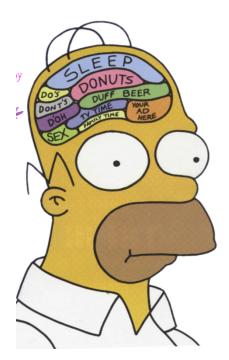
Parent Workshop: Strategies for increasing executive functioning and positive behaviors at home and school

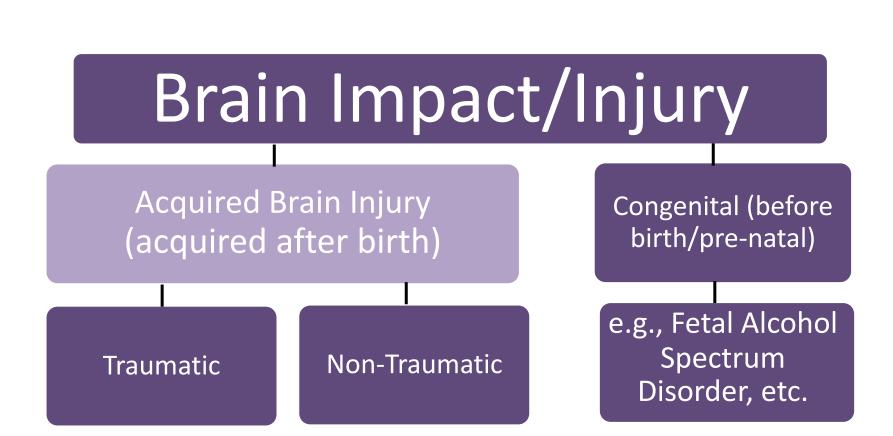
Cari Ledger, EdS, CBIS cari_ledger@dpsk12.org

Presentation Objectives

Participants will:

- Briefly review the neurocognitive skills impacted by brain injury
- Discuss specific strategies that can be implemented at home and/or school to address executive functioning deficits and difficult behaviors





(CDE, 2016)

Mechanism of an Acquired Brain Injury

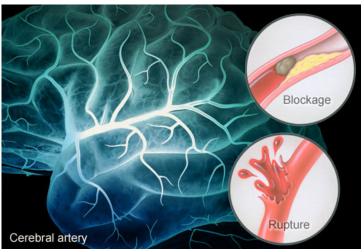
Traumatic Brain Injury Bony ridges Coup Contrecoup Primary Secondary Impact Impact

Non Traumatic Brain Injury

Anoxia:

A loss of oxygen to the brain caused by an airway obstruction due to choking, strangulation, near drowning or drug reactions.

Stroke:



Common Causes of <u>Non-Traumatic</u> Brain Injury

- Illness (e.g., high fever)
- Infections (e.g., meningitis, encephalitis)
- Anoxic injuries (lack of oxygen; e.g., airway obstruction, near drowning)
- Stroke or vascular accident (lack of blood flow)
- Brain tumors
- Poisoning (e.g., ingestion, inhalation)
- Metabolic disorders (e.g., insulin shock)

(Colorado Department of Education, Exceptional Student Services Unit, 2016)

Common Causes of <u>Traumatic</u> Brain Injury (TBI)

Infants: Physical abuse

Toddlers: Falls and abuse

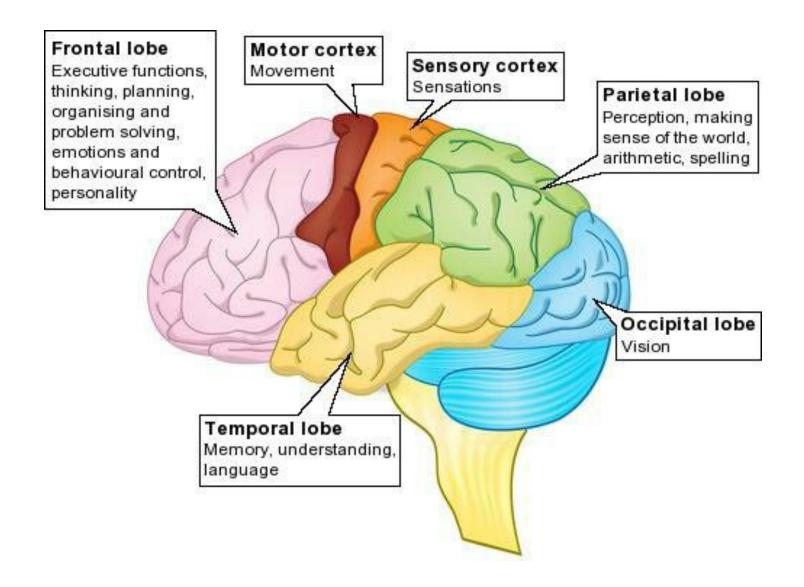
Young Children: Passengers in vehicles

School-aged Children: Bicycle and pedestrian

collisions with vehicles

Adolescents: Drivers and passengers in motor vehicle accidents

Note: Consider how the mechanism of injury will uniquely affect the grieving process. (Colorado Department of Education, Exceptional Student Services Unit, 2016) (CDE, 2016)



Outcomes after brain injury in youth

- Can negatively affect a child's ability to learn and perform in school
- Need for post-injury support at school ranging from informal academic support specific to their symptoms to longer-term formalized support
- Under-identified for health and educational services and under-served by existing supports
- Poor post-high school career outcomes
- A TBI during childhood is associated with offending behavior and incarceration in adolescents.

Mental Health Fall Out

<u>Almost half of adults</u> with TBI who have no pre-injury history of mental health problems <u>develop</u> <u>mental health problems after the TBI</u>

(Gould, Ponsford, Johnston, & Schonberger, 2011. Psychological Medicine, 41, 2099-2109.)

1/3 of TBI survivors experience emotional problems between 6 months and a year post injury

Patients who reported:

- Hopelessness 35%
- Suicidal ideation 23%
- Suicide attempts 18%

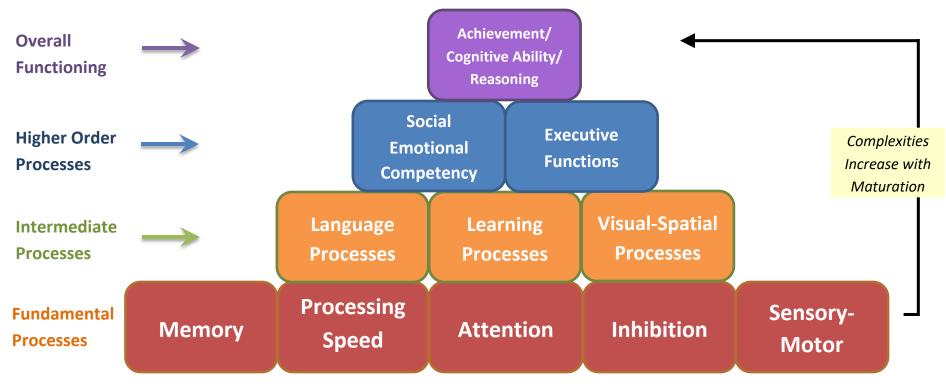
85% of survivor families report that emotional or behavioral problems have an impact on their function

Suicidal ideation can be 7x higher in people with TBI than in those without

- *Attempts* of suicide post-TBI can be at rates close to 17%
- Increased suicide risk persists up to 15 years post-injury

Fazel, et al. 2014. JAMA Psychiatry, 71(3), 326-33.; Mackelprang et al., 2014. Am J Public Health, 104(7), e100; Simpson & Tate, 2007. Brain Inj., 21(13-14), 1335-51.

Hierarchy of Neurocognitive Development

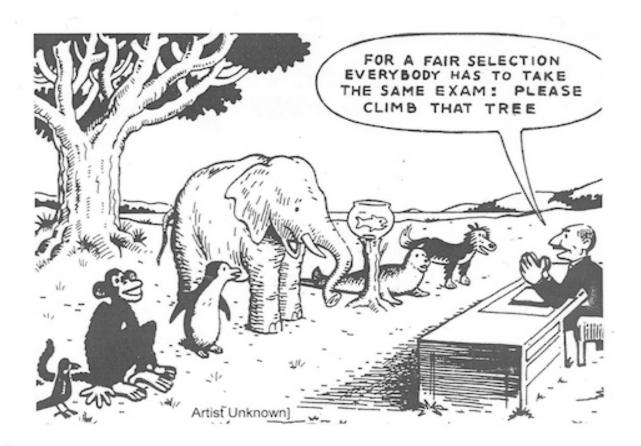


CO Brain Injury Steering Committee: Adapted from Miller, 2007; Reitan and Wolfson, 2004; Hale and Fiorello, 2004



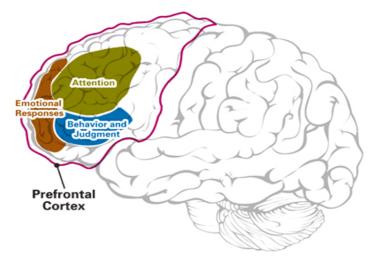
CO Brain Injury Steering Committee: Adapted from Miller, 2007; Reitan and Wolfson, 2004; Hale and Fiorello, 2004

Achievement



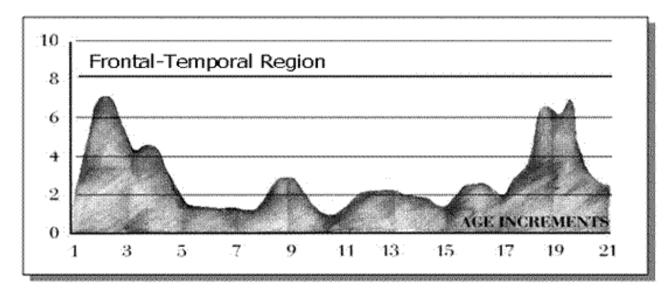
Executive Function

- Executive functions is a generic term that refers to a variety of different capacities that enable purposeful, goal-directed behavior, including:
 - behavioral regulation,
 - working memory,
 - planning and organizational skills, and
 - self-monitoring (Struss & Benson, 1986).
- "Intentional, goal-directed, problem-solving action" (Gioia et al., 2(
- Air traffic control system



Maturation of Executive Functioning

CHART 2:



(Savage, 1999)

Why Are Executive Functions Important?

- School Readiness: EF predicts readiness more than IQ or entrylevel reading or math skills. (*Blair, 2002, 2003, Blair and Razza, 2007, Normandeau and Guay, 1998*)
- School Success: Working Memory and inhibitory control each independently predict math and reading competence throughout the school years. (Adele Diamond, 2012)
- Job Success: Poor EF Skills lead to poor productivity and difficulty obtaining and maintaining a job.

Executive Functioning is critical for cognitive, social and psychological development.

Slides adapted from presentation by Ann Janney-Schultz, VA Head Start ECE T/TA System Creating Connections to Shining Stars, July, 2013

Sandel, 2017

Executive Functioning Skills Check-List



http://efpractice.com/images/ resources/ef_developmental_ checklist_updated.pdf

- 3-4 Year Olds
 - Complete simple errands; "Get your shoes from the bedroom".
 - T Clean and put items away with minimal assistance.
 - Perform simple chores and self-care tasks with reminders and physical assistance if needed; clear dishes from table, brush teeth, get dressed.
 - Inhibit unsafe or inappropriate behaviors; don't touch a hot stove; don't run into the street; don't grab a toy from another child; don't hit, bite, push, etc.
- 5-7 Year Olds
 - Complete 2-3 step errands; "Put the napkin in the trash and then bring me a cup."
 - Tidy bedroom or playroom independently.
 - Initiate and perform simple chores and self-help tasks, but may need reminders; making their bed, make a bowl of cereal.
 - Bring papers to and from school.
 - Complete homework assignments (20-minutes maximum).
 - Decide how to spend their money.
 - Inhibit behaviors; follow safety rules, use appropriate language (e.g. not swearing or using bathroom language when not appropriate), raise hand before speaking in class, and keep hands to self.

• Ages 8-11

- Run errands, including those involving a time delay, such as remembering to bring something home from school without reminders.
- Perform chores that take 10-30 minutes; setting the table, dusting.
- Bring books, papers, assignments to and from school.
- Keep track of belongings when away from home.
- 🛧 Complete the majority of homework assignments without assistance (1 hour maximum).

Executive Functioning Skills Check-List



http://efpractice.com/images /resources/ef_developmental _checklist_updated.pdf

- Ages 8-11 (continued)
 - + Plan simple school projects such as book reports; select book, read book, write report.
 - ★ Remember changes in daily schedule including different after school activities.
 - 🖈 Save money for desired objects and plan how to earn money.
 - Inhibit/self-regulate behaviors; maintain composure when teacher is out of the classroom; inhibit temper tantrums and bad manners.
- Ages 12-14
 - Help out with chores around the home, including both daily responsibilities and occasional tasks that may take 60-90 minutes to complete; emptying dishwasher, raking leaves, shoveling snow etc.
 - Able to safely baby-sit younger siblings
 - Appropriately use a system for organizing school work
 - Independently follow complex school schedule involving multiple transitions with teachers and classrooms.
 - Plan and carry out long-term projects, including tasks to be accomplished and a reasonable timeline to follow;
 - ★ Plan time effectively, including after school activities, homework, family responsibilities
 - 🖈 Inhibit rule breaking in the absence of visible authority.
- High School
 - Manage schoolwork effectively on a day-to-day basis, including completing and handing in assignments on time, studying for tests, and creating and following timelines for long-term projects.
 - Establish and refine a long-term goal and make plans for meeting that goal; collegiate or other vocational goals.
 - Independently organize leisure time activities, including obtaining employment or pursuing recreational activities during the summer.
 - Avoid reckless or risky behaviors (e.g. use of illegal substances, sexual acting out, shoplifting, or vandalism).

*If your child demonstrates difficulty in 2 or more of the above areas for their age, it is recommended that you contact an executive functioning specialist to further identify executive functioning needs and create strategies to address those needs.

Executive Functions: Initiation

What is it? The ability to independently start an action or activity.

What does it "look" like?

- Difficulty doing tasks independently and getting started
- Follower
- Appears lazy, unmotivated or spacey

What can you do?

- Provide assistance with getting started on tasks have them tell you the first thing they are going to do.
- Organize work time (timer)
- Teach self-advocacy skills: "Can you help me get started?"
- Check-in frequently
- Use underlining and highlighting for significant parts of directions. Checklists & calendars can help organize

Executive Functions: Mental Flexibility

What is it? The ability to easily shift from one idea, train of thought, activity or way of looking at things.

What does it look like?

- Trouble coming up with solutions
- Difficulty taking feedback
- Argumentative
- Trouble making friends

What can you do?

- Develop and practice routines & plan ahead for changes in routines
- Prepare for transitions
- Help develop alternative plans
- Assist in prioritizing goals, breaking them down into smaller tangible tasks
- Provide respectful feedback to potential or obvious problem areas
- Teach perspective taking

Draw A Line

Switch Tasking is a Thief

Write all the numbers from 1 to 21 in order

Executive Functions: Planning

What is it? The ability to set a goal, identify a sequence of actions to reach the goal and carry out that sequence of steps.

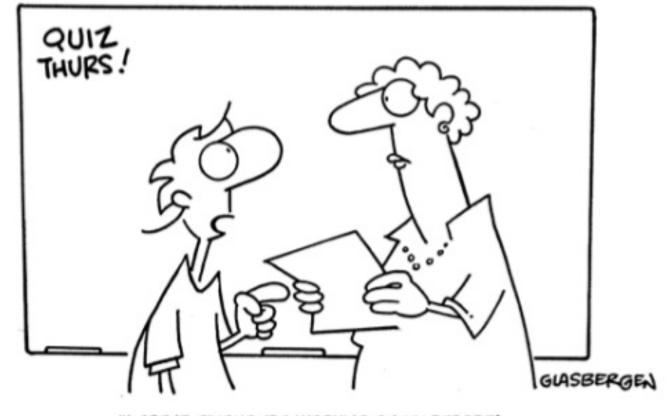
What does it look like?

- Rigid thinking
- Frequently late and/or unprepared
- Difficulty with time management
- Difficulty organizing thoughts

What can you do?

- Provide step-by-step visual or written directions and instructions
- Keep appointments at the same time and day
- Build routines into the process of learning new content
- Help the break-down projects into manageable pieces
- Use reminders, alarms, timers, deadlines
- Teach time management

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"I SPENT FIVE HOURS WORKING ON MY REPORT! ONE HOUR TO GO TO THE MALL FOR AN INK CARTRIDGE, TWO HOURS ON HOLD WITH TECH SUPPORT, 45 MINUTES LOOKING FOR A SHEET OF WHITE PAPER, 30 MINUTES SEARCHING FOR THE PERFECT FONT..."

Get Ready, Do, Done Sarah Ward, CCC-SLP

Executive Functioning Intervention- Sarah Ward, CCC-SLP

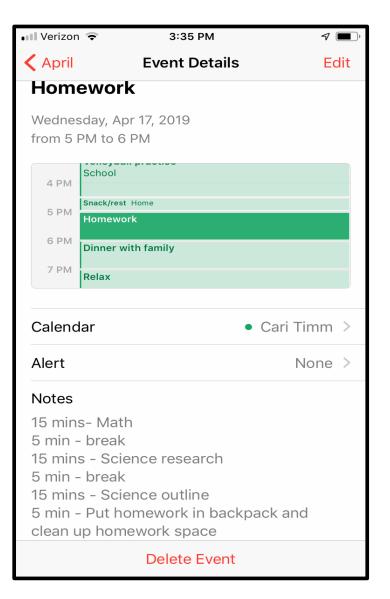
3.Get Ready What do I need?	2. Do List the steps and the time each step will take:	1. Done What will it look like? Sketch:
	Step: Minutes: 1 2 3 4,	
 #3 Think out loud and model the thought process for 1st material. If stuck, ask leading question. 	 #2 Write brief 1-2 word steps Model the thought process for sequencing/time required Encourage thinking aloud. 	 #1 Think out loud and model the thought process for what done looks like. Sketch your way through.

Back	Slices Settings
Get Read	ly
Text Book Workshee	
Start	
Page 24	
Mid-Poin	t Goal
Page 30	
End	
Page 34	





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5:00 PM 6:00 PM		Homework						
6:00 PM 7:00 PM		Dinner with family						
7:00 PM 9:00 PM		Relax						
9:00 PM 9:15 PM		edtime						
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Fractions to mixed numbers (harder)

Grade 6 Fraction Worksheet

Convert the fractions into mixed numbers.

1. $\frac{146}{14} =$	2. ⁹ / ₇ =	3. $\frac{161}{17} =$
4. ⁵⁹ / ₁₉ =	5. ⁶ / ₅ =	6. $\frac{102}{8} =$
7. $\frac{174}{14} =$	8. <u>40</u> =	9. $\frac{41}{4} =$
10. $\frac{23}{2} =$	11. <u>239</u> =	12. ⁵⁸ / ₁₃ =
13. ²⁶ / ₄ =	14. $\frac{53}{9} =$	15. ¹⁵⁴ / ₁₇ =
16. ¹⁸³ / ₁₅ =	17. $\frac{32}{5} =$	18. <u>180</u> =

HOMEWORK OR IN-CLASS:

- Make sure an example is provided with the work with step-by step process
- Put a time limit on work time
- Praise effort vs. correct answers
- Use graph paper to help with organization
- Build in time to review and correct work

0ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ଡ଼ Cesar Chavez Multi Genre Writing Choose THREE of the genre from below. (10 pts each) · Poem-Write at least a 10 line poem about Cesar Chavez. The poem can be from any perspective. Newspaper Article-Write a newspaper article about why Cesar Chavez should be honored with his own holiday (2 paragraphs) Acrostic Poem-create an acrostic poem using the name Cesar Chavez ٩ 6 **IVIVA LA HUELGA!** $\mathbf{p}(\mathbf{p})$



Assignment



Initial Thoughts/Questions:

Is the expectation clear?

When is this due?

What are my student's strengths?

Does my student even know who Cesar Chavez is?

Next Steps:

- 1. Follow up with teacher on questions. Assign due date
- 2 Outline what I know about Cesar Chavez
- 3. Pick the 3 that I think I can accomplish
- 4. Break down what needs to be completed (with dates/time to complete) to meet due date expectations

Cesar Chavez Multi Genre Writing Assignment

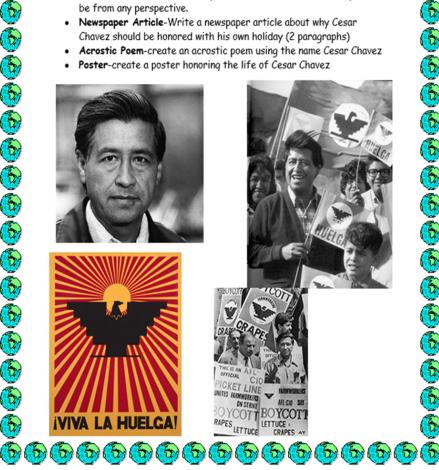
Choose THREE of the genre from below. (10 pts each)

3

2

b

- Poem-Write at least a 10 line poem about Cesar Chavez. The poem can be from any perspective.
- Newspaper Article-Write a newspaper article about why Cesar Chavez should be honored with his own holiday (2 paragraphs)
- Acrostic Poem-create an acrostic poem using the name Cesar Chavez
- Poster-create a poster honoring the life of Cesar Chavez

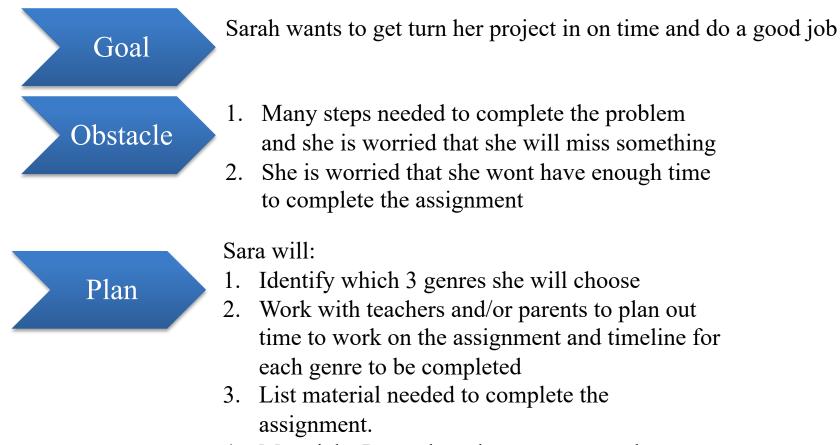


Goal Setting and Follow Through with Academics



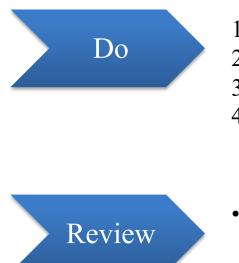
- Plan A
- Plan B
- Plan C

Goal - Plan – Do - Review



4. Materials: Poster board, computer, markers, history book

Goal - Plan – Do - Review



- 1. Gather materials
- 2. Work on the assignment at the scheduled time
- 3. Review rough draft (s) with parent or teacher
- 4. Turn in assignment on April 18, 2019, 4th period
- Was I able to turn the assignment in on time? If not, was that still okay with the teacher?
- Is Sarah happy with her work?
- What worked well?
- What didn't work?

Goal-Plan-Do-Review Sheet

What do I want to accomplish?

PLAN

How am I going to accomplish my goal?

MATERIALS/EQUIPMENT	STEPS/ASSIGNMENTS
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

PREDICTION

How well will I do? How much will I get done?

Self rating	1	2	3	4	5	6	7	8	9	10
Teacher Rating	1	2	3	4	5	6	7	8	9	10

DO

PROBLEMS ARISE?	FORMULATE SOLUTIONS!
1.	1.
2.	2.
3.	3.

REVIEW

HOW DID I DO										
Self rating	1	2	3	4	5	6	7	8	9	10
Teacher rating	1	2	3	4	5	6	7	8	9	10
WHAT WORK 1. 2. 3.	ED?					WHL 1. 2. 3.	AT DID?	N'T WO	RK?	

WHAT WILL I TRY DIFFERENTLY NEXT TIME?_

HOW DID I DO?

Source: Reprinted with permission from Ylvisaker, M., Szekeres, S. & Feeney, T. (1998) Cognitive Rehabilitation: Executive Functions. (pp. 244) In M. Ylvisaker (Ed.) <u>Traumatic Brain Injury Rehabilition: Children and</u> <u>Adolescents (2nd Ed.)</u>. Boston: Butterworth-Heinemann.

LD/ADHD Initiative Department of Special Education and Student Services, HCPSS http://tres.hcpss.org/sites/default/files/Goal_____ Plan______ Review.pdf

Executive Functions: Organization

What is it? The ability to create and maintain orderliness in thoughts, activities, materials and the physical environment.

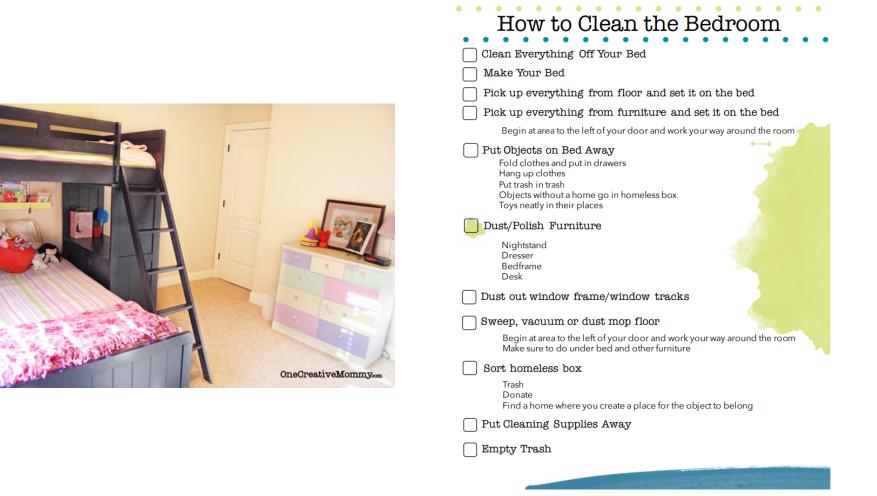
What does it look like?

- Copies others
- Resistant
- Loses things, forgetful
- Has difficulty communicating thoughts/answering open-ended questions

What can you do?

- Establish a daily routine as much as possible. The ability to predict what is going to be happening will help them to organize their behavior better.
- Clearly communicate changes in schedule ahead of time to help reduce worry and allow for follow through.
- Use picture schedules, planners, checklists, or electronic organizers to help them organize their day and prepare themselves for transitions.
- Reduce clutter in the physical environment





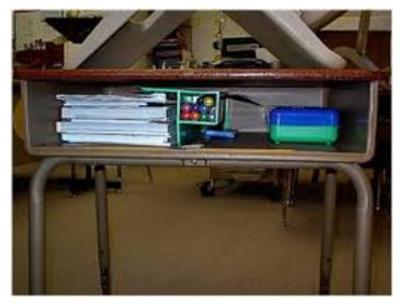
http://busycreatingmemories.com



Flush the toilet
Wash hands
Dry hands
Wipe off sink
Hang up towel

Organization: Visual Supports





Executive Functions: Reasoning

What is it? The use of deliberate and controlled mental operations to solve novel and on the spot problems (social problem solving)

What does it look like?

- Makes poor choices (behavior and social)
- Argumentative
- Does not learn from mistakes
- Acts without thinking of consequences

What can you do?

- Talk through different choices and help them select the one that brings that most positive solution.
- Teach how to develop a step-by-step guide for problem solving by identifying the problem, considering relevant information, listing and evaluating possible solutions, creating a plan of action, and evaluating the plan of action.
- Avoid open-ended questions
- Speak concretely
- Be clear on expectations and consequences of risk taking behaviors

Goal Setting and Follow Through with Social Problem Solving



- Plan A
- Plan B
- Plan C

Social and Emotional Competency Emotional Regulation

What is it? The awareness of social issues and one's emotional status. Behavioral self-regulation, control and self- monitoring are also part of this domain

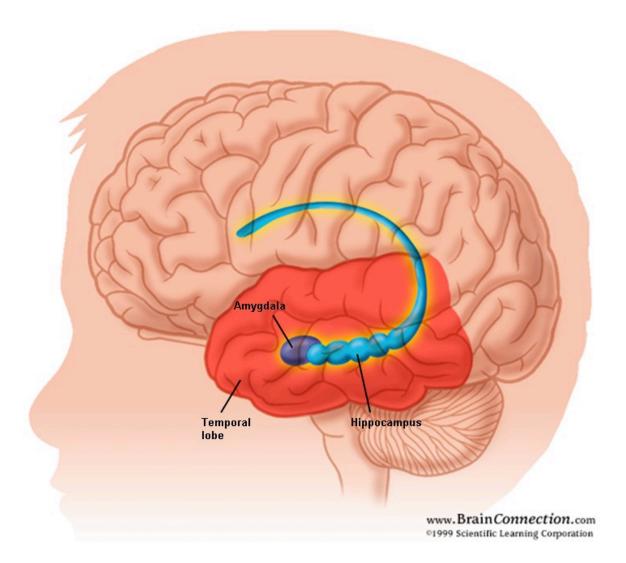
What does it "look" like?

- Meltdown
- Difficulty managing anger
- Under/over reacts
- Can't "move on"

- Redirect to another topics/activity when possible and/or provide space that allows a person to calm down.
- Model how you calm down when you are upset.
- Minimize verbalizations and logical explanations when the individual is escalated.
- Address behaviors individually, not in front of a group
- Make consequences clear and concrete

Wizard vs. Lizard Brain





Break/ Space







Organize Unstructured Time

- Homework
- Chores
- Consistent homework space and time
- Reward effort and not correctness
- Set time limits on tasks



Additional Strategies

- Provide choices (start with math or reading)
- Provide structure, guidelines
- Make it routine
- Prior notice of routine changes
- Schedules
- Positive reinforcement (5:1)

- Chunk information
- Make consequences clear and consistent (post them)
- CBT (get help)
- Start small and work to bigger

How do we (adults) manage our behaviors

- Stay calm
- Take a time out
- Model your own frustration, internal dialogue and how you work through it
- Have a family accountability jar showing kindness or managing appropriately)



Accountability Jar





Resource

20 Tips to Help De-escalate Interactions with Anxious or Defiant Students by Katrina Schwartz

https://www.kqed.org/mindshift/43049/20-tips-to-help-de-escalate-interactions-with-anxious-or-defiant-students



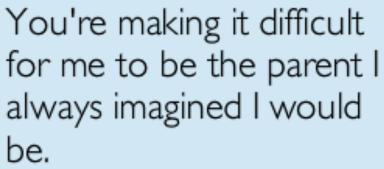
Behavior is a form of communication.

What is the person trying to communicate to us?

What is the function of the behavior?



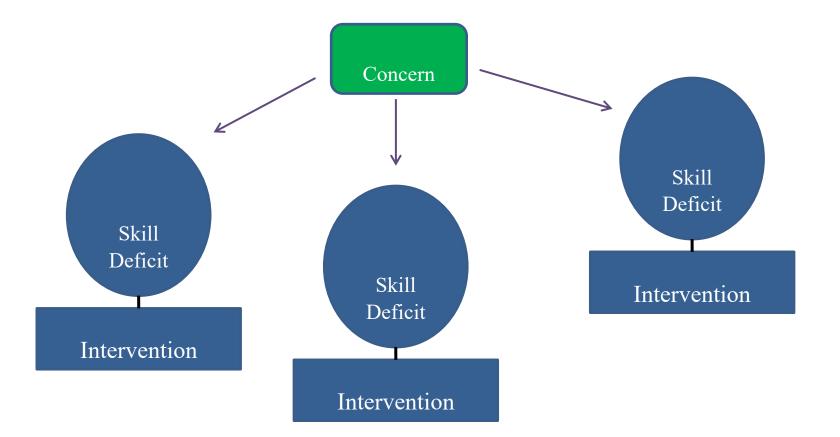
https://self-reg.ca/selfreg/graphics/cant-vs-wontgraphic-march-2017/







Intervention Action Plan



Concern: Does not complete work in-class or at home

Skill Deficit? Mental Flexibility

Intervention? Teach routine to homework time with built in ways to ask questions or problem solve when a student is "stuck"

Intervention? Provide assistance with getting started on tasks by asking the child to tell you what are they are going to do first.

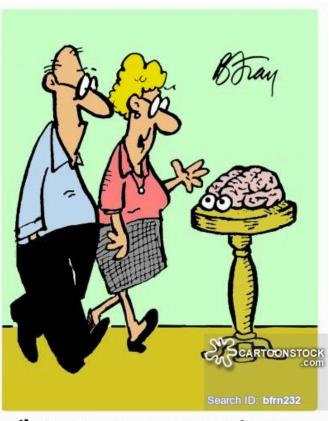
Skill

Deficit?

Initiation

Strengthening Families

"Parent/caregiver burden and family dysfunction are a strong determinant of a child's psychosocial recovery, with children from wellfunctioning families demonstrating better psychosocial functioning" (CDC, 2018)



"...AND THIS IS ALLAN...HE'S THE BRAIN IN THE FAMILY! "

Strengthening Families: Family-level Factors that Influence Outcomes

- Caregiver distress or depression
- Deteriorating family functioning
- Parental responsiveness, negativity, and discipline practices
- Economic and social disadvantage
- Limited resources
- Maladaptive coping strategies
- Unmet healthcare needs



Brain Injury Alliance of Colorado

The go-to resource for help and services for survivors of an injury to the brain, their families, and providers.

BIAC is a statewide **nonprofit** dedicated to helping all persons with a brain injury thrive in their community

- Core service is resource navigation for all ages this is free, with no income or insurance eligibility criteria
- Brain injury specific conferences & workshops
- Online educational materials for survivors, family, & professionals
- Statewide brain injury **professional networking** groups
- Adaptive recreation programs, music & art therapy classes
- Emergency utility assistance through Energy Outreach Colorado
- Online resource directory specific to brain injury providers
- Statewide support groups

Brain Iniurv

COLORADO

- Member of United States Brain Injury Alliance

COKIDSWITHBRAININJURY.COM





Parents

WELCOME TO THE COLORADO KIDS BRAIN INJURY RESOURCE NETWORK

The website was designed through funding from the Colorado Kids Brain Injury Resource Network. This website should serve as a tool for educators, school administrators, school psychologists, related services professionals, and families. Feel free to join in the discussion and learn more about how to support our kids in Colorado with brain injuries.

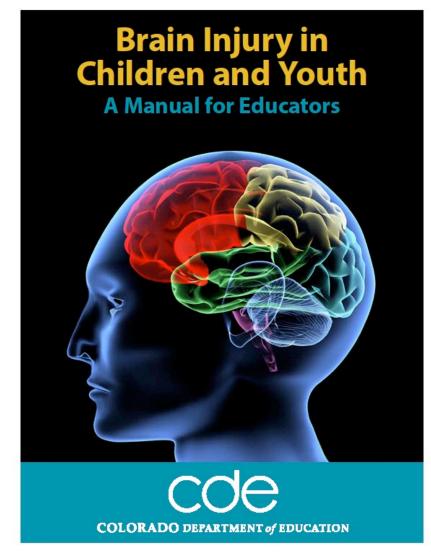
ANNOUNCEMENTS & UPDATES

Check out the revised Building Blocks of Brain Development – <u>click</u> <u>here</u>

Brain Injury in Children and Youth: A Manual for Educators. <u>Click here</u> to view manual.

Colorado Department of Education's Concussion Management Guidelines. <u>Click here to view</u>

Brain Injury Alliance of Colorado Case Management. <u>Click here to</u> <u>view</u>.



http://www.cde.state.co.us/cdesped/SD-TBI.asp



- Colorado Department of Education Initiative
- Inter-district brain injury consultation teams available to schools and families throughout Colorado.
- Teams are trained in the educational needs of students following a brain injury
- Assist student with ALL Acquired Brain Injuries
- BrainSTEPS teams can:
 - Consult with and train school personnel
 - Support development of an educational plan and make recommendations
 - Assist in transition from grade to grade and school to school
 - Serve as consistent point of contact for students
 - Monitor until graduation
- Not a requirement of all districts in Colorado

Questions?

Cari Ledger, EdS, NCSP Cari_ledger@dpsk12.org

