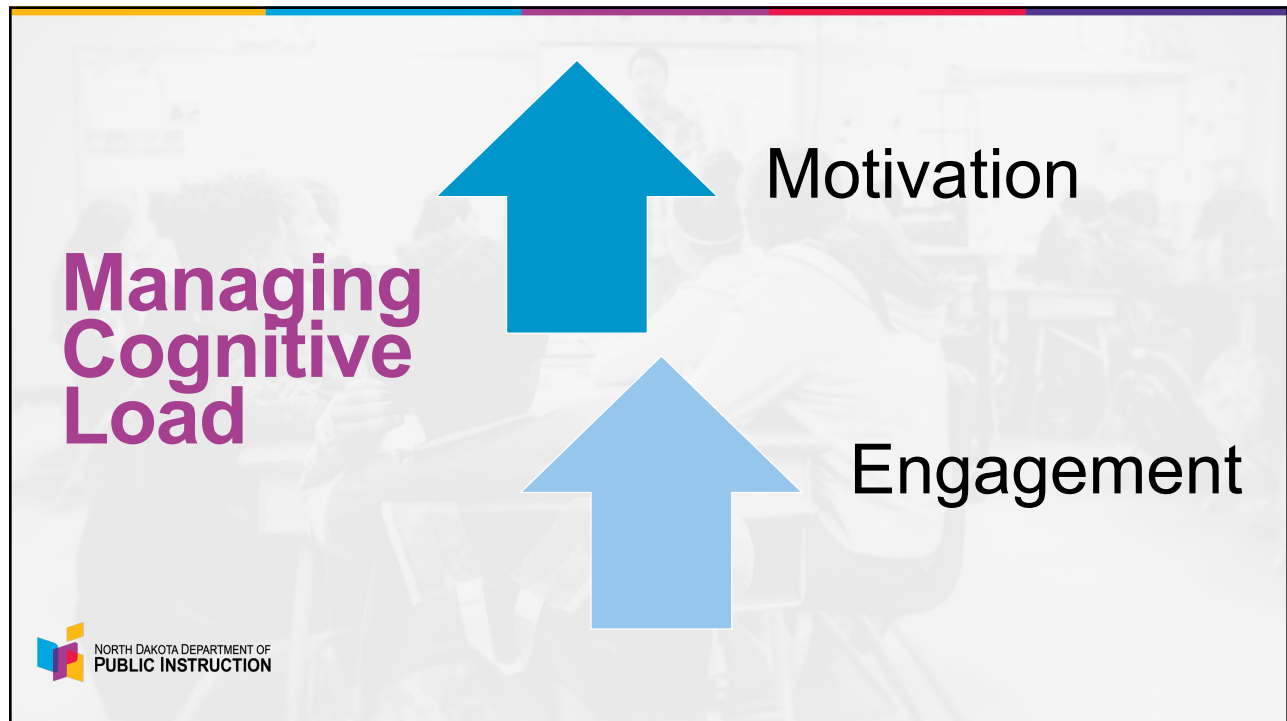


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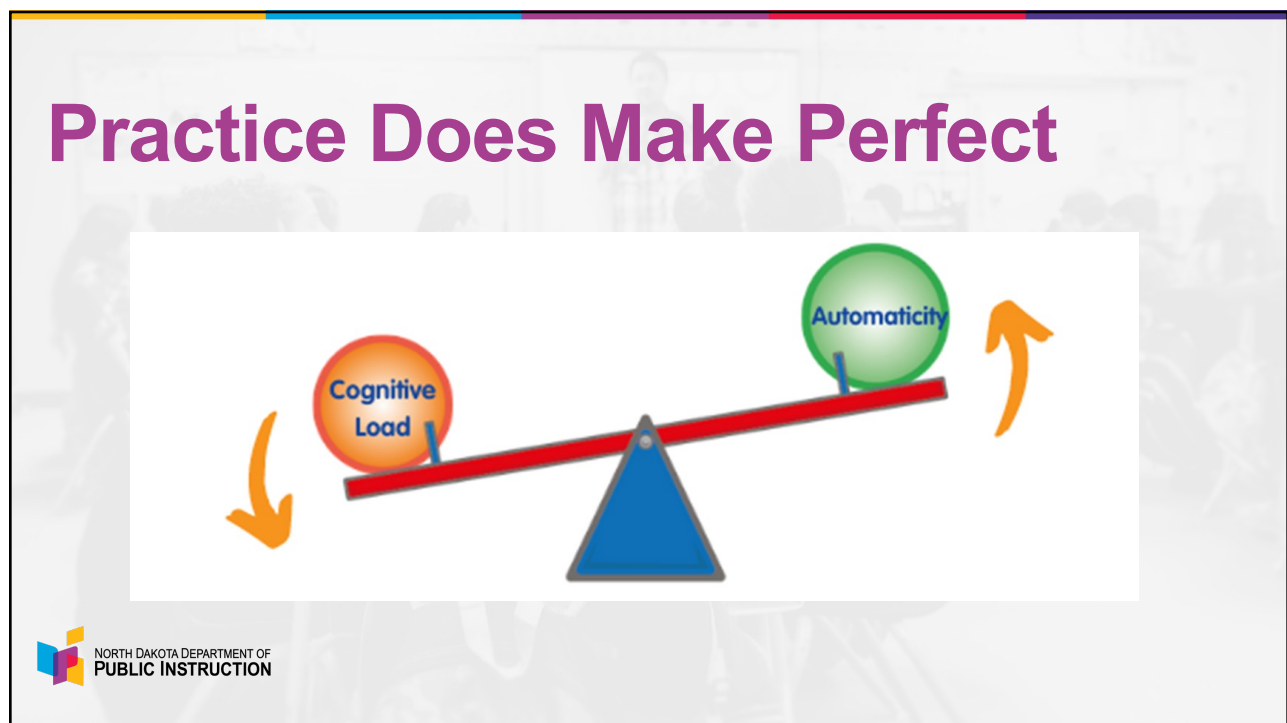
Types of Cognitive Load



46



47



48



Resource & Work Cited



49



Resources

- [Cognitive Load Theory - Practical Psychology](#)
- [Cognitive Load Theory in Practice \(nsw.gov.au\)](#)
- [Executive Function Deficits \(asha.org\)](#)
- [Executive Function - Tera Sumpter](#)
- [IDEA Topic Areas - Discipline/Behavioral Supports](#)
- [LENA | Building Brains Through Early Talk](#)
- [Organized Binder](#)
- [Positive Behavioral Interventions & Supports](#)



50

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51

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52

Thank You!

Michelle Woodcock

Special Education Coordinator

(701) 328-2633

mwoodcock@nd.gov



<https://survey.alchemer.com/s3/8240812/Grad701TrainingEval>