



# BBBD Supports and Interventions



Using the *Building Blocks of Brain Development* to Support Students with Learning Disabilities

Peter Thompson, Ed.S., Ph.D.





Module 2.5

BBBD: Supports and Interventions

**Supporting Inhibition Issues in the Classroom**



# Important Note

The information, concepts, and models provided in this presentation are intended to give practitioners a framework when conducting special education evaluations and employing interventions. 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

---

- Understand the nature of inhibition and its impact on learning
- Learn the most effective interventions for inhibition problems
- Learn about effective classroom accommodations for inhibition issues



# Presentation Organization

---

## I. Inhibition Key Concepts

## II. Inhibition Supports and Interventions

- A. Expert Guidance
- B. Interventions
- C. Accommodations



# I. Inhibition Key Concepts



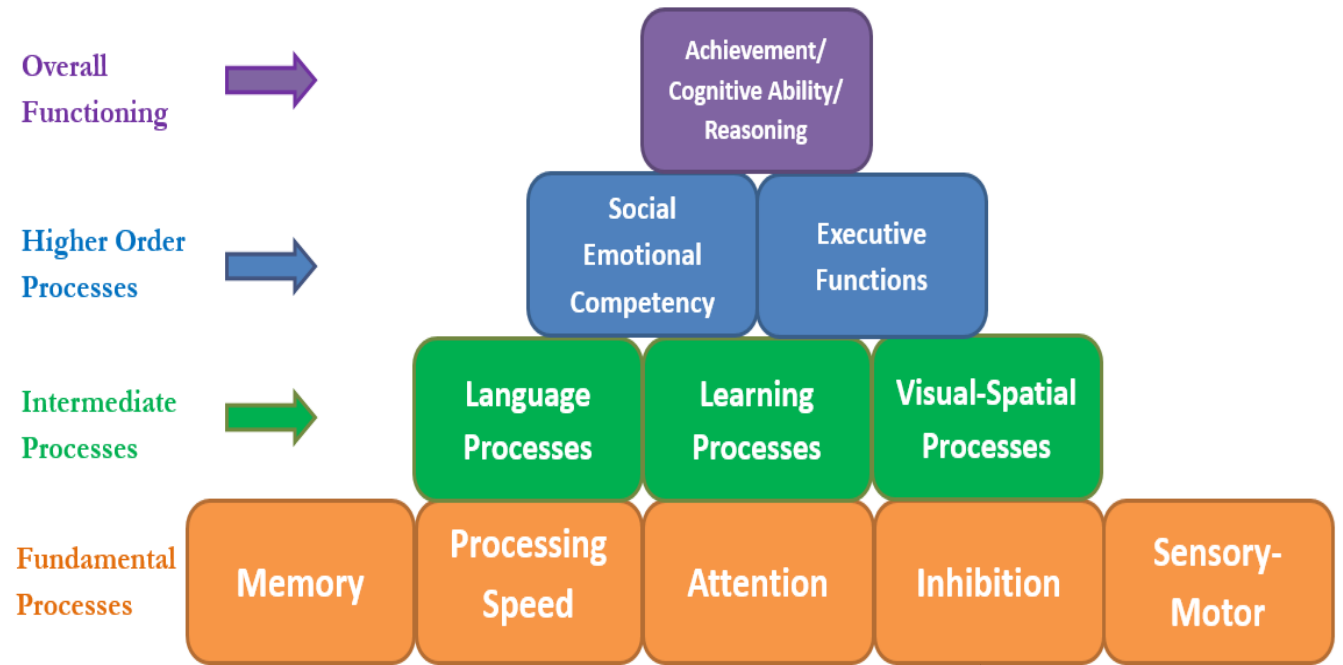
1. BBBD and Inhibition (Self-Control)
2. What Causes Disinhibition?
3. Important Considerations
  - Associated with EF deficits
  - Associated with ADHD
  - Related to “Willpower” “Self-Discipline” “Self-Regulation”
  - Focus on behavioral self-control, but emotional control is also important
  - Not ODD or CD



## Key Points: Inhibition

- Is a key fundamental block but also part of EF and will slowly mature with PFC
- Resisting desires, control behavior to muster resources to complete a task
- Tied to self-motivation, emotional control, internal dialogue

## Building Blocks of Brain Development ©



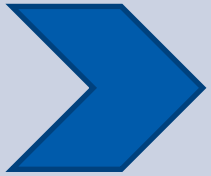
The Hierarchy of Neurocognitive Functioning © - created by Peter Thompson, PhD, 2013, adapted from the works of Miller 2007; Wolfson 2004; Hale and Fiorello 2004.

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

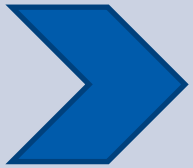


# Inhibition: An Important View

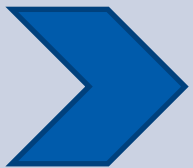
---



Definition: Inhibition is the ability to control one's thoughts, impulses, and behaviors by stopping and thinking before acting.



Self-control, both behavioral and emotional, has strong research that indicates this function is critical for success in most domains of life.



Responsive to Cognitive Behavioral Therapy (CBT)





# Inhibition and Its Impact on Learning

---

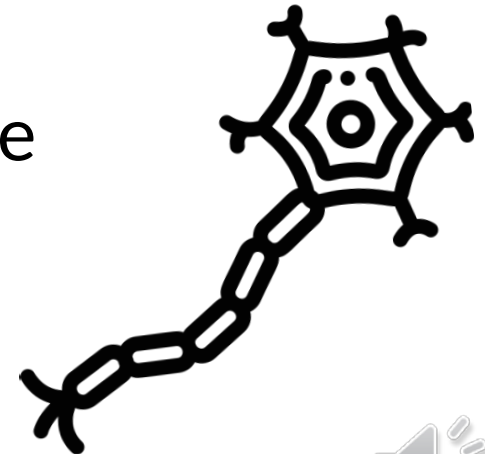
- Neurocognitive Perspective: Self-control has an overlap with the neurocognitive function of attention, which is critical to learning.
- Self-control impacts motivation to learn difficult material.
- Secondary effects:
  - Chronically disinhibited students are removed from educational settings and then miss key learning opportunities
  - Impacts other student's learning
  - Social development implications



# Disinhibition: What Causes It?

---

- It can be caused by environmental insults (TBI) and organic causes (ADHD).
- Frontal cortex plays key role (Executive Function) and subcortical regions.
- Low Neurotransmitters-dopamine, norepinephrine are implicated.

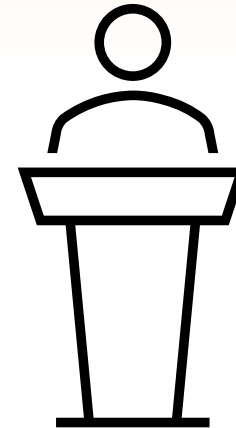


## II. Inhibition: Supports and Interventions

1. Expert Guidance
2. Interventions
3. Accommodations



# 1. Expert Guidance





# 1. Expert Guidance

---

- ✓ Not necessarily based in research studies, but widely regarded as effective and practical by experts in the field.
- ✓ Present emotional challenges for staff. Stay stable, calmly respond to challenging behaviors. Adult attitudes about “change” can impact students.
- ✓ Self-control strategies can be taught and reinforced (rewarded). Teach students when students are “calm”; Teach the “why”.





# 1. Expert Guidance

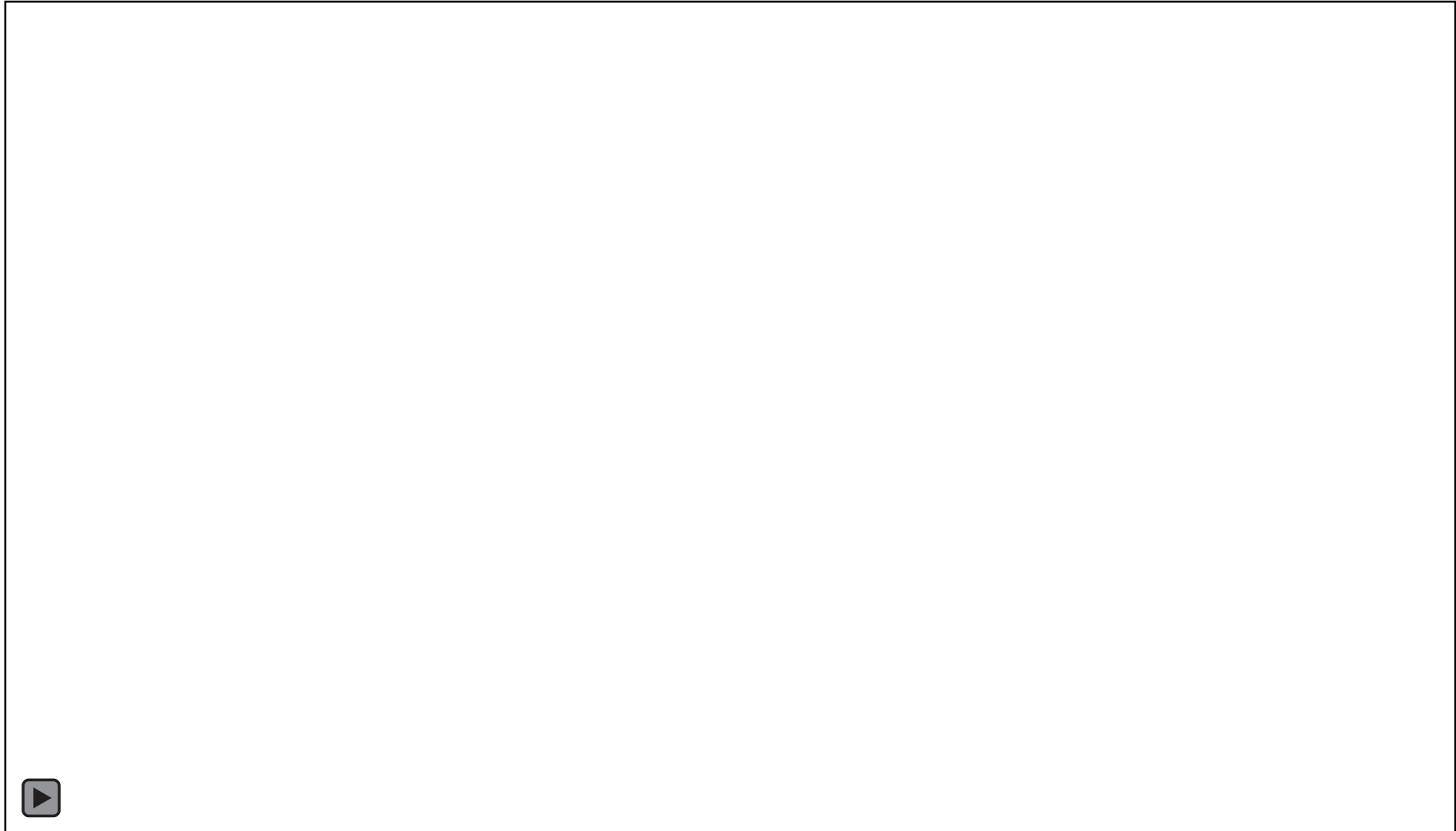
---

- ✓ Explicit rules **MUST** be consistently enforced to build the culture of expectations in the classroom.
- ✓ Active supervision works! Simple but powerful.

**Video Example:** <https://youtu.be/vqHhPmZyJZQ>



# Active Supervision: Example



# Expert Guidance Continued



- Think “How to motivate” vs. “How to control”
- Meta-cognitive – Describe the “Why” to the student; Secure commitment from student; Rapport is key
- Provide positive, but private feedback when students demonstrate self-control:
  - Specific
  - Timely
  - Ask, “How do you feel about that?”





## 2. Intervention



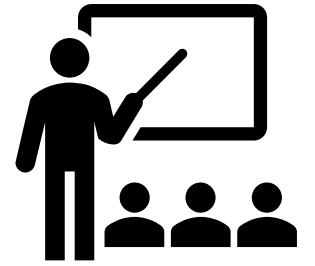


## 2. Inhibition Interventions

---

- Teach self-control by specific rewarding / reinforcement when explicit expectations met
  - ✓ Specific and explicit (set up for success, simple goals)
  - ✓ Timely (in close proximity)
  - ✓ Feedback and the “why”





# Teaching Skills

---

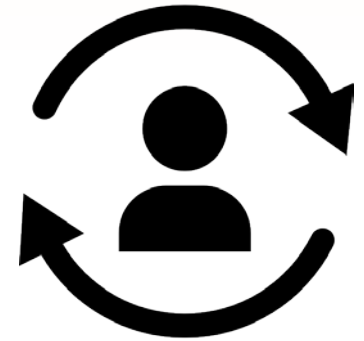
- Self-Monitoring Skills (See Module 2.4)
  - Supervision
  - Cueing / reminding
  - Feedback
  - Self-Talk
- Games (Younger Students; Research Backed)
  - [https://www.youtube.com/watch?v=H\\_O1brYwdSY](https://www.youtube.com/watch?v=H_O1brYwdSY)



# Teaching Skills and Making it Fun



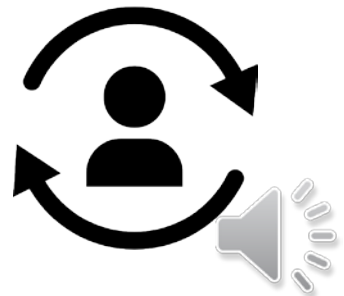
# 3. Accommodations



### 3. Inhibition Accommodations



- Environmental Strategies:
  - Set up environment for success
  - Restrict student's social distractions in classroom
  - Study carrel or standing desks



### 3. Accommodations



- Supervision and frequent positive check-ins
- Use of contingency-If, then (Premack Principle)
- Structure and routine (it works)
- Frequent parent communication





# Summary

---

- Inhibition is a key fundamental block of the BBBD. It is related to self-control, motivation, attention, EF, and persistence. It plays a major role in overall learning, work initiation, and completion.
- Classroom behavioral techniques, such as consistently providing positive feedback and rewarding target behavior, are effective. Remember, consistency of supports is critical for success.
- Effective accommodations center on active adult supervision, well-established routines, and highly structured environmental strategies.







# Thank You For Listening End of Module 2.5



**Using the *Building Blocks of Brain Development* to  
Support Students with Learning Disabilities**

Peter Thompson, Ed.S., Ph.D.

