

## Setting the Stage for Success: Interventions



### 16 Cognitive Domains

- New Learning
- Initiation
- Mental Flexibility
- Reasoning, Problem Solving and Judgment
- Organization
- Planning
- Social Emotional Competency

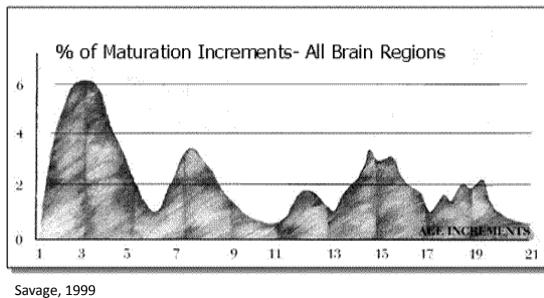


### 16 Cognitive Domains

- Sensory (over or under sensitive)
- Fine Motor
- Gross Motor
- Attention (alertness, sustained, selective, shifting, divided)
- Processing Speed
- Memory (short, long, working)
- Visual-Spatial
- Expressive Language
- Receptive Language

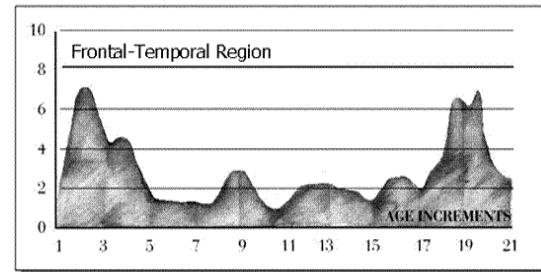


### Percent of Maturation Increments-All Brain Regions



Savage, 1999

### Brain Maturation Frontal Lobe



Savage, 1999

## Initiation Issues



- Difficulties just getting started even if they are really motivated
- Can look lazy, spacey or unmotivated
- Impacts ability to continue with a task even if the demand changes slightly
- May be related to difficulties in planning and determining what step is first

## Initiation Issues

- Require constant cueing and reminders even on routine tasks
- Difficulties managing long range projects
- Impact social skills
  - Follower
  - Difficulties initiating relationships and interactions with others
  - Introverted/Passive

## Initiation



- Provide assistance getting started
- Have student identify first thing they are going to do and then help them start it
- Jumpstarts-frequent check ins
- Seated next to a positive student with good initiation skills
- Copies of notes and overheads

## Initiation

- Break tasks down and provide step by step written directions
- Teach self advocacy- “can you help me get started?”
- Routines in environment
- Work in motor breaks to increase basic energy level
- Social skills-if initiation is interfering

## Mental Flexibility-Shift

- Ability to shift from one idea, activity or way of thinking to another
- Being flexible in response to new demands or conditions
- Altering problem solving based on changing conditions
- Difficulties:
  - changing approach to problem solving
  - transitioning from one task to another
  - taking feedback from mistakes

## Mental Flexibility Issues

- Rigid concrete thinking
- Perseveration
- Resistant to try new things
- Appear to not learn from their mistakes
- Can appear stubborn and argumentative
- Appear to lack empathy



## Mental Flexibility

- Develop and practice routines
- Plan ahead for changes in routines
- Prepare for transitions
- Do not introduce too much novelty at once
- Allow for previewing of materials
- Evaluate lessons to see if requiring too many cognitive shifts in one assignment
- Break tasks into smaller steps-directions clear and concrete

Daily Schedule	
1	arrive at school
2	check in
3	reading
4	writing
5	math
6	recess
7	Journal
8	P.E.
9	lunch
10	art
11	shared reading
12	bus

	Every 5 hours	25 hours or every session	50 hours or every session	100 hours or every session
	Check oil level.			
	Change oil. Also, replace oil filter, if equipped.			
	Replace foam air cleaner or optional foam pre-cleaner.			
	Replace paper air cleaner.			
	Replace spark plug.			
	Replace in-line fuel filter, if equipped.			

## Written Schedule

Time	Where you need to be
7:20	SSR/Advisory Mr. Dean Rm A105 Turn in your homework folder. Need your book to read and planner
8:05	Science Ms. O Room A210 Take your science book, morning binder, and planner
9:10	Social Studies Mr. Smith A215 Take your social studies passport, morning binder, and planner
10:16	Physical Education/Health Ms. Cooper Large Gym Change into your PE clothes. Need your planner
11:00	Lunch Need your planner for your lunch number

## Mental Flexibility

- Teach coping strategies
  - social stories
  - structured social skills groups
  - thought stopping
  - relaxation techniques
- Help them understand strategies for one task or situation might not work for another



## Reasoning, Problem Solving and Judgment

- Ability to solve novel and on the spot problems
- Involves
  - Considering all the evidence
  - Considering positive and negative outcomes
  - Including knowledge from past experiences



## Reasoning and Judgment Issues

- Concrete thinking
- Struggle with figure of speech, sarcasm, metaphors
- Do not generalize to new settings
- Difficulties learning from experiences
- Frustration
- Do not get big picture
- Argue and can appear oppositional
- Easily upset
- Act without thinking



## Reasoning, Problem Solving and Judgment

- Teach a step by step approach to problem solving
  - Identify the problem
  - Consider all the relevant information
  - Develop options-consider positive and negative outcomes of each
  - Create a plan of action
  - Evaluate plan of action



## Reasoning, Problem Solving and Judgment

- Teach self monitoring- what else can I do?
- Concrete and concise language
- Behavior and emotional regulation interventions
- Be clear on expectations and consequences of risk taking behaviors
- May have to foster friendships with positive role models

## Planning

- Identifying and completing the steps required for task or goal completion
- Also involves:
  - organizing thoughts
  - time management
  - deciding important information to focus on
  - determining the resources needed for successful task completion



## Planning Issues



- Rigid thinking
- Struggle with brainstorming
- Multitasking issues
- Difficulties completing assignments and long term projects
- Late and unprepared for class
- Time management issues
- Difficulties making plans with friends

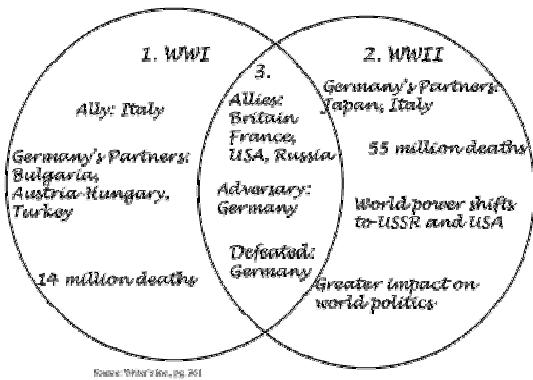
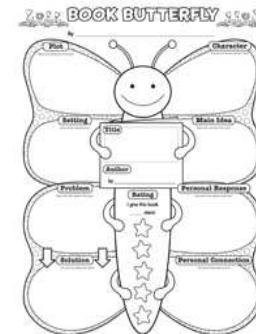
## Planning

- Teach Planning
  - Visualize and then verbalize each step
  - What should you do first or What happens next?
  - Long term projects
    - What are the steps?
    - When due?
    - What materials for each step?
    - Write steps on checklist or calendar
  - Evaluate effectiveness of each step

## Planning



- Step by step visual directions and instructions
- Break down long term projects
- Provide planning sheets
  - *Executive Skills in Children and Adolescents* (Dawson and Guare)
- Teach graphic organizers and other planning strategies



## Planning

- Model your own internal planning process
- Connect new information with what they already know
- Develop and practice schedules and routines
- If not planning social time, may need support



## Organization Issues

- Difficulties organizing behavior or thoughts
- Struggles with multitasking
- Follows only one or two steps at a time
- Completes tasks out of order
- Does not do well with independent learning
- Notes and written work sloppy and poorly organized
- Long term projects are an issue
- Not using planner

## Organization Issues

- Homework/Classwork incomplete or not turned in
- Difficulties listening to and learning from lectures
- Loses things easily
- Spaces out or day dreams
- Difficulties learning new information
- Appears to have memory issues
- Poor social judgment
- Easily frustrated



## Organization



- Help student develop and organize a "Homework Only" folder and check it with him/her at the beginning of each class
- Check student's planner to ensure that they have written their homework completely and accurately. Teachers initial the page so the parents know the planner is correct
- Help student organize notebooks by using dividers, colored folders, portfolios etc.

## Organization

- Check-in/check-out system
- Assist student with cleaning out desks/locker on a routine basis
- Locker checklist- pictures/lists of what needed for each class
- Help the student break down long term projects
- Organization Checklists- *Executive Skills in Children and Adolescents* (Dawson and Guare)
- Teach time management skills

## Organization

- Copy of guided notes or outlines
- Step by step visual directions at desk
- Teach child to ask "Wh" questions
- Cue child when something is really important and needs their full attention
- Teach child what to expect and appropriate behaviors before enter a setting
- Prepare for changes in routine
- Classroom websites
- Allow student to scan and email assignments to teacher

Name: \_\_\_\_\_

### Editor's Checklist



- My name and date are on my paper.....
- All of my sentences start with a **capital letter** .....
- All of my sentences end with a **.** **?** or **!** .....
- I have **circled** words I am not sure how to spell.....
- **Spelling Dictionary** words are spelled correctly.....
- My writing makes sense when I **read** it out loud.....
- I added **WOW words** to make my writing interesting.....
- My sentences sound right when I **hear** them read.....
- I have had at least **3 friends** read what I have written.....

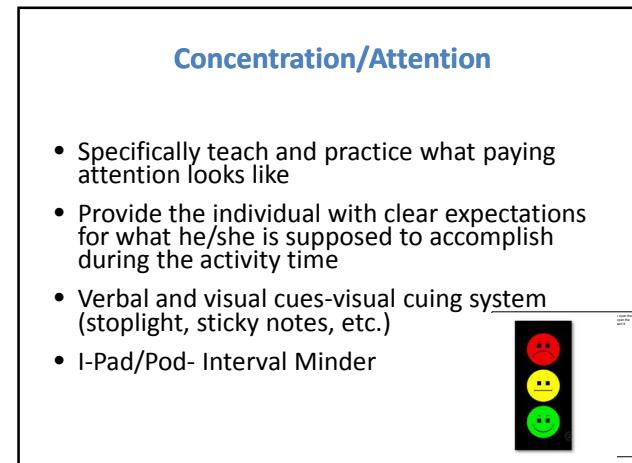
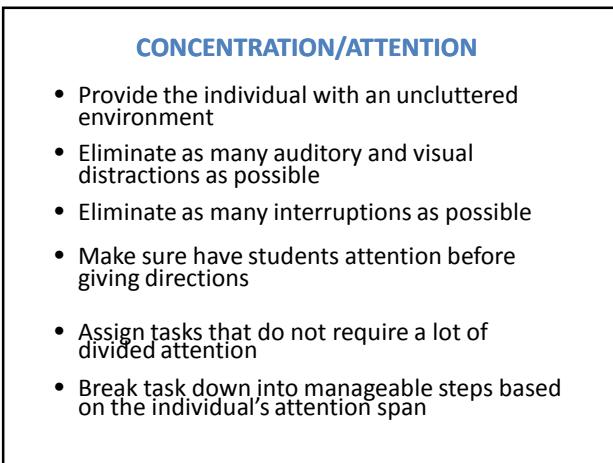
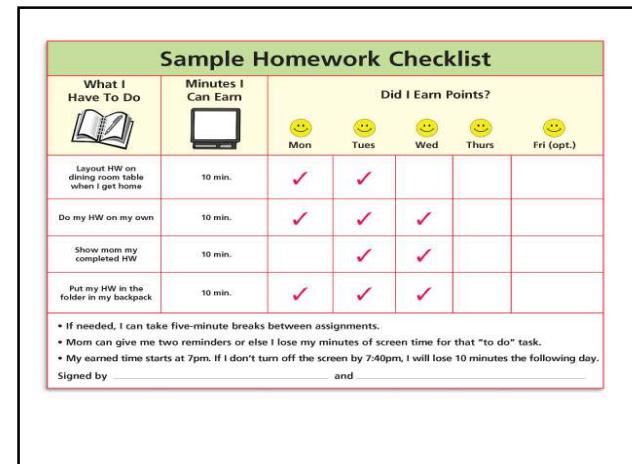
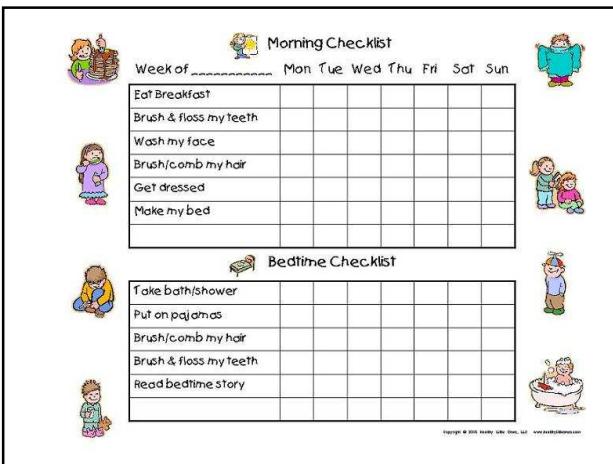
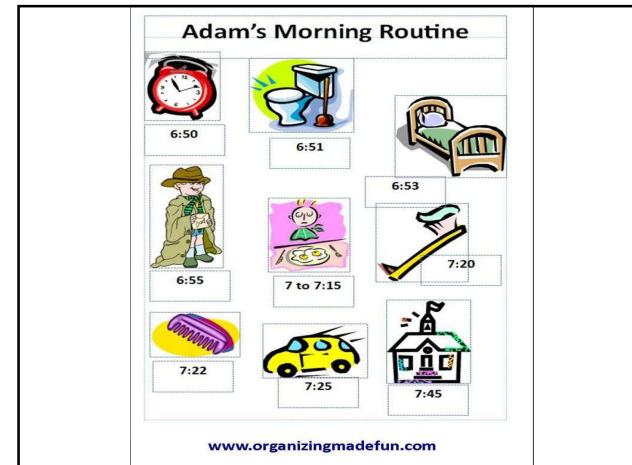
## Checklist



1. I enjoyed writing my story.
2. My ideas are written after each other.
3. My readers can identify with my character.
4. My introduction is exciting and inviting.
5. My story ends well.
6. I used some of my senses to write this story.
- 7
- 8
9. I used a lot of describing words.
10. I used interesting verbs.
11. My sentences begin in different ways.
12. The meaning of each sentence is clear.
13. I have used correct punctuation marks.
- 14
- 15

## Organization at Home

- Extra set of textbooks at home
- Communication notebook between home and school
- Check and organize backpack every night and put by front door
- Routines
- Homework routine
- *Smart But Scattered* (Dawson and Guare)
- *Late Lost and Unprepared* (Cooper-Kahn and Dietzel)



## Concentration/Attention

- Experiment with use of timers
- Teach self-monitoring strategies and focusing strategies
- Completion checklists
- Alert Program:  
How Does Your Engine Run?



## Social Emotional Competency

- The awareness of social issues and one's emotional status
  - Behavioral Self-Regulation
  - Emotional Control
  - Self-Monitoring
  - Impulse Control



## Social Emotional Issues

- Emotions are overwhelming
- Behavior can quickly become aggressive, out of control or dangerous
- Easily upset over small things
- Emotions out of proportion to the situation
- Demanding attention seeking



## Social Emotional Issues

- Struggles with understanding point of view of others
- Blames others for their issues
- Inability to correct behavior after feedback
- Says or does first thing that comes to mind
- Takes dangerous risks

## Behavioral Interventions

- Environment, Environment, Environment!!!!
  - Clear structure, routines and expectations
  - Consider stimulation of environment
  - Set up boundaries within the environment
- Know Your ABCs
  - **Antecedents:** the events, actions, conditions, and environments that come before behavior
  - **Behavior:** can be desirable and appropriate, or problematic
  - **Consequences:** can also be positive or negative



## Behavior Interventions

- Warn and prepare for transitions or changes in routine (e.g. getting ready for bed, changing activities, ending play time)
  - Combine verbal and visual cues to warn that something is going to end
  - Give 5 minute warning and set timer
  - Give periodic update of how many minutes within the 5 minutes
  - Warn them that time is almost over and need to finish last small step

## Behavior Interventions

- Let child know what you want them to do
  - Limit the “no”, “stop” and “don’t” for bigger issues
  - Verbal, visual and physical (when needed) prompting
- Discuss and practice appropriate behaviors before entering unfamiliar or challenging situations
- Help child with knowing what to do with unstructured times

## Behavior Interventions

- Be aware of when child is starting to escalate or is getting overwhelmed and intervene
- Focus on the positives-praise and reinforce when appropriately using skills and following requests
- Do not engage in power struggles over little things
- Physical proximity



## Instructions and Directions

- Get the student’s attention
- Tell, don’t ask
- Give concrete and specific directions
- Keep the direction positive
- Keep it simple/fewer is better
- Minimize verbalizations and explanations



## When Issues Arise

- Allow cool down time
- Help student identify why they are upset
- Help identify possible solutions
- Teach positive ways to express and deal with feelings
- Identify contact person student can go to for emotional support

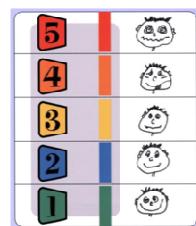
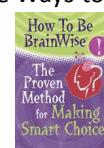
## Teaching Play and Behavior Control

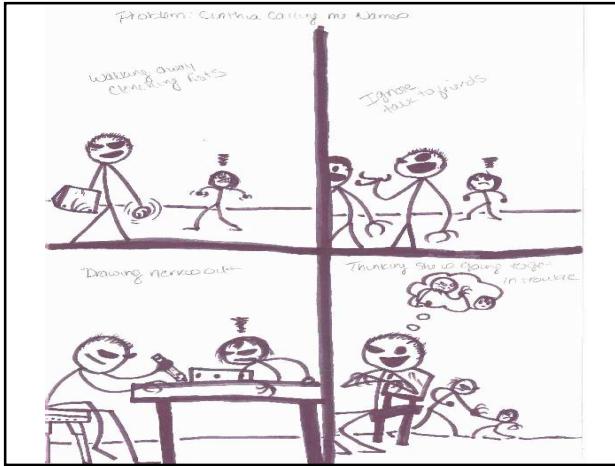
- Use social stories with characters displaying behaviors you are targeting
- Teach, model and practice appropriate skills through play and multisensory learning
- Incredible Years (teaching emotional control and social skills)
 

<http://70.40.220.26/programs/child/classroom-curriculum/>

## Teaching Executive Functioning Social Skills

- BrainWise- 10 Wise Ways to Stop and Think
- Superflex
- The Incredible 5 Point Scale





Appendix			
Name:	My How to Deal Scale		
Rating	Looks like	Feels like	I can try to
1	Hitting or kicking	a gun shot	call a teacher for help
2	Yelling	blow my top	get my friends to help
3	Crying	a waterfall	deep breath
4	Ignore them	unbothered	deep breath
5	Batman	fun	Be your self

## School Wide Programs

- I Can Problem Solve

- Second STEP

## Processing Speed

Fundamental Processes

Fundamental Processes

**Processing Speed:** *How quickly information is received, processed, and/or outputted.*

- A common consequence of a brain injury is the slowing of information processing. Slowed information processing impacts a person's ability to think efficiently and may hinder the effectiveness of other abilities such as memory. Although there are different reasons for slowed processing after an injury, one major reason is that the "wires" of the brain (neurons) can no longer communicate with each other efficiently.
- Another reason for slowed processing speed is that the brain might have to re-route signals around the damaged area (takes longer).

Fundamental Processes

Fundamental Processes

## Sensory Motor

**Sensory Processing:** *Perceiving and responding to what is seen, heard, smelled, tasted, felt and touched.*

- Generally speaking, the parietal lobe of the brain (top brain area) processes most sensory information and integrates it to construct a picture of one's environment. Damage to the parietal lobe may interfere with body awareness, cause attention problems, and degrade the accurate processing of auditory, olfactory, taste, tactile, and visual information.
- Fine Motor: *Involves the use of small muscles of the hands to make smooth, coordinated or fine motions.*
- Gross Motor: *Involves the coordinated use of the large muscles of the body.*
- "Not comfortable in my skin"

Intermediate Processes

Intermediate Processes

## Learning Processes

**New Learning:** *The ability to learn new concepts and information.*

- Receiving and processing new information to create learning is a remarkably complex neurological phenomenon. A novel academic task requires several brain areas working in concert to produce understanding. Once new information is processed, the new information is sent to other areas of the brain so the information can be comprehended on a deeper level.
- The inability to benefit from new learning, and to build on that learning – especially in social situations and behaviorally.

**Intermediate Processes** **Visual Spatial Processes** **Intermediate Processes**

**Visual-Spatial:** *The ability to generate, retain, retrieve and transform well-structured visual images.*

- Visual-spatial processes are largely associated with the occipital lobe of the brain, which is located at the back of the brain. When visual information is processed in the occipital lobe, it divides the information and sends it to the lower left part of the brain (temporal lobe) or to an upper part of the brain called the parietal lobe. Damage to the back and left side of the brain can degrade a person's ability to process images of known objects. Injury to the back to upper regions of the brain may cause problems with spatial and location tasks.
- Inability to recognize social cues.

**Intermediate Processes** **Language Processes** **Intermediate Processes**

**Language-Receptive:** The ability to understand language.

- Understanding spoken language is typically associated with the left hemisphere of the brain. Young children typically understand what is told to them (receptive language) before they can express themselves, but damage to the left side of the brain hinders their ability to understand language.

**Language-Expressive:** The ability to express one's thoughts and feelings into words and sentences.

- The ability to speak logically and express oneself using language involves the left hemisphere of the brain.

**Social Pragmatics:** Pragmatics are the verbal and nonverbal rules of social language and interactions

**Website Resources**

[www.cde.state.co.us/HealthAndWellness/BrainInjury.htm](http://www.cde.state.co.us/HealthAndWellness/BrainInjury.htm)

<http://www.cokidswithbraininjury.com/>

<http://www.oneplaceforspecialneeds.com/>

[www.projectlearnet.org](http://www.projectlearnet.org)

[http://www.brainline.org/landing\\_pages/features/bl\\_kids.html](http://www.brainline.org/landing_pages/features/bl_kids.html)

**Resources**

- Executive Skills In Children and Adolescents: A Practical Guide to Assessment and Intervention (2010) Dawson and Guare
- Executive Function in Education: From Theory to Practice (2007) Meltzer
- Late, Lost and Unprepared: A Parents Guide to Helping Children with Executive Functioning (2008) Cooper-Kahn and Dietzel
- Promoting Executive Function in the Classroom (2010) Meltzer
- Smart but Scattered (2009) Dawson and Guare