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Executive Functioning
and Practical Tips for
Organization

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Examples

- Jonny, 8, has ADHD and his room is a disaster zone
- David, 14, has Asperger's, and has trouble seeing the "bigger picture"
- Alex, 48, is a pediatrician, and can't find his keys in the morning
- Jeff, 5, diagnosed with sensory integration disorder, experiences meltdowns with unexpected transitions
- Hannah, 16, is a twice exceptional student but can't organize her writing

What is executive functioning (EF)?

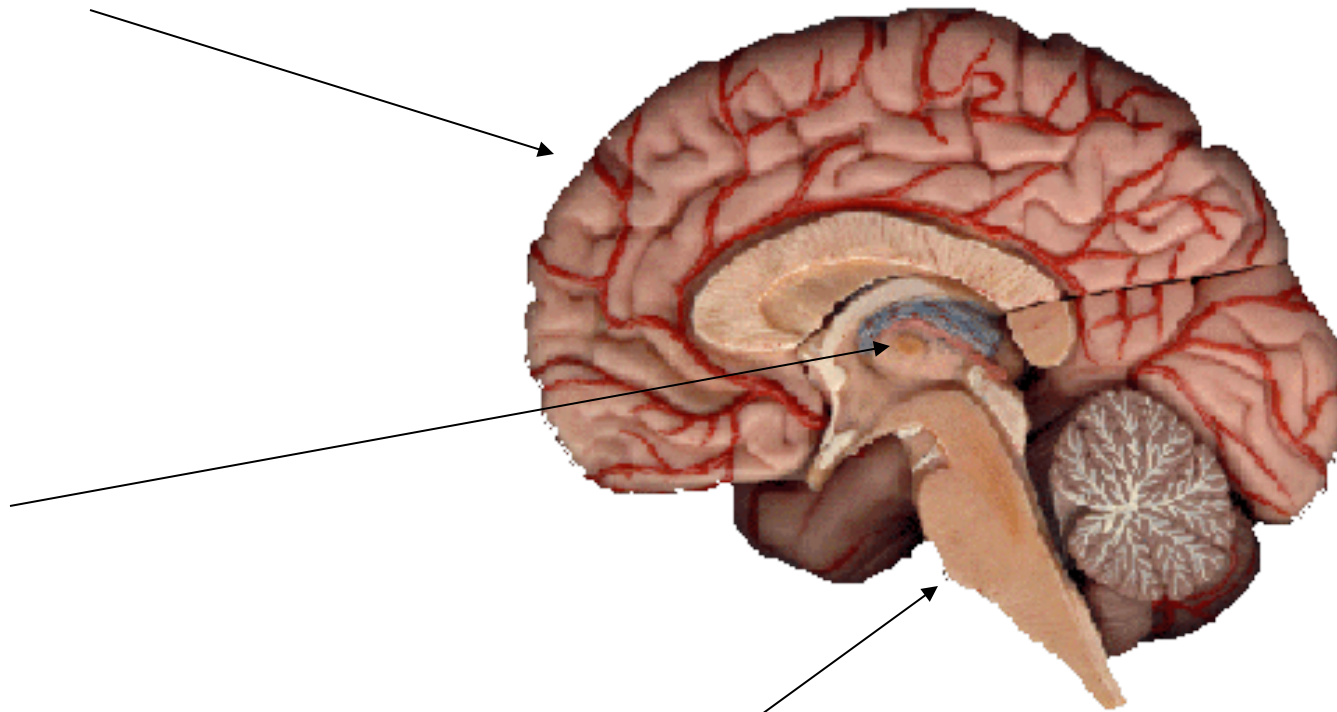
- Mental process that enable us to:
 - Set goals
 - Determine steps needed to attain those goals
 - Revise and review strategies
 - Self-monitor our progress
 - Stay on track and follow through to execution

Where are they housed?

Cortex
Higher-level thought

Midbrain
Emotions

Hindbrain
Survival functions



Language

Sensory

Motor

Visual

Selective Attention

Learning/Memory

Social Cognition



Executive Functions: one thing or many?

- Initiation
- Organize/Plan
- Flexibility
- Inhibition
- Working Memory
- Self-Monitor
- Emotional Control



Executive Functions

- Behavioral regulation vs. Metacognition



Behavioral Regulation

- Managing NOW
 - Inhibition
 - Shifting/Flexibility
 - Emotional Control

Inhibition

- Fidgety and restless
- “Driven by a motor”
- Blurts out answers
- Difficulty waiting turn
- Associated with ADHD



Shifting/Flexibility

- Difficulty with transitions
- Trouble trying new problem-solving approaches
- Brain gets “stuck”
- Associated with autism spectrum disorders

Emotional Control

- Difficulty regulating emotions
- Easily tearful, moody, immature
- Frequent meltdowns

Metacognition

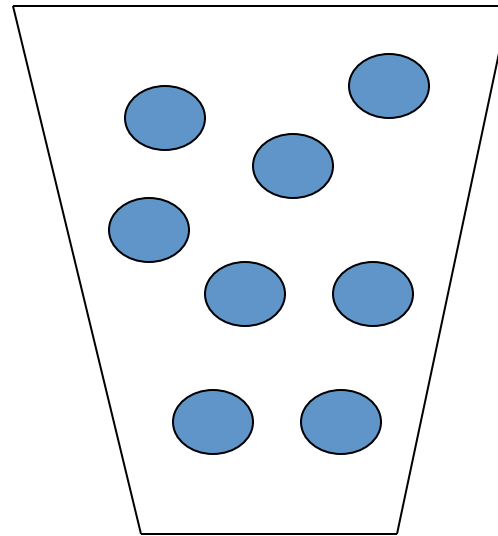
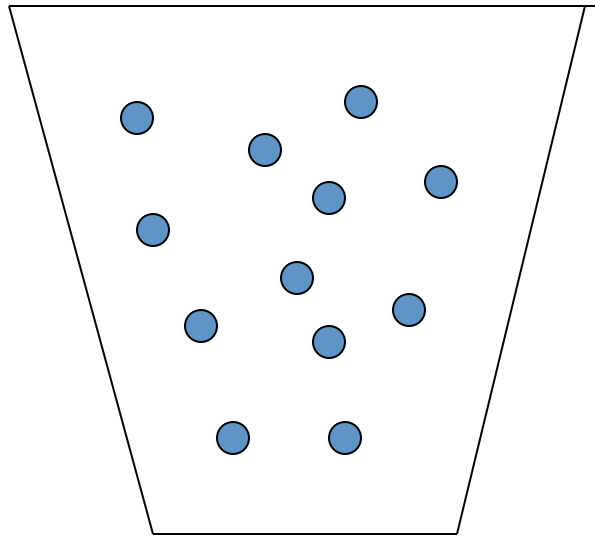
- Planning for LATER
 - Initiation
 - Working Memory
 - Organization/Planning
 - Self-Monitor

Initiation

- Needs to be told to begin a task
- Not a “go-getter”
- Lacks initiative
- Appears uninterested, apathetic
- Self-advocacy



Working Memory



Organization/Planning



Self-Monitoring

- Task-specific
- Social-feedback/introspection
- Deficits: poor quality of work, careless errors, poor estimation of abilities, socially clueless

Academic Impacts

- Reading comprehension
- Written organization
- Math problem-solving

Academic Impacts

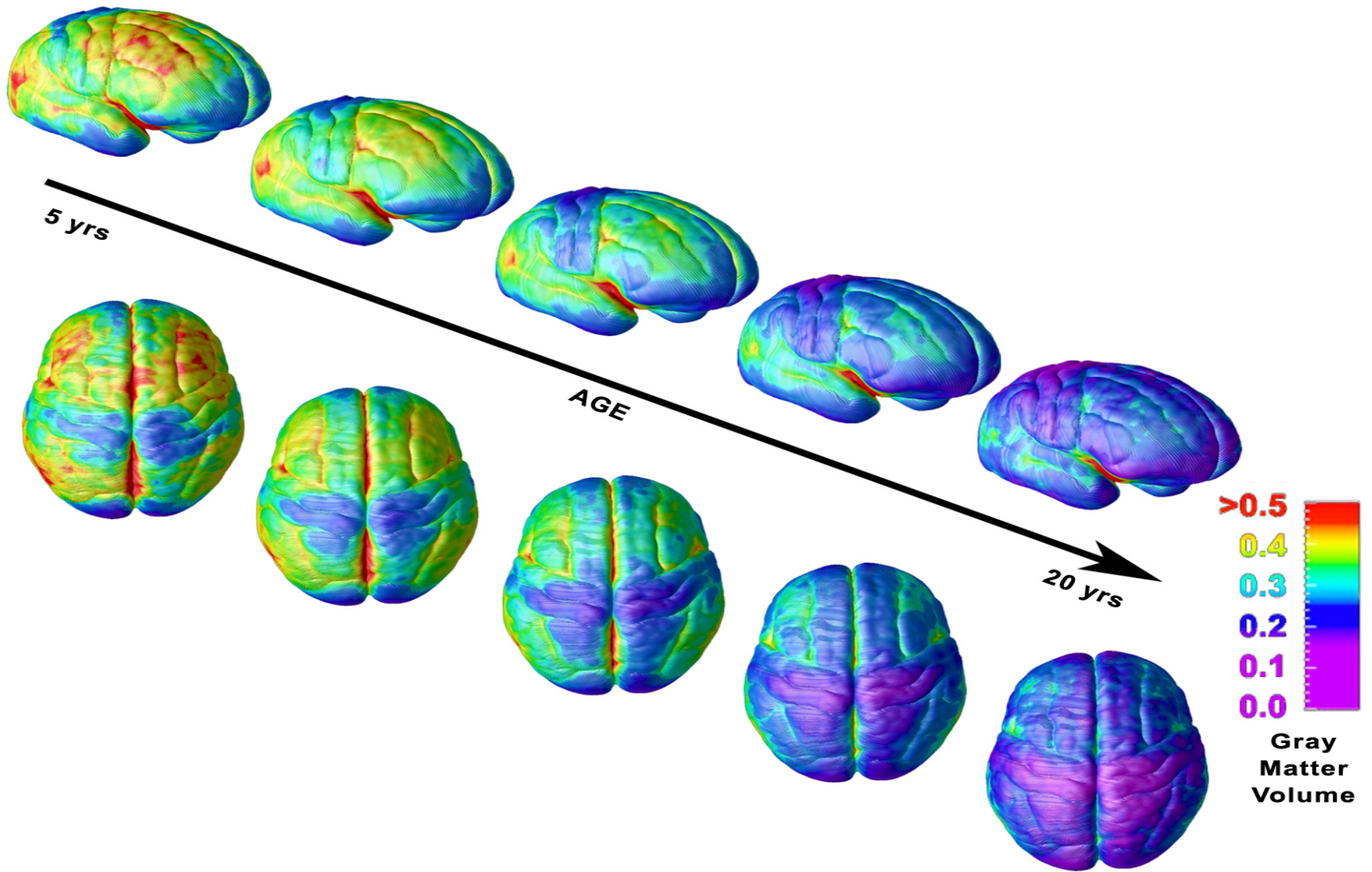
- Planning large projects
- Study skills
- Retrieval of information for tests
- Organization of materials
- Time management

Real-world Impacts

- “His room is a mess”
- “He’s always forgetting things”
- “Can’t follow multi-step directions”
- Easily overwhelmed/frustrated
- Social problems
- Mood/anxiety
- Delayed acquisition of independent life skills

Development of EF





Executive Dysfunction

- Genetic and environment influences
- Found in:
 - ADHD
 - Autism spectrum disorders
 - Specific Learning Disorders
 - Fetal Alcohol Syndrome
 - Epilepsy
 - Illness and fatigue states

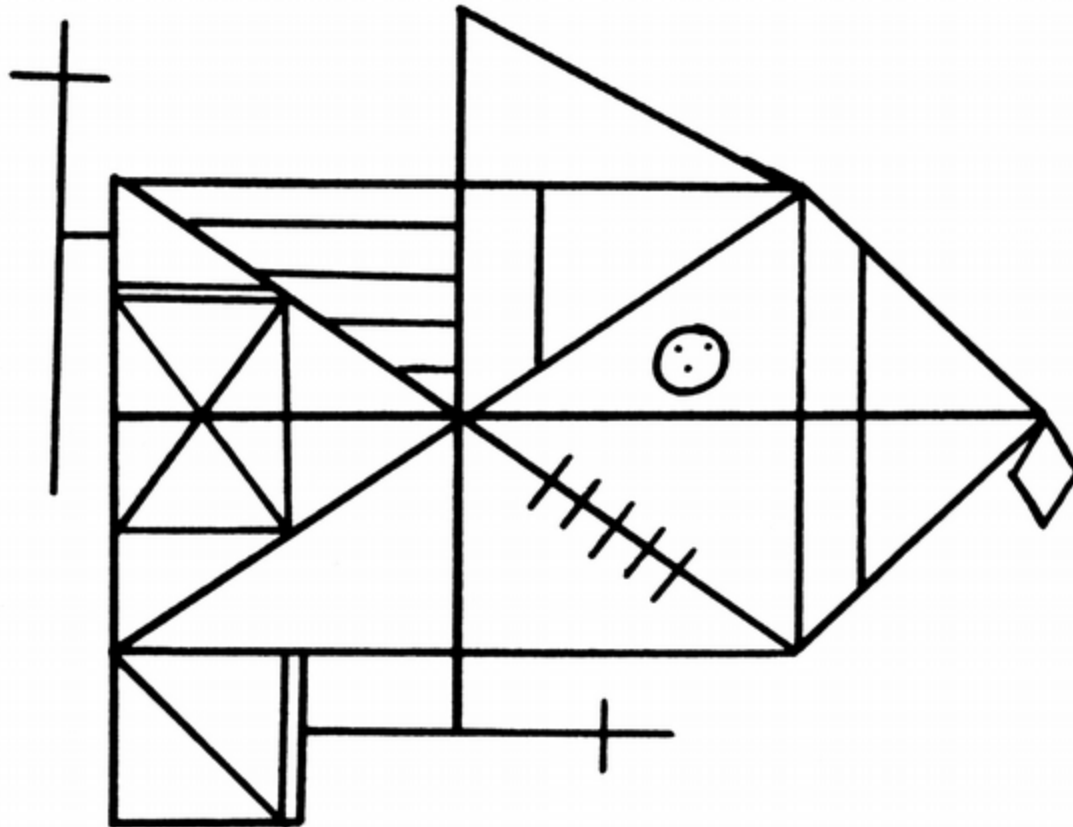
Executive Dysfunction

- Other disorders:
 - Brain injury
 - Brain tumors
 - Anxiety and mood disorders
 - Tic disorders
 - Genetic/metabolic syndromes

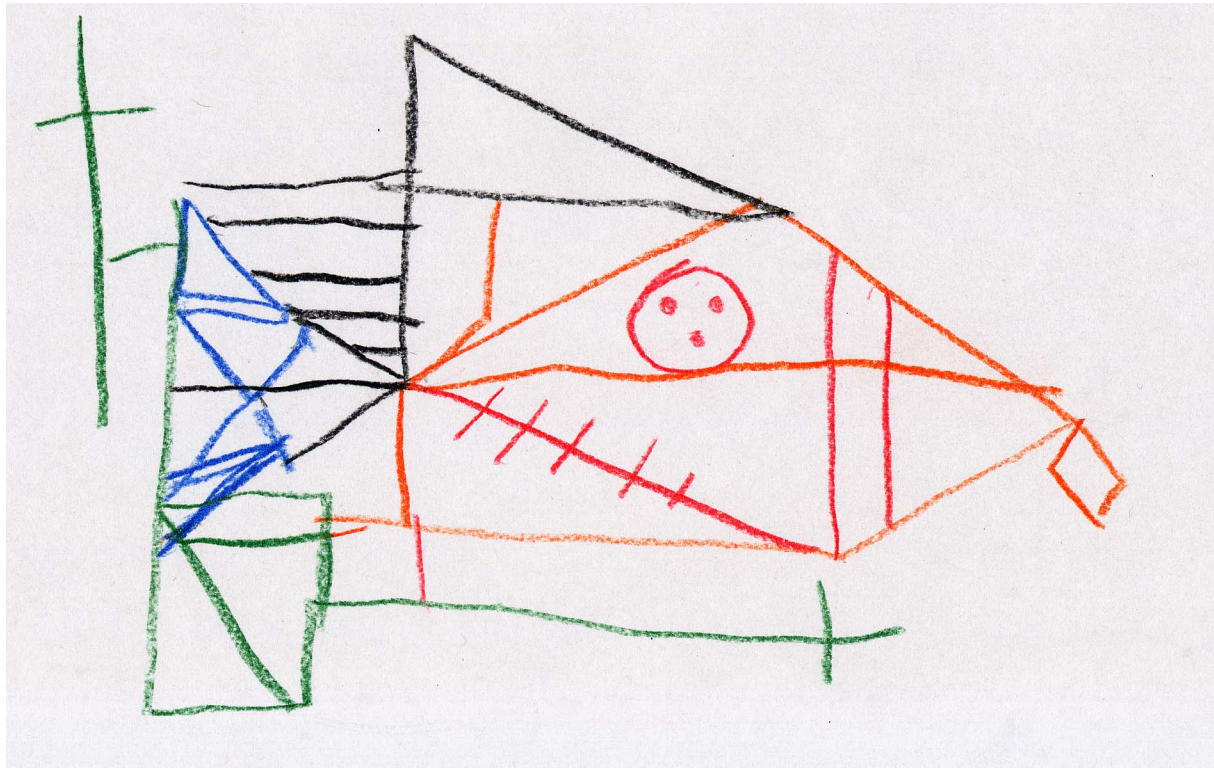
Assessment of everyday EF

- Interviews with child/parents
- Observation of problem-solving process
- Work samples
 - “How are they with following multiple step instructions?”
 - “Is their room a disaster zone?”
 - “Can they cope with unexpected transitions?”
 - “Do they seem to be learning from their mistakes?”
 - “How much hand-holding do they need with new projects?”

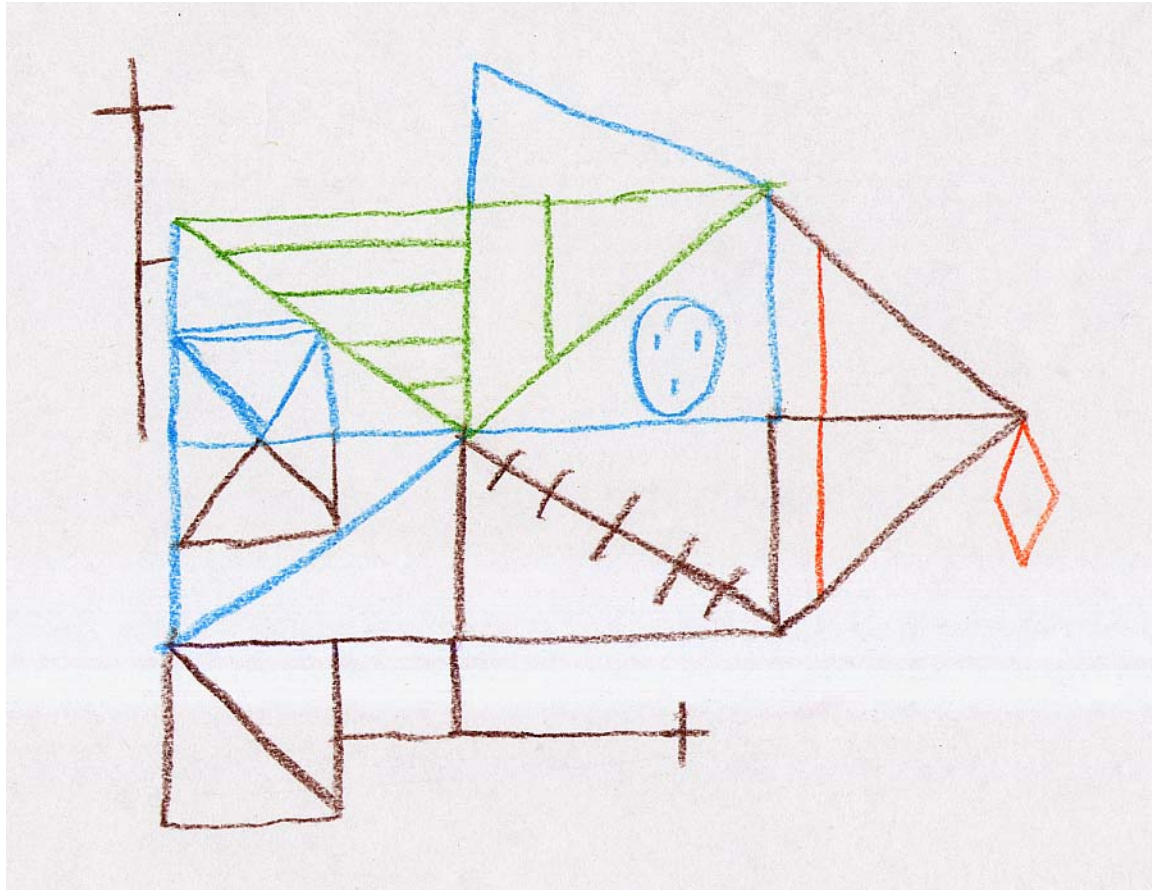
Assessment of EF – Lab tests



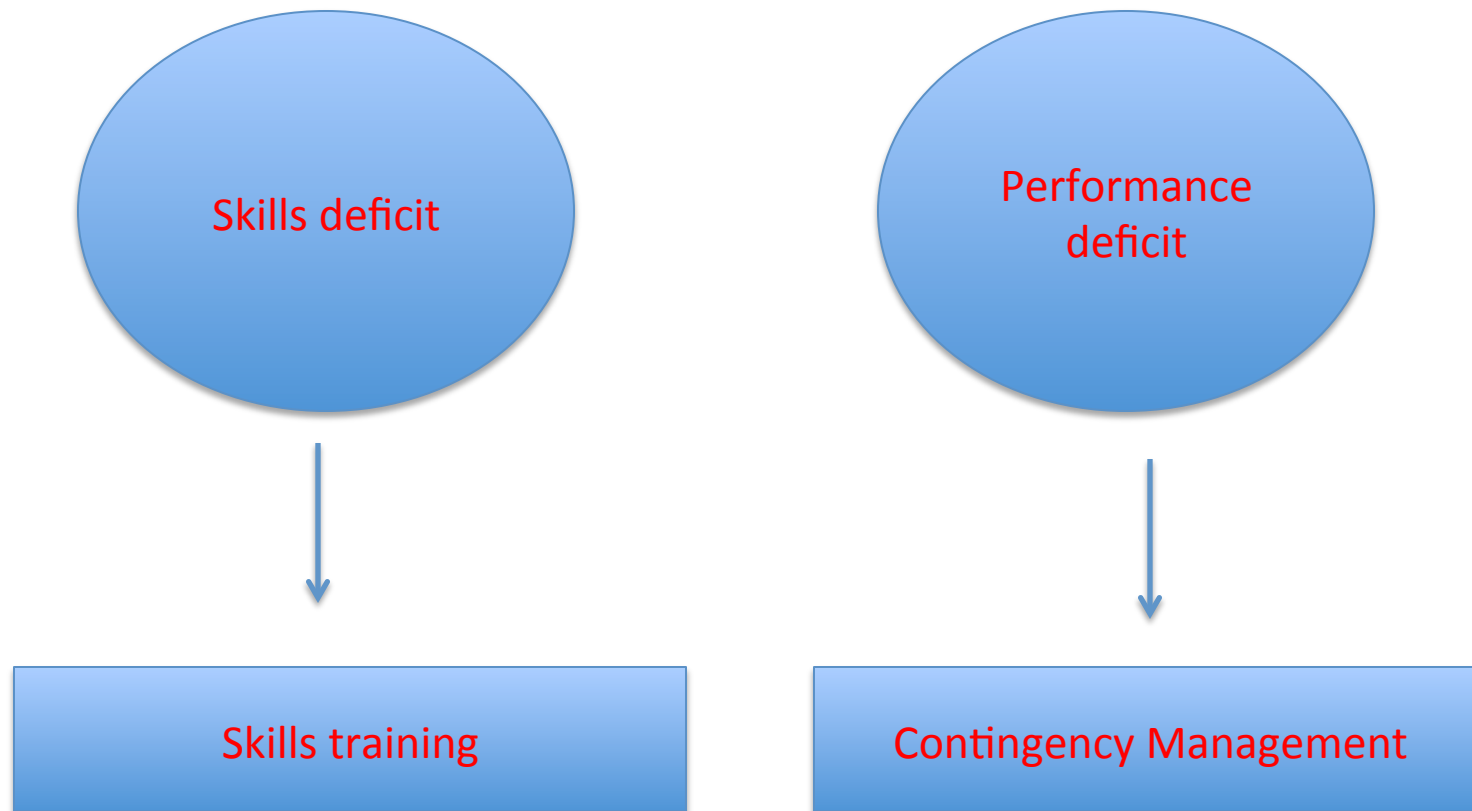
Assessment of EF



Assessment of EF



Assessment of EF

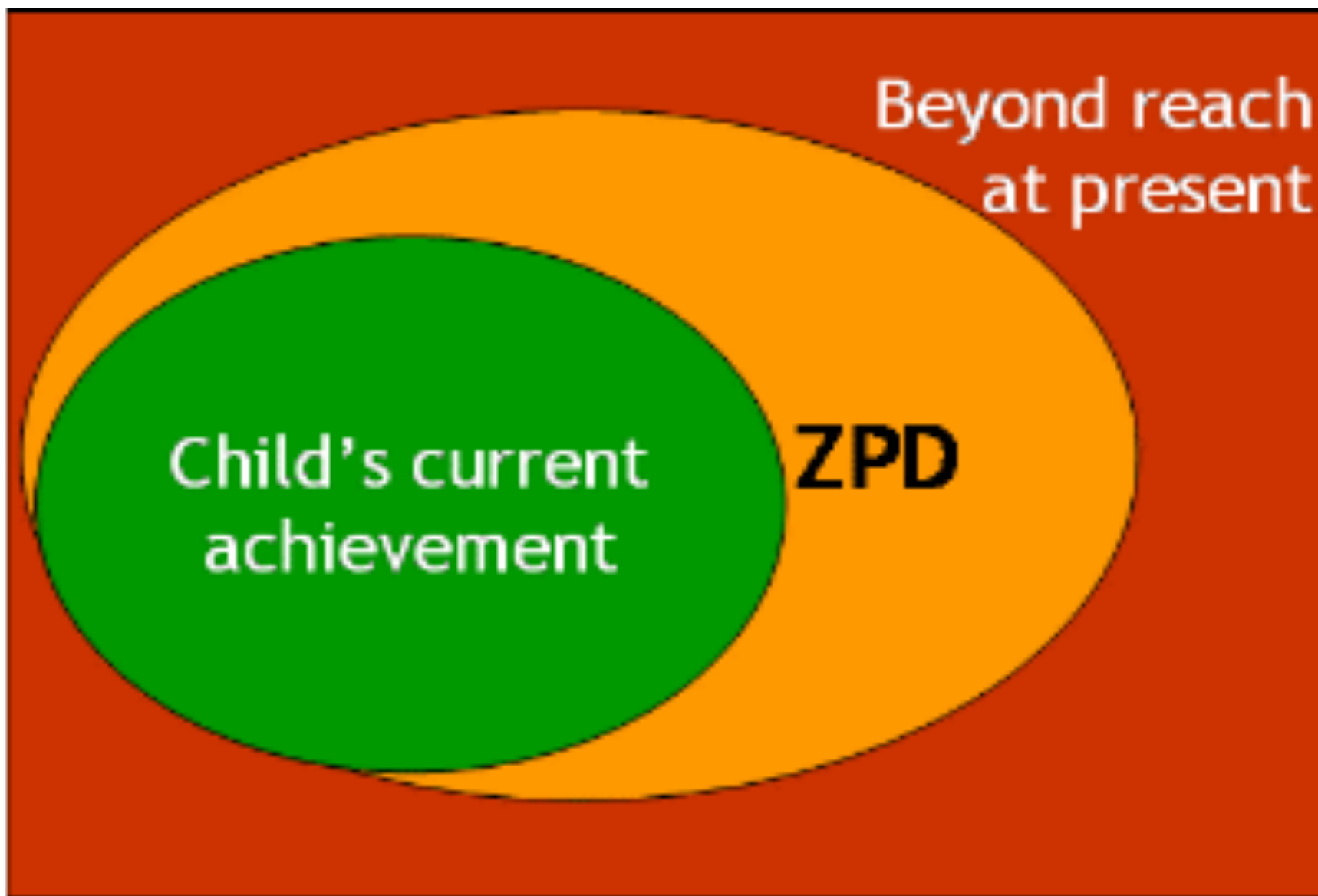


Skills training: What can we do to help?

- Adjust the environment
- Adapt the task
- Teach the child

Keep in MIND...

- Process oriented: Not *WHAT* but *HOW*
- General principle: *STRUCTURE, STRUCTURE, STRUCTURE*
- Teach in context of problems (model/coach)
- Prevent OVERLOAD: Start low and go slow



How do I build the intervention?

Depends on...

- Age of the child
- Nature/severity of the specific problems and where they occur
- What resources are available... (Who's the team?)

Adjust the environment

- Accommodations
 - Preferential seating
 - Limit sensory distractions
 - Predictable routines
 - Visual supports
 - Previews/Dry runs
 - Timers
 - Set clear expectations for behavior from the get-go
 - Recognize/respond to overload

Adapt the task

- Break larger tasks into smaller chunks
- Be explicit in what is expected
- Provide built-in timelines
- Provide feedback for each step

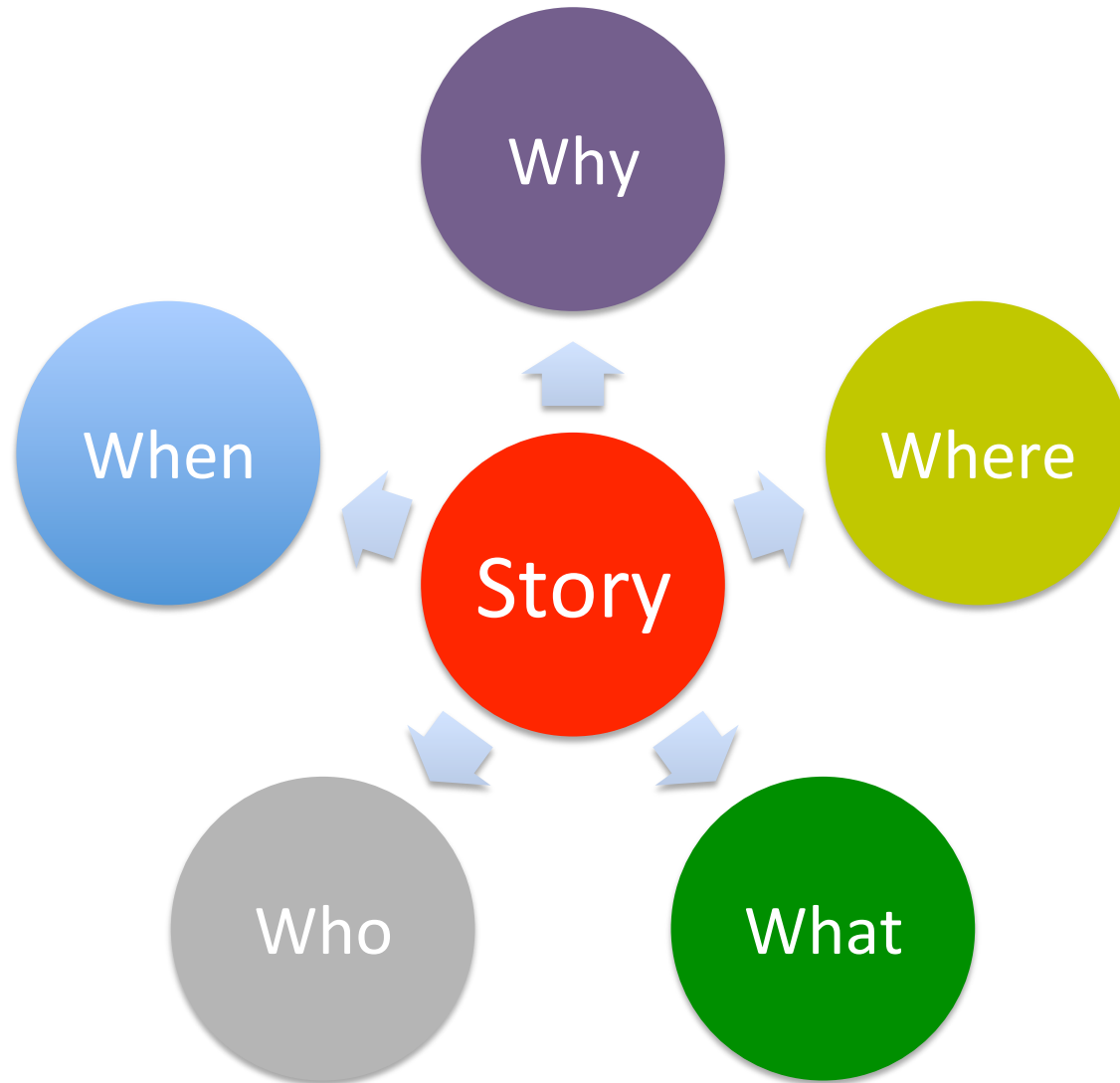
Teach the child

- Time management
 - iCal, Google calendar, Outlook
- Materials organization
 - Clear and easy to maintain filing systems
- Study approaches
 - Asking for templates
 - Planning out schedule of attack
 - How to gauge when you are ready
- Note-taking
 - How to organize/structure notes
 - Laptops/apps

Teach the child

- Academic-specific interventions
 - Written organization: Graphic organizers
 - Reading comprehension: Active reading strategies
 - Mathematics: Scripts for tackling multi-step problems






Graphic organizers



Active reading strategy

- Before reading
 - Ask questions
- During reading
 - Underlining/highlight words you don't know
 - Summarize what happened
 - Identify big picture ideas and details
 - Write down questions
- After reading
 - Summarize in your own words
 - Write down questions
 - Make up your own test questions
 - Make it visual

Mathematics

Simple Steps for Solving Word Problems in Math	
	Look for the nouns that are counted.
	List each noun and the quantity of each (write the numbers shown).
	Look for the operation clue word and use it to write the solution statement with the number sentence.
	Do your working. That's when you add, subtract, multiply or divide to get your answer.
	Carry the answer and attach the noun to it.

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GPDR

- Goal – what do I want to accomplish?
- Plan – how am I going to accomplish it?
 - What materials do I need?
 - What are the steps?
- Prediction - how will I do?
 - Self
 - Parent/teacher
- Do!
- Review
 - How did I do? Ratings self/parent/teacher
 - What worked/didn't work?
 - What will I do differently next time?



Ylvisaker, M., Szekeres, S. & Feeney, T. (1998) Cognitive Rehabilitation: Executive Functions. (pp. 244) In M. Ylvisaker (Ed.) Traumatic Brain Injury Rehabilitation: Children and Adolescents (2nd Ed.). Boston: Butterworth-Heinemann.

Principles of contingency contracting

- Specific and individualized goals
- Goals attainable but not too easy
- Clear and consistent pattern of reinforcement across settings
- Require involvement from parents/teachers
- Updated as needed
- Data driven

Keep in mind...

- These interventions take time and practice!
- No silver bullet, sometimes takes trial-and-error
- It is impossible to teach the skill if the child isn't motivated → think about contingency contracting



"Sometimes it's easier if you break the work up into little chunks."

Upcoming Events at Child Mind Institute

For more
information,
please visit
[childmind.org/
workshop-series](http://childmind.org/workshop-series)



Research Update: What Do We Actually Know At This Point?

Presented by Raquel Cumba, PhD

Wednesday, March 19, 2014

6:15 PM – 7:30 PM



Sibling Rivalry: How to Keep the Peace at Home

Presented by Vasco Lopes, PsyD

Wednesday, March 26, 2014

6:15 PM – 7:30 PM



Impulsive or Shy Teens and Risky Behavior: What's the Connection?

Presented by Roy Boorady, MD and Jeanette Friedman, MS, LCSW

Wednesday, April 2, 2014

8:30 AM – 10:00 AM

Intensive Programs

The Child Mind Institute offers weeklong, intensive programs for children.



Summer Scribblers is a new one-week intensive treatment program for middle school students with disorders of written expression. The program is based on research from the University of Kansas.



Brave Buddies is a one-week treatment program held twice a year for children with selective mutism. Using a simulated classroom, the program offers opportunities for the child to practice “brave talking”.



Fearless Friends is a one-week intensive treatment program for children with obsessive compulsive disorder, specific phobias, and other anxiety disorders. Children learn to confront their fears in a program tailored to their individual needs, and parents learn how to respond to their children’s symptoms



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