



3 Layers of Executive Function Skills

- Self Regulation
- Organization and Integration of Information
- Higher Order Reasoning Skills

3 Primary Layers of Executive Functions

Layer 1 Self – Regulation

- Basic needs are met
- Awareness
- Motivation
- Initiation
- Emotional control
 - Emotional balance
 - Self awareness
 - Self monitor



3 Primary Layers of Executive Functions

Layer 2 Organization/Integration

- Integrate details into a bigger picture
- Organize and store information so it can be traced back and retrieved over time



3 Primary Layers of Executive Functions

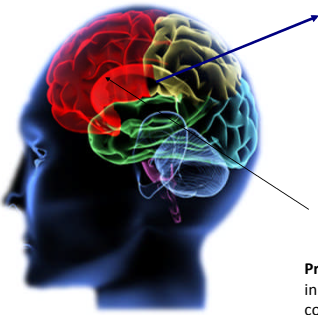
Layer 3 Higher Order Reasoning Skills

- Analyze
- Draw a conclusion
- Solve a problem
- Predict an outcome
- Reason
- Evaluate



Reactive Brain


The Subcortex



- **Basic Drives:**
 - Hunger/Thirst
 - Sleep/Wake
 - Sexual
- **Emotion**
- **Memory**
- **Time**
 - Chemical Control of Pace
 - Bio-Rhythm
 - "sensation" of time passing


Prefrontal lobe – planning, initiation, anticipation, impulse control – higher order thinking

Reactive Brain



Stimulus → Reaction

The Subcortex – Low Road Processing




Low Road Processing Involves **the shutting down** of the higher processes of the mind.

It Leaves the individual in a state of:

Intense Emotions	Impulsive	Rigid Responses	Lacking in Self Reflection	Unable to Consider Another Point of View
------------------	-----------	-----------------	----------------------------	--

Rational Brain

The Frontal Lobe – Relaxed Alertness




A Form of Processing that involves:

- Higher
- Rational
- Reflective thought processes of the mind

High Road Processing Allows for:

Being Mindful, Interactive, Emotive	Being flexible in our responses	An Integrated Sense of Self Awareness
-------------------------------------	---------------------------------	---------------------------------------

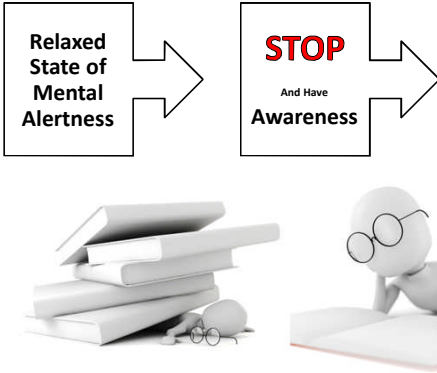
Rational Brain



Think → Decide → Act

**Mark Forster,

'Executive Functions' Flowchart:



```

graph LR
    A[Relaxed State of Mental Alertness] --> B[STOP  
And Have Awareness]
    B --> C[Stack of books and cartoon character reading]
  
```

Being Aware

Specific Time of Day After

- space** – in my own home, upstairs, bathroom, bedroom
- time** – 7:30, after Dora
 - sequence** – bath before pajamas
- objects** – pajamas, toothbrush, washcloth, etc.
- people** – need dad to read a story, need mom to brush out my hair

Time Involved, Order, Feel for Time


- space** – in the kitchen
- time** – prep time, cooking time, clean up time
 - sequence** – check ingredients before mixing
- Objects** – recipe, ingredients, utensils, dishes
- people** – help turning on the stove

Being Aware


Cleaning Routine:

- Space**
- Time** – Before you leave the house, before guests come, after a mess, to have a clear mind, before the cleaners come
- Sequence** – items off the floor, make the bed, maybe vacuum and dust
- Objects** – trash bag, laundry basket, vacuum, duster
- People** – mom

Under What Condition




"Clean your room....."



"Let's see."
 I need to go to my room and clean. (space)
 It will only take about 10 minutes. Then I can go over to Andrea's. (time)
 First I'll pick up the cd's, then the dirty clothes and put away my books. That will do. (sequence)
 I need a trash bag. (objects)
 Maybe Mom can bring me my clean clothes. (people)


"Start your homework!"



"I'll work in the resource room. (space)
It will only take about 20 minutes to do that vocabulary. (time)
First I'll make flashcards, then put them in piles of words I know and those I don't. That will do. (sequence)
I need my vocabulary list and some notecards. (objects)
 Maybe the resource room teacher can help me draw pictures. (people)


STOP and Read the Room

Space	Time	Organization	People
Read the Room	Get on the Timeline	Sense the Organization	Read the Person
What's going on?	Time of day (routine vs. non-routine) What is happening at this Moment in Time What is coming up? *Predictable sequence Pace	How are things Organized? We Consider the basis for Organization: Objects Location Purpose Whole-->Part	Face Body Appearance Mood Pace Saying

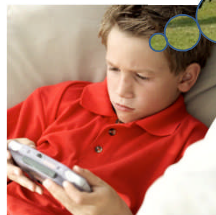


'Executive Functions' Flowchart:

Relaxed State of Mental Alertness → **STOP** And Have Awareness →



If _____
Then _____



STOP and Read the Room

Space

- Where is it?
- What are the parts to that space?

Time

- What time is it now?
- What usually happens at this time?
 - What is coming up?
 - About what time?
- The task/activity I am doing now.....when does it need to be done by?
- How much time do I have?
 - Long time or a short time?
- How long will it take?
 - What can be reasonably accomplished in this amount of time?
- What is the usual sequence that I do in that amount of time?
- What is the pace of activity?
 - Can I dilly-dally?
 - Can I rush?
 - What happens if I do?
- What do I see myself doing when it is all done? This is the Crystal Ball Image

Objects

- What materials are in front of me?
- What materials do I need to gather?
- Anything I need to practice?

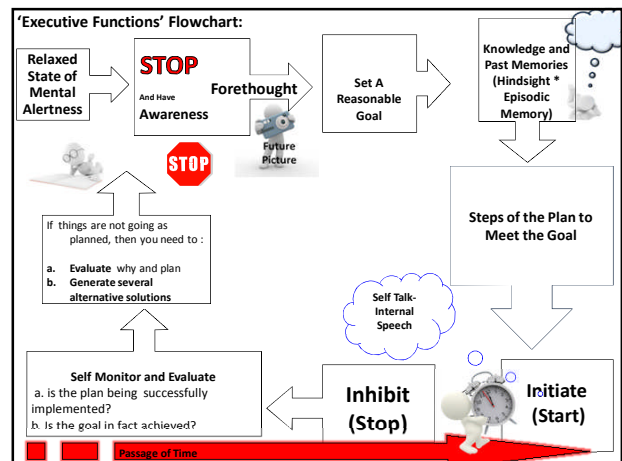
People

- Who is around?
- Who do I need?
 - What are they doing?
 - What is their pace?
 - What is their mood?
 - What is coming up for them?

Summary:

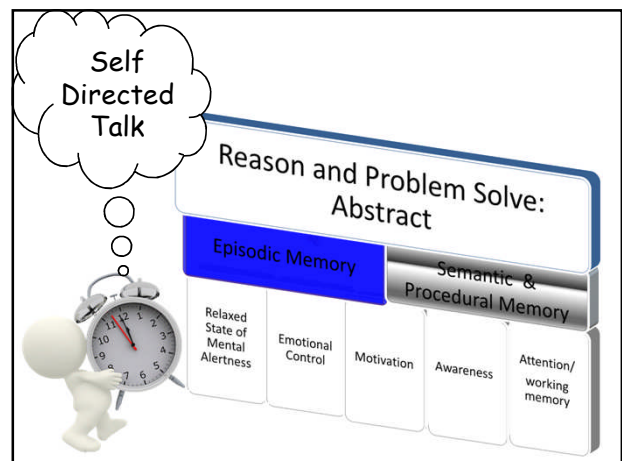
- Awareness is the ability to respond to important informational cues about space, time, objects and people.
- Enables a student to integrate these details with prior knowledge and **shift** to the big picture to understand the gestalt of 'now' and 'next'.
- Creates a mental screenplay of 'How' to do something so a student can then self direct or execute in an 'online' fashion.

Anticipate the Outcome!



Working definition of EF skills

Executive Function is the ability to **integrate** a present **awareness** with a **future anticipation** and **prior experiences** to achieve a reasonable **goal & plan** (while still accounting for and flexibly managing and organizing the **space, time, objects** and **people around you**)



Observations: EF Difficulties in the Classroom

"Can talk the talk but can not walk the walk"

- Requires frequent feedback to complete tasks
- Inconsistent Effort and Performances
- May perform well on quizzes and short tests, but less well on homework
- Looks Unmotivated and/or Stressed
- Unprepared for Class or Assignments
- May have rigid and Inflexible Thinking



The Hierarchy of Task Execution

Is the Student Aware? Are they Reading the Room?
Do they have a Future Picture?
Do they Know and Sense the Passage of Time?
Are the Key Features Organized in their Mind? (Big Picture □ Features □ Details)
Have they accessed any Notes to Self? Do they recall last Time how Things Worked Out?
Do they have a Plan for managing the steps, the time and the materials?
How do they initiate best?



Relationship Development Intervention (RDI)

This paper was written by: Amy Cameron, MA, CCC-Sp
From notes taken at Dr. Gutstein's 2-day workshop August 2003

Typical Development

Typically developing people follow a pattern of learning that allows for a sophisticated ability to relate to others. Typical children learn to process information in two different ways: **Absolute and Relative**.

Absolute Processing

1. Solutions are either right or wrong. Correct solutions never change. Example: $2+2=4$ $2+2$ never = 5
2. Events take place in the same manner, day after day. Example: The sun always rises in the east and sets in the west.
3. Information always has the same meaning. Example: A red light means stop. A green light means go.

Relative Processing

1. The meaningfulness of information depends on the context in which it is imbedded (ex. Person, place, time). Example: It is ok to tickle a baby if it is your brother, but not if it is a stranger.
2. Many problems require a "good enough" solution. We arrive at the solution based on whether or not it feels right, not because of objective criteria. Example: Determining how close to stand to a person when talking with them.
3. Problems may not have a single right or wrong solution. Example: Which shirt should I wear? Which airline should I fly? Which road should I drive to work? How should I play with my blocks?

Relative processing is required in order to relate socially. It is required for flexibility in problem solving, understanding meaning based upon context, adapting actions based upon feedback, and conversation, as well as many other functions to survive on a daily basis. Relative processing skills are weak in those with Autism, creating constant dilemmas in their daily lives. Many "social skills" programs emphasize capitalizing on Absolute processing in order to help improve social ability. These skills may be helpful in certain situations at certain times, but are not fluid enough to fit into the real world. (Ex. Eye contact, scripted greetings, etc.)

Typical Memory

Typically developing memory involves different mechanisms served by separate brain circuits. Two types of memory are: **Procedural memory and Episodic memory**. These two types of memory activate two different neural pathways.

Procedural Memory

- encodes details leading to specific goals
- procedures, scripts, and formulas
- emotional information is not stored

Examples of procedural memory

- memorizing facts for a test
- scripts for specific scenarios (ordering at McDonald's)
- saying "please" and "thank you"

Episodic Memory

- encodes information as a whole
- remembers the big picture, only certain details that are meaningful to us
- information stored as "episodes" with specific emotions attached to organize different categories

Examples of episodic memory

- recalling a trip
- remembering a visit to Grandma's house
- remembering a holiday

Instrumental Interaction and Experience Sharing

People with Autism tend to rely much more strongly upon procedural memory. The reason may lie in the way their brains are organized. We are born with many more brain connections than we can use. In childhood our brains selectively "prune" connections that are not stimulated. Specific neural pathways are stimulated based on different ways that we interact with our environment. Two different ways we interact with our environment are: **Instrumental Interaction and Experience Sharing**. These two different types of interaction activate two different neural pathways.

Instrumental Interaction

- social contact is a means to an end
- we expect scripted actions will lead to specific outcomes
- emotional reactions are not important
- novelty and creativity are disruptive

Examples of Instrumental Interactions

- pointing to a toy that is out of reach
- standing in line at a supermarket to pay for your stuff
- going to visit a "friend" so you can play with his new playstation game

Experience Sharing

- the interaction is an end in itself
- we prefer to interact not knowing the outcome
- emotions are the critical information
- we interact to share novel and creative ideas

Examples of Experience Sharing:

- going fishing with a friend not caring whether or not you actually catch any fish
- riding bikes side by side with a friend going no place in particular
- while out shopping noticing something your daughter would like and buying it for her

People on the Autism spectrum tend to be really good at instrumental interactions, but not with experience sharing.

Two Different Pathways

1. Absolute Thinking => Procedural Memory => Instrumental Interaction
2. Relative Thinking => Episodic Memory => Experience Sharing

People with Autism tend to be very good at pathway #1 and tend to have extreme deficits with pathway #2. RDI specifically addresses pathway #2 beginning with experience sharing, and then creating episodic memories to improve relative thinking.

Principles of RDI

1. Carefully and systematically build motivations. Motivations are the same as functions, the "why". Experience sharing can become addictive for people with Autism. RDI emphasizes the teaching of functions before skills.
 - functions are the "why bother" of doing experience sharing
 - functions must be mastered before skills
 - functions are developed through Episodic Memories

Skills:

- skills are the "how to" of experience sharing
 - skills never determine the starting place for intervention
 - skills are attached to episodic memories developed through functions
2. Carefully evaluate developmental readiness before teaching skills. The foundation must be solid before you add skills.
 3. Learn to be an Experience Sharing Coach by balancing guiding and pacing. Follow the child's lead not in what to do, but in how fast to do it.
 4. Invite and amplify using prompts and spotlighting. Use you face, voice and body to insure that critical information stands out clearly.
 5. Make sure to build Episodic Memories of enjoyable shared experiences.
 - celebrations (instead of praise)
 - stop the action
 - videotape review
 - photographs
 - memory books
 - emotional comparisons
 - journaling
 6. Use expandable, evolving Frameworks, not rigid activities, to develop Experience Sharing. FRAMEWORKS are activity structures designed to be gradually modified and expanded. The framework is never the central focus, it is only scaffolding for interaction.
 7. Expect to make many mistakes leading to new discoveries. RDI is a continuous process of hypothesis testing.
 8. Make sure to develop Experience Sharing language. (ex. We can do it! Did you see that? Is that better? Do you like it?)
 9. Incorporate RDI communication and referencing and regulation into your daily life.
 10. Start with Adults, to dyads, then groups. Typical children learn to be competent with adult partners before desiring time with peers. Children's first peer encounters are with one peer at a time. Groups are much more difficult than dyads.

Key Principles of Executive Control

- Establish a Relaxed Alertness
- Talk less to maximize working memory
- Cue Awareness: "If....then" Future Picture Thinking
- Show the Sweep of Time
- Access Hindsight: How is this the Same but Different?
- Do Students Know the "How to"?
- Teach Organization:
 - Big Picture--> **Features** --> Details

Awareness

Verbal Mediators

Visual Mediators

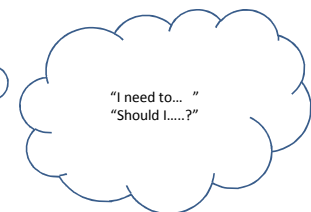
The Language of Coaching: Declarative Language



Imperative vs Declarative Language

Imperative: Command

Declarative: ○ ○ ○



A Declarative References or Describes 'what' is to be accomplished so the learner creates the goal vs. commanding 'what needs to be done' to achieve the goal.

What is Declarative Language?

- The type of language used when one is communicating what the mind is producing. Develops inner speech.
 - "I need to...."
- Allows us to do "small talk".
 - "She just said she got her nails done. I went this weekend with my mom too!"
- Helps the brain to integrate information from multiple sources
 - Integrating body language, tone of voice, 3 peers, 'where in the four square game' we are, my own idea
- Allows us to learn and process 'online' in an integrated fashion
 - I *can* learn and think at the same time. So I will add this comment about the Colonists....

1 Relationship Development Intervention, Dr. Steve Gutstein

Declarative Language in Academics

- Comment on a shared experience
- Compare and Contrast
- Think back and reminisce
- Brainstorm
- Plan and prepare
- Integrate ideas
- Repair misunderstandings



1 Relationship Development Intervention, Dr. Steve Gutstein

My Top 5 Reasons to Use Declarative Language

1. Model self-narrative to help your child develop his or her own inner voice.

Early on infants and toddlers develop and learn language when they hear it from others. When children are just learning to talk, parents are reminded to label objects, narrate simple actions and comment on their child's focus of attention so that the child will learn and then use those words accordingly. After the initial language spark is ignited, most of us then go on to develop our own voice that we use to share our thoughts, recap experiences, talk about what we are doing, and talk about what we are thinking.

Most of us also then go on to create our own inner voice. This is a hugely important by-product of our language learning. We use our inner voice to problem solve and plan. We remember what we have learned or noticed in the past, and apply it to the here and now. For example, imagine you are getting ready to go to work and you can't find your keys. Your inner voice may say something like, 'Hmmm.... Now when did I last see my keys? Where do I usually put them down? What jacket did I have on yesterday?... Maybe they're in the pocket.' Your inner voice helps you think through the problem and gets you started on a plan of action to solve it.

Children with Executive Functioning difficulties do not usually develop this inner voice to regulate their thoughts and actions on their own. Just as modeling was important when your child was learning to talk, thoughtful modeling now, in this regard, is equally important. So – talk out loud, think out loud, work through a problem, make predictions, ponder opportunities, consider possibilities, and reflect on past experiences when you are with your child. They will learn from your models, internalize the ideas, and begin to form their own inner voice.

2. Provide a window into another person's perspective.

Some children have difficulty taking perspective. Using declarative language to share your thoughts and feelings provides your child a regular window into these things in an inviting, nonthreatening way. We are providing them information that is critical in a social interaction that we know they may not pick up on their own. When we present declarative language in this way, we are not asking them to provide an answer that may be right or wrong. Rather, we are clueing them into social information and then allowing them to decide what to do with the information.

By regularly using declarative language in this way, we are also slowly building memories and awareness that different people have different thoughts, opinions, perspectives and emotions. For example, you say something to your child but he is facing the other way, appearing not to listen. Rather than say to him "turn around!" or "look at me" (both imperatives) share your feelings and perspective with declarative language: "It would make me happy if you would face me when I'm talking to you" or "I feel like you are not listening to me." Or, if you arrive home and your child does not say hello, instead of saying "say hello to me" we could say, "I really like it when you say hi" or "I feel disappointed because you haven't said hello to me yet." In my experience, kids usually make choices that are good for the relationship once they are provided this information. It's not that our kids don't want to say hi! It may just be that they don't realize how happy it will make you when they do.

3. Help your child zoom out to see the big picture and generate multiple solutions to a problem.

Often times when we get caught up trying to get our kids to do specific things, we all lose sight of the big picture. Because some children with executive function challenges are strong when it comes to details, but weak when it comes to seeing the big picture, it is important to think about the big picture when we present information. Giving very specific directions or questions that have one right answer promotes that focus on details. For example, if we tell a child to "put the toy in the box" or "say goodbye to Grandma" we are zooming into the details and creating a situation where there's one and only one right answer. However, if we use language instead to comment on what we see in the big picture: "I see a toy on the floor" or "Grandma is leaving" - we are instead encouraging our children to take a step back, notice the context and situation around them, and subsequently form a plan of action that makes sense to them. We are also leaving open the possibility that there may in fact be more than one solution – i.e., maybe the toy could go on a shelf or in the toy box, maybe the child could say "goodbye," wave, give Grandma a hug or walk her to the door. Generating multiple or alternate solutions to a problem can be hard for some kids. Declarative language naturally creates opportunities to practice this skill.

4. Empower your child to be a problem solver rather than direction follower.

Anytime we tell children what to do, ask them to follow a direction, or ask them to answer a question that has a right/wrong answer, we are honing their receptive language skills. This is not a bad thing, but it may not be what your child needs most. In contrast, if we use declarative language to present information about the environment or situation at hand, we are instead inviting her to notice this information and develop a plan of action. We are inviting her to have an “aha!” moment where she figures out on her own what to do with presented information. We are giving her an opportunity to think! Problem solving moments are huge for all children as they learn to view themselves as competent human beings in the world. Most kids have been asked right/wrong questions and given directions from a very young age. More practice in this area is not what they need most! Rather, they need practice problem solving, and identifying themselves as competent problem solvers. It is important to become comfortable presenting information to your child, and then waiting. The waiting time allows your child time and space to consider his next step. Here are some examples of direction following vs. problem solving opportunities – can you feel the difference?

“Throw that away” vs. “There is a piece of trash on the floor.”

“Wash your hands” vs. “Your hands look dirty.”

“Open the door” vs. “I heard someone knocking on the door.”

“Give that to your sister” vs. “I sure bet your sister would like to use that now.”

“Pass me that” vs. “I can’t reach that.”

5. Help your child read what’s going on in his environment.

We know that it can be difficult for some kids to tune into the social information that is going on around them. Rather than telling them exactly what to do and when to do it, use declarative language to help them notice what is important! For example, if it is time for a transition, instead of telling your child “go to the table for snack” or “put on your coat,” direct his attention toward the changes in the environment: “I notice all the kids are at the table” or “I notice all the kids are putting on their coats.” This will help internalize the importance of periodically checking in on one’s environment; there are visual clues available all the time, and they are important to pay attention to! We want our kids to learn that information is not always going to come to them - they have to become active information gatherers. In contrast, if we are using imperatives all the time with our kids, information *is* coming to them on a regular basis, and they don’t have the same need to look around or read the behaviors of others.

Imperative Commands	
Suggestions without Explanations	
Suggestions with Explanations	
Declarative – Problem Solving	

*adapted from Raising a Thinking Child Workbook, by Myrna Shure

Example:

Nicole's father is outside in the yard moving large river rocks from the driveway to the yard as part of a large landscape project.

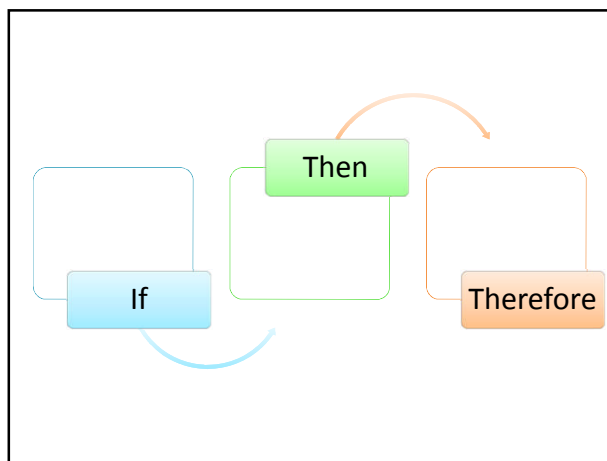
Nicole, has discovered her old bike from last year in the garage; but it is rusty and looking quite worn.

She brings the bike to her dad (who is sweating profusely in the hot Arizona sun and is muttering under his breath –staring at the LARGE pile of rocks still left to be moved -- how heavy and difficult it is to move these rocks).

"Dad! Dad! I need you to get the rust off my bike so I can ride it! Come on! Let's get the rust remover!"

Imperative Commands	Get out of the driveway! Can't you see I'm hauling these very heavy rocks! Put your bike away! No way can we do that now!
Suggestions without Explanations	Please do something else now. Roller blade instead.
Suggestions with Explanations	If I do your bike now I'll never get these rocks done! I'm too busy with rocks. Put your bike in the lawn and we will do it later....maybe.
Declarative – Problem Solving	Hmmm HOW DO I LOOK right now? How MIGHT I feel about doing that now? If it were a GOOD TIME how would the driveway look? When would it be a good time LATER for me to do that? What can you think of to do NOW while you wait?

*adapted from Raising a Thinking Child Workbook and Raising a Thinking PreTeen, by Myrna Shure

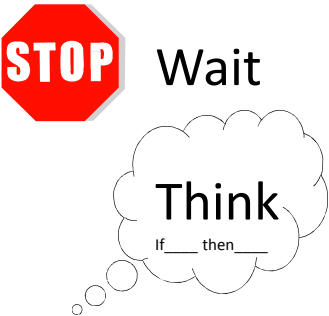


Situation: Max is using the hot glue gun for a school project. Mom notices that he has put the glue gun on the counter in such a way that the hot tip of the glue gun is resting on the cord. It is starting to look melty.

Child's Perspective:	
Imperative Command	
Suggestions without Explanations	
Suggestions with Explanations	
Declarative – Problem Solving	

Situation: Alexa is in the car with mom driving home from swim practice. Her favorite show Glee is on tonight and she still has quite a bit of homework left to do.

Child's Perspective:	
Imperative Command	
Suggestions without Explanations	
Suggestions with Explanations	
Declarative – Problem Solving	



STOP Wait

Think
If ____ then ____

Tell Me
Do it!

***Really focus on asking the student "While you are doing this..what do you see yourself doing next?"

Now:



Next:
Child's Perspective:
Imperative Command
Suggestions without Explanations
Suggestions with Explanations
Declarative – Problem Solving

Declarative Language
Fairly Independent Students

- "hmm..."
- "huh!"
- "Oh"

Use of more subtle facial expressions and voice tones

Medium Support

- "How is it going?"
- "How's your time/pace?" (with a visual gesture towards the clock)
- "What's another way to approach that..."
- "What strategy would help you to get started?"
- "Is it a good idea to _____ right now?"
- "Could you see yourself using any different strategies?"

High Level of Support Needed

- "What would you be carrying if you were prepared to walk into this class?" (as he walks into class)
- "What would your desk space look like if you are done with the spelling assignment and you are ready to work on the math assignment?"
- "What do you see in this paper or assignment when it's done?"
- "What will this assignment look like in 15 minutes?"
- "What would a good stop spot look like?"
- "How will you decide (or what will you see) when you are done?"
- "If you were ready for outlining this paper, what would you have with you?"
- "Does your work match your plan?"
- "If things had done the way you expected, what would you and I both see?"
- "What strategy worked?" "When might you picture yourself using that again?"
- "When you do _____, what do you see happen?"

Using Declarative Language

- Don't tell the student the problem. Identify the feature of the problem or point to where the error is and see if they can find it.
- Don't give the student the solution. Ask them what tool/strategy might help them solve the problem.

This makes student's think critically about what they are doing rather than mechanically correcting or doing what they are told. It therefore builds self control and metacognition.

From Declarative Language to Metacognition

When a student is done with their work ask them to circle/highlight/identify:

- The cursive letter they like best
- The sentence they like
- The part of the drawing
- The math problem of which they are most proud

*This teaches critical thinking
and self awareness skills*

Summary: Declarative Language

Don't cue to do – cue to know what to do

- Increase Awareness: Hmmmmm
- Use of three levels of declarative cuing:
 - A look,
 - Make a statement,
 - Ask a how question
- Use the “Objective Voice” to keep the relaxed state of alertness

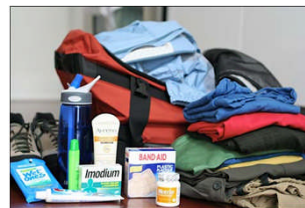
Awareness Trick



Trick: Turn the task into a “job” and name for the child their “job title”

Supplier, Builder, Tracer, Washer, Holder, Dumper, Wiper, Loader, Sprayer, Wiper

Allows the child to stay engaged and to participate towards task execution to the degree that they are able.



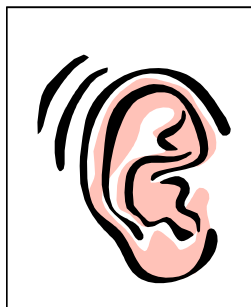
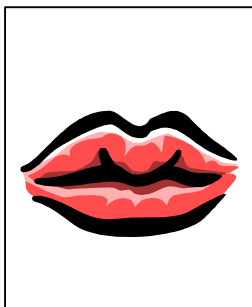
Situation: Student is Not Engaged in Packing for School Based Overnight Outdoor Adventure Trip

Jobs:

Roles:

How Should I look in Class?

Am I a Talker or a Listener?



Self Regulation: Developmental Considerations

- Students can recognize self regulatory behaviors in others before they can recognize them in themselves*
- Therefore ask those students who are struggling with self regulatory behaviors to have the job of “supervising” those behaviors.
 - Volume Controller
 - Desk Organizer
 - Notebook Supervisor
 - Quality Ear Control (for good listeners)

*Keri Howland, PhD Boston University. ASHA Presentation 2010

Need Help Around the House?

Create A Help-Wanted Bulletin Board

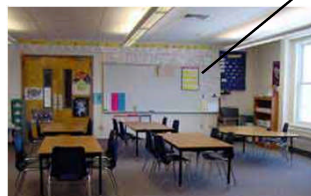
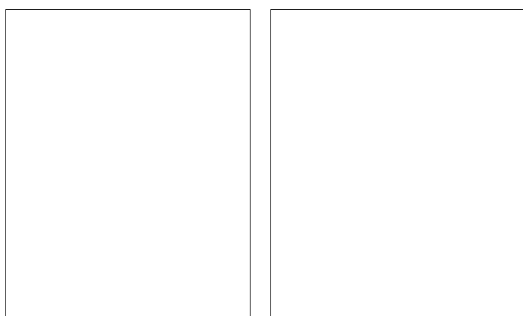


Awareness

Verbal Mediators

Visual Mediators

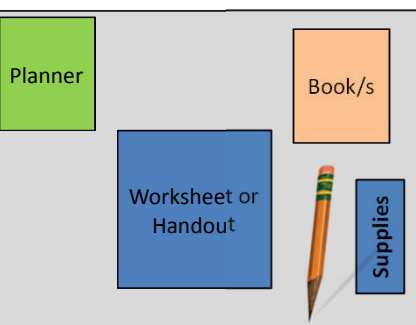
Match the Picture

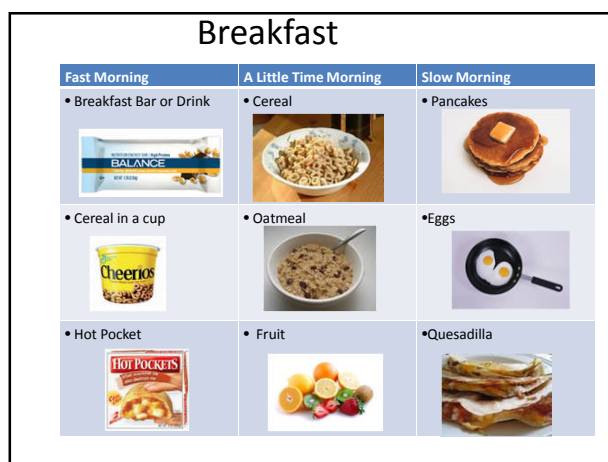
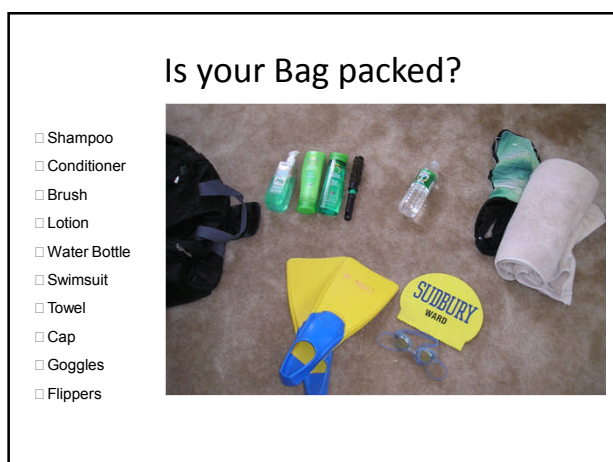
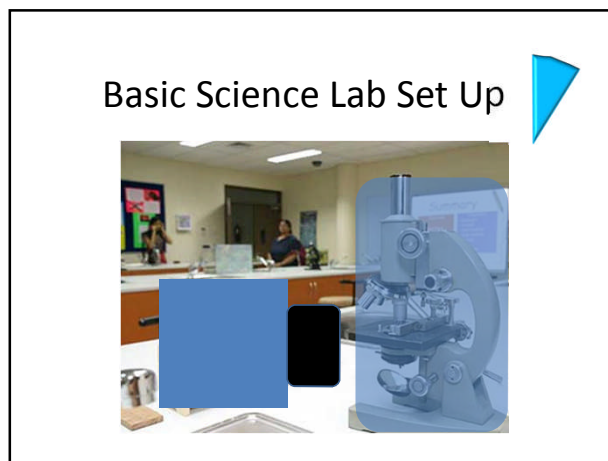
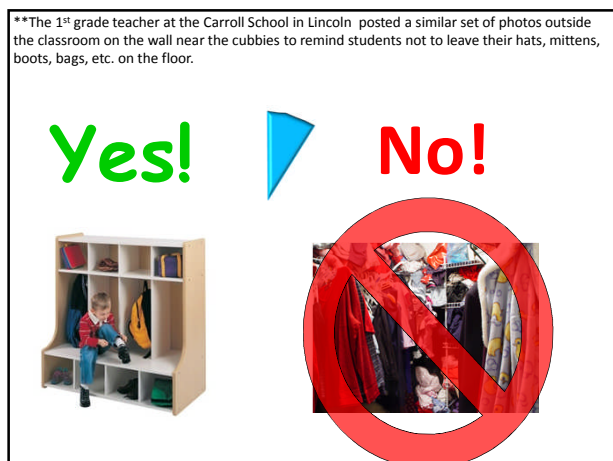
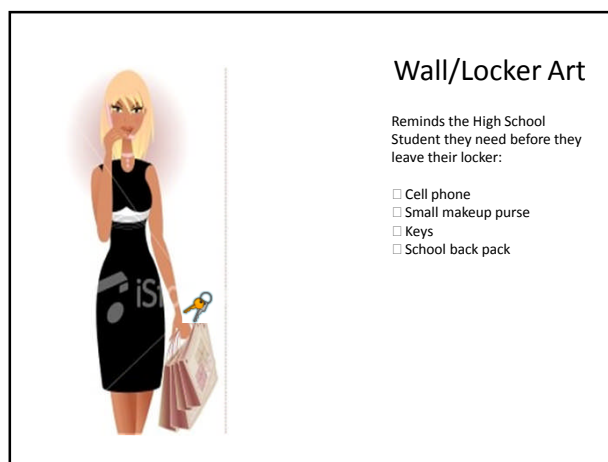
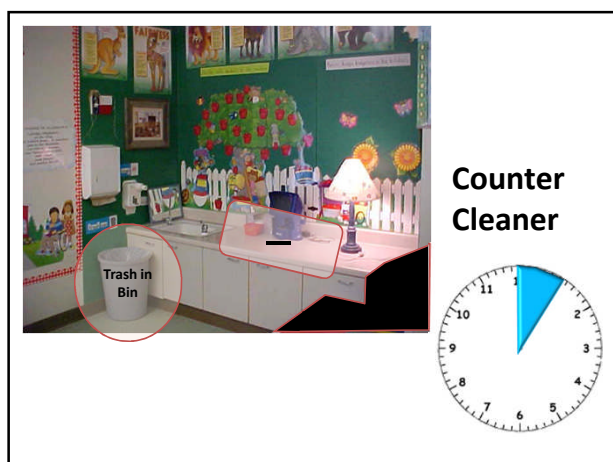


How will you look?

Match the Picture Head to Toe

- ☐ Helmet
- ☐ Mouth Guard
- ☐ Shirt
- ☐ Shoulder Pads
- ☐ Gloves
- ☐ Cup/shorts
- ☐ Socks
- ☐ Cleats
- ☐ Stick
- ☐ Water bottle






Math Word Problems

Skill/formula/computation we are learning in math:

Who or What	Is Doing what? (Action)	In What Amount?	Picture

4 Pumpkins were sitting on the wall. A "trick or treater" knocked one down. How many are left?

Who or What	Is Doing what? (Action)	In What Amount?	Picture
Pumpkins	Sitting On a wall	4	
Trick or Treater	Knocking down pumpkins To the ground	1	

Elmer Fudd decided to grow a garden so he could make salad. He wants to make it 10.1 m long and 4.2 m wide. However, in order to avoid Bugs Bunny from entering his garden he must make a fence surrounding the garden. He decides to make the fence 11.2 m long and 5.0 m wide. What is the area between the fence and the garden?

Skill/formula/computation we are learning in math: $\text{Area} = \text{length} \times \text{width}$

Who or What	Is Doing what? (Action)	In What Amount?	Picture

Mailing Label Graph Paper*

Kristen Jacobsen, M.S., CCC/SLP

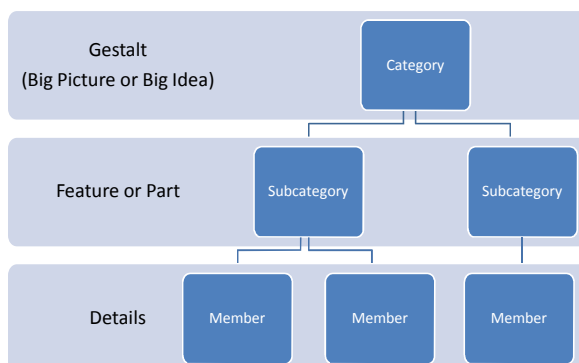
+ Or -	#	#	#	#	#	#	#
+ -							

Checked My Work:	<input type="checkbox"/>	My Answer: _____
		Number Units

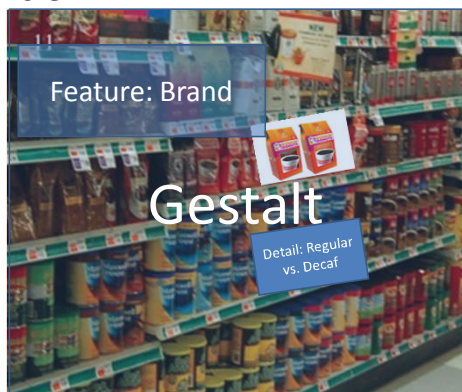
Steps of the Plan to Meet the Goal



Thinking in an Organized Way



Coffee Aisle



Semantic Memories: Memories from Experiences or Episodes that are stacked together to form a concept

Schema: <u>Party</u>	
Features	Details
Decorations	Red and White balloons, Streamers, Party Plates & Cups, Centerpiece
Food	'Strawberry Shortcake Character' Cake with Candles, Juice Boxes, Goldfish
Games	Piñata, Pin the Tail on the Donkey, Musical Chairs
Guests	Girls in Party Dresses
Presents	A Barbie, a new Puzzle, Pretty Hair Barrettes, Beads
Treats	A goody Bag!

Script:
 1. Games
 2. Food
 3. Presents
 4. Treats

Block and Box

to Identify the Critical Features



"Let's Make Valentine Cards for our Mom and Dad!!!"

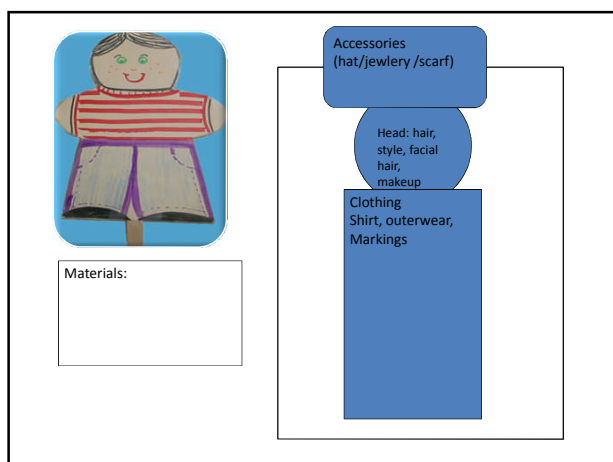


Puppet

- **Part 1:** After choosing a fiction book and reading it, you will have the chance to bring the main character in the book to life by **designing a puppet**.
- Your puppet will be made from a wooden spoon or paint stick and should represent the main character in dress and appearance from the time period.

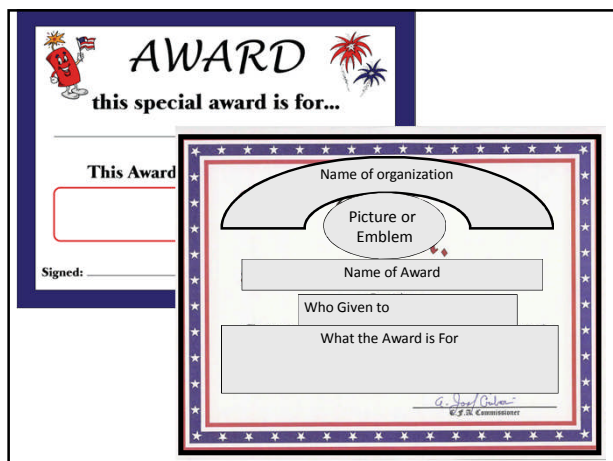
ADHD: 🗣️

ASD: 🗣️



Award

- Next, you will **create a special award** to honor the most noteworthy accomplishment of your chosen character.
- You can create a trophy, ribbon, certificate, or plaque to award your character.
- Your award must have a written paragraph describing the reason your character deserves the recognition.

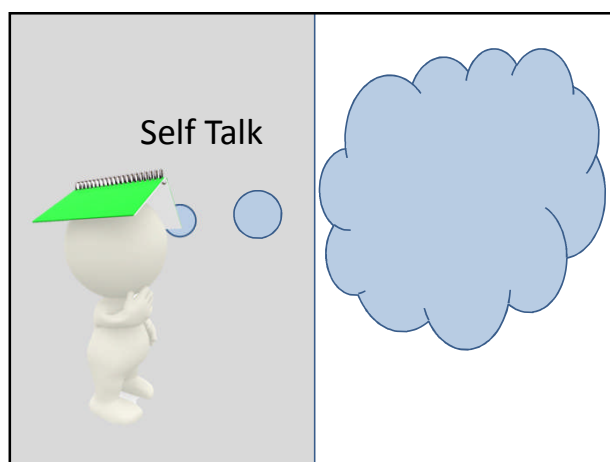


Have You Tried Cool Iris?

- www.cooliris.com
- This is a great website if you need to find photos fast so that your student has a visual image for novel circumstances, for writing, projects, etc.

Writing Assignment

- Use vivid details to describe a local diner. Write in descriptive detail what you see. What is the waitress like? What is the floor like? Describe the food. When I read your writing I want to see this restaurant in my mind's eye!



Declarative Language Through Play



Mature Make Believe Play

- Symbolic representations
- Future goal
- Complex interwoven themes
- Rich roles that are multifaceted
- Extended time frame

• Best Books About Play:

Tools of the Mind by Elena Bodrova and Deborah J. Leong

Einstein Never Used Flashcards, by Roberta Michnick Golinkoff, Kathy Hirsh-Pasek Ph.D., and Diane Eyer

Power of Play

'Veterinarian' Imaginary Play



- Symbolic representations
- Future goal
- Complex interwoven themes
- Rich roles that are multifaceted
- Extended time frame

Animals



- Live?
- Body Parts?
- Special Skills?
- If _____ then how could it have gotten hurt?
- Let's go tell the vet!

What Questions Will You Ask Yourself?



Figurative Language

Phrase	Literal Interpretation	Figurative Deduction
	Paraphrase: Determine the Impact: If _____ Then _____	Apply the Impact:
	Paraphrase: Determine the Impact: If _____ Then _____	Apply the Impact:

Materials: Saying one thing Meaning Another, Cecile Spector, The Expressonary

1. Give phrase in a sentence.
2. Interpret Literal meaning.
3. Apply impact to the sentence
4. Clinician creates a sentence using the phrase; student interprets impact.
5. Student uses the phrase in a sentence; clinician interprets impact.

116

Self Talk

ITALK!

I think this is the problem.....

"What do I need to do...Oh.I will first....I want to."

T Tell myself to relax...

"Focus on this...just relax....To do this I need a plan"

A Plan A is...First I will..

"First I will...I'll use that _____strategy...."

Look to see it makes sense!

"Does that make sense? Does this feel right? How can I change that?"

"Ooops I missed that..."

K Keep emotions in check

"Don't worry. Relax, I can do it...."

!

Reward Myself

"I like this! Alright...I'm done!I did it!"

Phrase	Literal Interpretation	Figurative Deduction
A Dime A Dozen: Those hats are a dime a dozen.	Definition if interpret literally: 12 things cost 10cents Determine the Impact: If they cost 10 cents Then they are cheap and easy to get.	Apply the Impact: Anything that is common and easy to get.
I'm Toast from the weekend's activities, Shoot From the Hip Raining Cats and Dogs	Definition if interpret literally: Determine the Impact: If Then 	Apply the Impact:

117

Phrase	Literal Interpretation	Figurative Deduction
<p>ANNA KARENINA Leo Tolstoy 12</p> <p>"What do you want?" she said in a rapid, deep, unnatural voice. "Dolly!" he repeated, with a quiver in his voice. "Anna is coming today." "Well, what is that to me? I can't see her!" she cried. "But you must, really, Dolly . . ." "Go away, go away, go away!" she shrieked, not looking at him, as though this shriek were called up by physical pain.</p> <p>1. Give phrase in a sentence. 2. Interpret Literal meaning. 3. Apply impact to the sentence 4. Clinician creates a sentence using the phrase; student interprets impact. 5. Student uses the phrase in a sentence; clinician interprets impact.</p>	<p>Definition if interpret literally: Determine the Impact: If Then </p>	<p>Apply the Impact: </p>

118

Working on Figurative Language

1. Read the phrase in the sentence.
2. Complete the figurative language worksheet.
3. The teacher uses the phrase in a sentence in an everyday example.
4. The student uses the phrase in a sentence in an everyday example.
5. The student applies the phrase to another part of the book/subject they are studying.
6. Finally the student interprets the meaning the phrase was originally used in.

119

Managing Time



Future Picture Thinking and the Sweep of Time

Goal	If everything goes your way what do you see/ what do you look like at _____ o'clock?
Work on writing my Research Report	At 4:00 I see the Introductory Paragraph written. About 6 sentences.
Do research	At 7:30 I see 3 articles printed from the internet.
Clean the Kitchen	In 15 minutes I see the dishes in the dishwasher the counters wiped off and the table windxed.
Do my math.	In 30 minutes I should see 6 problems completed.
Work on my poster	In 40 minutes I see 3 pictures pasted on, each with a title and a caption underneath.

Sequencing Cards



- Ask the student to identify which is the "future picture"
- Ask them to pair the pictures by the 3 phases of tasks : get ready, do, clean up/review
 - If these cards are not here ask the student to draw or describe them
- Identify the same but different between cards
- Ask student how their experience is the same but different

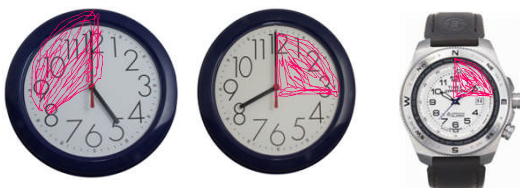
I Like the book "Let's Talk About Planning" by Marilyn Toomey

Sketch the Future Picture

Clock Time

- Have Analog Clocks in the House – Make sure they are not Roman Numeral!
- Make sure they are at eye level of the child!
- Have an analog and a digital clock in the child's room
- Have a wall clock and a working clock

Sense, See and Feel Time



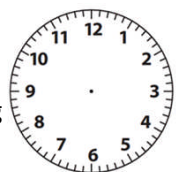
Use Wipe OFF markers in kid section at Staples or Overhead Markers.
Dry erase will not work

Time has Passed...Has the Pace Changed?

Coaching: Review How Time was Used and Identify Time Robbers

Show the Sweep of Time

- For a Single Activity
- For a Single Step of a Larger Task: Brainstorming or Editing, Cleaning
- When Proctoring Homework



½ Way Check Point

- Am I half way done?
 - Am I still focused on the goal?
 - Has my priority changed?
 - Am I still answering the question?
- What are my time robbers?
- How are the strategies working?
- Do I need a new strategy?



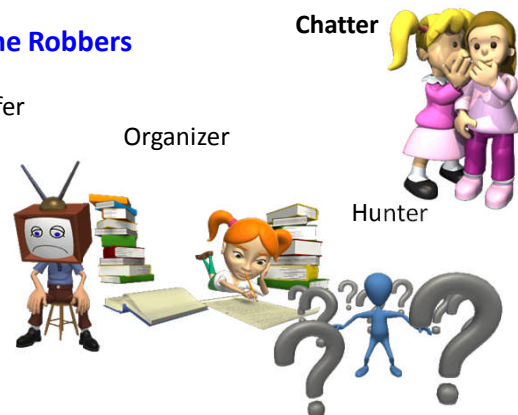
Time Robbers

Surfer

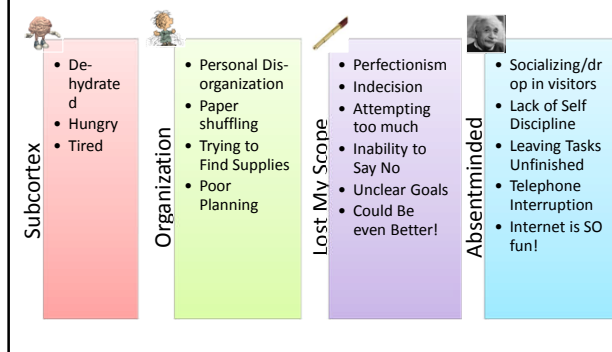
Organizer

Chatter

Hunter



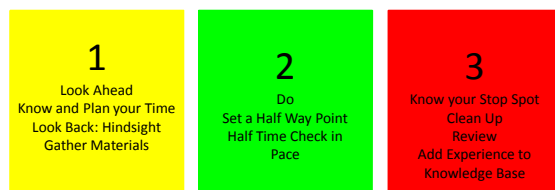
Manage Time Robbers



Drawing Time: Create Time Zones

1. Draw How Much Time the Child Has
2. Identify the student's forethought goal. When this task is over how do you see yourself?
3. Identify the "crystal ball image": if everything goes your way what will see when you are done?
4. Make sure to state over and over:
"Factor in time for _____" (gathering materials, the computer to boot, to find your equipment, etc.)
5. Set up "time checks" at the $\frac{1}{2}$ way point.
"What should be completed at this point?"

Planning is as easy as 1-2-3!



Before

During

After

Tutor/Resource Room/Speech Session

- Have the student write out a plan of *HOW* they will use their hour with you
- When they get distracted bring them back to the plan
- It teaches students to think proactively

Name: _____

Date of Lesson: _____ Notes for Today: _____

Before	During	After	Before	During	After

Lesson: _____

Activity	Type of Task	Strategy	Notes

Review: _____

Things to Think About Next Time We Meet: _____

Adult Signature: _____

© Copyright 2001 Sarah Ward, M.S., CCC/SLP. All rights reserved. No part of this publication may be reproduced without written permission from the author.

Executive Function Skills—Therapeutic Interventions

ORGANIZED THINKING: PUTTING IT ALL TOGETHER

Name: _____

Date of Lesson ►	Notes for Today ►
------------------	-------------------

Weekend		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Lesson ►

Activity	What Type of Thinking Task Is this?	What Strategy Will We Use?	Notes/Review
1 2 3			
1 2 3			
1 2 3			


Review ► Any Time Robbers? How did the strategies work? Did I organize and store my papers for when I need them next?	Things to Think About Next Time We Meet ►
---	--

	Goal
	Future Picture: This is how I picture my accomplishment!
	Obstacles
	Time:
	Plan
	Do
	Review: Note To Self
	What worked? What did not Work?


GOAL	
Future Picture: How you picture your Accomplishment (where are you? What are you doing? When is it? Are you relaxed? Exhausted? Calm? What do the materials look like?	
Any Obstacles? What will distract you? What time robbers can you anticipate? How can you prevent them?	
Look Back: Have you done this task or a similar task before?	
What worked?	
What did not work?	
Plan/Do	Use Clocks and ½ Way checks
Review	<i>NOTE TO SELF</i>








Create a Script of the Steps – or select a pre-created Script	<input type="checkbox"/> 1. <input type="checkbox"/> 2. <input type="checkbox"/> 3.
Materials I need to gather	
I need to purchase	
Set up a Timeline	
Prep time	Use this time to get ready to do the task
Start Time	What time will I begin the work?
Time at the ½ way point	By this time check I should have completed these tasks: _____
Stop Time	I know I am done at this time because I will see:
Set up Time Checks	Check in with myself. How is my attention? Am I focused on the task? What do I need to do to sustain my focus and productivity?

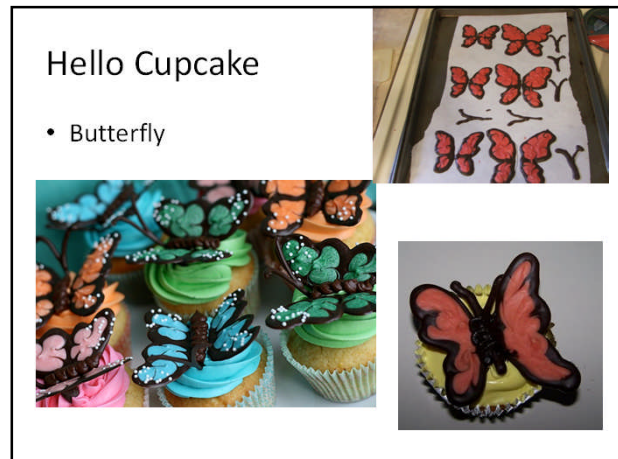
Work It Out				
Look Forward	Look Back	Set the Time	Stay on Track	Reward!
I see:	Last Time?	When Will I be done?	½ point?	

 Caveman Principle: What's your Motivation?

Choosing EF Therapy Tasks	
<ul style="list-style-type: none"> • Must be Motivating (relaxed state of alertness) • Must have Multiple Materials to Organize and Manage – Include Irrelevant Materials <ul style="list-style-type: none"> – Depending on skill level of the child – I require the student to find the materials and to allow enough time to do so. • Multiple Choices of Outcomes –So the individual must choose a reasonable goal for the given amount of time • Carry over to a “Same but Different Task” <ul style="list-style-type: none"> – Each successive task should become increasingly open ended – Review “Notes to Self” from previous task to build episodic memory • Time demands <ul style="list-style-type: none"> – Limit time to teach pacing • Requires Student to “get a feel for it” by just starting – teaches self regulation and delayed gratification • Carry Over the Planning Skills to Academic Tasks 	

 <p>Hello, Cupcake! <i>Irresistibly playful creations anyone can make</i></p> <p>Karen Tack & Alan Richardson</p>	<p>Tip: The Amazon Website has “how to” videos on the web page for the book!</p>
---	--

 <h2>My Goal</h2>		<p>This is what you need to do. Why are you Motivated to do this task?</p>
 <h2>Future Picture</h2>		<p>Picture your task as completed. What do you see if your goal is achieved? Some things to think about:</p> <ul style="list-style-type: none"> • How much have you done? • What time is it? • Do you see yourself as stressed or relaxed? • Once this goal is achieved what do you see yourself doing? • How will you reward yourself for accomplishing your goal?
 <h2>Time</h2>		<ul style="list-style-type: none"> <input type="checkbox"/> What time is it now? Mark the clock <input type="checkbox"/> How much time do you have to work on this goal? Show the sweep of time on the clock. <input type="checkbox"/> When time is up what do you picture yourself doing? What is coming up next? _____ <input type="checkbox"/> Do you need to factor in time for gathering materials? For the computer to 'boot up', to get a snack, to find the assignment? Mark this time on the clock <input type="checkbox"/> Do you need to factor in time for cleaning up and putting away materials? <input type="checkbox"/> Do you need to factor in some time to put on the "final touches" and do that extra effort? <input type="checkbox"/> How much time do you have left to work? <input type="checkbox"/> Mark the ½ way point of this time. <input type="checkbox"/> If you were half way done at this point what you have achieved? <hr/>
 <h2>Obstacles</h2>		<p>What might detour or distract you from completing this task? Consider:</p> <ul style="list-style-type: none"> • Internal factors (hunger, headache, tired, emotions, confused) • External Factors (noise, disorganization, lack of materials, interruptions, distractions (computer)) • Anticipate that tasks can multiply themselves
 <h2>Plan</h2>		<p>What is your plan?</p> <p>Look back: Have you done a similar task before?</p> <p>Yes?</p> <p>What worked? Repeat these actions</p> <p>What did not work? Plan ahead to avoid repeating these mistakes</p> <p>Is it a new task? Have you done something that is the same but different?</p>
		<p>Do it!</p> <ul style="list-style-type: none"> <input type="checkbox"/> Keep checking the time <input type="checkbox"/> Avoid distractions <input type="checkbox"/> Know your time robbers <input type="checkbox"/> Keep using your strategies and 'notes to self'
		<p>Review:</p> <p>What worked?</p> <p>What did not work?</p> <p>Consider Planned vs Actual Time required for the task. How were your time estimates? Were you Over or Under Time?</p>



Goal Hello Cupcake- Butterfly Cupcakes! Yum!

Future Picture: This is how I see my accomplishment
I leave Sarah's office with 4 Butterflies

Obstacles
Time: It is new... it could be hard :
Sarah talking
Distractions- eating chocolate! Sarah talking!

Time:
We Have 30 minutes
Factor in: 5 to Plan @ Leaves us with 15 min of work time
5 to Gather materials
5 to clean up

Plan
melt chocolate
trace picture
fill in with orange chocolate
cool off/ clean up

Do
Admire! :)

Review Worked :)
They look great!
melt 10 sec → massage → melt 10 sec
Tapping the table after the orange

Not Work :
Cooking 30 sec. → it burned
Using too much orange
Stuffed chocolate/ too much chocolate

Goal Make Chocolate Butterflies from Hello Cupcake. Yum!

Future Picture: This is what I see for myself when I am done!
4 Completely Finished and Cooled Butterflies! No cupcakes

Obstacles Time. It is new—never done it before. Could be Hard to do. Sarah Talking---Shhhhh
Chocolate is a distraction - I might eat it!

Time:
5 min to Plan
5 min to Gather Materials
5 min to Clean up
Leaves me with 15' to work!
2 Butterflies at 1/2 way point

Plan
Gather Materials
Melt Chocolate
Trace picture
Trace with Chocolate
Fill in with Orange Chocolate
Cool off and clean up
Admire! ☐

Do Worked! ☐
The look great! 10 sec melt choc. Then massage chocolate to Honey consistency. Tapping table to blend orange

Review: Worked ☐
Cooking 30 sec. it burned!! Syrup or toothpaste consistency of chocolate. Only had time for 1!! Melt choc. Then make the picture.

Change It Next Time to Use Experience to Guide Planning and Behavior

- New Butterfly Shape:
- Random Design

Goal Make an Animal out of Chocolate

Future Picture: This is how I see my accomplishment
A Dolphin Made of Chocolate Jumping over a Blue wave

Obstacles Blue wave
Time: New! Could be too small/Difficult!
Materials: Distracted by looking for the "Perfect Picture"

Time:
25 minutes
8 min → look for Picture @
3 min → Fast Clean up!
5 min Fast gather of Materials
5 min to trace + melt chocolate

Plan
Look Up Pic
Trace → Wax
Melt

Do

Review Worked
table tap to Blend chocolate colors
Watching time while look for Dolphin

Not Work
X "Syrupy" chocolate
X Not having a Cookie sheet

Pretzels –Very Open Ended



Goal Make a Chocolate Pretzel

Future Picture: This is how I see my accomplishment
6 Finished decorated Sticks

Obstacles Never Made pretzel Sticks
 - No molds - Enough Ingredients? - Tired
 - No Plan - Time - Grumpy

Time: 35 minutes

Plan ☐ Music → Cheer Up ☺
☐ Cookie Sheet
☐ wax paper

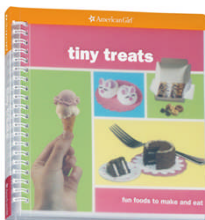
Do ☐ Fill bowls of "extras"
☐ Melt Chocolate
☐ Dip / Cool
☐ Add "extras"
☐ Drizzle White chocolate
☐ Clean Up

Review Worked ☺
 ✓ Dip + Cool + Add
 ✓ put extras on plates
 ✓ Music

Not Worked ☹
 Add extras when chocolate melts
 → they slid off
 Bowls - too shallow to dip in

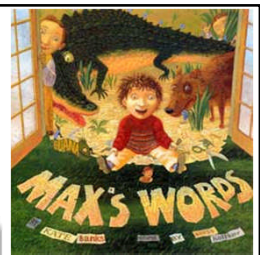
American Girl

- Tiny Treats



Max's Words

- Read the book
- Make a collage



Goal Make a Collage

Future Picture: This is what I see for myself when I am done!
Leave with at least 10 words and 3 pictures.

Obstacles Time. It is new—never done it before. Could be Hard to do. Sarah Talking—Shhhhhh
Hard to find words. I don't like cutting.

Time: 5 min to Get words Leaves me with 5' extra to work!
5 min to glue
5 min to Clean up

Plan Gather Materials
Look for pics and words
Cut pictures
Lay out Pics and words

Do Glue and clean up
Admire! ☺

Review: Worked! ☺
Cutting lots of words and deciding later to use them or throw out. Lay out first and glue last. Lick Finger to pick up words.

Did not Work ☹
Trying to find perfect words.
Not laying out the words.
News magazines

Use Your Experiences

Scrapbook

Paper Punch Art



Try Zoom Website

Include in Your Project
Kit Relevant and
Irrelevant Materials

Can also be carried
over as a writing task
by writing up your
experience for the
zoom website.



More Ideas: Make your Own Lava Lamp

First make one using a recipe
that only uses salt.

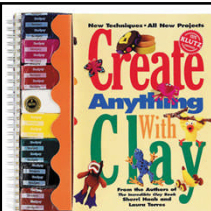
Then use this recipe with alka
seltzer:

www.wikihow.com/Make-a-Lava-Lamp-with-Household-Ingredients or
www.howcast.com



Other Fun Ideas

- [How to Make a Spinning Cartesian Diver](http://www.hookedonscience.org/experiment/archive.html)
- <http://www.hookedonscience.org/experiment/archive.html>

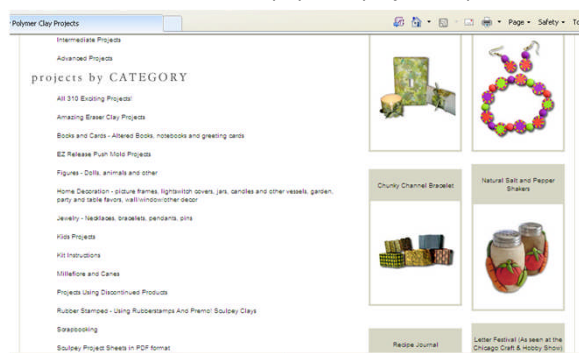


Sculpey Clay: Books
and Online

www.sculpey.com/projects.asp



www.sculpey.com/projects.asp



There are over 310 projects!



Contact Information

Sarah Ward, M.S., CCC/SLP
Speech and Language Pathologist

www.executivefunctiontherapy.com
swardtherapy@aol.com
Telephone: 781-453-0841

Easy-to Implement Interventions for Children with Asperger Syndrome

by Alex Michaels, Executive Director of Milestones

"Hello, Mrs. Thompson, this is Ms. O'Conner, Jacob's teacher. I'm calling today because there was another incident in class. Jacob is struggling with listening to directions. We were at morning meeting and, as always, he was jumping up and down and calling out. Another student asked him to sit and be quiet because he couldn't hear. Jacob screamed at him and ran down the hall. Can you come in for a meeting on Friday so the Principal and I can talk with you about what our plan is from here?"

If you are a parent, you've probably gotten some phone calls like this, and you probably wish you could do something to make sure you'd never get another one. If you're an educator, you would probably be happy if you never again had to make such a call. Well believe it or not, your wishes can come true!

What is behind the disruptive, impulsive, seemingly irrational and inexplicable behaviors of children with Asperger Syndrome (AS), and how can adults intervene to diminish such behaviors? Let's first quickly explore why children with AS may exhibit difficult behaviors, and then we will devote the rest of this article to quick and easy-to-implement recommendations.


Children with Asperger's tend to have specific traits which fall into three broad categories:



1. **Difficulty with Executive Functioning Skills** Executive functioning skills enable us to create a goal and a plan for reaching that goal, and then to initiate, sequence, sustain or inhibit behaviors to work towards and finally attain that goal. Executive skills also enable us to reflect upon our behavior, assess our progress, and make adjustments as necessary.
2. **Difficulty with Sensory Processing, Regulation, and Modulation Skills** or "the ability to attain, maintain, and change arousal appropriately for a task or situation (Kranowitz, 1998). "Self-regulation" also refers to the ability to control one's emotional, mental or physical responses to sensations.
3. **Difficulty with Social Skills and Social Rules** Social skills include all verbal and nonverbal skills that are required to have fluid interactions with others. This can encompass reading and giving nonverbal cues (such as body posture, eye contact, tone of voice, etc.). Social skills also involve taking another's perspective, knowing what to say and what not to say, and when, and to whom.

Because many children with Asperger Syndrome have difficulty understanding the subtleties in life, the interventions below are designed make the subtleties obvious. Additionally, there are interventions to help children regulate their bodies and provide creative ideas for social interaction. The interventions are grouped to target specific areas of difficulty. There are many interventions listed here; not all will work for everyone. Choose and try out what you think will work for your individual child or student.

Some interventions listed below are just good teaching practices, whereas others were created specifically for our kids with AS and related conditions, by Milestones staff or by other professionals. An asterisk indicates that a professional from outside our agency created the specific strategy.

Executive Functioning Interventions

Intervention	Rationale
Post the Daily Schedule	By writing out the daily schedule (at home or school), we make the child's day more predictable, and help the child be more prepared to meet each challenge. At school, make the schedule large enough so the child can see it clearly. Post it at the child's eye level, somewhere so that it is in view at all times. When a subject is completed, erase it or check it off, so the child can easily see what is coming next.
Oops Board <i>*primary method of Bateson Therapy</i>	Post a list of daily events that are unexpected changes (i.e., "Surprise math test today" or "No Gym today"). Usually, students do better when they know in advance to expect a change, rather than learning about it two minutes beforehand. Keep this list in a consistent place. (Some students may perseverate on these changes, in which case this is <i>not</i> a useful technique.) 
Physical Boundaries	Because children with AS have difficulty inferring, they may miss cues about where to stand or where they can and can't go, or place or move their bodies or body parts. Create a visual support by adding shapes by the door so the children know where to stand when they are lining up. If the child tends to bump into people while in line, have him/her be the leader or caboose so there are fewer kids to bump into. If the child is fidgety and pokes people when seated at his desk, move his/her desk a little further away from people, or put tape outline on the floor around the child's desk, so the child has a physical marker and knows where the boundaries are. During meeting times, use carpet squares, shapes, or desk chairs so the children know where to sit, and do not invade each other's personal space.

Intervention	Rationale
Bin System & Graphic Organizers	<p>Instead of having children keep their work in their desks, provide the children with a set of clear plastic bins in which they can keep their work for each subject. This will limit the chaos of having all subjects in one binder and will also increase the likelihood that papers will stay sorted. Graphic organizers can help children focus and guide them in a good direction. Giving children a system to use also frees up their brains for other tasks!</p> 
Consistency	<p>Whatever rules you create, stick with them and be consistent with follow-through. Sudden changes which might seem logical to the teacher or parent may go right over the head of a child who has difficulty making inferences. While all the other kids have caught on, the child with AS is still following the old rules. By only picking a few rules, but always following through consistently, you will achieve success with these students.</p>
Point of the Lesson <i>*primary method of Bateson Therapy</i>	<p>Although it may seem obvious to you, it is crucial to tell children the main point of the lesson and <u>write it down</u> on the board. Children with AS often retain only random facts from a lesson. By making clear the main point of the lesson, you are giving the child a framework to attach the facts to, and helping them create a whole picture. Additionally, if the student's attention wanders, it is a great tool to pull the child back and help him/her refocus.</p>
Be Specific	<p>Always tell the child what you want him to do, <i>not</i> what you want him to abstain from. If you say, "Stop that!" (which is too vague) or "There's no talking out in class!" (all negative), it doesn't tell the child what he <u>should</u> do. By saying, "Write down your questions," or "Hold your questions until 11:00 am and then you can ask me," you are giving the child tools for what is appropriate, and curbing the child's anxiety.</p>
Reciprocal Teaching <i>*primary method of Bateson Therapy</i>	<p>To assure that a child really understands the concept you are teaching, first teach the group and then have individual children re-teach others. One fun method is also to provide an assignment for homework or in small groups, and have the children then teach others what they have learned. This also helps children with AS learn perspective-taking, since they need to take their audience's reactions to the lessons into account to determine whether the audience needs <i>more</i> information, or if they have given <i>too much</i> information.</p>
Decrease Clutter	<p>Organize the environment so everything has its place and is labeled. Decrease any extraneous stimuli (i.e., nothing hanging from the ceiling, cover shelves with sheets, taking down old class work from the walls). Use privacy boards (screen that goes around the top of the child's desk, minimizing distractions so s/he can concentrate on his/her work) as necessary. For many children with AS, all stimuli seem equally important; therefore the teacher is competing with objects dangling from the ceiling. Decrease visual clutter so that the teacher can be the most important thing to focus on (or at least the child will have fewer distractions). This can really help with sensory regulation as well.</p>
Transition Warnings	<p>At 5 minutes, 3 minutes, and 1 minute prior to ending activity, give children warnings. If you are teaching, set a timer to go off 5 minutes before the lesson is over, or assign this task to a student. This technique slowly prepares the child for the upcoming transition to a new activity or task.</p>
Ignoring Points <i>*primary method of Bateson Therapy</i>	<p>Have children earn points (tally marks) when s/he ignores inappropriate or irrelevant information in the environment (such as peers who are acting inappropriate or something s/he is perseverating on). This is a helpful way to "train your brain" to ignore unimportant things.</p>
Thought Boxes <i>*primary method of Bateson Therapy</i>	<p>Provide a box on the child's desk so when s/he has thoughts that are inappropriate (wrong topic, wrong time, wrong person), s/he can put them in the box, close it, and put the thoughts away.</p> 
Math	<p>If children who have difficulty with visual organization, have them use graph paper to write out math problems. Use one box per number. This can help keep numbers in line.</p>

Recommended Reading on Executive Function Skills and Related Disorders

by Sarah Ward, M.S., CCC/SLP

No Mind Left Behind: Understanding and Fostering Executive Control--The Eight Essential Brain Skills Every Child Needs to Thrive by Adam J. Cox

- *One of my favorite books about the Executive Function Skills. Well written, comprehensive and full of practical strategies. His website is amazing too: www.dradamcox.com*

Executive Skills in Children and Adolescents: A Practical Guide to Assessment and Intervention 2nd Edition (Practical Interventions in the Schools) by Peg Dawson and Richard Guare

- *A good introductory book on Executive Function Skills. Particularly excellent for teachers and parents who need foundational understandings on what the Executive Function Skills are. The Second Edition has lots of additional information and updates. These authors have also written the book *Smart but Scattered* which has many practical ideas to improve executive function routines in the home setting.*

Tools of the Mind: The Vygotskian Approach to Early Childhood Education (2nd Edition) by Elena Bodrova and Deborah Leong

- *This book is my absolute favorite for understanding how executive function skills develop in young children. Several chapters are dedicated to an outstanding approach to teaching writing to young children. Writing can be a real struggle for kids with executive function based deficits and this technique is extremely helpful. This book also addresses the value of teaching play skills as a means of learning self regulation, delayed gratification and tolerance for frustration. The companion website toolsofthemind.org has unbelievable resources and lists of research on the EF skills.*

7 Things Your Teenager Won't Tell You and How to Talk About Them Anyway by Jennifer Lippincott and Robin Deutsch

- *I consider this mandatory reading for parents of teenagers. Don't let the title of the book prevent you from buying this book. It is not about how to talk to your teen about drugs, etc. The concrete advice provided for talking with and parenting teenagers are simple and highly effective. More importantly the approaches work towards developing the teenager's ability to be a strong independent, smart thinker while still keeping themselves safe and respectful. This book has a goldmine of information and has a strong executive function based approach to parenting teens.*

Raising a Thinking Preteen: The "I Can Problem Solve" Program for 8- to 12- Year-Olds by Myrna B. Shure and Roberta Israeloff

- *This book focuses heavily on teaching students how to develop flexible problem solving skills. This is one of the few books I have read that does not merely say 'problem solving is an important skill' but rather truly teaches the reader "how to" teach children the steps to being independent problem solvers. If you work with younger students, her workbooks have terrific premade group lessons to teach problem solving and thinking skills to elementary aged children.*

Recommended Reading on Executive Function Skills and Related Disorders

by Sarah Ward, M.S., CCC/SLP

Lost in School and The Explosive Child by Ross Green.

- *Both are excellent books for communicating to school professionals about the underlying EF difficulties children with behavioral challenges experience and why they act the way they do. A must read for teachers and parents alike. If you have an explosive child at home this is a must read resource, but I do not recommend you skim the book. Read it cover to cover to really understand collaborative problem solving to work with children who struggle with flexibility. Related resources include the websites:*
 - thinkkids.org
 - www.greatschools.org/special-education/health/executive-function-lens-to-view-your-child.gs?content=1017
 - <http://www.livesinthebalance.org/>

Fostering Independent Learning: Practical Strategies to Promote Student Success by Virginia Smith Harvey and Louise Chickie-Wolfe

- This has many practical strategies to improve study habits, time management, organization, writing and reading comprehension skills. An excellent book for teachers and tutors alike, the strategies are very metacognitive in nature and demonstrate how to move the student from dependence to independence.

Strategies for Organization: Preparing for Homework and the Real World by Michelle Garcia Winner

This 3.5 hour DVD and handout booklet features the highlights of Michelle's popular all day workshop on this same topic. The information on this DVD is applicable to teaching and treating ALL students, not just those with learning disabilities, and is best for those in 4th through 12th grade. It is an excellent resource!

Study Skills: Research Based Teaching Strategies by Patricia Newhall. Landmark Outreach Program.

Promoting Executive Function in the Classroom by Lynn Meltzer

- A must for all teachers interested in improving executive function skills in the classroom. Has many practical strategies to improve classroom organization, note taking, studying, emotional self-regulation and task management.

Why Don't Students Like School? By Daniel Willingham

- This book does a wonderful job of clearly explaining how working memory operates and how to teach academic content which will be retained in working memory to then be transferred and used by long term memory.

Recommended Reading on Executive Function Skills and Related Disorders

by Sarah Ward, M.S., CCC/SLP

Thinking About You Thinking About Me 2nd Edition by Michelle Garcia Winner

- Provides a strong foundational understanding for how to evaluate and treat students who struggle with social thinking skills.
- This is a must have book to understand social interaction and social awareness. Many students, including those with high-functioning autism, Asperger syndrome, ADHD and similar social and communication challenges, have difficulties understanding that other people have perspectives that are different from their own. Michelle's model of perspective-taking makes research into Theory of Mind practical for teaching these students and even students who may be considered "neurotypical." Specific lessons, and how to apply them in different settings, are explored. The assessment chapter now includes the Social Thinking Dynamic Assessment Protocol®, with more detailed assessment techniques.

Organizing the Disorganized Child: Simple Strategies to Succeed in School - by Martin L. Kutscher and Marcella Moran

- A superb book. The author's explain the roots of children's organizational problems, and the parents' role in fixing them. They outline different organizational styles used by different students. (Not all kids organize the same way!) They provide a step-by-step plan for an organizational system including: Refining morning and nighttime routines, Getting the correct work home, Planning the work, and getting it back to where it belongs, Tips for reading and note taking, Study and test taking skills, Learning how to ask the right questions.

Therapy Materials

- Generalizing by Marilyn Toomey (Paperback - 2002)
- [Talk About Planning](#) by Marilyn Toomey
- Developing Language Comprehension Using Multisensory Activities by Marilyn Toomey
- Teaching the Language of Time by Marilyn M. Toomey and Susan Christy-Pallo
- From Sentence to Narrative by Marilyn Toomey
- The Language of Perspective Taking by Marilyn Toomey and Will Harney
- 101 categories by Marilyn Mantifel Toomey
- Sequence plus by Marilyn M Toomey
- Teaching kids of all ages to ask questions by Marilyn M Toomey
- Between the Lines: Saying One Thing, Meaning Another: Activities for Clarifying Ambiguous Language - by Cecile Cyrul Spector
- Enhancing Inferencing Skills by Cecile Cyrul Spector

Recommended Reading on Executive Function Skills and Related Disorders

by Sarah Ward, M.S., CCC/SLP

- As Far As Words Go: Activities for Understanding Ambiguous Language and Humor - by Cecile Spector Ph.D.
- As Far As Words Go: Unraveling the Complexities of Ambiguous Language and Humor - by Cecile Spector
- The Expressionary and the Expression Connection, Mark Schmidek. Great for developing figurative language.

Great Games for Therapy

- A Bit of Banter Jr. – I use for conversation skills
- Taboo – to develop vocabulary, schematic thinking and expressive language
- Outburst Junior - to develop vocabulary, schematic thinking and expressive language
- Imaginiff Jr.- great for developing episodic memory and abstract, inferential thinking skills
- American Girl 300 Wishes – great for social skills, forming opinions and making decisions
- Break the Safe- amazing collaborative social skills game: you will need to find on ebay
- Oodles of Doodles- to develop vocabulary, schematic thinking and visual imagery skills
- Stare Junior – for episodic memory, attention and schematic thinking
- Whoonu - great for social skills, forming opinions and making decisions
- Sync Up- great for social skills, schematic thinking and expressive language
- Remote Control Impulse Control, Franklin Learning Systems, a great game for teaching impulse control and self regulation.

Other Resources:

- Story Grammar: mindwingconcepts.com
- Beyond Story Grammar: <http://www.caroleedean.com/index2.htm> She has amazing ideas for teaching story grammar to adolescents and college level students who are reading complex literature. Check out her handouts from the 2009 ASHA conference on the ASHA website.