

Executive Functioning Skills



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Introductions

1. What's your child's grade level?
2. Are you familiar with Executive Functioning?
 - Very familiar
 - Somewhat familiar
 - A little familiar
3. What do you want to learn from this presentation?

Did You Need Any of These Skills?


- Attending
- Planning
- Organization
- Problem Solving
- Impulse Control
- Negotiation/Flexibility



A Few Words About Supports

We all have strategies that we use to help us with organization and problem-solving.

How would you feel if you didn't have your supports?

Three parallel white lines of varying lengths are positioned diagonally in the bottom right corner of the slide, pointing towards the top right.

Think You'd Manage?

Try getting through the day without one of these:



What is Executive Function (EF)?

- Executive functioning is an umbrella term for the neurologically-based skills involving mental control and self-regulation. (LDOnline.com)
- Higher-level cognitive skills used to control and coordinate other abilities and behaviors. (Executive Functions Frontotemporal Dementia)
- The ability to manage oneself and one's resources in order to achieve a goal. (LDOnline.com)



Executive Function is ...

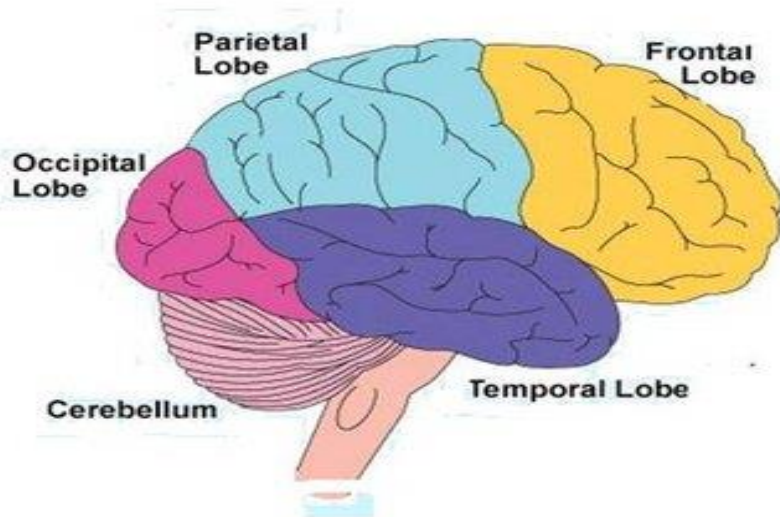
- The ability to mentally connect the dots
- The way the brain uses information from different “files” in the brain in tandem in order to carry out life, academic, and work skills
- Grounded in the real world experience
- Not exclusive to people with autism

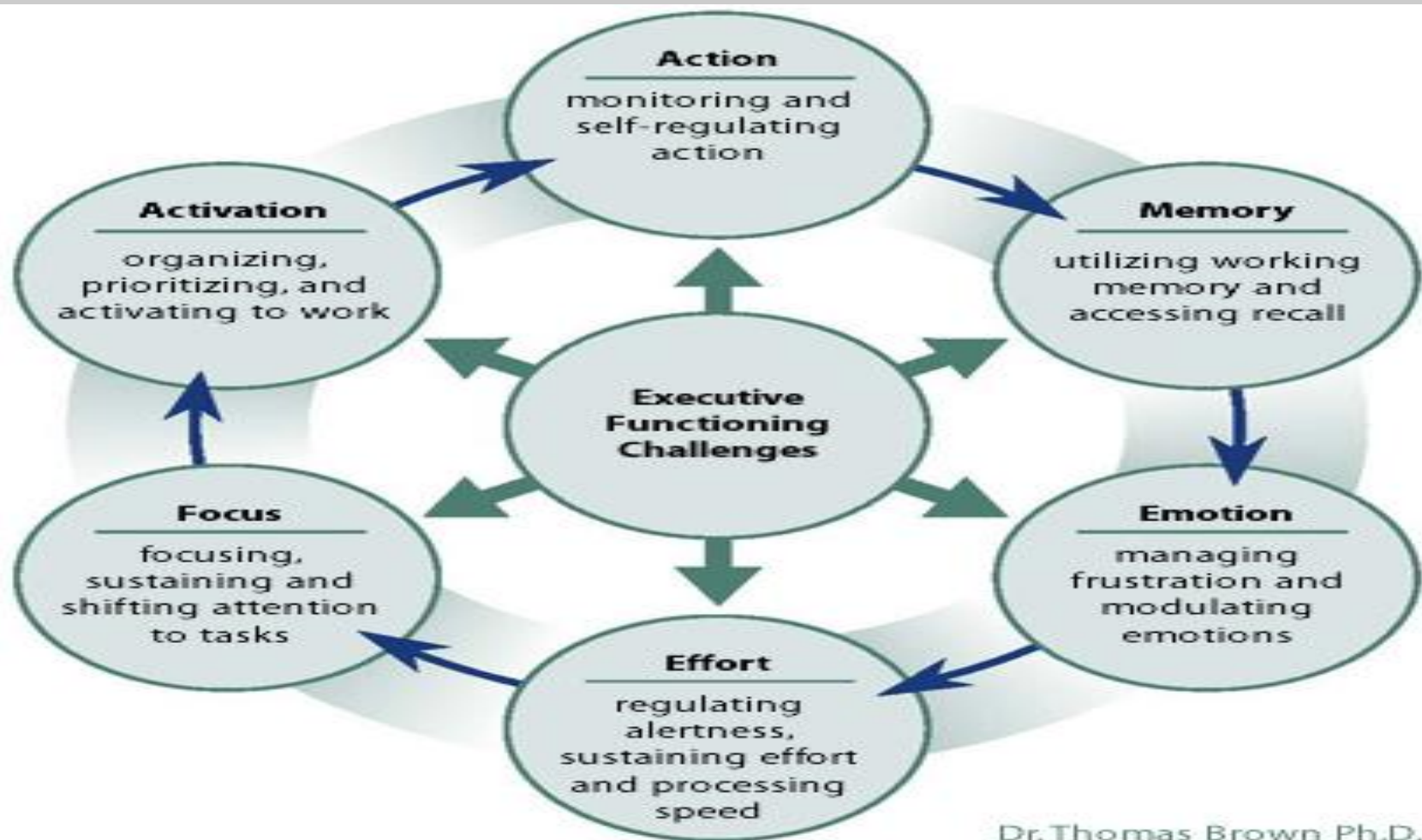
Executive Functioning

Frontal lobe is responsible for much of the executive functioning of the brain.

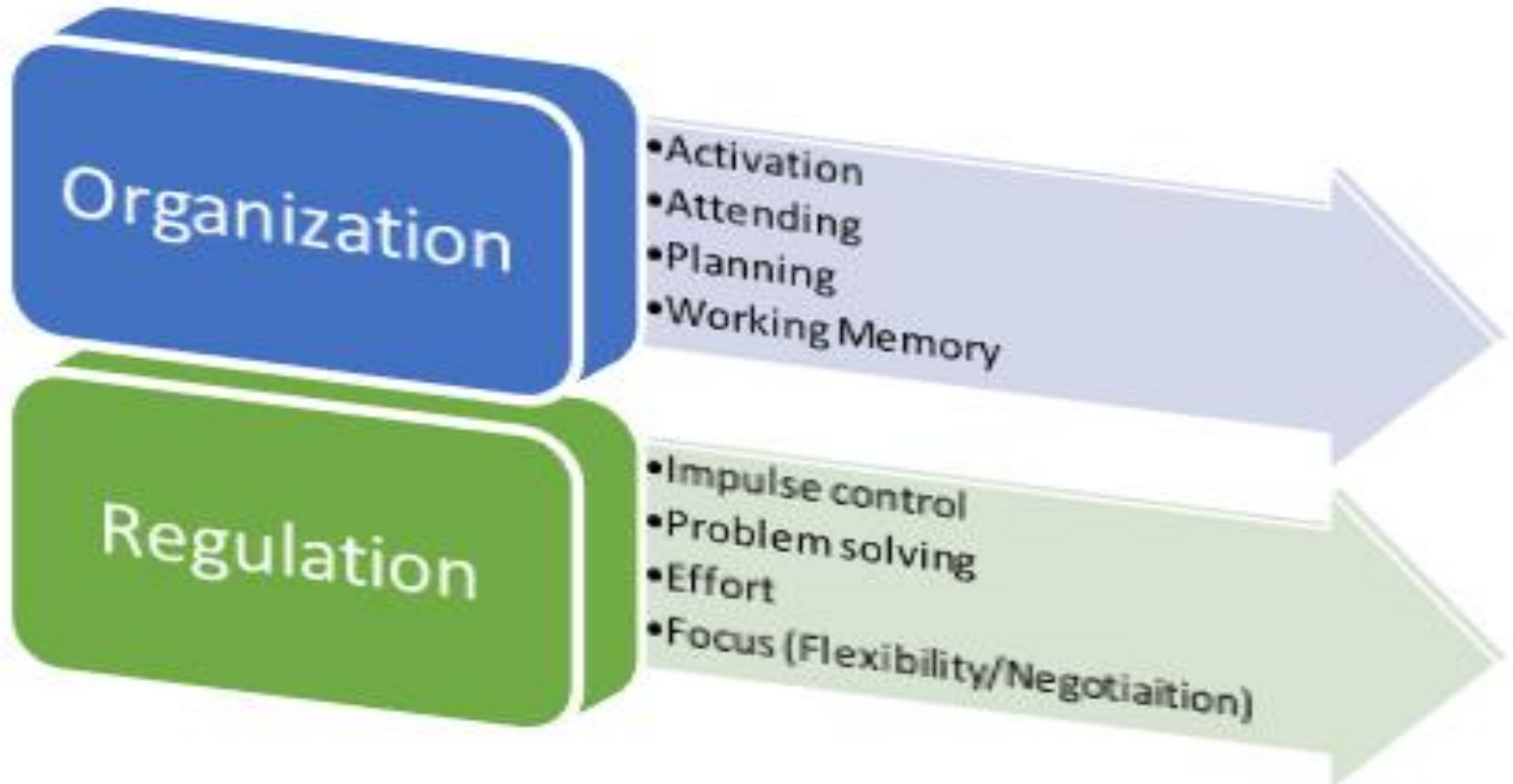
These functions include:

- Attention
- Working memory
- Planning, organizing
- Forethought
- Impulse control





Executive Functioning Skills



EF Skill Deficits

Organization

Difficulty applying consequences from past actions

Difficulty planning and initiating

Difficulty with verbal fluency

Difficulty processing, storing and/or retrieving information

Regulation

Socially inappropriate behavior

Moody or “roller coaster”

Loss of interest in activities

Inflexibility

Difficulty multi-tasking

Thoughts to Consider

"I cannot hold one piece of information in my mind while I manipulate the next step in the sequence."

Temple Grandin

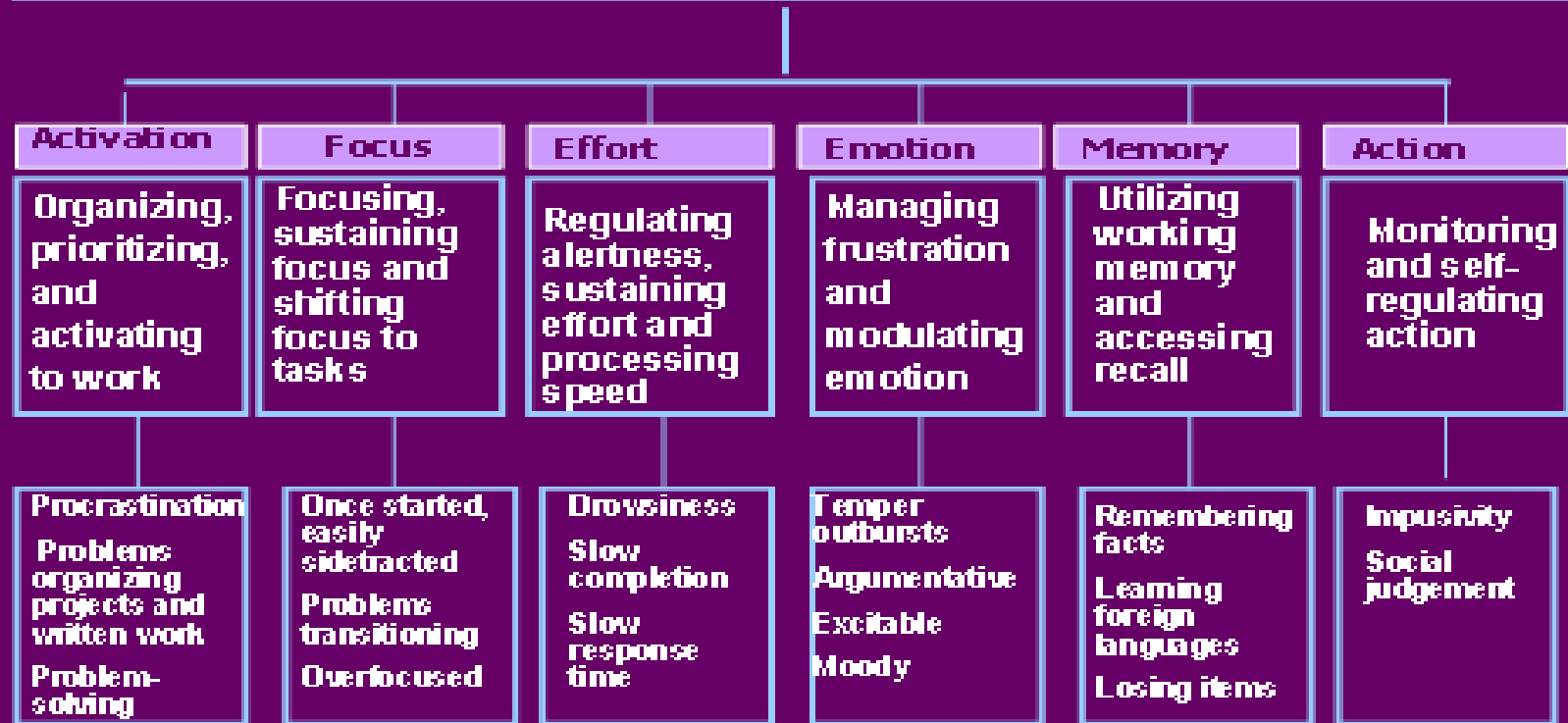
The loss of that “administrative” control affects the ability to organize and regulate multiple types of information and therefore, behaviors.

Autism Speaks

EF's Effect on Everyday Life

- ~You need executive skills to formulate even the most fundamental task.
- ~How does it affect your child in everyday life?

Academic Problems Linked to Executive Functions



Adapted from : Brown, T.E. *Manual for Attention Deficit Disorder Scales for Children and Adolescents*; 2001.

EF Scenarios

Executive Functioning Challenge	Area of Deficit
Rebecca has difficulty following the steps required to begin an assignment such as writing her name at the top of the page, and then following the directions to complete the assignment.	MEMORY
It takes Kareem 10 minutes to get his material out for class	EFFORT
Tosha is unable to prioritize which information to study when preparing for the test.	ACTIVATION
Julie cried and screamed this morning while getting ready for school because she could not find her favorite pair of socks.	EMOTION
Sarah played with a girl for the first time on the playground. After playing, Sarah called the girl her best friend.	ACTION
Tom refused to leave the classroom at dismissal because he wanted to finish his assignment.	INFLEXIBILITY

10 Principles for Improving EF Skills

1. Teach deficient skills rather than expecting the child to acquire through observation
2. Consider your child's developmental level
3. Teach externally before the skill is learned internally
4. The external includes changes you can make in the environment, the task, or the way you interact with your child.

10 Principles for Improving EF Skills

5. Use (rather than fight) the child's innate drive for mastery and control

6. Modify tasks to match your child's capacity to exert effort

7. Use incentives to augment instruction

10 Principles for Improving EF Skills

8. Provide just enough support for child to be successful

9. Keep supports and supervision in place until the child achieves mastery or success

10. When you do stop the supports, supervision, and incentives, fade them gradually

Students with ASD require direct instruction in executive skills and some “students with Autism may need individualized instruction to improve executive function skills.” (ACE-VCU)

- Organization skills
- Self monitoring skills
- Goal setting
- Self regulation techniques
- Prioritizing for success
- Flexibility training



Strategies for Teaching EF Skills - Activation

Organizing - Chunking Long Term Projects

Project Name _____

Objective _____

Elements/Parts

1. _____ 2. _____ 3. _____ 4. _____

Timeline Dates

1. finish by _____ 2. finish by _____

3. finish by _____ 4. finish by _____

Strategies for Teaching EF Skills - Activation

Goal Setting,
Prioritizing



My Goals!	
<input type="checkbox"/>	Accomplished!
<input type="checkbox"/>	Still improving.
<input type="checkbox"/>	Accomplished!
<input type="checkbox"/>	Still improving.
<input type="checkbox"/>	Accomplished!
<input type="checkbox"/>	Still improving.

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Strategies for Teaching EF Skills - Activation

Problem Solving -
Social Autopsy
(cause & effect)

Social Autopsies Worksheet 

What happened? _____

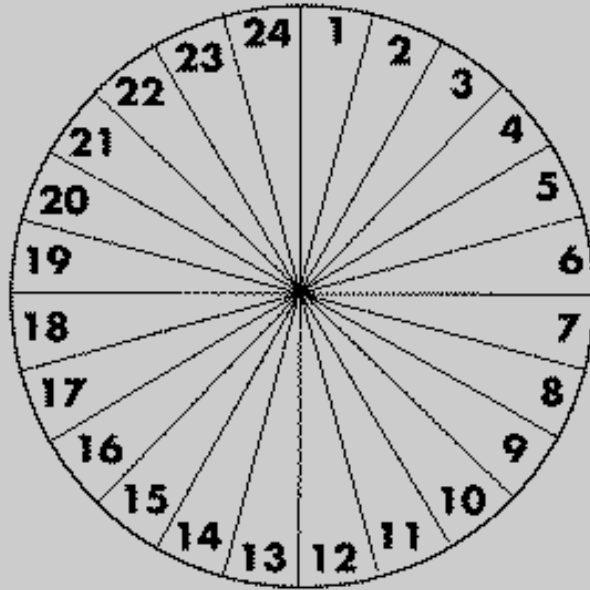
What was the social error?	Who was hurt by the social error?

What should be done to correct the error? _____

What could be done next time? _____

Strategies for Teaching EF Skills - Action

Time Management - “How do I spend my time?”



Type of Activity	Color
School	
Snack	
Video Games	
Homework	
Sleep, etc	

Strategies for Teaching EF Skills - Action & Effort

Self-Regulation - Delay or inhibit response - “blurting”

- acknowledge/determine purpose/function of blurting
- allow for controlled opportunities
 - “talking stick” for turn
 - chips for number of allowed questions
- share the process and expectations with child
- model & role play
- planned opportunities and natural ones
- reinforce for success

Strategies for Teaching EF Skills - Emotion

5 Point Scale

<u>Looks Like</u>	<u>#</u>	<u>Name of Feeling</u>	<u>What I Can Do</u>
	5	Angry	Go to my cool down area.
	4	Upset	Ask for help, take a walk, self-talk
	3	OK	Do I need something?
	2	Happy	Keep on working
	1	Excited	Keep my body calm

Strategies for Teaching EF Skills - Focus

Visual Schedules for task completion

morning routine

<input type="checkbox"/>		get dressed
<input type="checkbox"/>		eat breakfast
<input type="checkbox"/>		brush teeth
<input type="checkbox"/>		go potty
<input type="checkbox"/>		backpack/jacket
<input type="checkbox"/>		go to school

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Homework/Assignment Sheet

Name: [Type Name Here] Week Endings: [Type Text Here]

Directions: Each day, write the assignment in the proper spot. If you do not have enough space, write the task. Sometimes your teacher will have you write special directions for studying or finishing work on the back as well. If there is no assignment, write "none".

	Monday	Tuesday	Wednesday	Thursday	Friday
Math					
Science					
History					
Spelling Language					
Reading					

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Strategies for Teaching EF Skills - Focus

Flexibility - Start with something simple
How many ways can you eat an orange?



Tips for Success for Young Children

- Early intervention is key
- Keep routines short
- Reduce the number of steps
- Use picture cues rather than written lists
- Be prepared to provide prompts and supervision. You may have to work side by side with your child

Tips for Success for Older Children

- Make them full partners in the design of the routine, selection of rewards, and troubleshooting that may be needed to improve routines
- Be willing to negotiate rather than dictate
- Whenever possible use visual cues (could be written) rather than verbal cues-these seem a lot like nagging to older children

Tips for Success for All Ages

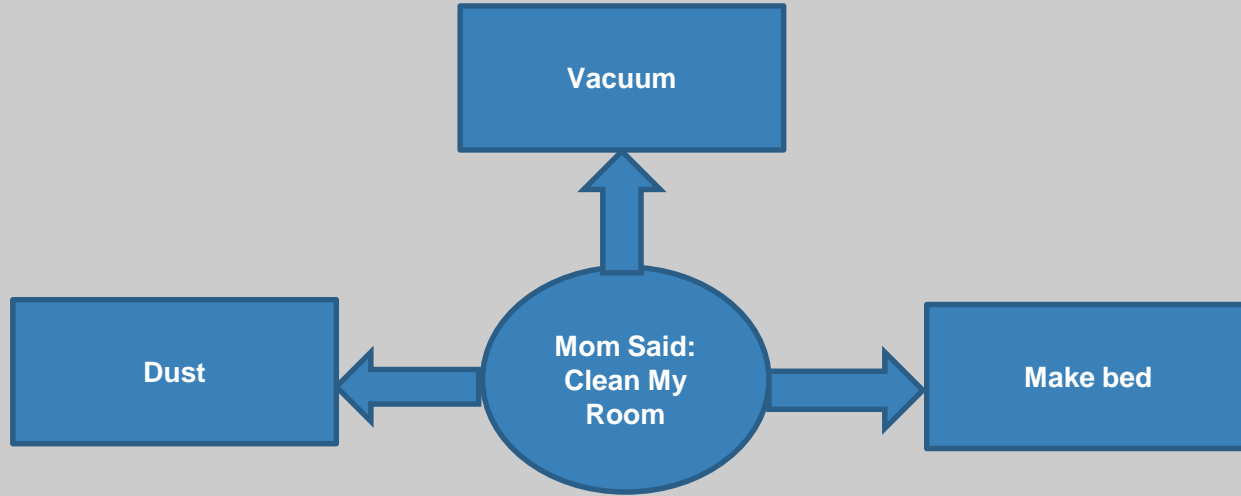
- Create routines/procedures
- Set reminders (timers/alerts)
- Utilize visual supports
- Organize the environment
- Reduce clutter



Explicit Teaching/ Task Analysis Home & Community

- Consider the steps for the following examples...
- Cleaning a bedroom
- Chatting in line at the store
- Waiting in line
- What to do if someone cuts the line
- Finding an item in the store
- Eating in a restaurant
- Shopping at the mall
- Going to a movie

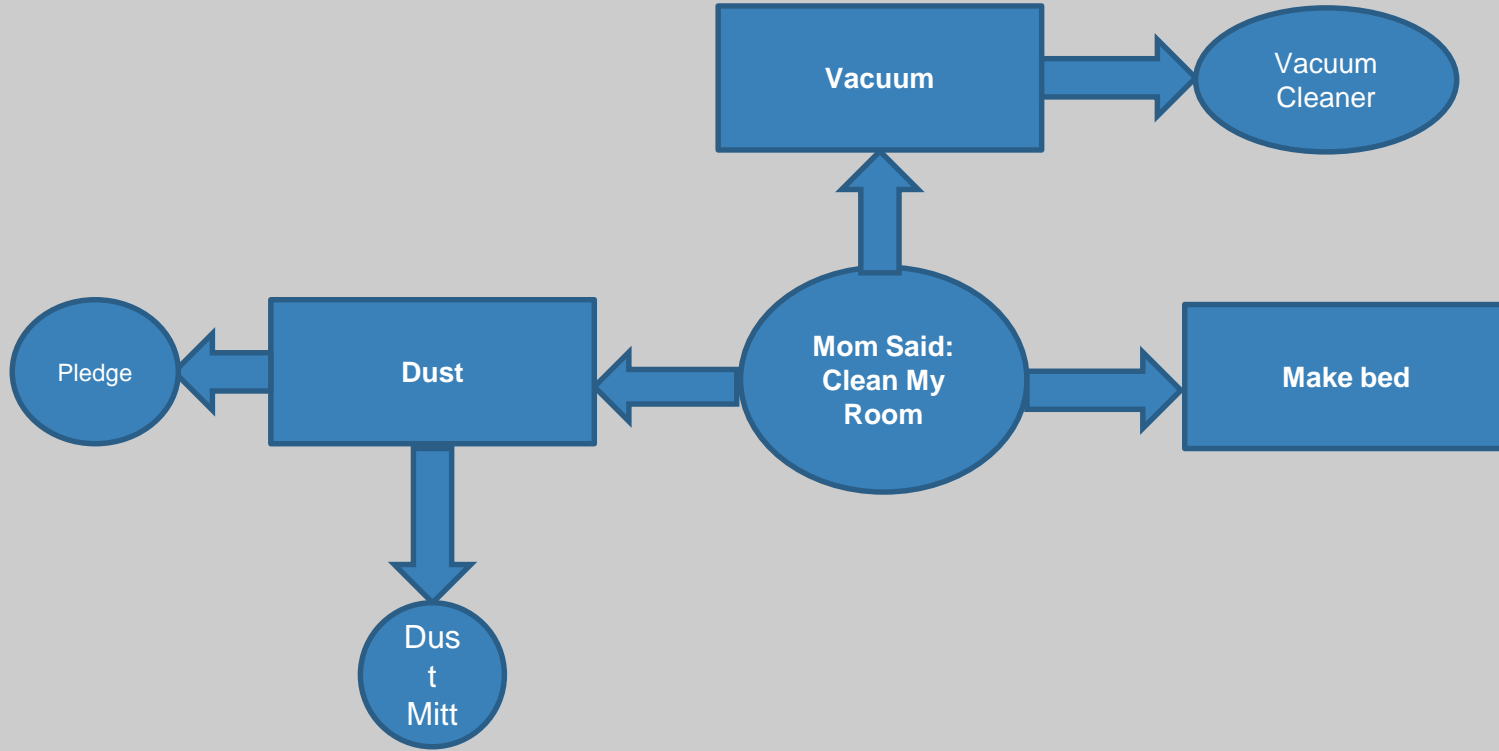
Thinking Tool: Breaking it Down



Identify Needed Materials

- After breaking a skill into “chunks” your child/student will need to identify materials for the task
- Practice this skill using the cluster organizer
- Once child has identified the needed materials, he should develop a materials list and use it to gather materials in advance (into a task box if appropriate)

Thinking Tool: ID Materials



Materials Checklist

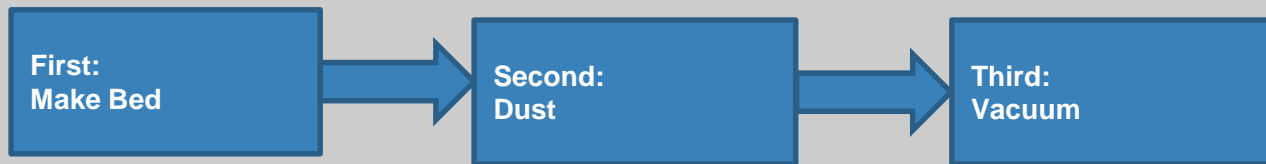
Materials Needed	
Dust mitt	✓
Pledge	
Vacuum	

Ordering Steps

- Steps or “chunks” need to be put into a logical order
- Ordering involves sequential thinking
 - Teach child to utilize a sequential organizer or checklist to complete the process of putting the steps in order
 - Then use the checklist as the “Action Plan” for completing the task

Putting Chunks in Sequential Order

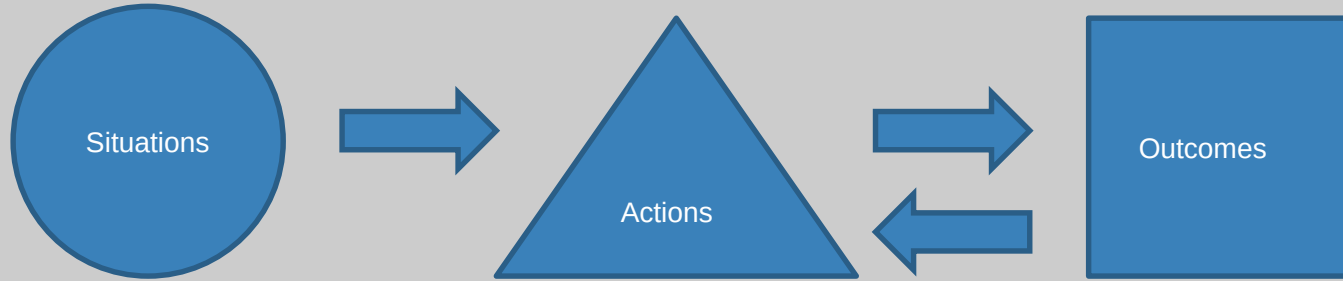
Physically moving the chunks into a logical order helps them understand sequencing...



They have made their own checklist!!!

Sequential Organizer: Correct Faulty Thinking Patterns

Everything happens to me.....



5 Must-Have Apps for Improving Executive Functioning in Children

Planning - 30/30



Working Memory App - Quizlet



Organization App – Google Calendar



Time Management App - InClass



Organization App - YouNote!



Practice Opportunities

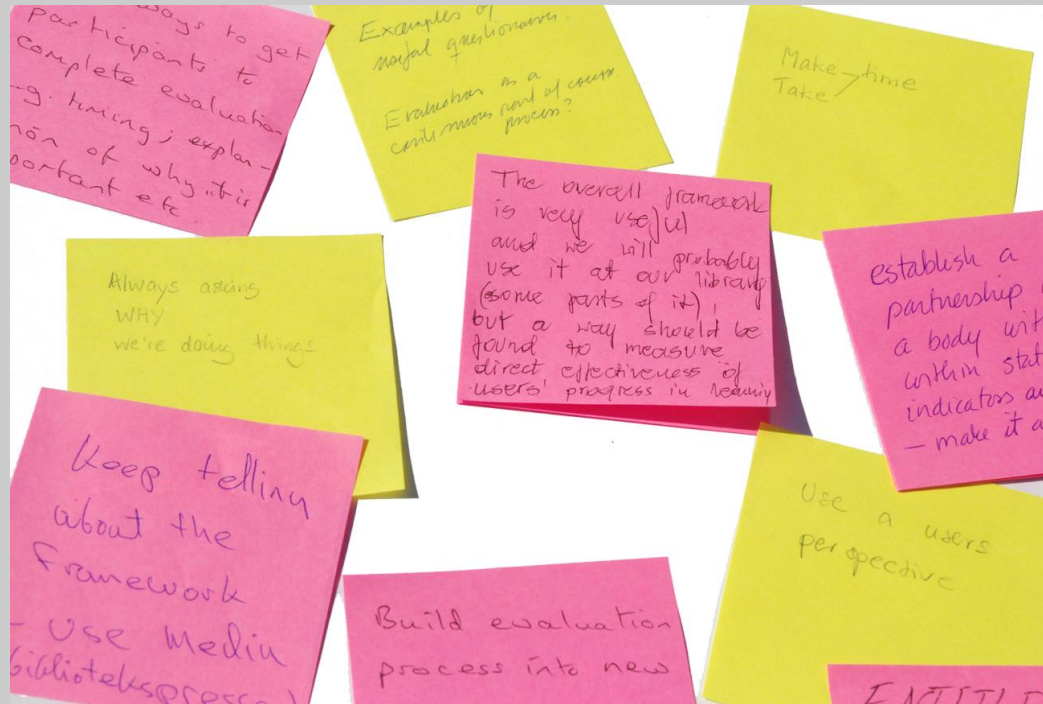
“ I have failed over and over again, that is why I succeed.”
- Michael Jordan



Conclusions for Best Approaches:

1. Engage students' passionate interests
2. Address stressors in students' lives
3. Give students a sense of belonging and social acceptance
4. Give students opportunities to repeatedly practice EFs at progressively more-advanced levels
5. Do not focus on skills alone - address with emotional and social development

Final Thoughts... What can you do right now?



References & Resources

Attwood, Tony. The Complete Guide to Aspergers Syndrome

Autism Live (Web show)

Autism Speaks @ www.autismspeaks.org

Dawson, Peg; Guare, Richard. Smart but Scattered

Dawson, Peg; Guare, Richard. Smart but Scattered Teens

Diamond, Adele; Lee, Kathleen. *Interventions Shown to Aid Executive Function Development in Children 4 to 12 Years Old*; [Science. 2011 Aug 19; 333\(6045\): 959–964](#)

Grandin, Temple. Emergence: Labeled Autistic

Hansen, Sharon. The Executive Functioning Workbook for Teens

Schetter, Patty MA, BCBA. Addressing Executive Dysfunction in Middle/High School Aged Students - Strategies from Learning the R.O.P.E.S. for Improved Executive Functioning

References & Resources

Just MA, Cherkassky VL, Keller TA, Minshew NJ. *Cortical activation and synchronization during sentence comprehension in high-functioning autism: Evidence of underconnectivity.* Brain.2004;127:1811–1821.

Just MA, Cherkassky VL, Keller TA, Kana RK, Minshew NJ. *Functional and anatomical cortical underconnectivity in autism: Evidence from an fMRI study of an executive function task and corpus callosum morphometry.* Cerebral Cortex. 2007;17:951–961.

OAR @ <http://www.researchautism.org/>

Ozonoff, Dawson, and McPartland. A Parent's Guide to Asperger Syndrome and High Functioning Autism

Rush NeuroBehavioral Center, School Specialty, Inc. 2013. Executive Functions Curriculum Notebook, Middle School

Shore, Stephen. Beyond the Wall

References & Resources

Smith Myles, Brenda; Adreon, Diane. Asperger Syndrome and Adolescence

Smith Myles, Brenda. Asperger's Syndrome: A Guide for Educators and Parents

Smith Myles, Brenda. Simple Strategies That Work!

Winner, Michelle Garcia. Strategies for Organization - Preparing for Homework and the Real World