

5 Steps for Helping Students Strengthen Their Executive Skills

Peg Dawson, Ed.D., NCSP

dawson.peg@gmail.com

<https://www.smartbutscatteredkids.com>





Take the Executive Skills Questionnaire



ACTIVITY

Choose one of your executive skill strengths (higher score). Talk about how that helps you do your job.

Choose one of your executive skill challenges (lower score). Talk about how that affects your work.



Purpose of today's workshop

The motivation behind both workshops is to have the districts use your *Smart But Scattered* materials to

- 1) revamp the districts' academic planner to incorporate some executive functioning skill development activities and organization tools and
- 2) be able to design some executive functioning skill development services for students.

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 – 33
- What the specific skills are



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 help kids grow their own executive skills.



Published: September 15, 2008

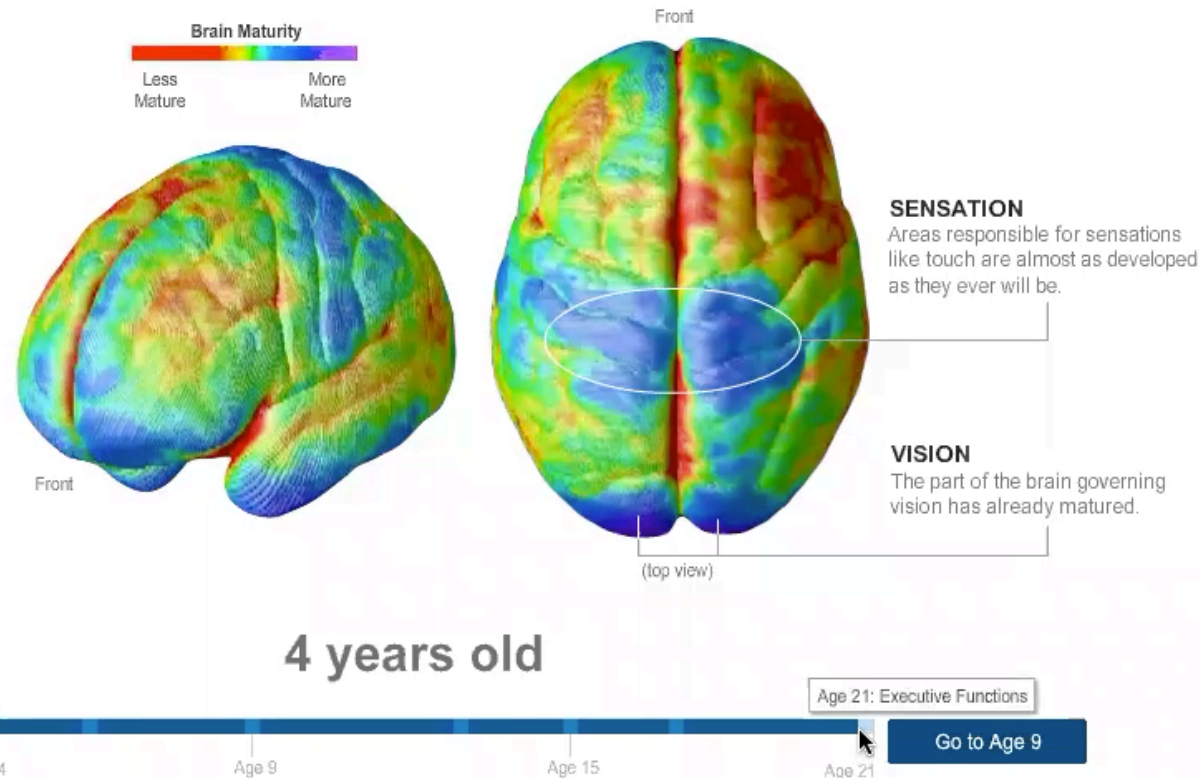
[f FACEBOOK](#) [TWITTER](#) [GOOGLE+](#) [EMAIL](#) [SHARE](#)

The Child's Developing Brain

Different areas of the brain mature at different rates, which helps explain many of the intellectual and emotional changes seen in children, teens and young adults. While no two children develop in exactly the same way, scientists have been able to link certain developmental milestones to changes in brain tissue, observed by MRI scans taken repeatedly over years. Move the slider below to see how the brain matures. Red, yellow and orange patterns indicate undeveloped brain tissue, while green, blue and purple indicate a maturing of the brain.

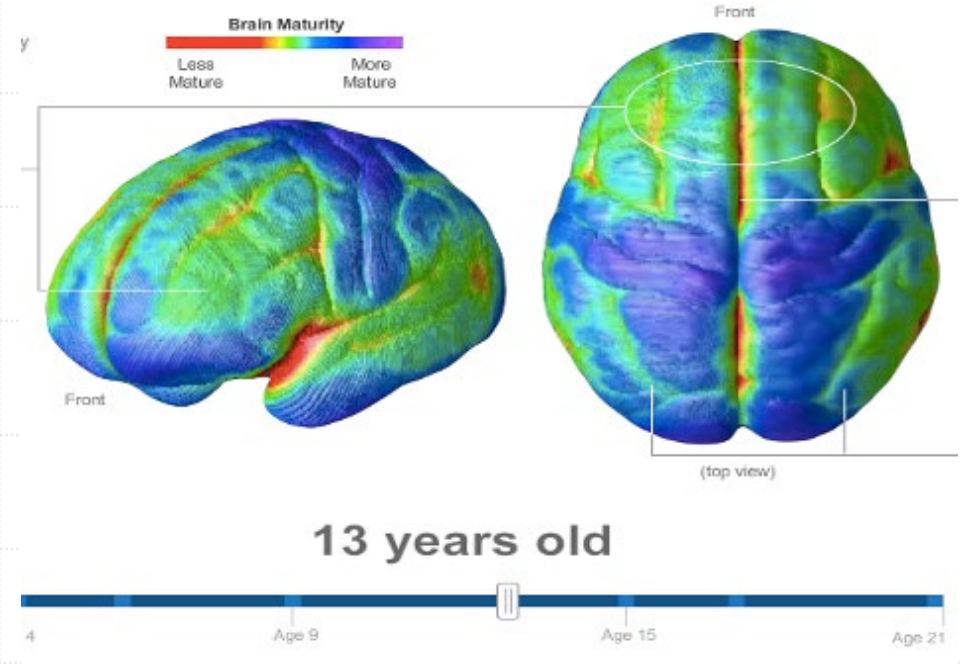
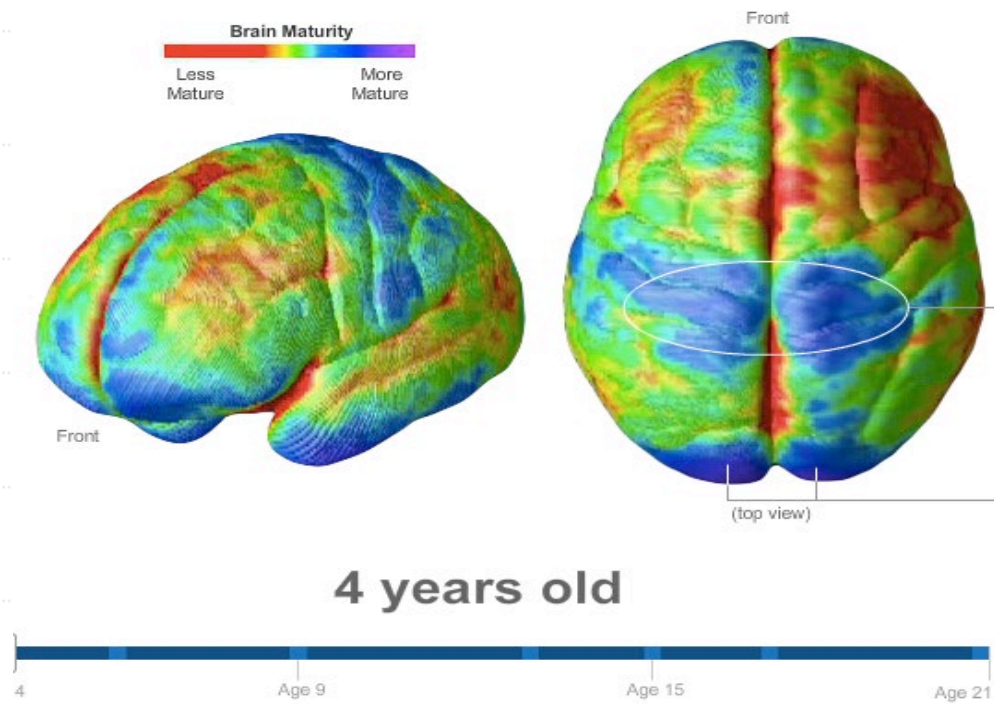
EARLY DEVELOPMENT

In the first few years of life, areas of the brain devoted to basic function change at a rapid pace. By age 4, primary senses and basic motor skills are almost fully developed. The child can walk, hold a crayon and feed himself.

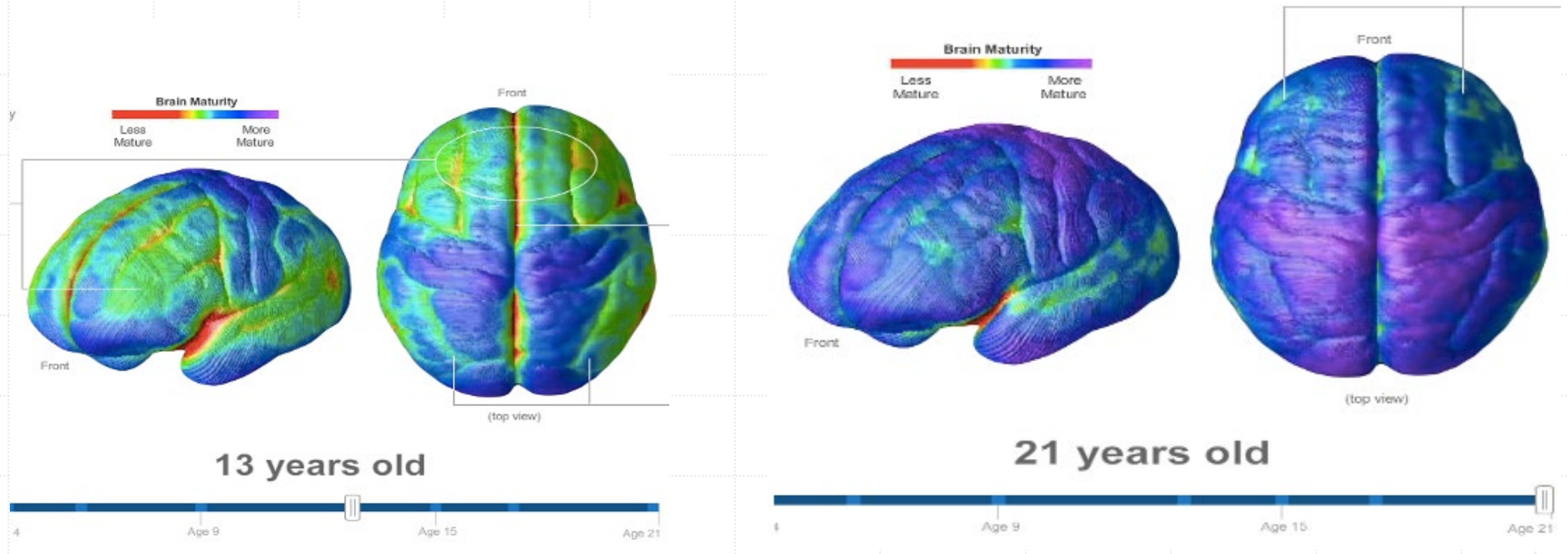


Brain images courtesy of Dr. Paul Thompson, University of California, Los Angeles. Source information provided by Dr. Jay Giedd, National Institutes of Mental Health. Produced by Tara Parker-Pope, Jon Huang, and Mike Mason/The New York Times

What can the 13-year-old brain do?



What can the 13-year-old brain do?





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

What's Executive Function—and Why Does It Matter?

The skills that make up executive function are better predictors of success than test scores, IQ, or socioeconomic status.

August 15, 2019

Edutopia



Steps to Follow

1. Familiarize yourself with what executive skills are and how they impact learning.

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.

Key Strategy: **Teach Wait/Stop**

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.

Key Strategy: Pair verbal with **VISUAL**

Emotional Control



The ability to manage emotions in order to achieve goals, complete tasks, or control and direct behavior.

Key Strategy: Start by acknowledging how the student feels

Flexibility



The ability to revise plans in the face of obstacles, setbacks, new information or mistakes. It relates to an adaptability to changing conditions.

Key Strategy: Help kids find multiple pathways (Plan B)

Sustained Attention



The capacity to maintain attention to a situation or task in spite of distractibility, fatigue, or boredom.

Key Strategy: Ask the student how long they can work before they need a break

Task Initiation



The ability to begin projects without undue procrastination, in an efficient or timely fashion.

Key Strategy: Have student make a plan with a start time

Planning/Prioritizing



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.

Key Strategy: Plan with kids rather than for kids

A Template for Planning Long-term Projects

Long-Term-Project Planning Form

Due Date: _____

Step 1: Select a Topic

What are possible topics?	What I like about this choice:	What I don't like:
1.		
2.		
3.		
4.		
5.		

Final topic choice:

--

Step 2: Identify Necessary Materials

What materials or resources do I need?	Where will I get them?	When will I get them?
1.		
2.		
3.		
4.		
5.		

Long-Term-Project Planning Form (cont.)

Step 3: Identify Project Tasks and Due Dates

What do I need to do? (List each step in order)	When will I do it?	Check off when done
Step 1:		
Step 2:		
Step 3:		
Step 4:		
Step 5:		
Step 6:		
Step 7:		
Step 8:		
Step 9:		
Step 10:		

Reminder List: Include here any additional tasks or details you need to keep in mind as you work on the project. Cross out or check each one off as you take care of it.

- ___ 1.
- ___ 2.
- ___ 3.
- ___ 4.
- ___ 5.
- ___ 6.
- ___ 7.
- ___ 8.
- ___ 9.
- ___ 10.

Organization



The ability to create and maintain systems to keep track of information or materials.

Key Strategy: Keep it simple or help kids design cheat sheets

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.

Key Strategy: **Practice time estimation**

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.

Key Strategy: Have the student practice setting small goals

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?”).

Key Strategy: **Encourage self-reflection following successes**



Steps to Follow

2. Learn to apply the executive skill terminology to student learning and behavior.

How do we describe these kids?

What concerns you most about this pupil?

That he is lazy and not working
his potential.

Please describe the best things about this pupil:

He is sweet and has a good
sense of humor.

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



What executive skill is this?

Calling out
Response inhibition



What executive skill is this?

Forget instructions

Working memory



What executive skill is this?

Not keeping track of materials

Organization



What executive skill is this?

Running away, hiding
Emotional control



What executive skill is this?

Always asking “What are we doing?”

Working memory



What executive skill is this?

Talking over teacher and classmates

Response inhibition



What executive skill is this?

Following multi-step directions even when
explained out loud and written

Working memory



What executive skill is this?

Engage in consistent side chatter when
others are talking

Response inhibition



What executive skill is this?

Not returning materials

Organization

(Working memory?)



What executive skill is this?

Inability to focus on task at hand

Sustained Attention

(Response inhibition?)



What executive skill is this?

Lack of perseverance in self-directed work

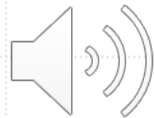
Sustained Attention

(Goal-Directed Persistence?)



Can you spot the executive skills in this conversation?

- Response Inhibition
- Working Memory
- Emotional Control
- Flexibility
- Sustained Attention
- Task Initiation
- Planning/Prioritizing
- Organization
- Time Management
- Goal-Directed Persistence
- Metacognition





Steps to Follow

3. Introduce to students the vocabulary and concepts of executive skills.

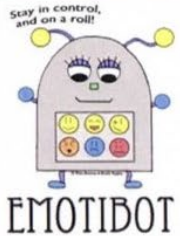
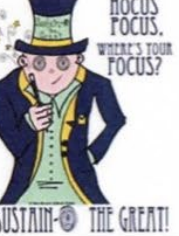
- Use “superheroes” (<http://efs2therescue.com>) or weekly lessons (Train Your Brain folder in Dropbox)
- [My YouTube channel](#) (Rachael Ramsey)
- https://drive.google.com/drive/folders/0B4kId0327lZdb3NBaWlrSkxxejQ?resourcekey=0-AsEWT4RrqkD9LgAkr8i_jw&usp=sharing (Bedford ES materials)
- www.efinthe classroom.net (Mountain View)

Montcrest School

Key Elements

- Started with a small study group
- Whole school participation in design and implementation
- Use of “superheroes” to introduce each skill (available at <http://efs2therescue.com>)
- Emphasis on strategies, with options posted in classroom
- Included in report card, with self-assessment for older students

EXECUTIVE FUNCTIONS DEFINITIONS

	Emotional Control The ability to recognize and regulate emotions in order to achieve goals, complete tasks, and direct behaviour.		Response Inhibition The capacity to stop, evaluate, and think before you act.
	Flexibility The ability to revise a plan in the face of obstacles, setbacks, new information, or mistakes. Flexibility involves adaptability to changing conditions.		Shifting and Time Management The ability to move appropriately from one situation to another. The capacity to estimate and to use time effectively.
	Goal-Directed Persistence The capacity to persevere and follow a task through to completion.		Sustained Attention The capacity to attend to a situation or task in spite of distractibility, fatigue, or lack of interest.
	Reflection The ability to self-monitor and self-evaluate by asking, "how am I doing?" or "how did I do?"		Task Initiation The ability to begin a task in a timely fashion.
	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.		Working Memory The ability to hold information and past experience/learning in mind while performing complex tasks.



In your presentation, you mentioned the characters from EFs 2 the Rescue. I purchased *Executive Skills in Children and Adolescents* to learn more about them and have visited the EFs website as well. I have been using those characters with my students ever since—they bring so much meaning to the definitions of the functions. I have overheard students saying comments like “You should have used Plan Man” when homework wasn’t completed or “I had to use Flexi Lexi when my mom had told me I could play video games right after school, but then she stopped by the store first.”

~Nicki Winter

www.brilliantstrengths.com

Posters can spark conversations



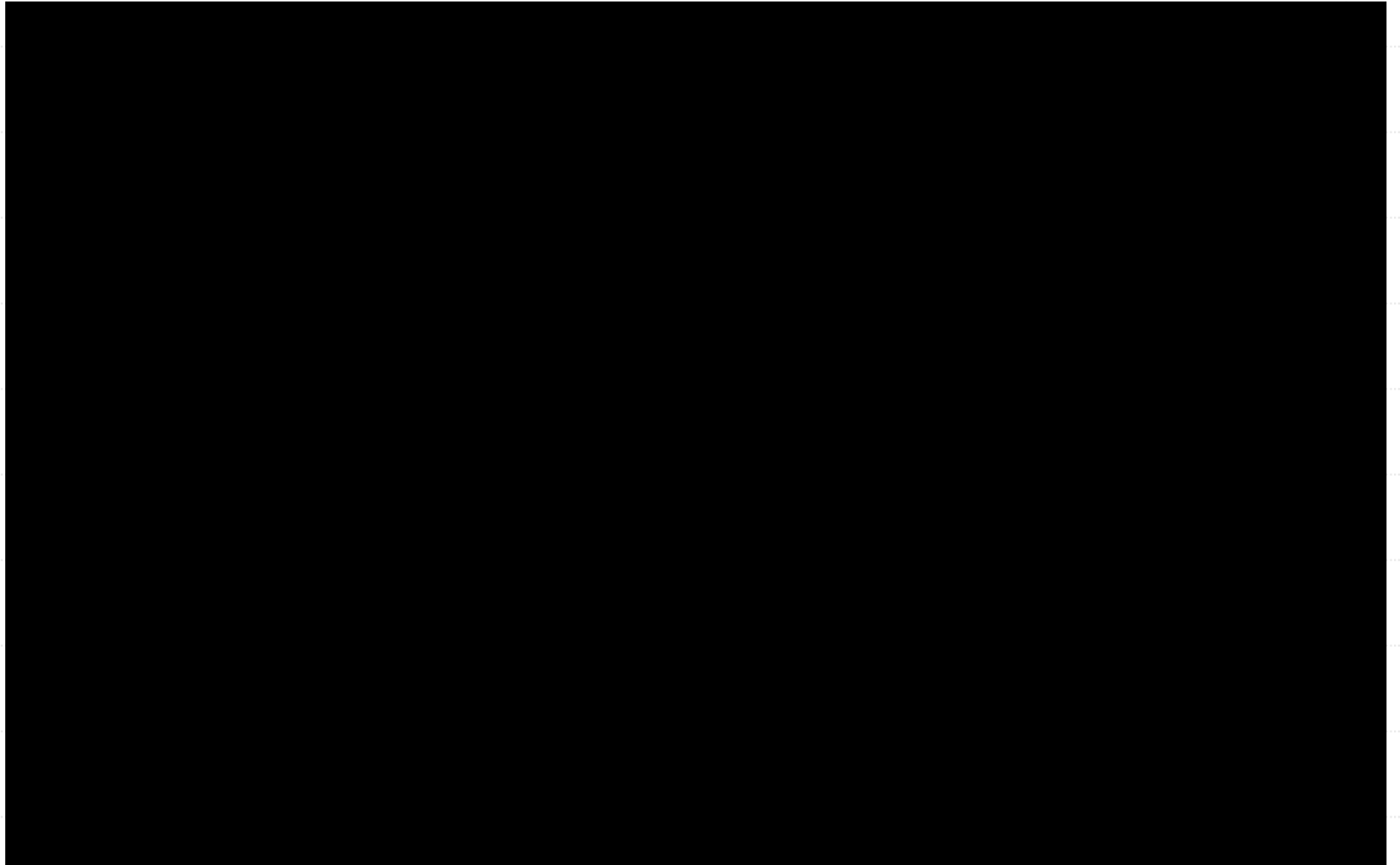


Mountain View School Key Elements

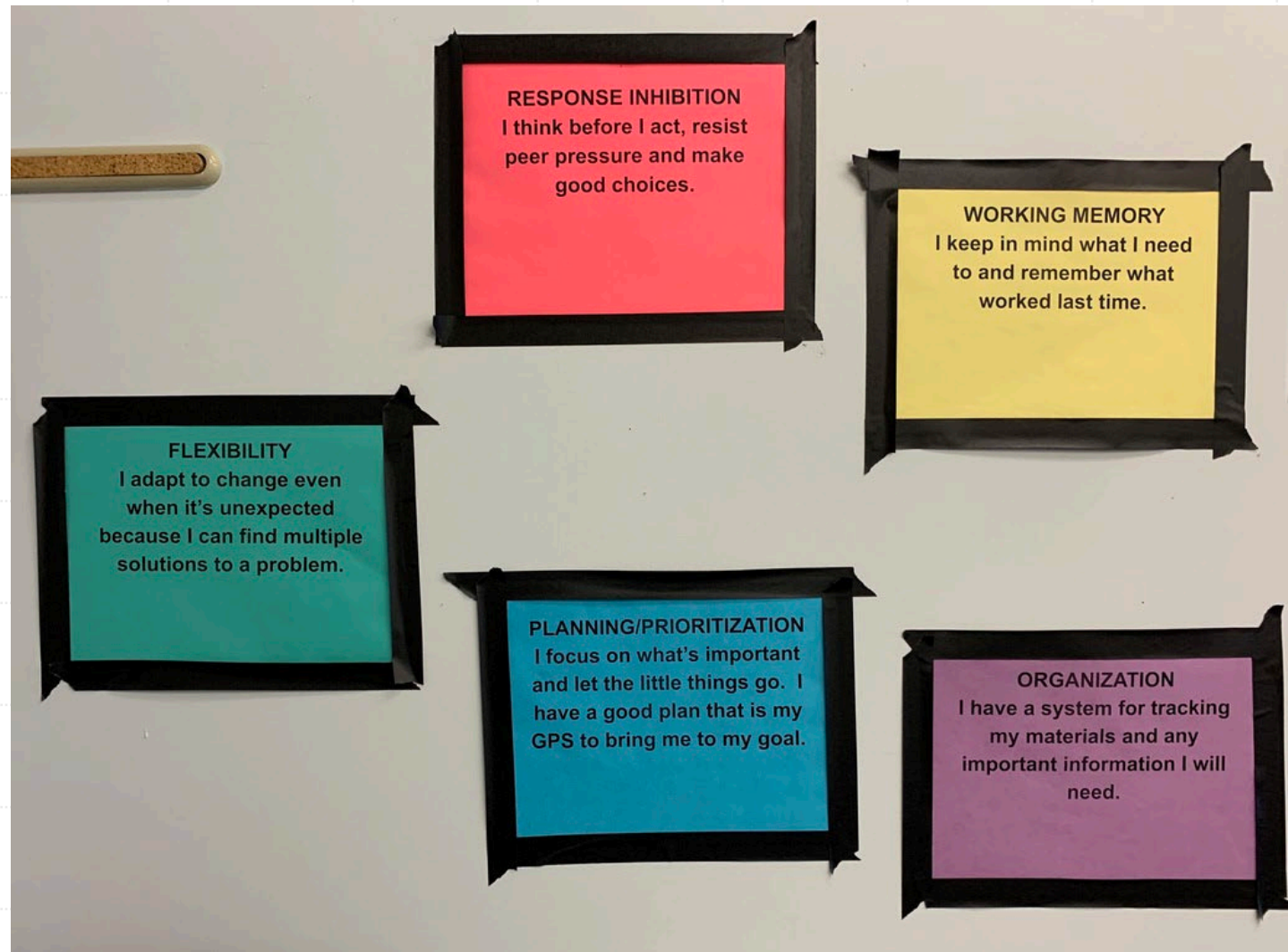
- Started with a small study group
- Piloted with small group of teachers
- Thirty-minute mini-lesson on Monday
- Focus for the week*
- Friday re-visit
- 12/13 weeks for all lessons
- Within 3 years, adopted by the entire school



Another approach



Make the
concepts and
definitions
visible and
accessible



Desktop Strips with Terms and Definitions

- Source: Laurie Faith
- <http://activatedlearning.org>

PLANNING & PRIORITIZING
The ability to create a roadmap to reach a goal, or to complete a task. Making decisions about what is important to focus on and what is not.



EMOTIONAL CONTROL
The ability to manage feelings so you can be productive and successful.



TIME MANAGEMENT
The ability to estimate how much time one has, how to use it and how to stay within time limits and deadlines. It also involves a sense that time is important.



GOAL DIRECTED PERSISTENCE
Following through to the completion of your goal without being distracted by competing interests.



SUSTAINED ATTENTION
Paying attention even if you're tired or bored.



ORGANIZATION
The ability to create and maintain a system to keep track of information or materials.



RESPONSE INHIBITION
Thinking before you act – to resist the urge to say or do things.



FLEXIBILITY
Being able to see many sides of an idea or situation. Being able to change and adapt.



TASK INITIATION
The ability to begin projects in a timely fashion.



WORKING MEMORY
Holding information in memory while performing complex tasks.



METACOGNITION
Noticing how you're doing and thinking about how you're thinking.



Have students complete the ESQ and create a composite class profile

STRENGTHS (Low) | CHALLENGES (High)

Response Inhibition (Self Control)	★ ★ ★ ★ ★	
Working Memory	★ ★ ★ !	!
Emotional Control	★	★ ! ! !
Cognitive Flexibility	★ !	!
Sustained Attention	! ★	! ★ ★ !
Task Initiation		★ !
Planning/Prioritizing	! ★	! ! !
Organization	★ ★ ★ ★	! ! ! !
Time Management	★ ★ ! !	★
Goal-Directed Persistence	★ ★ ★ ★	★
Metacognition	★ ★	! !

Students, drag the icons! ★ ★ ! !

Pear Deck Interactive Slide
Do not remove this bar

Steps to Follow

4. Find ways to illuminate where in a student's life at home and at school executive skills present themselves and give students the opportunity to make these connections on their own.

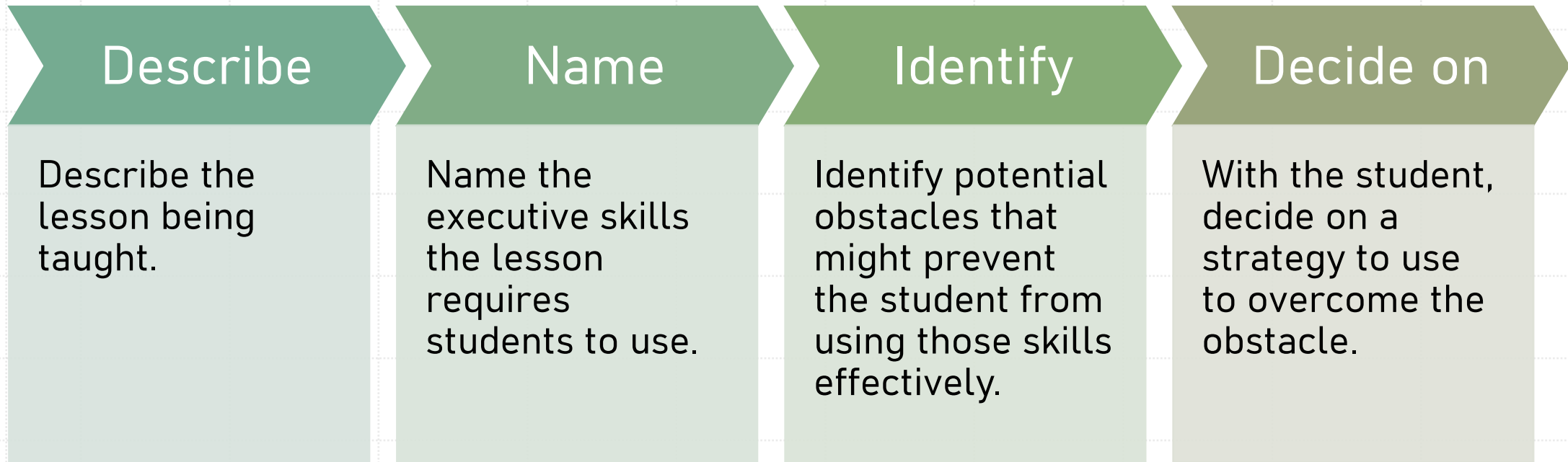
- Classroom lessons
- Independent seatwork
- In the cafeteria
- In the hallways
- On the school bus
- Playing sports
- With friends
- After-school or summer jobs
- Doing homework
- Other situations at home (e.g., chores, getting along with parents or siblings)



Steps to Follow

5. Incorporate executive skills into daily routines, lessons, classwork, and homework assignments. Be explicit with students about how the skill contributes to mastery of content and how they can identify strategies to overcome obstacles that may get in the way of using those skills effectively.

Embed Executive Skills in Classroom Lessons



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

Clinical/Behavioral 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	



Embed Executive Skills in Classroom Routines

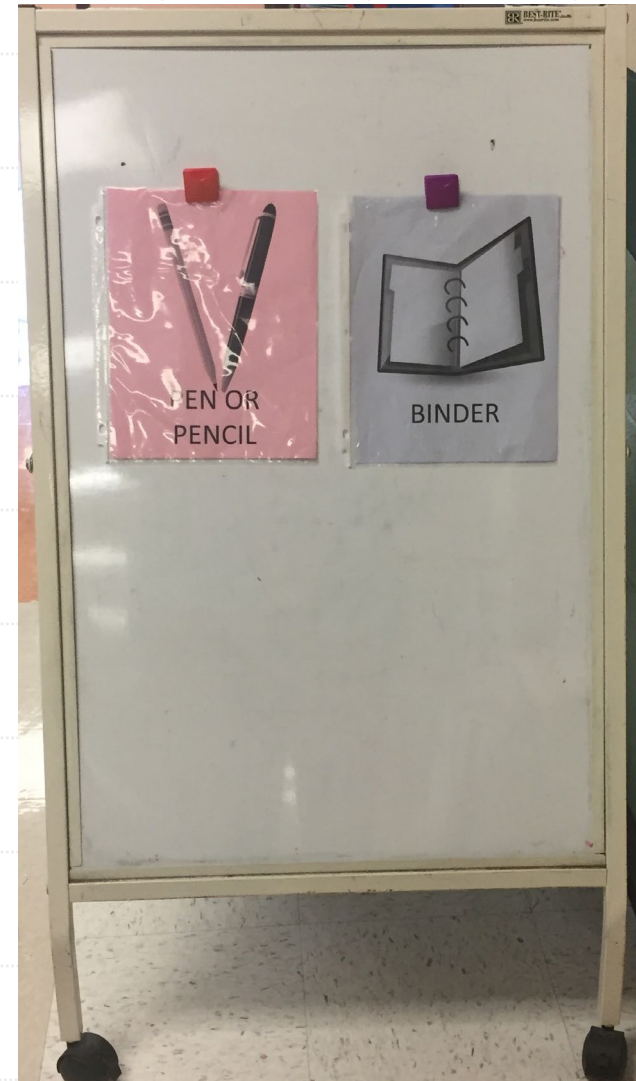
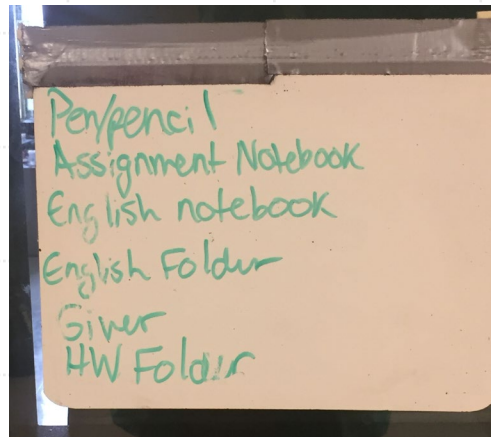


Peg's Take on the “Perfect” Intervention for Executive Skills

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).

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



ACTIVITY:



Design a classroom routine that takes no more than 5–10 minutes a day or 15 minutes once a week.



Additional Examples of Classroom Routines

- End class 5 minutes before the end of the period or day and make sure students write down homework assignments and put necessary materials in backpacks

EXECUTIVE SKILLS: **working memory, organization, planning**

- Begin the school day with a class check-in (How are you feeling on a scale of 1 to 5?)

EXECUTIVE SKILL: **emotional control**

- Have a homework collection routine

EXECUTIVE SKILLS: **working memory, organization**

- Write grade goal on desk with dry erase marker

EXECUTIVE SKILL: **goal-directed persistence**



Additional Examples of Classroom Routines

- Ask students to make a homework plan (what are you going to do, how long will each task take, where will you work?)

EXECUTIVE SKILLS: working memory, task initiation, planning, time management

- Ask students to make a "mini-plan" for what they will accomplish in class that day

EXECUTIVE SKILLS: task initiation, sustained attention, planning, time management, goal-directed persistence

- Ask students to evaluate how well they did on a test or assignment (what went well, what didn't go so well, what will they do differently the next time)

EXECUTIVE SKILLS: goal-directed persistence, metacognition

One More Strategy: Barriers/Strategies Protocol

Created by Laurie Faith

<http://activatedlearning.org>



Problem situation:	
Barriers	Strategies
Here's our plan:	

Using the Barriers/Strategies Form

- Identify a problem situation that the class is dealing with (e.g., arguments at recess, kids not doing homework, not transitioning smoothly between activities).
- Tell the class, “We have a problem we need to solve. I could suggest a solution, but I think it would work better if you helped me with this, because you might understand the problem better than I do, or you might have better ideas than I have for how to solve the problem.”
- Briefly describe the problem and write it in the Problem Situation section of the chart.

Problem situation:	
Barriers	Strategies
Here's our plan:	

Using the Barriers/Strategies Form

- Ask kids to suggest what's getting in the way or why the problem keeps coming up. List all their answers on the Barriers side of the chart. If you want to credit individual students with their ideas, you can write their initials after you write each barrier down.
- Now ask kids to suggest solutions to overcoming the barriers. Write these down on Strategies side, again crediting individuals with their ideas if you want to.
- Look over all the proposed solutions and decide on which one(s) you want to try. Write down the plan for implementing the solution in the bottom box of the chart.

Problem situation:	
Barriers	Strategies
Here's our plan:	

Using the Barriers/Strategies Form

This same approach can be used with individual students or with parents and kids to address an issue that's a source of conflict (e.g., homework schedules or when parents and kids don't agree on privileges or responsibilities).

Problem situation:	
Barriers	Strategies
Here's our plan:	

Examples of Problem Situations

- Being distracted during math work
- Not hearing or remembering instructions
- Forgetting homework
- Being late for school
- Not remembering to bring needed materials to class
- Slow to get ready for the class to begin

Problem situation:	
Barriers	Strategies
Here's our plan:	



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

For interventions, research shows that ones thought up by adults to help adolescents often don't work. Young people should have the space to develop new ideas and put them in practice themselves. That is something I have also learned over time — if adolescents can invent their own approach, it is much more likely to work.

Evelyn Crone,
Developmental Neuroscientist
Leiden University,
The Netherlands



How to implement a student-centered intervention

1. Start by identifying the student's strengths.
2. Describe the problem behavior or the problem situation.
3. Identify the executive skill(s) that might be contributing to the problem.
4. Determine the setting in which the behavior is most likely to occur.
5. Decide what to address first. In other words, select one setting or activity or change one small part of the student's behavior that, if successful, would lead you to say, "This is better."



How to implement a student-centered intervention

6. Obtain buy-in from the student:
 - Describe the problem in a non-judgmental way.
 - Talk about why it's a problem and what positive effect might come from trying to change the behavior.
 - You might ask the student to observe another student in the class who handles the situation successful and then have them share their observations with you.
 - Ask the student if they're willing to work with you to come up with a strategy to solve the problem.

How to implement a student-centered intervention

7. With the student, brainstorm possible strategies for handling the problem.
 - Think about environmental modifications that might work.
 - Talk about whether there's an incentive that might make it easier to work on improving the skill.
 - Consider ways to briefly practice the skill.
 - If the student can't come up with ideas on their own, make a few suggestions and see if they're willing to choose one to try.
8. Decide on a way to measure progress (e.g., chart, graph, checklist, behavior count, rating scale, tracking grades on tests or assignments).

How to implement a student-centered intervention

9. Come up with a game plan for implementing the intervention
 - Walk through the steps from start to finish (mentally, verbally or physically rehearse it).
 - Check in with the student just before the target situation.
 - Prompt during the target situation if necessary.
 - Debrief afterwards (always find something to praise).
10. Continue as long as necessary; trouble-shoot when problems arise; change strategies if necessary.



RESOURCES

[https://www.dropbox.com/sh/whlg4tmcusb1fle/
AACpXFuquCJZwkD2PjptABb9a?dl=0](https://www.dropbox.com/sh/whlg4tmcusb1fle/AACpXFuquCJZwkD2PjptABb9a?dl=0)
(ES Supplementary Materials)