Smart but Scattered: Helping Children and Adolescents with Executive Dysfunction at Home and at School

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smartbutscatteredkids.com

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Introduction to the Field

- Not a lot of consensus
  - The name: executive functions vs. executive skills
  - How many skills we're talking about: range = 1 – 40
  - What the specific skills are

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3 Key Concepts about Executive Skills

- What they are: brain-based skills that take a minimum of 25 years to reach full maturation.
- Until these skills are fully mature, it's the job of parents and teachers (and adults who work with kids) to act as surrogate frontal lobes.
- It is also the job of parents, teachers, etc. to ensure that kids grow their own executive skills.

3

Executive Skills that Underlie School Success

Foundational Skills

- Response Inhibition
- Working Memory
- Emotional Control
- Flexibility
- Sustained Attention
- Task Initiation

Advanced Skills

- Planning/Prioritizing
- Organization
- Time Management
- Goal-Directed Persistence
- Metacognition

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Executive Skills: Definitions

- **Response Inhibition:** The capacity to think before you act – this ability to resist the urge to say or do something allows us the time to evaluate a situation and how our behavior might impact it.
- https://www.youtube.com/watch?v=9PnbKL3wuH4

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ScienceDaily®
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Cookie Monster teaches self-control

Date: November 13, 2014

Source: University of Iowa

Who would have thought a Sesame Street video starring the Cookie Monster, of all characters, could teach preschoolers self-control?

But that's exactly what Deborah Linebarger, an associate professor in the University of Iowa College of Education's Department of Teaching and Learning, found when she studied a group of preschoolers who watched videos of Cookie Monster practicing ways to control his desire to eat a bowl of chocolate chip cookies.

"Me want it," Cookie Monster sings in one video. "But me wait."

In fact, preschoolers who viewed the Cookie Monster video were able to wait four minutes longer than their peers who watched an unrelated Sesame Street video. They were also better able to control the impulse to shout out character names and to remember and repeat back longer number sequences.

Linebarger says learning to master these executive functioning skills are critical to school readiness.

"A formal school situation requires that children control impulses, follow directions, transit smoothly between activities, and focus on relevant task information," she says. "These skills also predict other academic skills including reading, math, and science."

Linebarger presented the findings of her study Nov. 10 during the London International Conference on Education. The results of the study, which was funded by a grant from the Sesame Workshop, the nonprofit behind the Sesame Street television program, have not yet been published.

The study involved 59 preschool children who were recruited from six child-care centers in and around a small city in the Midwest. The study involved a new curriculum developed by Sesame Street that features Cookie Monster and is designed to teach preschoolers executive function skills such as self-control, working memory and switching gears between activities.

"These are the nonacademic skills that help make a child successful at school," Linebarger says. "They help children manage their behavior, sit still and pay attention."

The children in Linebarger's study were first shown one of two five-minute video: Cookie Monster being taught to listen, remember and control his desire to eat cookies, or Murray being led through a series of clues to figure out where he and Little Lamb were going to visit. After that, the children were given DVDs to view at home for three weeks which followed the same storyline as the first video they watched.

Kindergarten teachers report that more than half of children entering school suffer deficits in these areas.

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ScienceDaily
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Self-regulation intervention boosts school readiness of at-risk children, study shows

Date: November 21, 2014

Source: Oregon State University

An intervention that uses music and games to help preschoolers learn self-regulation skills is helping prepare at-risk children for kindergarten, a new study from Oregon State University shows.

Self-regulation skills -- the skills that help children pay attention, follow directions, stay on task and persist through difficulty -- are critical to a child's success in kindergarten and beyond, said OSU's Megan McClelland, a nationally recognized expert in child development and a co-author of the new study.

"Most children do just fine in the transition to kindergarten, but 20 to 25 percent of them experience difficulties -- I hose difficulties have a lot to do with self-regulation," McClelland said. "Any intervention you can develop to make that transition easier can be beneficial."

The results of the new study are notable because positive effects of an intervention, especially one that aims to improve self-regulation and academic achievement, can be difficult for researchers to find, said McClelland, the Katherine E. Smith Healthy Children and Families Professor in the College of Public Health and Human Sciences.

The intervention was most effective among children who are considered at highest risk for struggling in school -- those from low-income backgrounds who are learning English as a second language. In addition to a positive effect on self-regulation, the intervention had a positive effect on math achievement for English language learners.

"The math gain was huge," McClelland said. "English language learners who were randomly assigned to the intervention showed a one-year gain in six months. This was in spite of the fact that we had no math content in these games."

That indicates that children were more likely to integrate the self-regulation skills they've learned into their everyday lives, McClelland said. It also supports previous research finding strong links between self-regulation and math skills.

The study was published recently in *Early Childhood Research Quarterly*. Lead author Sara A. Schmitt conducted the research as a doctoral student at OSU and now is an assistant professor at Purdue University. In addition to McClelland, the other authors of the study are Alan C. Acock of Oregon State and Shauna L. Tominey of Yale University.

In all, 276 children enrolled in a federally funded Head Start program for at-risk children in the Pacific Northwest participated in the study. Children ranged in age from three to five, with most about four years old. Children were randomly assigned to either a control group or the intervention program.

The intervention ran for eight weeks, with two 20- to 30-minute sessions each week. Research assistants came into classes and led children through movement and music-based games that increased in complexity over time and encouraged the children to practice self-regulation skills.

One game used in the activities was "Red Light, Purple Light," which is similar to "Red Light, Green Light." A researcher acted as a stoplight and held up construction-paper circles to represent stop and go. Children followed color cues, such as purple is stop and orange is go, and then switched to the opposite, where purple is go and orange is stop.

Additional rules are added later to increase the complexity of the game. The game requires children to listen and remember instructions, pay attention to the adult leading the game and resist natural inclinations to stop or go.

"It's about helping the children practice better control," McClelland said. "The games train them to stop, think and then act."

Researchers evaluated children's self-regulation and academic achievement before and after the intervention and found that children who had received the intervention scored significantly higher on two direct measures of self-regulation. English language learners who participated in the intervention also scored significantly higher in math than their peers in the control group.

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Executive Skills: Definitions

- **Response Inhibition:** The capacity to think before you act – this ability to resist the urge to say or do something allows us the time to evaluate a situation and how our behavior might impact it.
- **Working Memory:** The ability to hold information in memory while performing complex tasks. It incorporates the ability to draw on past learning or experience to apply to the situation at hand or to project into the future.

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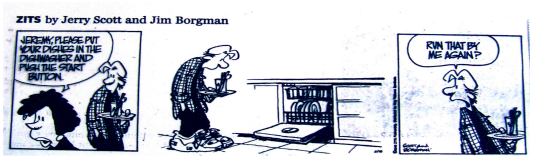
What working memory looks like in a 15-year old



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What working memory looks like
in a 15-year old--
and what impact it has on parents

10

One working memory strategy…

11

Supports for students with weak working memory

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- **Working Memory:** The ability to hold information in memory while performing complex tasks. It incorporates the ability to draw on past learning or experience to apply to the situation at hand or to project into the future.
- **Emotional Control:** The ability to manage emotions in order to achieve goals, complete tasks, or control and direct behavior.

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ScienceDaily
Your source for the latest research news

Fighting parents hurt children's ability to recognize and regulate emotions

Date: September 17, 2014
Source: New York University

Exposure to verbal and physical aggression between parents may hurt a child's ability to identify and control emotions, according to a longitudinal study led by NYU's Steinhardt School of Culture, Education, and Human Development.

The findings, which appear in the journal *Development and Psychopathology*, also suggest that household chaos and prolonged periods of poverty during early childhood may take a substantial toll on the emotional adjustment of young children.

"Our study points to ways in which aggression between parents may powerfully shape children's emotional adjustment," says C. Cybele Raver, professor of applied psychology at NYU Steinhardt and the study's lead author. "Arguing and fighting is psychologically stressful for the adults caught in conflict; this study demonstrates the costs of that conflict for children in the household as well."

Exposure to verbal and physical aggression between parents may hurt a child's ability to identify and control emotions. (stock image)

Credit: © doble.d / Fotolia

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Executive Skills: Definitions

- **Flexibility:** The ability to revise plans in the face of obstacles, setbacks, new information or mistakes. It relates to an adaptability to changing conditions.
- **Sustained Attention:** The capacity to maintain attention to a situation or task in spite of distractibility, fatigue, or boredom.

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ADHD KIDS

What teachers think we do.

What society th

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When the Adderall kicks in

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Attention Self-Monitoring

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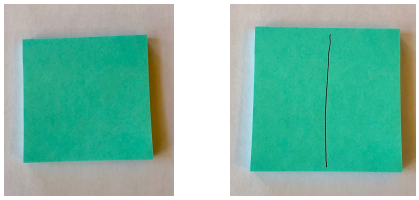
Attention Self-Monitoring



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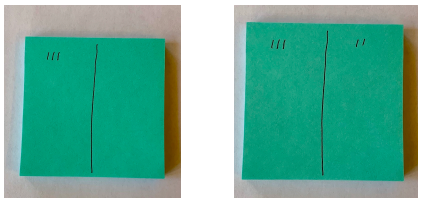
Attention Self-Monitoring



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- **Sustained Attention:** The capacity to maintain attention to a situation or task in spite of distractibility, fatigue, or boredom.
- **Task Initiation:** The ability to begin projects without undue procrastination, in an efficient or timely fashion.

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What's Getting in the Way of Getting It Done?

Task: _____ Date:_____

DIRECTIONS: Check off all that apply and see if you can come up with a strategy to overcome each obstacle.

√	Obstacle	Strategy
	I don't understand the assignment.	
	I can't think of how to start the assignment.	
	I could probably do the assignment but it will take a lot of work and just the thought of that hurts my brain.	
	The task is way too boring for me even to contemplate doing it.	
	This assignment is pointless. I would get nothing out of doing it.	
	The conditions for working aren't perfect—when they are, I'll get started.	
	I have way too many things to do and don't know how to prioritize my time.	
	It's going to take way too long and I don't want to commit that amount of time.	
	There are other things I'd rather be doing that are more fun or more important to me.	
	Wait, what assignment? When I leave school at the end of the day I put school behind me (i.e., the cues that remind me to do schoolwork are missing).	
	The assignment isn't going to affect my grade so why bother?	
	Perfectionism—I'm not going to start because I know I won't be able to do work that meets my (impossibly) high standard.	
	I'm stressed out about other things (either internal or external) and can't focus because of these preoccupations. I'll do better if I wait until my life calms down.	
	I'm too tired. I don't have the energy to do this now.	
	I don't want to do this because if I accomplish this, I'm scared of what comes next.	
	OTHER:	

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- **Sustained Attention:** The capacity to maintain attention to a situation or task in spite of distractibility, fatigue, or boredom.
- **Task Initiation:** The ability to begin projects without undue procrastination, in an efficient or timely fashion.
- **Planning/Prioritization:** The ability to create a roadmap to reach a goal or to complete a task. It also involves being able to make decisions about what's important to focus on and what's not important.

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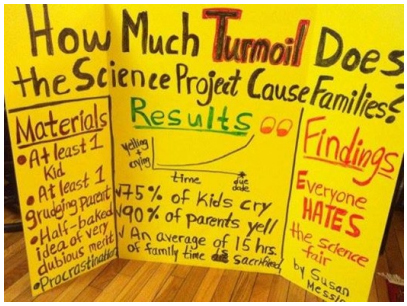
Planning is a skill that takes time to develop



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Executive Skills: Definitions

- **Organization:** The ability to create and maintain systems to keep track of information or materials.
- **Time Management:** The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines. It also involves a sense that time is important.

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Assignment Name: _____ Due Date: May 2, 2018
(6 writing blocks)

What do I need to do?	How long do I think it will take?	Check when done.	How long did it take?
Step 1 Decide your position (for or against being a Loyalist)	7.5 minutes		
Step 2 Plan (complete your organizer)	60 minutes (1.5 writing classes)		
Step 3 Write your introduction	20 minutes		
Step 4 Body Paragraphs (3--2 argument/1counter-argument)	80 minutes		
Step 5 Conclusion	20 minutes		
Step 6 Edit (peer edit/self -edit) and make corrections	40 minutes		
Step 7 Print and turn in	5 minutes		

Developed by Lisa Berthiaume

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Executive Skills: Definitions

- **Organization:** The ability to create and maintain systems to keep track of information or materials.
- **Time Management:** The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines. It also involves a sense that time is important.
- **Goal-directed persistence:** The capacity to have a goal, follow through to the completion of the goal and not be put off or distracted by competing interests.

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Classroom example: Focusing on goal-directed persistence

One teacher's experience with a challenging class:

- This class had multiple failures at the end of Semester 1, the lowest percentage of work turned in, and was consistently 1 day behind my other 5 classes. This class was off task constantly and my other class management strategies that work beautifully with everyone else completely fail for this group of students.
- Before you introduced me to goal-directed persistence, I was having a conversation with a team member on what to do with this class and that I had to do something, but didn't know what. I felt like a lost puppy thirsty for water while walking in the desert.

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- It has now been 9 weeks since you introduced me to the idea of goal-directed persistence. The results I have seen in this class are phenomenal. They are now the most on-task class with the highest percentage work completion rate and 90% of the students consistently come to class prepared. For Quarter 3, I had no failing grades in this class and 85% of that class achieved their grade goal on their summative.
- Some of the things I am doing consistently to keep them aware of their behaviors and how they impact reaching or not reaching their goal, is I have them write their grade goal on their desk with dry erase marker. It serves as a consistent reminder throughout our 1 hour 35 minute class period of what choices they need to make to achieve their goals. We also talk about things that could hinder them from reaching their goal and how they can overcome those things. This has made a difference for these students; not only their learning environment, but their confidence in their own ability to succeed!

~Sandy Moldanado

6th grade teacher, Imagine International Academy of North Texas

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End of year follow-up

- Students completed a short end of year reflection and one question I asked them was what learning strategy was the most helpful in achieving their goals, the response I received the most was writing their grade goal on their desk daily. How fantastic for educators to have a seemingly small task that makes such a positive impact!

  I had 1 out of 22 students fail for this second semester, and it was because he didn't turn in work (he passed the first semester), and I had no repeat failures from the first semester. The first semester I had 4 out of 22 fail my class. One of my students that received a 50 in the first semester was able to achieve his grade goal of an 87 in second semester!!!! This is one of my students that has ADHD and dyslexia!! He tested at a 3.5 reading level first semester and brought it up to a 5.5 by our last benchmark. Whoo Hoo!!!

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Executive Skills: Definitions

- **Organization:** The ability to create and maintain systems to keep track of information or materials.
- **Time Management:** The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines. It also involves a sense that time is important.
- **Goal-directed persistence:** The capacity to have a goal, follow through to the completion of the goal and not be put off or distracted by competing interests.
- **Metacognition:** The ability to stand back and take a birds-eye view of oneself in a situation—to observe how you problem solve. It includes self-monitoring, self-evaluation (e.g., asking yourself, "How am I doing? or How did I do?").

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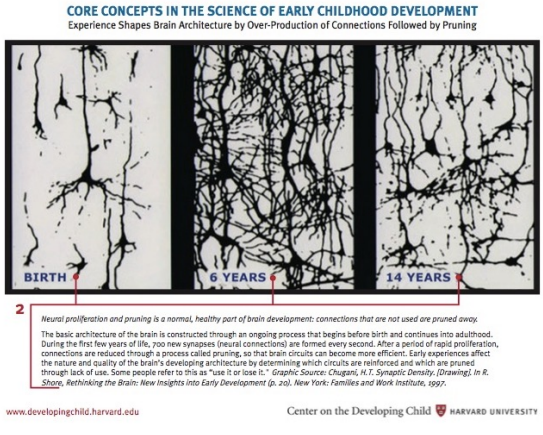

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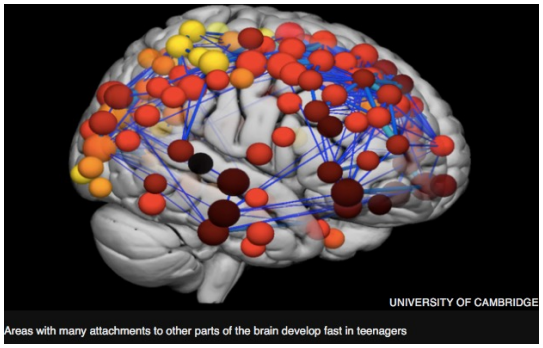

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Use Self-Reflections to Encourage Metacognition

Weekly Sustained Attention Work Report

Week 1:

Task:	**Effort Rating** (1- easiest task, 10- hardest task):	**Sustained Attention Rating** (1- very distracted, 10- totally focused):

If you were distracted during this task, what could you have done better to maintain focus?

If you were totally focused during this task, what did you do or why do you think you were so focused?

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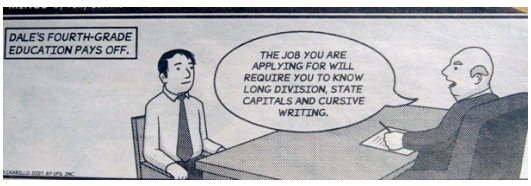
Why is it important to help kids develop executive skills?



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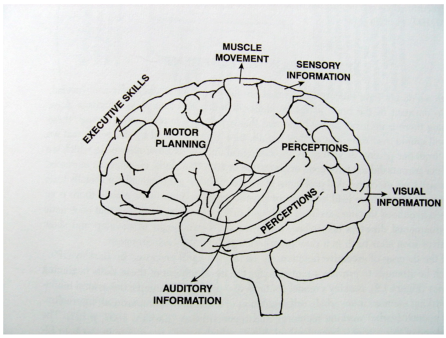
Where in the brain are executive skills located? In the frontal lobes (just behind the forehead)



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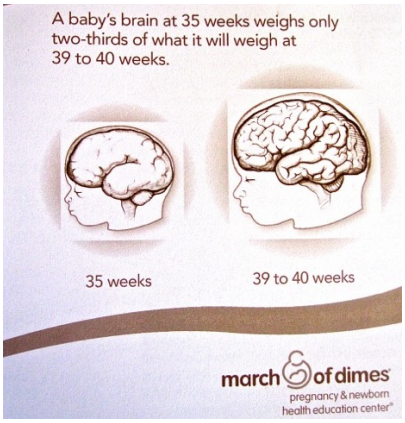

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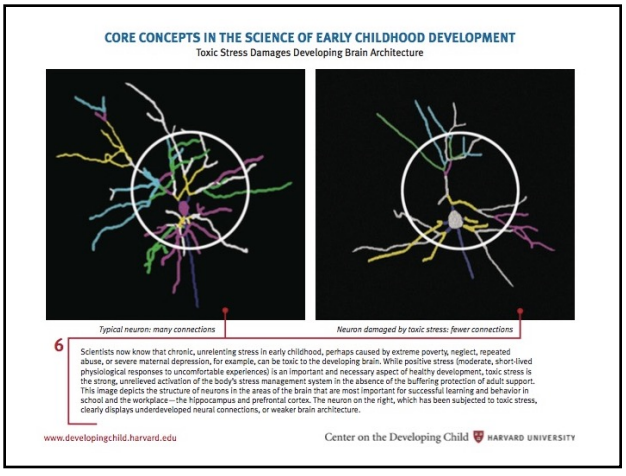

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And let's consider ADHD

- Experts maintain that kids with ADHD lag about 30% behind typically developing peers in terms of executive skills.
- Stop and do the math: at your grade level, a student with ADHD is functioning at what age level?
- What's going on in the brains of kids with ADHD that contributes to their problems in school?

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Biological underpinnings of ADHD

A study published by the Journal of the American Medical Association (JAMA) has found differences in dopamine processing in the reward pathways in the brains of subjects with ADHD compared to non-ADHD controls. The study focused on the nucleus accumbens (a brain structure involved with reinforcement and reward) and suggests that people with ADHD may release dopamine at a lower rate compared to normal controls or might have a net dopamine deficit.

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Biological underpinnings

Because dopamine enhances the level of interest a person attaches to a stimulus, people who release dopamine at a lower rate might find it more difficult to work up the enthusiasm to act on stimuli they don't find naturally appealing.

Implication: students with ADHD find it much more difficult to apply themselves to tasks that are not intrinsically interesting to them.

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Ways to Build Movement into the School Day


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ScienceDaily®
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Brain scans show children with ADHD have faulty off-switch for mind-wandering

Date: January 10, 2011
Source: Wellcome Trust

Brain scans of children with attention-deficit/hyperactivity disorder (ADHD) have shown for the first time why people affected by the condition sometimes have such difficulty in concentrating. The study, funded by the Wellcome Trust, may explain why parents often say that their child can maintain concentration when they are doing something that interests them, but struggles with boring tasks.

Using a 'Whac-a-Mole' style game, researchers from the Motivation, Inhibition and Development in ADHD Study (MIDAS) group at the University of Nottingham found evidence that children with ADHD require either much greater incentives -- or their usual stimulant medication -- to focus on a task. When the incentive was low, the children with ADHD failed to "switch off" brain regions involved in mind-wandering. When the incentive was high, however, or they were taking their medication, their brain activity was indistinguishable from a typically-developing non-ADHD child.

ADHD is the most common mental health disorder in childhood, affecting around one in 50 children in the UK. Children with ADHD are excessively restless, impulsive and distractible, and experience difficulties at home and in school. Although no cure exists for the condition, symptoms can be reduced by medication and/or behavioural therapy. The drug methylphenidate (more often known by the brand name Ritalin) is commonly used to treat the condition.

Previous studies have shown that children with ADHD have difficulty in 'switching-off' the default mode network (DMN) in their brains. This network is usually active when we are doing nothing, giving rise to spontaneous thoughts or 'daydreams', but is suppressed when we are focused on the task before us. In children with ADHD, however, it is thought that the DMN may be insufficiently suppressed on 'boring' tasks that require focused attention.

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How do executive skills develop?

Through a process called *myelination*. Myelin acts as insulation, increasing the speed with which nerve impulses are transmitted. The faster the impulse, the better the skill.

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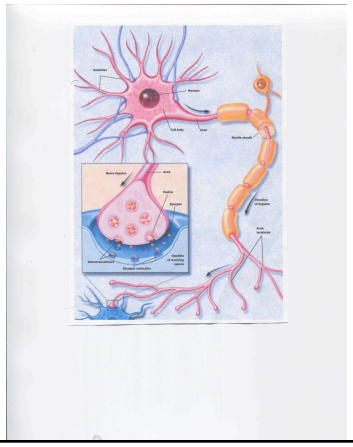

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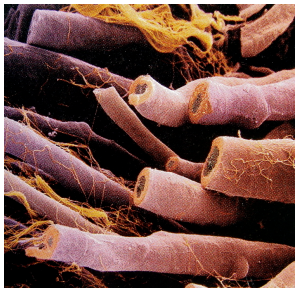
Myelin performs 2 functions



- Increases the speed with which nerve cells fire.
- Decreases the recovery time, enabling the nerve cell to fire again quickly.
- The result: a 3,000 fold increase in the amount of information transmitted per second.

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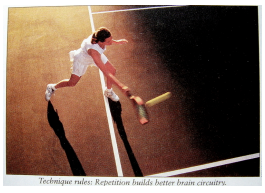
All skills, including executive skills, improve with practice…



Technique rules: Repetition builds better brain circuitry.

The more you practice, the better the skill. Practice also makes the task less effortful.

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Frontal lobes take time to develop…

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http://www.nytimes.com/interactive/2008/09/15/health/20080915-brain-development.html

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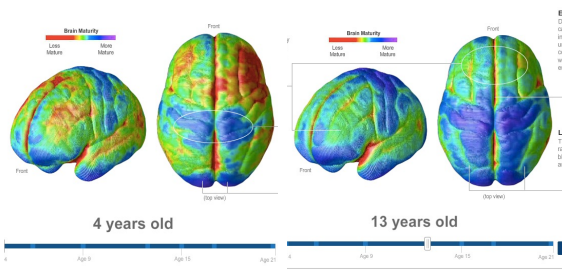
What can the 13-year old brain do?



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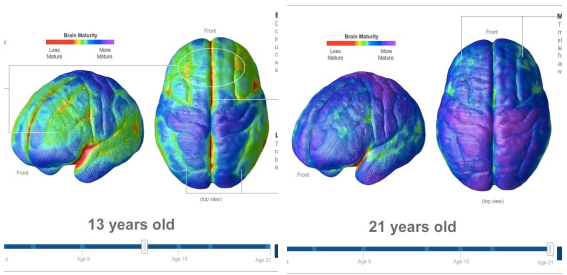
What can the 13-year old brain do?



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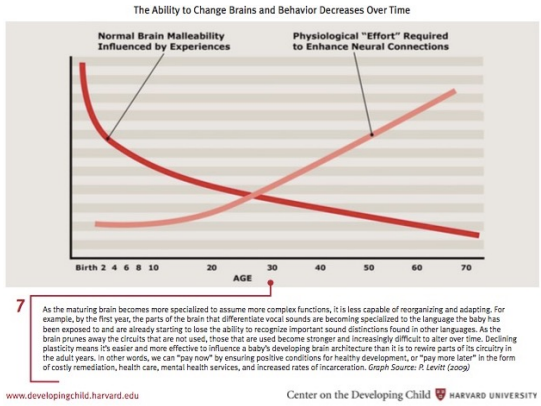

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ASSESSMENT PROCEDURES

- Parent and teacher interviews
- Behavior rating scales
- Formal assessment
- Behavior observations
- Informal assessment

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ASSESSMENT OF EXECUTIVE SKILLS

Behavior Rating Scales

- **Child Behavior Checklist/Teacher Report Form.** (ASEBA.org)
- **Behavior Rating Inventory of Executive Function-2 (BRIEF-2).** *Available from PAR (parinc.com).*
- **ADHD Rating Scales-V.** (guilford.com)
- **Brown ADD/Executive Function Scales.**(pearsonclinical.com)

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ASSESSING EXECUTIVE SKILLS

Informal Measures

- Parent interview (look for specific examples of problems in areas likely to be affected by executive skill deficits, including problems with homework, chores, following directions, social interactions, organizational skills, etc.).
- Teacher interviews (again, look for specificity of examples in relevant areas, e.g., following complex directions, task initiation, handling long-term assignments, response to open-ended tasks, social interactions, responses to classroom/school rules, etc.).

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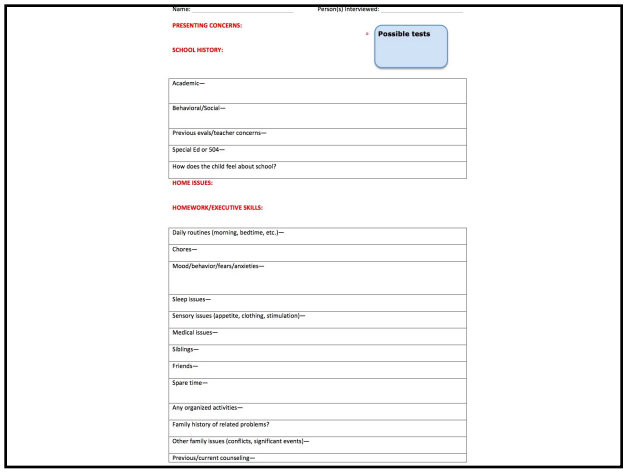
Name: Person(s) Interviewed:

PRESENTING CONCERNS:

SCHOOL HISTORY:

Possible tests

Academic—

Behavioral/Social—

Previous evals/teacher concerns—

Special Ed or 504—

How does the child feel about school?

HOME ISSUES:

HOMEWORK/EXECUTIVE SKILLS:

Daily routines (morning, bedtime, etc.)—

Chores—

Mood/behavior/fears/anxieties—

Sleep issues—

Sensory issues (appetite, clothing, stimulation)—

Medical issues—

Siblings—

Friends—

Spare time—

Any organized activities—

Family history of related problems?

Other family issues (conflicts, significant events)—

Previous/current counseling—

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Limitations of Formal Assessment

Feature	Executive skill affected
Examiner cues child to begin	Task initiation
Tasks are brief	Sustained attention
Examiner's presence communicates that performance is being monitored	Task initiation, sustained attention, goal-directed persistence
Most standardized tests involve closed-ended tasks (i.e., 1 correct answer)	Flexibility, metacognition

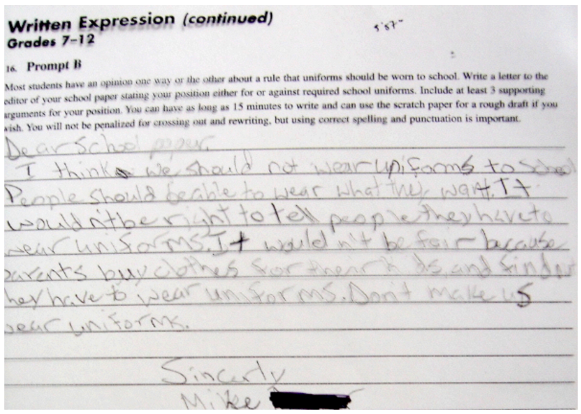
58

Limitations of Formal Assessment

The most complex cognitive task within any psychologist's repertoire is less complex than real world demands on executive skills, and there is no way of determining with any certainty how well these tests map on to the real world.

Thus, in the parlance of neuropsychologists, *absence of evidence is not evidence of absence*.

59



Written Expression ***(continued)***
Grades 7–12

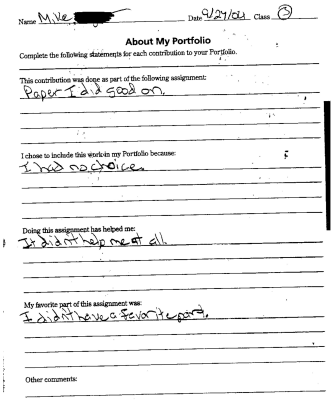
16. **Prompt B**

Most students have an opinion one way or the other about a rule that uniforms should be worn to school. Write a letter to the editor of your school paper stating your position either for or against required school uniforms. Include at least 3 supporting arguments for your position. You can have as long as 15 minutes to write and can use the scratch paper for a rough draft if you wish. You will not be penalized for crossing out and rewriting, but using correct spelling and punctuation is important.

Dear School paper,
I think we should not wear uniforms to school.
People should be able to wear what they want. It
would not be right to tell people they have to
wear uniforms. It would not be fair because
parents buy clothes for their kids and then
they have to wear uniforms. Don't make us
wear uniforms.

Sincerly
Mike [redacted]

60



Name M.Ve[redacted] Date 9/29/20 Class 3

About My Portfolio

Complete the following statements for each contribution to your Portfolio.

This contribution was done as part of the following assignment:
Paper I did good on.

I chose to include this work in my Portfolio because:
I had no choice.

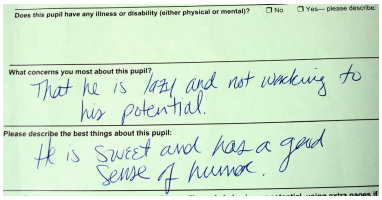
Doing this assignment has helped me:
It didn't help me at all

My favorite part of this assignment was:
I didn't have a favorite part.

Other comments:

61

How we used to describe these kids…



Does this pupil have any illness or disability (either physical or mental)? ☐ No ☐ Yes— please describe:

What concerns you most about this pupil?
That he is lazy and not working to his potential.

Please describe the best things about this pupil:
He is sweet and has a good sense of humor.

62

A better way…

Instead of calling students this:

- Lazy
- Unmotivated
- Not working to potential
- Disruptive
- Oppositional
- Messy
- Tardy
- Forgetful
- Absent-minded
- Lacking a work ethic

Describe them as having challenges in this:

- Task initiation
- Sustained attention
- Response inhibition
- Emotional control
- Flexibility
- Organization
- Time management
- Working memory
- Goal-directed persistence

63

3 Key Strategies for Managing Executive Skill Weaknesses

- Intervene at the level of the environment
- Intervene at the level of the child by—
  1. Teach the child the weak skill
  2. Motivate the child to use the skill

64

Smart Phone Incentive System

Point Categories	Points Earned
Weekly homework	
All HW for the week handed in on time	15
Homework done well (at least 80% accuracy)	3 per graded HW assignment
Use of agenda book	
All homework assignments written in agenda book (1 point for each day agenda book completed)	5
Grades on tests/quizzes/projects/report card grades in major subjects	
B- (80-82)	5
B (83-85)	10
B+ (86-89)	15
A- (90-92)	20
A (93-95)	25
A+ (96-100)	30

Number of points needed to earn smartphone: 500.

65

Point Chart
GOAL: 500

Week	Dates	HW handed in	HW Quality	Agenda book completed	Grades on Tests/Quizzes/Papers/Projects (use / marks to tally assignment grades for the week)						Weekly Point Total	Cumulative Total
					B- (80-82)	B (83-86)	B+ (87-89)	A- (90-92)	A (93-96)	A+ (94-99)		
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

66

Move from external to internal: critical dimensions

EXTERNAL → INTERNAL

CHANGE ENVIRONMENT → CHANGE CHILD

EXTERNAL CUE → SELF-CUE

67

67

Begin by modifying the environment

What do we mean by "modify the environment?"

Environmental modifications are any changes we make that are external to the child.

68

Strategies for modifying the environment

1. Change the physical or social environment
2. Modify the tasks we expect the student to perform
3. Change the ways adults interact with the student

69

Who benefits from environmental modifications?

Kids with ASD

Typical school environments/demands often overwhelm these kids. Use their behavior as a barometer to tell you when you have to make modifications. Meltdowns and tantrums are the most obvious cues.

70

Environmental Modifications for Kids with ASD

- Alternatives to high stim-environments (e.g., cafeteria, playground)
- Build social interactions that work for them (e.g., structured settings where the activity drives the interaction or supervised lunch/recess)
- Closed-ended tasks/minimize choice; provide scripts; make steps more explicit; alternate between preferred/non-preferred activities ("First work, then play").

71

Open-Ended Tasks
An open-ended task is one where:

- There are multiple possible correct answers;
- There are multiple possible ways to achieve the correct answer;
- The task has no obvious starting point; or
- The task provides no feedback about whether or when it is complete.

72

Make steps more explicit
Example: Math problem solving

Steps for Problem Solving using Model Drawing - Possible Scoring

(Singapore Math)

_____ Reads the entire problem and underlines the question. (1pt.)

_____ Rewrites the question in sentence form, leaving a space for the answer. (1)

_____ Determines who and/or what is involved in the problem. (1)

_____ Draws the unit bar(s). (1)

_____ Chunks the problem and adjusts the unit bars to match the information in the problem.

_____ Fills in the question mark? (3)

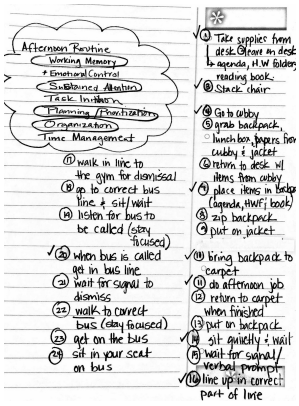
_____ Correctly computes and solves the problem. (2)

_____ Writes the answer in the blank in the sentence. (1)

73

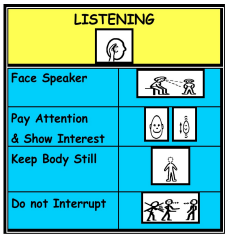
2 end-of-day routines

The numbered items are the steps created for a child on the autism spectrum. The items with checkmarks are those a general education teacher would use with her class. Children on the spectrum need the steps spelled out more explicitly.



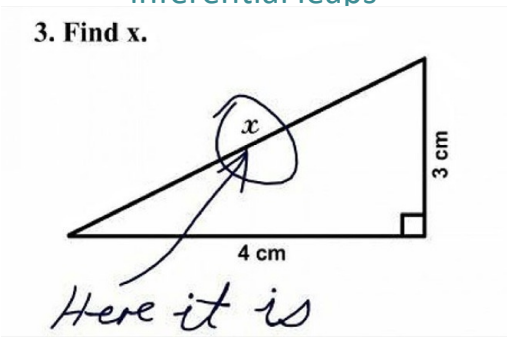
74

Make steps more explicit
Example: How to listen



75

Some kids have trouble making inferential leaps



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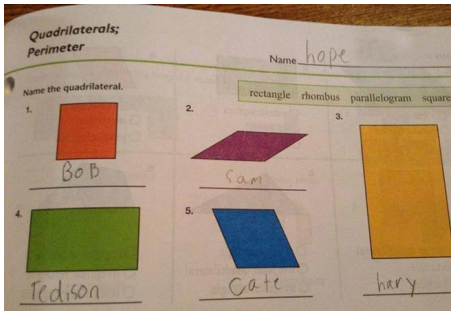
Some kids have trouble making inferential leaps



77

Who benefits from environmental modifications?

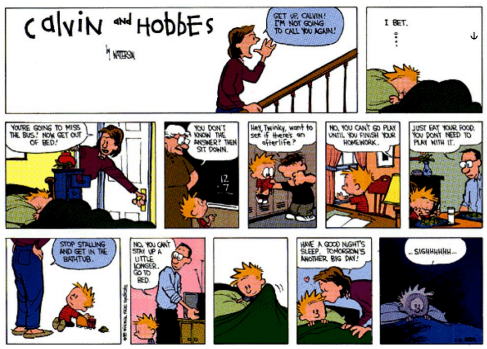
Kids with ADHD

If you make kids with ADHD sit still or remain seated for long periods of time, their ability to learn diminishes. Kids with ADHD often receive more negative feedback from both peers and adults than their peers do.

78

"When a parent or a teacher sees a child who can sit perfectly still in one condition and yet over here they're all over the place, the first thing they say is, 'Well, they could sit still if they wanted to,'" said Mark Rapport, director of the Children's Learning Clinic at the University of Central Florida. "But kids with ADHD only need to move when they are accessing their brain's executive functions. That movement helps them maintain alertness."
https://www.youtube.com/watch?v=167se17RNHw

79



80

Environmental Modifications for Kids with ADHD

- Seating arrangements; classroom design
- Short tasks or build in frequent breaks; give kids choice or responsibility; minimize worksheets; provide cues/reminders; use checklists (with rewards)
- Increase supervision (unstructured situations)
- Work for a ratio of 3:1 positives to corrective feedback

81

Effective Praise:

1. Is delivered immediately after the display of positive behavior;
2. specifies the particulars of the accomplishment (e.g., *Thank you for cleaning off your desk right away after I asked you*);
3. provides information to the child about the value of the accomplishment (e.g., *When you get ready for the first activity quickly, it makes the morning go so smoothly!*);
4. lets the child know that he put in effort to accomplish the task (e.g., *I saw you working hard to control your temper!*); and
5. orients the child to better appreciate their own task-related behavior and thinking about problem-solving (e.g., *I like the way you thought about that and figured out a good solution to the problem*).

82

Effective Praise:

https://www.youtube.com/watch?v=lK9L8r2U1XE

http://alankazdin.com

83

TEACH deficient skills

Don't expect the youngster to acquire executive skills through observation or osmosis.

84

Embedding Executive Skills into Classroom Lessons

1. Describe the lesson being taught.
2. Identify the executive skills the lesson requires students to use.
3. Identify potential obstacles that might prevent the student from using those skills effectively.
4. With the student, decide on a strategy to use to overcome the obstacle.

85

Examples

Lesson/ Assignment	Executive Skill(s)	Obstacle	Strategy
Math Subtraction with Regrouping	• Organization • Working Memory	• Poor spacing/messy handwriting • Forgetting steps	• Use large grid graph paper • Use checklist with each step numbered or color-coded
English Learning Vocabulary Words	• Working Memory • Metacognition	• Difficulty retaining meanings (ineffective study habits)	• Make up "silly sentences" for each word • Use flash cards-word on side 1, definition with cartoon drawing on side 2

86

Clinical Examples

Problem Situation	Executive Skill(s)	Obstacle	Strategy
Fighting with older brother	• Emotional control • Response inhibition	• Brother "pushes her buttons"	
Plays video games instead of doing homework	• Response inhibition • Task initiation	• Can't say no when friends ask him to play • Can't stop once he's started playing	

87

Using every day routines as a way to teach executive skills

Examples

- Bedroom cleaning
- Making homework plans
- Classroom organization

88

Example 1: Goal: A clean room

Directive from parent: *Clean your room*

Response from child with executive skill deficits:

89

Example 1: Goal: A clean room

Directive from parent: *Clean your room*

Response from child with executive skill deficits: *Nothing*

90

Intervention Plan

Step 1: The parent acts as an external frontal lobe that works with the child to perform the following functions:

- Develop *a plan,* an organizational scheme, and a specific set of directions.
- Develop a way to monitor performance.
- Problem solve when something doesn't work.
- Provide encouragement/motivation and feedback about the success of the approach.
- Decide when the task is completed.

91

Intervention Plan

Step 1: Sample statements:

- *Are we ready to start? OK, let's get started.*
- *Where did you decide your trucks would go? Was it the box?*
- *How about your dirty clothes? In the laundry?*
- *And we decided you could put your books on the bookshelf.*
- *There are two toys under the bed. It doesn't look like all those toys will fit in that one box; Where did the other trucks go? What do you think we can do?*
- *You're almost finished. Is your plan to play with your friends?*
- *This is a hard job but you're almost done! Great work!*
- *You've finished your job for the day*

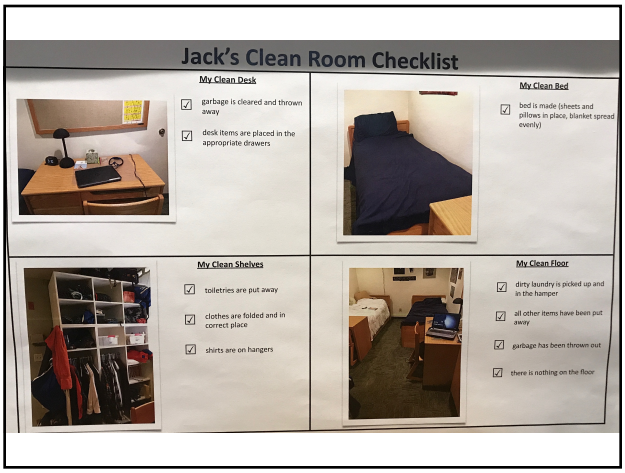
92

Intervention Plan

Step 2: Provide the same information without being the direct agent: create a list, picture cues, audio tape, etc. to cue the child.

Parent says to child: Look at your list.

93



94

Intervention Plan

Step 2: Provide the same information without being the direct agent: create a list, picture cues, audio tape, etc. to cue the child.

Parent says to child: Look at your list.

Step 3: Parent begins to transfer responsibility to child:

Parent says to child: What do you need to do?

Step 4: Transfer complete.

Child now asks himself/herself. What do I need to do?

95

Example 2: Teaching children to make homework plans

STUDY PLAN

Date: _____

Task	How long will it take?	When will you start?	Where will you work?	Actual start/stop times		Done (√)

96

If this is more than you want to do, try this

Ask kids to write down what time they're going to do the homework assignment and where they will do it…

- On the assignment itself, or
- In their assignment book, or
- As an alarm in their smart phone

97

97

Example 3: School-wide example Teaching Organizational Skills

Salina Kansas Model

Curtis.Stevens@usd305.com

98

SALINA SOUTH MIDDLE SCHOOL STUDENT ORGANIZATION SYSTEM

99

Cougar HONOR Code…	CLASSROOMS	Halls/ Outside	Lunchroom	Assemblies Concerts & Special events	Athletic Activities & locker rooms
Honesty - adherence to moral and ethical principles; soundness of moral character; integrity					
Ownership - trait of being answerable to someone for something; able to make rational decisions on one's own					
Communication - to express thoughts, feelings, or information easily and effectively					
Organization - to put together into an orderly, functional, structured whole; to arrange in a coherent form	• Have binder and materials with you • Complete planner • Keep papers where they can be easily found.				
Respect - proper acceptance or courtesy; regard or consideration for; a sense of the worth or excellence of a person					

DURING THIS TRAINING SESSION STUDENTS WILL LEARN HOW TO STAY ORGANIZED.

100

2 BASIC GOALS

- COMPLETE THE WORK

- TURN THE WORK IN

101

THE 5 BASIC RULES OF THE BINDER

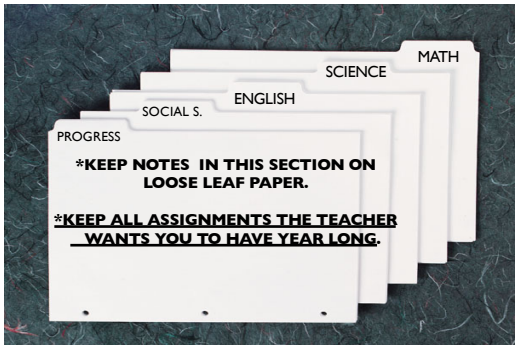
1. DIVIDE SUBJECTS WITH TABS
2. TRASH ASSIGNMENTS NO LONGER NEEDED
3. PUT DUE DATES ON ALL ASSIGNMENTS
4. POCKET FOR INCOMPLETE HOMEWORK /COMPLETED HOMEWORK
5. KEEP IT WITH YOU ALL OF THE TIME

102

PROVIDE A VISUAL OF THE WORKLOAD

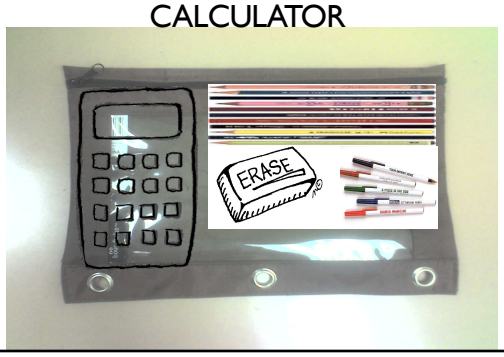
103

IMPORTANT COURSE DOCUMENTS



104

PENCIL BAG: PENCILS, ERASERS, PAPER CLIPS, PENS, AND CALCULATOR



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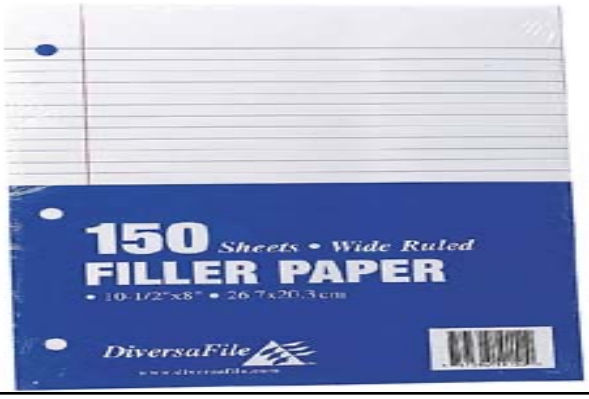
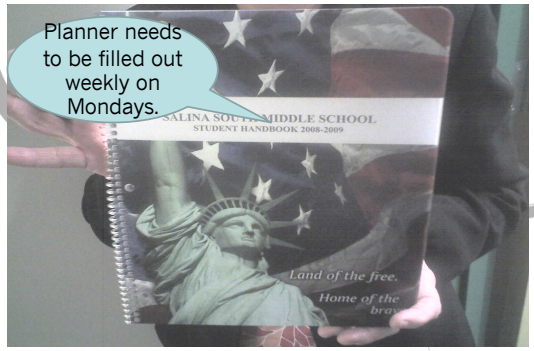
LOOSE LEAF PAPER



106

STUDENT PLANNER/HANDBOOK



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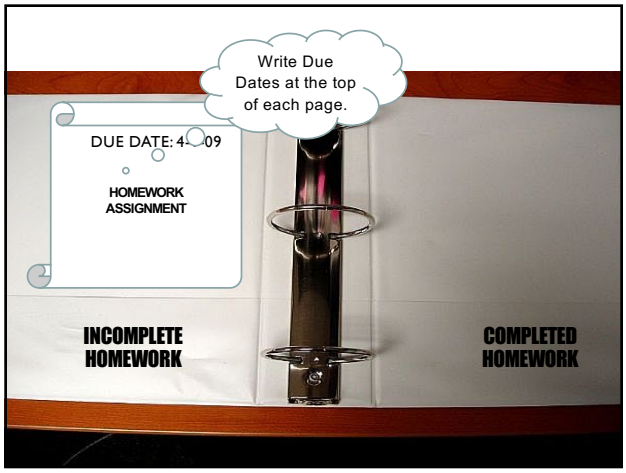

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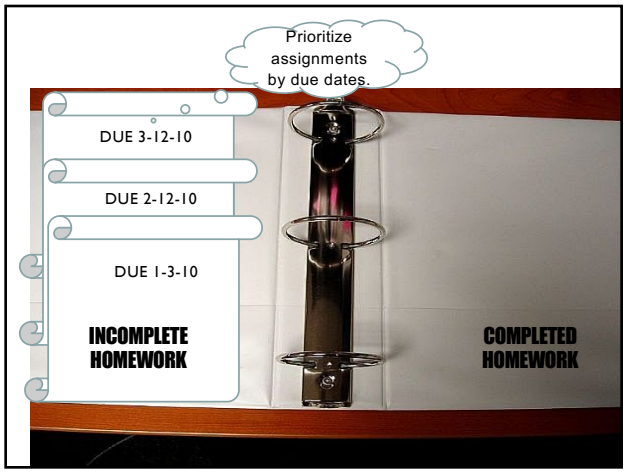
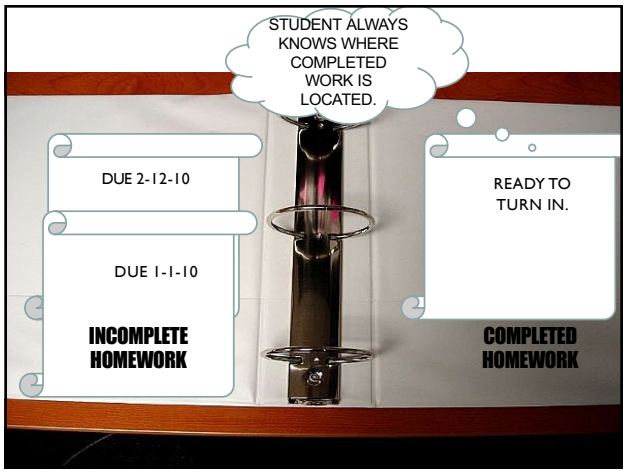
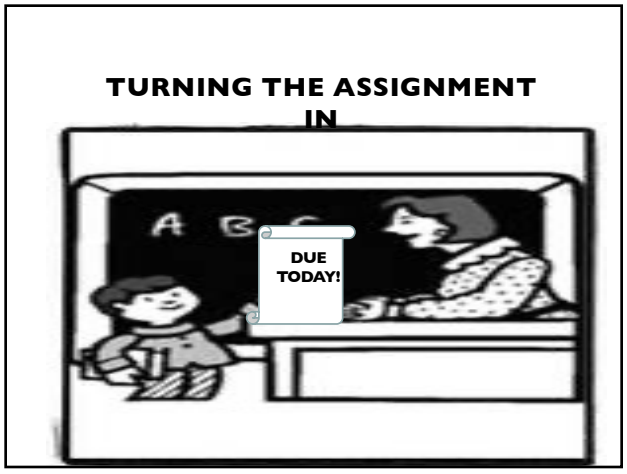

Prioritize assignments by due dates.
DUE 3-12-10
DUE 2-12-10
DUE 1-3-10
INCOMPLETE HOMEWORK
COMPLETED HOMEWORK

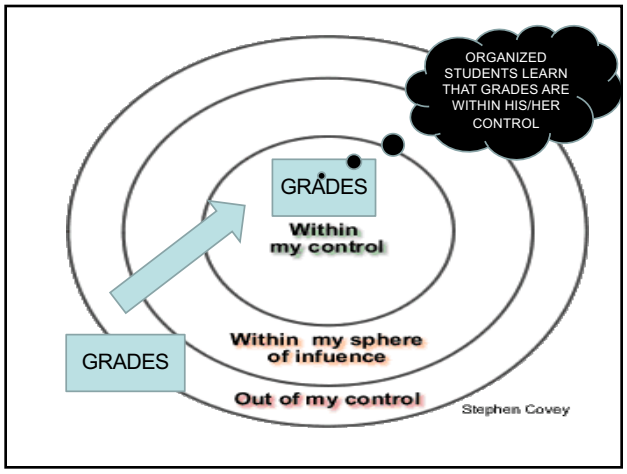
109


STUDENT ALWAYS KNOWS WHERE COMPLETED WORK IS LOCATED.
DUE 2-12-10
DUE 1-1-10
INCOMPLETE HOMEWORK
READY TO TURN IN.
COMPLETED HOMEWORK

110


TURNING THE ASSIGNMENT IN
A B C
DUE TODAY!

111



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7TH AND 8TH GRADE MONITORING SYSTEM

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	WEEKEND
	1st HOUR ALL 7TH AND 8TH GRADE TEACHERS	ALL 7TH AND 8TH GRADE TEACHERS DURING COUGAR TIME			FAMILY STUDENT

113

CONSISTENT MONITORING AND ASSESSMENT OF STUDENT ORGANIZATION

CRITERIA	EACH OF THE CRITERIA IS WORTH 1 POINTS APIECE.
DUE DATES: THE STUDENT WRITES DUE DATES AT THE TOP OF ALL ASSIGNMENTS.	
NO STUFFING: THE STUDENT'S BINDER AND TEXTBOOK DO NOT CONTAIN LOOSE PAPERS, AND HE/SHE USES THE TAB DIVIDERS AND POCKETS APPROPRIATELY.	
MATERIALS: THE STUDENT HAS ALL NECESSARY MATERIALS FOR CLASS. (EX. PENCIL, PAPER, ETC.)	
PLANNER: THE PLANNER IS FILLED OUT.	
COMPLETE/INCOMPLETE SECTION: THE STUDENT'S BINDER CONTAINS EITHER A FOLDER OR SECTION FOR COMPLETE AND INCOMPLETE HOMEWORK.	
TOTAL	**5**

114

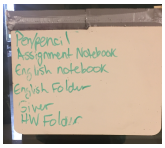
Peg's Take on the "Perfect" Intervention for Executive Skills

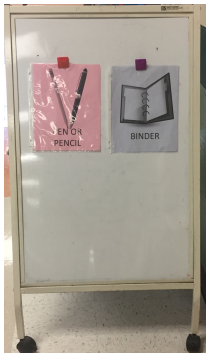
The perfect intervention to support executive skill development is one

- that takes no more than 5-10 minutes a day
- and that you're willing to do *forever* (or as long as it takes).

115

EXAMPLE: Post outside the classroom what kids will need for the class that day





116

Embedding Executive Skills in a School's Curriculum

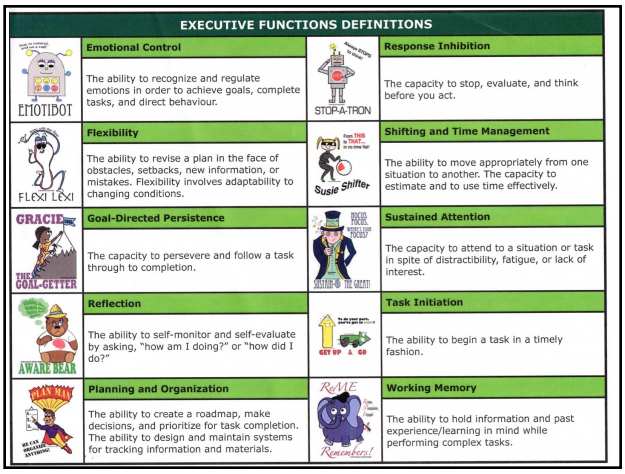
Two Examples:
Montcrest School, Toronto CA
efs2therescue.ca
Mountain View School, Fairfax Virginia
efintheclassroom.net

117

Montcrest School Key Elements

- Started with a small study group
- Whole school participation in design and implementation
- Use of "super heroes" to introduce each skill
- Emphasis on strategies, with options posted in classroom
- Included in report card, with self-assessment for older students

118



EXECUTIVE FUNCTIONS DEFINITIONS			
EMOTIDOT	**Emotional Control** The ability to recognize and regulate emotions in order to achieve goals, complete tasks, and direct behaviour.	STOP-A-TRON	**Response Inhibition** The capacity to stop, evaluate, and think before you act.
FLEXI LEXI	**Flexibility** The ability to revise a plan in the face of obstacles, setbacks, new information, or mistakes. Flexibility involves adaptability to changing conditions.	Susie Shifter	**Shifting and Time Management** The ability to move appropriately from one situation to another. The capacity to estimate and to use time effectively.
GRACIE THE GOAL-GETTER	**Goal-Directed Persistence** The capacity to persevere and follow a task through to completion.	MASTER-O THE GREAT!	**Sustained Attention** The capacity to attend to a situation or task in spite of distractibility, fatigue, or lack of interest.
AWARE BEAR	**Reflection** The ability to self-monitor and self-evaluate by asking, "how am I doing?" or "how did I do?"	GET UP & GO	**Task Initiation** The ability to begin a task in a timely fashion.
PLANNING	**Planning and Organization** The ability to create a roadmap, make decisions, and prioritize for task completion. The ability to design and maintain systems for tracking information and materials.	REMEMBERS!	**Working Memory** The ability to hold information and past experience/learning in mind while performing complex tasks.

119

Mountain View School Key Elements

- Started with a small study group
- Piloted with small group of teachers
- Thirty minute mini-lesson on Monday
- Focus for the week*
- Friday re-visit
- 12/13 weeks for all lessons
- Within 3 years, adopted by the entire school

120

We can impose executive skill instruction and strategies *on* kids

OR

we can help students figure out how to *grow their own* executive skills—we call this a *student-centered* intervention

121

How to implement a student-centered intervention

1. Identify the problem situation in which the executive skill challenge presents itself.
2. Identify the executive skill or skills that might be contributing to the problem.
3. Determine the setting in which the behavior is most likely to occur.
4. Decide what to address first. In other words, if you could select one setting or activity or change one small part of the student's behavior that would lead you to say, "This is better," what would that be?

122

How to implement a student-centered intervention

5. Gather some baseline data (ideally, objective, but if that's not possible, create a vivid picture of the behavior in action that you can share with the child).
6. Share with the student your data or observations. Talk about the impact you think it has and what positive effect you think might come from trying to change the behavior.
7. Say to the student, "Maybe no one has taught you this yet. So let's start by watching Suzy do her work." After the student has observed the model peer, ask what she saw and list the observations.

123

How to implement a student-centered intervention

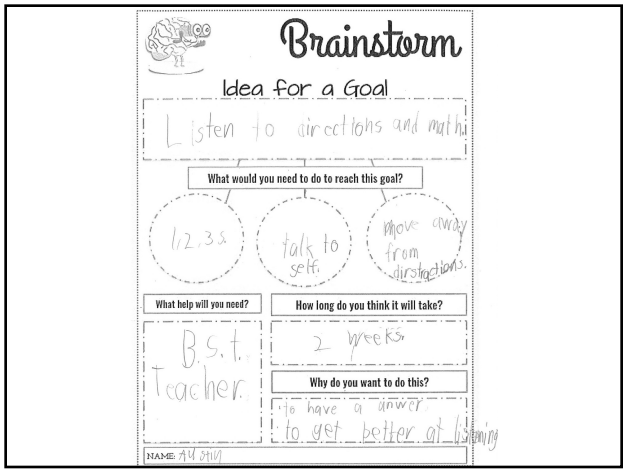
8. Ask for input from the student (Do you agree this is a problem? Can you think of other situations where this has gotten you in trouble?).
9. Brainstorm some strategies the student might try to improve the behavior, emphasizing how the strategy should benefit the student (rather than the adult). Hint: think about environmental modifications and incentives.
10. Have the student select a strategy to try and explain when the child will use the strategy.

124

How to implement a student-centered intervention

11. Just before the target situation, ask the student what the plan is. In the beginning, keep the practice sessions brief and compliment the student often.
12. Prompt during the target situation if the student doesn't remember to use the strategy independently.
13. Debrief afterwards. Ask student how it went before giving your own feedback. Always find something to praise and *be specific*!
14. Continue as long as necessary, but continue to praise progress and improvement.
15. When problems arise, troubleshoot—if one strategy stops working, have the student choose another one to try.

125



126

Goal: listening to the teacher bring math class.

Plan: Imagining tape on my mooth. To selftalk.

Do: Yes/No

Review/Adjust Plan

What worked/What did not work?

I'm using the plan.

teacher sees that he is trying

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COACHING

An intervention strategy in which a coach (either an adult or a peer) works with a student (or group of students) to set goals (long-term, short-term, or daily) designed to enhance executive skills and lead to improved self-regulation.

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Key components of coaching

- Correspondence training
- Goal-setting
- Daily coaching sessions to make daily plans to achieve goals
- Teaching students self-management strategies

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Correspondence training

Correspondence training is based on the notion (well-documented in research) that when individuals make a verbal commitment to engage in a behavior at some later point, this increases the likelihood that they will actually carry out the behavior.

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Goals serve 4 primary purposes

- They *direct behavior* (toward task-relevant and away from task-irrelevant behavior)
- They *energize*
- They encourage *persistence*
- They *motivate* people to discover and use task-relevant knowledge and skills

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In the first stage of coaching, we ask students to set goals

- Goals may be academic, social, or behavioral depending on individual students' needs.
- We may ask students to set long-term goals, or we may focus on more short-term goals (marking period goals, weekly goals, daily goals).
- Throughout the coaching process, we remind students of the goals they have set—and we help them track their progress toward achieving their goals.

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In the second stage, coaches meet with students to make daily plans linked to their goals.

Basic Format: R.E.A.P.

- *Review*: go over the plans made at the previous coaching session to determine if the plans were carried out as intended.
- *Evaluate*: how well did it go? Did the student do what he said he would do? If not, why not?
- *Anticipate*: Talk about what tasks the student plans to accomplish today--be sure to review upcoming tests, long-term assignments.
- *Plan*: Have the student identify when he plans to do each task, and, when appropriate, *how* he plans to do each task.

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DAILY COACHING FORM

Name: _____ Date: _____

LONG TERM GOAL(S):

THE BIG PICTURE:

Upcoming tests/quizzes: Subject:	Date:	Long-term assignments: Assignment:	Date Due:	Other Responsibilities: Task:	Date:

TODAY'S PLANS: (include homework assignments as well as any work to be done on long-term projects or studying for tests)

LOOKING BACK:

What are you going to do?	When will you do it?	Did you do it?	How did you do?*
1.	1.	Yes No	1 2 3 4 5
2.	2.	Yes No	1 2 3 4 5
3.	3.	Yes No	1 2 3 4 5
4.	4.	Yes No	1 2 3 4 5
5.	5.	Yes No	1 2 3 4 5
6.	6.	Yes No	1 2 3 4 5

*Use this scale to evaluate: 1 - Not well at all; 2 - So-so; 3 - Average; 4 - Very well; 5 - Excellent

THINGS I NEED TO REMEMBER (check off when taken care of)

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

OTHER NOTES:

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Effects of Coaching on Report Card Grades

% Grades Earned	B or better	C	D
Before coaching	19	61	19
During coaching	63	32	5

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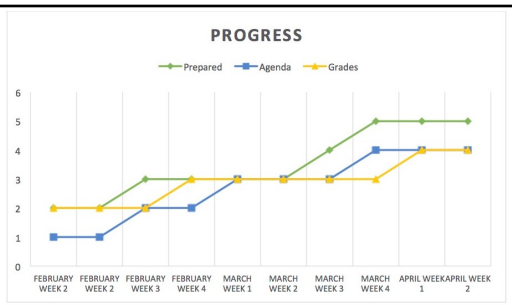

Prepared- This is an average per week out of a total of 5 points

Agenda- This is how often the agenda book was written in. This was an average, 5 days, 5 points total per week

Grades- This was how many A's he had per week, when we checked at the end of the week

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Coaching Update

Coach name: Cheryl Taylor May 30, 2016

What goal(s) are you working on with your student? the goal is to complete long-term projects in a timely manner - working on completing 8 books and a paragraph for each by end of year.

What do you think is going well?

- planning out when steps needed to be completed
- advocating for self with teacher
- tracking forms developed and used - "very helpful"
- better understanding of how long each step takes
- able to make adjustments when something else comes up.

What are the challenges you're facing with your student (what would like to be going better than it is)?

- most of the challenges we faced have been worked out
- he has used ~~this~~ some of the skills that we worked with ~~to~~ in other long term projects - can apply some techniques - calendar, tracking forms

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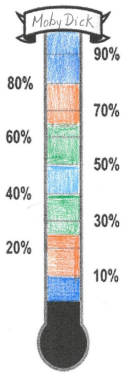
Percentage of Chapters Completed



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English Year Long Project
Book: Moby Dick #7
Start Date: April 4 Finish Date: April 25

Parts of Project	Expected date of completion	Completed (check)
Chapters Completed	4/18	✓
Question Picked	4/20	✓
Brain storm ideas for Paragraph	4/21	✓
Written Paragraph completed	4/23	✓
Paragraph edited	4/24	✓
Paragraph turned to Teacher	4/25	✓

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APPENDIX 24B

Coach Feedback Form—Coach Version

Tell us how much you agree or disagree with the following statements, using the following scale:

5—Strongly agree
4—Somewhat agree
3—Not sure
2—Somewhat disagree
1—Strongly disagree

Coaching helped this student . . .

1. Complete homework assignments. (5) 4 3 2 1
2. Hand in homework assignments on time. (5) 4 3 2 1
3. Spend time studying for tests. 5 4 3 2 1
4. Get better grades on tests/quizzes. 5 4 3 2 1
5. Get better grades on homework assignments. (5) 4 3 2 1
6. Manage long-term assignments (e.g., not leaving them until last minute). (5) 4 3 2 1
7. Avoid detentions or other discipline referrals. N/A 5 4 3 2 1
8. Avoid getting in trouble in class or other school settings. N/A 5 4 3 2 1

Tell us how helpful you feel the different coaching components were for this student, using the following scale:

4—Very helpful
3—Somewhat helpful
2—Not sure
1—Not helpful

1. Daily (or regular) contact with the coach. 4 (3) 2 1
2. Setting daily goals. (4) 3 2 1
3. Talking about whether the student met his/her goals (review the daily plans). 4 (3) 2 1
4. Making daily work plans. (4) 3 2 1
5. Having the coach remind the student of things that might have been forgotten. 4 3 (2) 1
6. Helping the student solve academic ~~or social problems~~. (4) 3 2 1
7. Providing tips on specific strategies (e.g., how to study for tests, write papers, manage time). (4) 3 2 1
8. Checking with teachers to make sure the student was on track. 4 (3) 2 1
9. Listening to the student vent about school problems. 4 3 2 1

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Coach Feedback Form—Coach Version *(page 2 of 2)*

What worked best about coaching?

- meeting with the student daily at the beginning and then slowly working towards once a week with occasional checkins.
- guiding rather than telling the student what he should do to meet his goals.
- using visual tools so that the student was able to "see" how he was going to meet his goal.
- creating graphs to show progress.
- seeing the smile on his face when he completed his long-term project!

How could coaching be improved?

Coaching for me with this student went really well! It was a great experience for both of us. I was amazed that it worked so well!

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March 8, 2001

To whom it may concern:

I am a 15 year old used-to-be slacker!!

In my first run around with ninth grade I had no desire to pass because since the beginning of 7th grade I had been working my butt off to keep the grades up and the teachers didn't realize that I had a problem understanding. The teachers would constantly ridicule me about my handwriting, which hurt my desire to work hard, so I began to not even care about my work.

In September of 2000 I decided that I did not want to take so many regular classes and that I did not want to be at school all day, so I decided that it would be best for me to go to a vocational school for half of a school day. It did not help. Then in November I met Mrs. Hutchins (big help!) In the beginning I set very small goals because I knew that I could reach them easily! As time progressed I began setting higher goals, and even reaching the. I even began paying attention to my teachers, passing my classes, and enjoying it. It felt great to finally be succeeding. I also enjoy not being ridiculed about my writing (It's really improved.). One of my long term goals is to pass ninth grade (finally).

I really appreciate having Mrs. Hutchins to help me out.

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"Human beings are happier, more cooperative and productive, and more likely to make positive changes in their behavior when those in positions of authority do things with them rather than to them or for them."

~Ted Wachtel
International Institute for Restorative Practices

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Executive Skills Questionnaire —

Peg Dawson & Richard Guare
dawson.peg@gmail.com

Step I: Read each item below and then rate that item based on the extent to which you agree or disagree with how well it describes you. Use the rating scale below to choose the appropriate score. Then add the three scores in each section. Use the Key on page 2 to determine your executive skill strengths (2-3 highest scores) and weaknesses (2-3 lowest scores).

Strongly disagree	1	Tend to agree	5
Disagree	2	Agree	6
Tend to disagree	3	Strongly agree	7
Neutral	4		

Item	**Your score**
1. I don't jump to conclusions	____
2. I think before I speak.	____
3. I don't take action without having all the facts.	____
YOUR TOTAL SCORE:	_____
4. I have a good memory for facts, dates, and details.	____
5. I am very good at remembering the things I have committed to do.	____
6. I seldom need reminders to complete tasks	____
YOUR TOTAL SCORE:	_____
7. My emotions seldom get in the way when performing on the job.	____
8. Little things do not affect me emotionally or distract me from the task at hand.	____
9. I can defer my personal feelings until after a task has been completed	____
YOUR TOTAL SCORE:	_____
10. No matter what the task, I believe in getting started as soon as possible.	____
11. Procrastination is usually not a problem for me.	____
12. I seldom leave tasks to the last minute	____
YOUR TOTAL SCORE:	_____
13. I find it easy to stay focused on my work.	____
14. Once I start an assignment, I work diligently until it's completed.	____
15. Even when interrupted, I find it easy to get back and complete the job at hand.	____
YOUR TOTAL SCORE:	_____
16. When I plan out my day, I identify priorities and stick to them	____
17. When I have a lot to do, I can easily focus on the most important things.	____
18. I typically break big tasks down into subtasks and timelines.	____
YOUR TOTAL SCORE:	_____
19. I am an organized person.	____
20. It is natural for me to keep my work area neat and organized.	____
21. I am good at maintaining systems for organizing my work.	____
YOUR TOTAL SCORE:	_____

Strongly disagree	1	Tend to agree	5
Disagree	2	Agree	6
Tend to disagree	3	Strongly agree	7
Neutral	4		

Item	**Your score**
22. At the end of the day, I've usually finished what I set out to do.	____
23. I am good at estimating how long it takes to do something.	____
24. I am usually on time for appointments and activities.	____
YOUR TOTAL SCORE:	_____
25. I take unexpected events in stride.	____
26. I easily adjust to changes in plans and priorities.	____
27. I consider myself to be flexible and adaptive to change.	____
YOUR TOTAL SCORE:	_____
28. I routinely evaluate my performance and devise methods for personal improvement.	____
29. I am able to step back from a situation in order to make objective decisions.	____
30. I "read" situations well and can adjust my behavior based on the reactions of others.	____
YOUR TOTAL SCORE:	_____
31. I think of myself as being driven to meet my goals.	____
32. I easily give up immediate pleasures to work on long-term goals.	____
33. I believe in setting and achieving high levels of performance.	____
YOUR TOTAL SCORE:	_____
34. I enjoy working in a highly demanding, fast-paced environment.	____
35. A certain amount of pressure helps me to perform at my best.	____
36. Jobs that include a fair degree of unpredictability appeal to me.	____
YOUR TOTAL SCORE:	_____

KEY

Items	**Executive Skill**	**Items**	**Executive Skill**
1 - 3	**Response Inhibition**	**4 - 6**	**Working Memory**
7 - 9	**Emotional Control**	**10 - 12**	**Task Initiation**
13 - 15	**Sustained Attention**	**16 - 18**	**Planning/Prioritization**
19 - 21	**Organization**	**22 - 24**	**Time Management**
25 - 27	**Flexibility**	**28 - 30**	**Metacognition**
31 - 33	**Goal-Directed Persistence**	**34-36**	**Stress tolerance**

Strongest Skills

_____

_____

_____

Weakest Skills

_____

_____

_____

Executive Skill Definitions

- **Response Inhibition:** The capacity to think before you act – this ability to resist the urge to say or do something allows us the time to evaluate a situation and how our behavior might impact it. In the young child, waiting for a short period without being disruptive is an example of response inhibition while in the adolescent it would be demonstrated by accepting a referee's call without an argument.
- **Working Memory:** The ability to hold information in memory while performing complex tasks. It incorporates the ability to draw on past learning or experience to apply to the situation at hand or to project into the future. A young child, for example can hold in mind and follow 1-2 step directions while the middle school child can remember the expectations of multiple teachers.
- **Emotional Control:** The ability to manage emotions in order to achieve goals, complete tasks, or control and direct behavior. A young child with this skill is able to recover from a disappointment in a short time. A teenager is able to manage the anxiety of a game or test and still perform.
- **Flexibility:** The ability to revise plans in the face of obstacles, setbacks, new information or mistakes. It relates to an adaptability to changing conditions. A young child can adjust to a change in plans without major distress. A high school student can accept an alternative such as a different job when the first choice is not available.
- **Sustained Attention:** The capacity to maintain attention to a situation or task in spite of distractibility, fatigue, or boredom. Completing a 5-minute chore with occasional supervision is an example of sustained attention in the younger child. The teenager is able to attend to homework, with short breaks, for one to two hours.
- **Task Initiation:** The ability to begin projects without undue procrastination, in an efficient or timely fashion. A young child is able to start a chore or assignment right after instructions are given. A high school student does not wait until the last minute to begin a project.
- **Planning/Prioritization:** The ability to create a roadmap to reach a goal or to complete a task. It also involves being able to make decisions about what's important to focus on and what's not important. A young child, with coaching, can think of options to settle a peer conflict. A teenager can formulate a plan to get a job.
- **Organization:** The ability to create and maintain systems to keep track of information or materials. A young child can, with a reminder, put toys in a designated place. An adolescent can organize and locate sports equipment.
- **Time Management:** The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines. It also involves a sense that time is important. A young child can complete a short job within a time limit set by an adult. A high school student can establish a schedule to meet task deadlines.
- **Goal-directed persistence:** The capacity to have a goal, follow through to the completion of the goal, and not be put off by or distracted by competing interests. A first grader can complete a job in order to get to recess. A teenager can earn and save money over time to buy something of importance.
- **Metacognition:** The ability to stand back and take a birds-eye view of oneself in a situation. It is an ability to observe how you problem solve. It also includes self-monitoring and self-evaluative skills (e.g., asking yourself, "How am I doing? or How did I do?"). A young child can change behavior in response to feedback from an adult. A teenager can monitor and critique her performance and improve it by observing others who are more skilled.
- **Stress Tolerance:** the ability to thrive in stressful situations and to cope with uncertainty, change, and performance demands.

Intervention Planning Form

Student Strengths: Identify a few of the student's strengths or positive traits, particularly noting any executive skill strengths the student may have.	
Problem Description: Which problem behavior should be targeted?	
Executive Skill(s): What skills do you think might be involved?	
Setting: Where, when, or under what circumstances does the behavior usually occur?	
Where to Start—If you could select one setting or activity or change one small part of the student's behavior that would lead you to say, "This is better," what would that be?	
Goal Statement 1	**Outcome goal:** As a result of this intervention, student will: _____ _____
Possible Strategies student might use. Think about environmental modifications, cues, visual imagery, checklists, smart phone apps, self-talk, mental rehearsal, etc. Examples of environmental modifications: • Change physical or social environment (e.g., add physical barriers, reduce distractions, provide organizational structures, visual cues, etc.) • Modify the task (e.g., make shorter, build in breaks, give something to look forward to, create a schedule, build in choice, make the task more fun, etc.) • Change the way adults interact with the student (e.g., rehearsal, prompts, reminders, coaching, praise, debriefing, feedback)	
Possible Motivator—What would help the student more likely to try? Can you use a simple reward system? Alternate between preferred and non-preferred activities? Have student identify something to look forward to doing when the task (or a piece of the task) is done Other ideas?	

Goal Statement 2	**Process goal:** Student will use the following strategy to achieve outcome goal: _____ _____ _____
Visual to Show Progress—What visual feedback can you give the student so he/she can clearly see that progress is being made? Graph? Checklist? Behavior counts? Tracking grades on tests? Other ideas?	

Environmental Modifications and Teaching Strategies for Specific Executive Skills

Executive Skill	Environmental Modification	Teaching Strategy
Response Inhibition	• Increase external controls • Restrict access • Post home or classroom rules and review regularly • Wristband reminder (e.g., to raise hand to talk) • Talking stick (cue to talk) • Sticky notes to write something down rather than interrupting • Use a nonsense word to cue self-control	• Prompt the child (external to internal) • Teach wait/stop • Teach delayed gratification (apps: Token Board) • Discourage "multi-tasking"—e.g., build in technology breaks rather than having kids combine homework with technology use
Working Memory	Principle of "off-loading" • Agenda books/calendars • To do lists (paper, white board to post prominently) • Electronic devices & apps (Wunderlist, Nudge, BugMe!) • Colored wristbands to remind students of homework assignments • Post-it reminders • Laminated lists (e.g., by door at home) to remind kids what they need to take with them • Checklists • Have student repeat info or directions • Break instructions into small pieces; feed one at a time	• Directions/Past experience (prompt them to access it) • Generate options for reminders and have them choose (or elicit options from student) • Mentally rehearse association between cue and working memory **Off-loading:** This refers to the idea that the brain doesn't have to work as hard when you can find a way to "off-load" some of the tasks we're asking it to do. Examples: the brain doesn't have to allot space to remembering homework assignments when we write them down. It doesn't have to work at remembering something we have to do after school if we build an alarm into our smart phone to remind us…
Emotional Control	• Reduce or eliminate triggers • Give child a script to follow • Remove child from problem situation • Have a "cooling off" space • Prepare student by asking them to predict what will happen/how they will handle it • Review expectations in advance • Teach students to label emotions • Teach kids: "respond don't react"	• Teach kids to recognize situations or early signs • Graded exposure/guided mastery • Teach coping strategy • Rehearse the strategy repeatedly until it is internalized • Use Hard Times Board • Teach mindfulness meditation (http://thehawnfoundation.org/mindup/)

Executive Skill	Environmental Modification	Teaching Strategy
Flexibility	General rule: Limit flexibility demand • Reduce novelty • Highlight similarities • Provide a template • Put in place a default strategy • Turn open-ended tasks into closed-ended tasks • Make steps more explicit • "Normalize" errors • Preview changes in schedule • Give kids "controlled choice" • Praise kids for being flexible • Use language to show case flexibility (stuck/unstuck; big deal/little deal; Plan B)	Increase support • Present expectations • Walk them through the task • Give plans or rules for managing situations • Think aloud Teach error factor Social stories to teach flexibility Change tolerance by gradual exposure • Introduce change (lightning bolt-preferred to non-preferred) • Introduce new situations
Sustained Attention	• Reduce distractions (seating arrangements, white noise) • Prompt to attend (look, listen, respond) • Modify/limit task length or demand (end in sight) • Clear beginning/end • Build in variety/choice • Choose best time of day • Immediately reinforce (pay attention to them *while they're paying attention*) • Use sand timers and/or fidget toys such as stress balls • Flexible seating/U-shaped seating • Wiggle cushions/study carrels; dead headphones; listen to iPod; quiet desk/noisy desk/stand up desk; theraband on front two legs of chair to allow movement • App: LIckety Split, Chore Monster, iRewardChart, Motivaider, Chore Pad HD, Forest	• Have the child identify something to look forward to doing after work is done • Teach mindfulness meditation • Teach to track time on task using index card or sticky note • "Whole Body Listening Larry" • Use "Personal Bests"

Executive Skill	Environmental Modification	Teaching Strategy
Task Initiation	• Provide cues/prompts • Reduce perceived effort/task demand • Walk through first step—build behavioral momentum • Make help readily available—Help card to signal to teacher student needs help • Cut worksheets into smaller strips • Time how long it takes student (or whole class) to get started—challenge to beat yesterday's time • Establish set time to do non-preferred tasks • Apps: LIckety Split, Good Habit Maker, FTVS (First Then Visual Schedule), Chore Pad HD, ChoreMonster	• Have the child select cueing system • Help the child limit initial demand • Help the child select reinforcer • Help the child make a plan for doing the task and include the start time • Figure out what's preventing them from getting started and design an appropriate strategy (perfectionism vs. too hard vs. too effortful)
Planning/Prioritization	• Demonstrate what a plan is • Help child design a plan/template • Provide planning tools (calendar, agenda book, apps – e.g., Choiceworks, CanPlan) • Break task down with a visual (e.g., dividing reading assignment into pages per day) • Use "snooze alarm" on phone to break down a large task into smaller pieces	• Walk through the planning process (use a template) • Have them apply plan to a simple task and gradually prompt to do more of the planning themselves • Ask questions to get child to prioritize (What do you need? What should you do first?)
Organization	• Demonstrate principle of off-loading with example from their lives • Work with them to create scheme, template or picture/photograph • Show organizational tools and have them try them out (e.g., Inspiration) • Structure the environment to promote organization • Limit what is allowed on the desktop	• Help them walk through the process. Have them motorically practice it (a long-term process, requiring that they put a system in place that's monitored, initially on a daily basis). • Give them choices of organizational systems and have them choose/modify the one they like best. • Model organizational strategies throughout the school day • Ask students to evaluate current systems and challenge them to improve them.

Executive Skill	Environmental Modification	Teaching Strategy

Time Management	• Make schedules and time limits explicit
	• Work with kids to make a schedule to follow and prompt each step of the way
	  ○ Picture schedules
	  ○ Clocks, alarms
	  ○ Tablet/phone apps (Choiceworks, Pomodoro); google calendar (with reminders)
	  ○ Timers (app: Sand Timer; www.timetimer.com)
	  ○
		• Show them ways to mark time and let them practice.
		• Practice estimating how long it takes to do something.
		• Help them to follow schedules (daily events to homework plans).
		• Build in mid-point check-in to encourage self-assessment of pacing

Goal-Directed Persistence	• Establish goals with kids • Reward kids for persistence (sticking with difficult tasks)—use verbal reinforcers as much as possible • Make sure the goal or benchmark is in sight—post it visually • Apps: Token Board • Two jars to show progress • Use charts with stickers	• Point out to kids how they already set goals but they may not know what they are. Define goals as something that people want to get better at or to change. • Ask kids to set small, achievable goals, or a goal for something they want to do outside of school or set class goals. • Help kids track progress toward goal

Metacognition	• Specify what is to be evaluated and how (goal or objective)
	• Evaluate performance for the student
	• Provide sample to match or error-monitoring checklist
	• Embed metacognitive questions into instruction/conversations—build in wait time
		• Help child decide on how performance will be evaluated
		• Have the child evaluate her performance
		• Model thinking aloud to solve problems
		• Use different strategies—ask kids to evaluate which worked best
		• Compare evaluations
		• Teach students to ask questions
		  ○ What's my problem?
		  ○ What's my plan?
		  ○ Am I following I my plan?
		  ○ How did I do?

Sample Questions/Statements to Promote Executive Skill Development

Adapted from: Executive Skills in Children and Adolescence: A Practical Guide to Assessment and Intervention (2011)

Executive Skill	Question/Statement/Prompt
Response inhibition	• What can you do to keep from losing your cool on the playground? • What can you tell yourself while you're in line to keep from touching the child in front of you? • Is there something we can give you to hold to help you remember to raise your hand before speaking? • Good job keeping your hands to yourself during circle time today!
Working memory	• What are some ways you could remember everything you have to bring home at the end of the day? • You seem to have trouble remembering to put your homework in your backpack after you've finished it. What's something you could do to help you remember to do that? • Can you think of a reminder that might work for you? • You remembered! What helped you do that?
Emotional control	• We've had some problems with fights and arguments on the playground. What are some ways you can handle this that solve the problem and keep kids out of trouble? • Getting nervous during tests can make it hard to remember what you studied. Would you like me to help you practice a relaxation strategy? • You did a nice job of controlling your temper at lunch today. What helped you do that?
Flexibility	• Tell me three things you can do if you start your math homework and realize you can't remember exactly how to do the assignment. • Coming up with ideas is hard for you! Let's write down everything you know about _____ and then we'll figure out how to turn it into an essay. • You got stuck and didn't get upset. What did you do to get unstuck?
Sustained attention	• Sometimes it's hard to keep working on your homework until it's done. What are some ways you could motivate yourself to keep working? • A lot of you talk about how hard it is to stay focused on your classwork because of distractions. Let's make a list of distractions and then brainstorm ways to manage them better. • You finished your math page in record time and you only made one mistake! Great job paying attention!

Executive Skill	Question/Statement/Prompt
Task Initiation	• It's hard to get started on homework because there are so many other fun things to do at home. Let's think about ways to get ourselves to get the homework out of the way first. • I like the way you jumped right into your writing assignment. That's been hard for you to do. • Let's make a list of what you have to do for homework and decide when you'll start each task.
Planning/prioritization	• You've got 3 things you have to do for homework tonight. What's your plan? • Wow! You followed your plan. Did it help to think about the steps before you started? • Can you think of any time you use planning for something you want to do (examples: saving money for something, playing a video game like Mine Craft). What happens if you don't plan well?
Organization	• We're going to spend the last 20 minutes of the day cleaning out our desks. Let's make a list of the steps we have to go through to do this. • Hmm. I bet if we set up a system for keeping your papers organized, it would take less time to find things. Can we work on this together? • I like the way you put that homework assignment in the right folder. That means you won't forget it, and you'll know right where it is when it's time to start your homework.
Time management	• How long do you think it will take you to finish your spelling homework tonight? Write down your guess and then see if you're right. • Let's talk about how you manage your time at home to fit in all your homework. Let's make lists of "have-tos" and "want-tos" and then decide how much time we can spend on each group.
Goal-directed persistence	• I like the way you stuck with that math problem even though it frustrated you. • Were you able to stick with your homework last night even though there were other things you'd rather be doing? • Tell me about a time you wanted to do something that was hard for you and you stuck with it.
Metacognition	• Good question. How you could find the answer? • Nice job on that math problem. Tell me how you figured out the answer. • How do you plan on studying for your social studies test?

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http://www.efintheclassroom.net

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