UNSTUCK AND ON TARGET

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Conflicts of Interest

LK receives royalties on sales of:

- Unstuck and On Target manuals/kits
- Behavior Rating Inventory of Executive Function forms/manuals

GOAL: Increase your understanding of executive functions and how to enhance them

WHY: Executive Functions are necessary and teachable

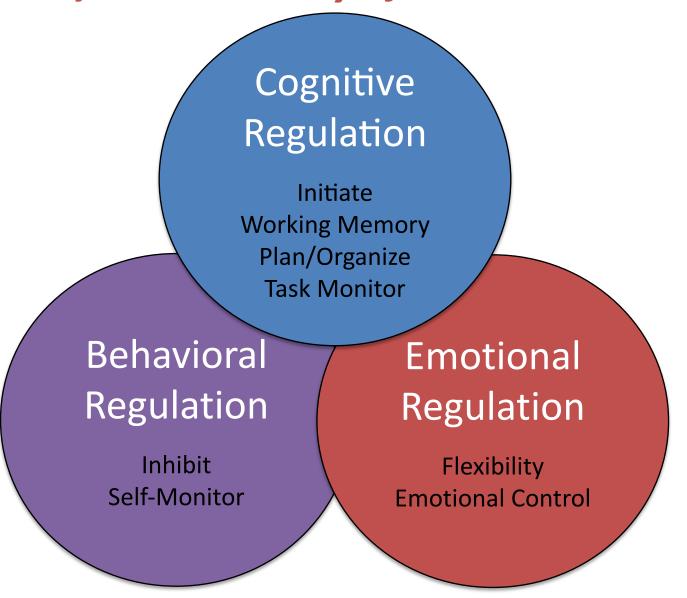
PLAN:

- Understand: Can't vs Won't
- Accommodate: 6 tools
- 3. Teach: Unstuck curriculum and vocabulary

CHECK: Can we get it all done?

Can I keep you all awake?

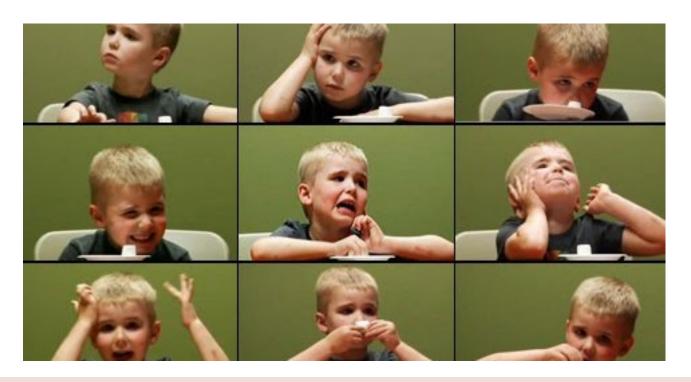
"The Unity and Diversity of Executive Functions"



Teuber, 1972; Gioia, et al 2002; 2016; Miyake et al, 2000; Friedman & Miyake, 2017

Executive Function: Hot and Cool

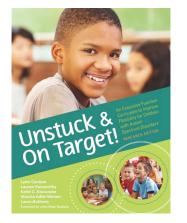
- COOL = decontextualized, meta-cognitive tasks
- HOT = socially, motivationally, emotionally salient
 - Real world decision-making
 - Defer gratification, be flexible and follow plans when there are strong social expectations and feelings involved



Journal of Child Psychology and Psychiatry 55:4 (2014), pp 374-383

doi:10.1111/jcpp.12161

Trial #1: (NIMH R34)



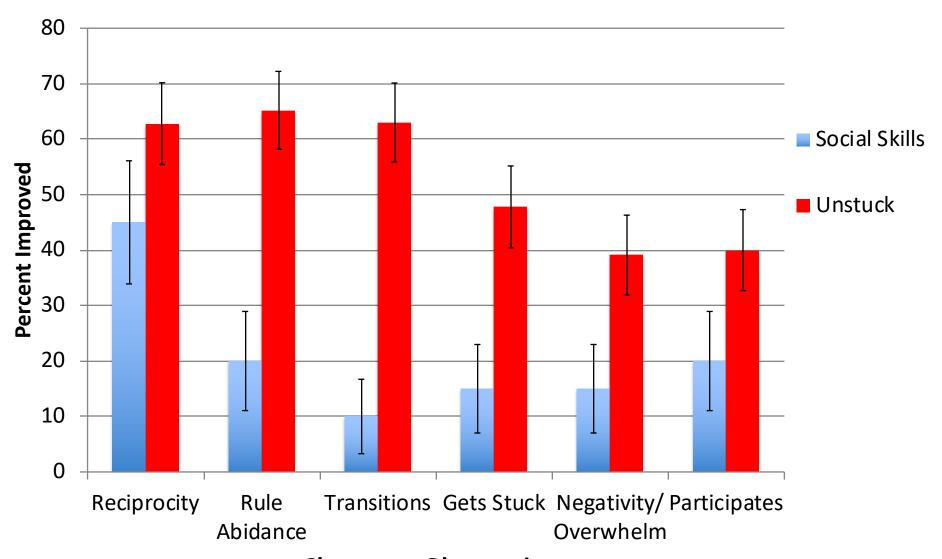
Randomized controlled effectiveness trial of executive function intervention for children on the autism spectrum

Lauren Kenworthy, ^{1,2,*} Laura Gutermuth Anthony, ^{1,2,*} Daniel Q. Naiman, ³ Lynn Cannon, ⁴ Meagan C. Wills, ¹ Caroline Luong-Tran, ¹ Monica Adler Werner, ⁴ Katie C. Alexander, ⁴ John Strang, ^{1,2} Elgiz Bal, ¹ Jennifer L. Sokoloff, ¹ and Gregory L. Wallace ⁵

¹Children's National Medical Center, Center for Autism Spectrum Disorders, Rockville, MD, USA; ²The George Washington University School of Medicine, Washington, DC, USA; 3Department of Applied Mathematics and Statistics, Johns Hopkins University, Baltimore, MD, USA; ⁴The Ivymount School, Rockville, MD, USA; ⁵Laboratory of Brain and Cognition, National Institute of Mental Health, National Institutes of Health, Bethesda, MD, USA

- Unstuck (n=47)
- Social Skills (n=20; Baker, 2009)
- Autistic 3-5th graders, equivalent IQ, Sx, SES
- Equal doses of: Parent, teacher, interventionist training, small group sessions, fidelity monitoring
- Interventions delivered by school staff with fidelity

Treatment-MaskedClassroom Observations



Classroom Observations

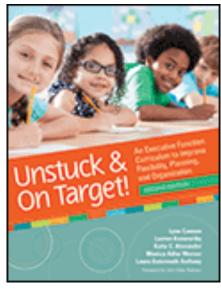
Kenworthy & Anthony et al, 2014

Study #2: Disparities Comparative Effectiveness Trial

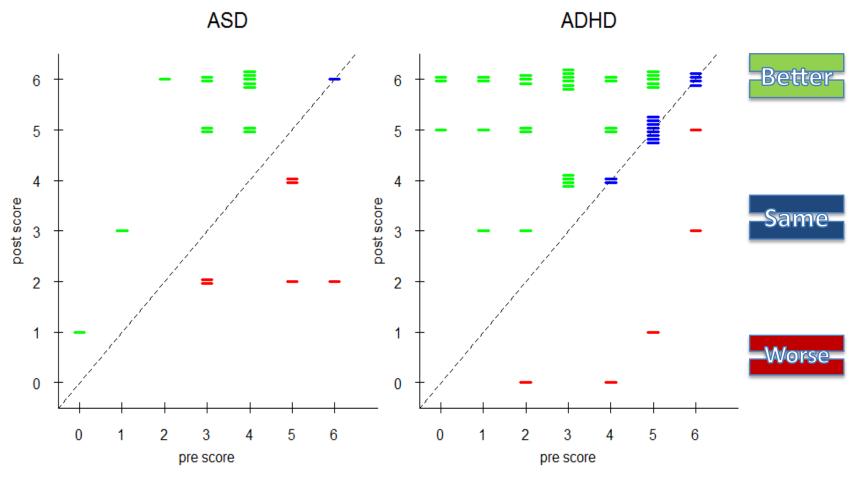
- $3^{rd} 5^{th}$ graders:
 - 22 Title 1 schools
 - ASD (n=48), ADHD (n=98)
 - Flexibility problems
- Random assignment: Unstuck and On Target, 2nd Ed or adapted

Contingency Behavior Management

- Both target EF/Flexibility
- Both must be effective
- Adaptations for:
 - Title 1 schools
 - Either ADHD or ASD
 - Spanish or English speaking families
 - Strength based, student centered
- School personnel = interventionists
- Study staff train school staff, parents



Comparison of Classroom Observations for UOT



Proportion improved to worsened: Fisher=.000**

Proportion improved to worsened: Fisher=.000**

Study 3: Randomized Comparative Implementation Trial

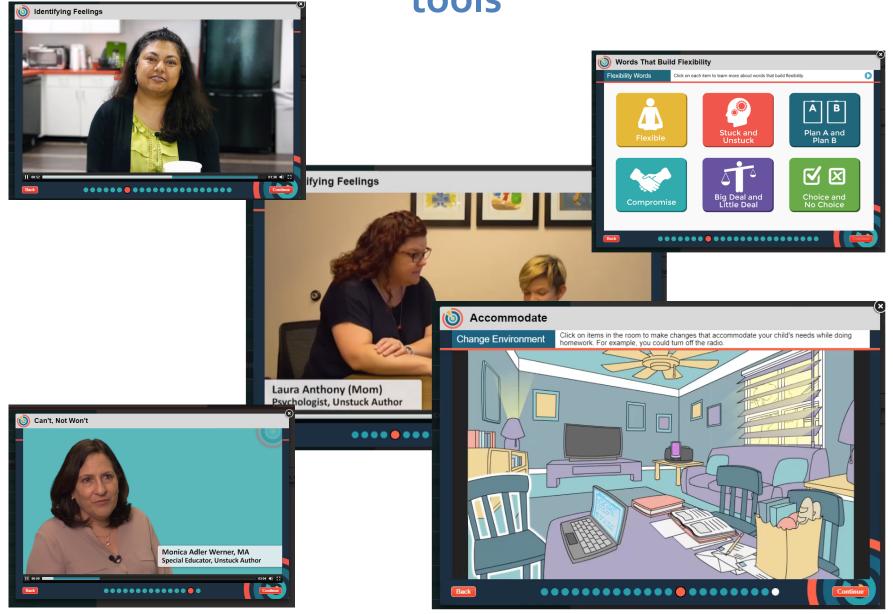
- N=91 parents of child with ASD
- Both groups: Given published parent manual to read over 10-week trial
- In-person group: Two, 2-hour training sessions by an Unstuck author during 10week trial
- On-line group: One, 20-30 minute module each week
- Results: Child EF and Caregiver Strain, Competence and Empowerment improved in both groups, (Cohen's ds:.26-.55)







Leverages technology with variety of tools



GOAL: Increase your understanding of executive functions and how to enhance them

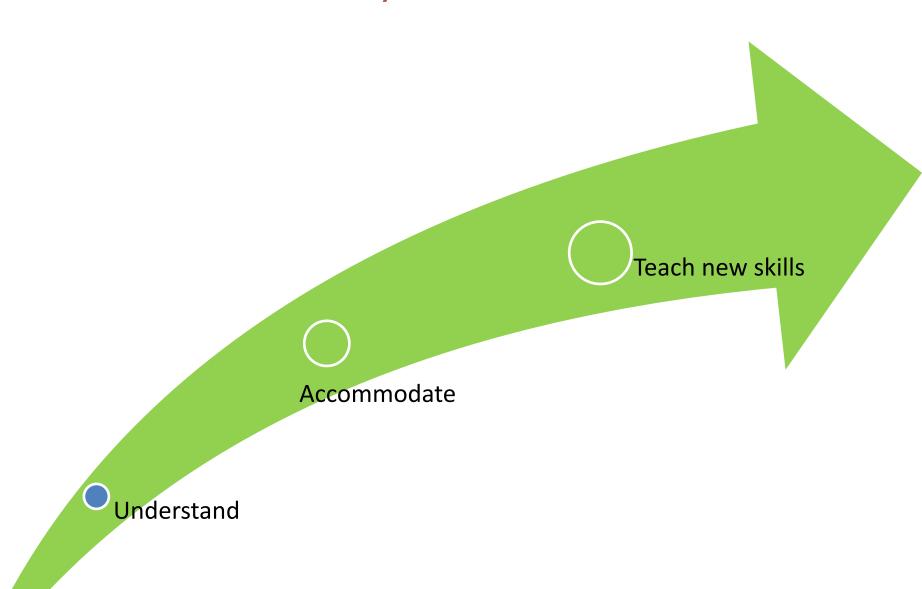
WHY: Executive Functions are necessary and teachable



PLAN:

1. Understand: Can't vs Won't

You can't fix what you don't understand



Looks Like Won't...

Could be Can't

Oppositional, Stubborn

Difficulty shifting

Avoiding overload

Difficulty shifting

Lack of salience

Can do it if he wants to

Impaired social cognition

Poor self monitoring

Poor fine motor

Disorganization

Poor self monitoring

Overloaded

Overloaded

Disinhibition

Impaired social cognition

Poor self monitoring

Self Centered

Won't put good ideas on paper

Sloppy, erratic

Won't control outbursts

Doesn't care what others think

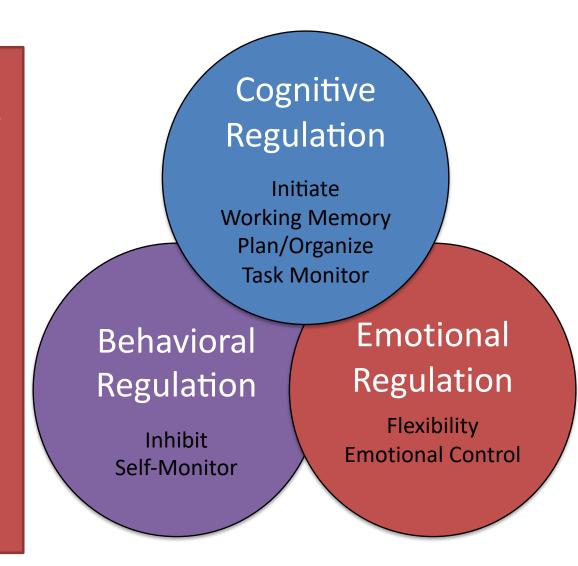


Greene, 1998; Bernstein, 2000

"The Unity and Diversity of Executive Functions"

Flexibility

- Transitioning from one activity to another
- Changes in routine
- Violations of expectations
- Seeing more than one way of doing things
- Easy to get stuck
 (Rumsey, 1985; Hill, 2004;
 Kenworthy et al, 2009; Geurts, 2009; but see Bogte, 2007)



"Asperger's is like a vise on your brain. And each unexpected event is like another turn on the vise...it just keeps building until you feel like you're going to explode. Sometimes when you explode, it comes out the wrong way."

- A young student with ASD

What does cognitive inflexibility look like?

Can't or Won't?

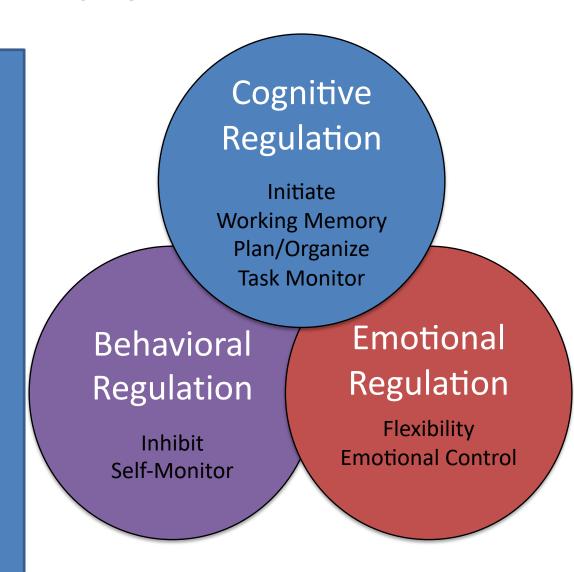
- Accept feedback, different opinions, ideas
- Transition
- Handle frustration
- Start something they don't want to do
- Stop meltdowns
- Stop doing something even they have been told to stop
- Avoid shutting down when something is challenging
- Stop correcting people
- Let other kids take the lead when playing

"The Unity and Diversity of Executive Functions"

Planning/Organization

- Knowing how to accomplish a goal
- Prioritizing
- Identifying main idea and organizing thinking
- Can't see the forest for the trees

(Ozonoff, 1991; Hughes, 1994; Kenworthy, 2005; Hill, 2004; Kenworthy et al, 2009)



What do organization/integration deficits look like?

Can't, or Won't?

- Disorganized language
- Literal language
- Asks for lots of structure in new situations
- Gets stuck on details- doesn't let go of small mistake/inconsistency
- Dominates discussions without knowing it
- Behaves worse in unstructured groups
- Doesn't set goals
- Trouble learning from mistakes
- Poor written expression, Doesn't get good ideas onto paper
- Draw meaning from a reading assignment
- Know what to study for on a test

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WHY: Executive Functions are necessary and teachable

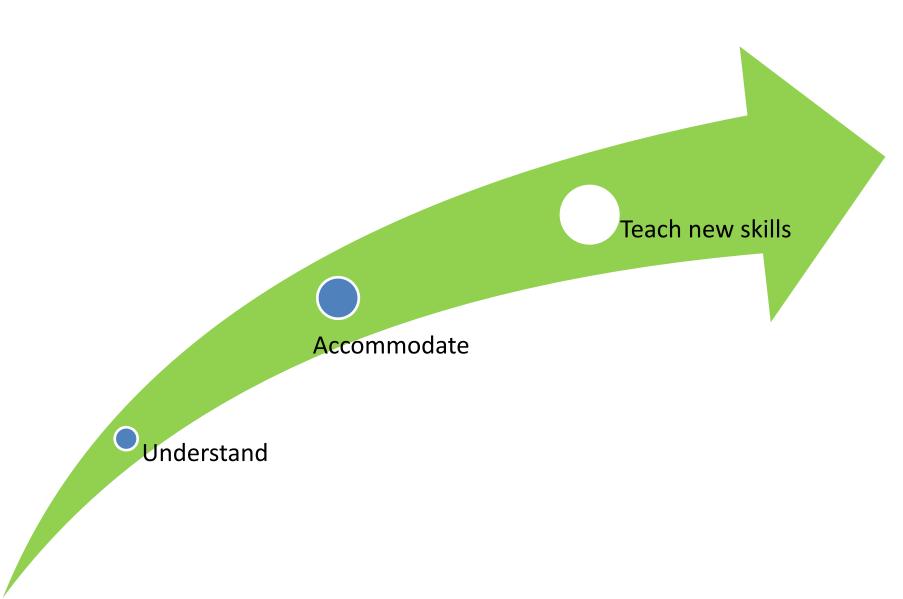


PLAN:

1. Understand: Can't vs Won't

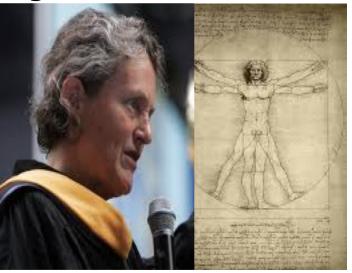


2. Accommodate: 6 tools

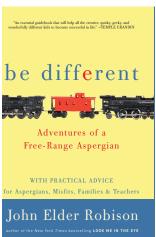


Accommodate, then Remediate

Neurodiversity is a civil right







Overwhelmed people can't learn

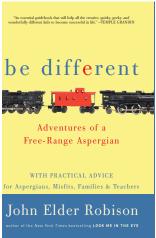
- Can't vs Won't
- 2. Predictability and structure
- Make Big Picture Explicit
- 4. Talk Less, Write More
- 5. Keep it Positive
- 6. Avoid Overload



Accommodate, then Remediate



AUTIS M IS NOT TRAGEDY. IGNORANCE IS



2. Predictability and structure

Inflexibility Risks and Accommodations

Inflexibility Risks Difficulty with violation of expectations

Schedules Routines Predict change Flexible adult

Accommodations

Inflexibility Risks and Accommodations

Overwhelming intense feelings

Breaks
Downtime
Flexible, safe
adult

Inflexible child

Inflexible adult

More inflexible child

More inflexible adult

Inflexibility Strengths

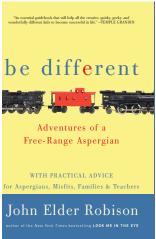
- Deep datasets, expertise in areas of interest
- Persistence
- Reliability
- Loyalty
- Inflexibility is adaptive: It limits unexpected, overloading events
- Respect routines that don't interfere

Accommodate, then Remediate









3. Make Big Picture Explicit

Accommodations

Disorganization Risks and Accommodations

Lack of generalization

"My daughter can peel a potato but she can't peel a sweet potato because they are not the same thing. She just knows the solution to a specific problem and that's all she knows."

Put new info in familiar context
Explicitly review inferences, nuances
Teach in the setting where the skill is expected

Accommodations

Disorganization Risks and Accommodations

Don't show what they know

"My student has truly encyclopedic knowledge, but I never see it in his work." Study guides
Closed format
tests
Writing rubrics
Structure

Detail Processor Strengths

- Patience for details
- Respect, follow, use rules
- Good with recipes, checklists and routines
- Powerful computer related thinking
- Classification strengths
- Attention to detail—Sherlock Holmes
- Mastery of detailed datasets
- Large Vocabulary

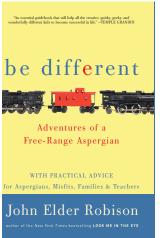
Accommodate, then Remediate





4. Talk Less, Write More

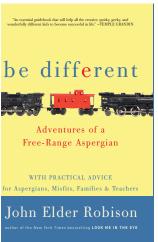




Accommodate, then Remediate

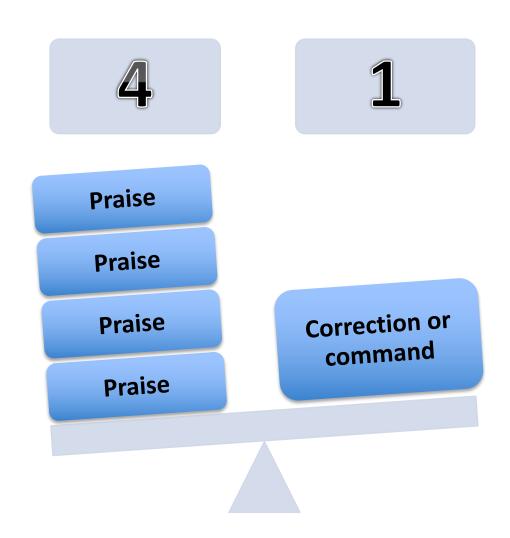






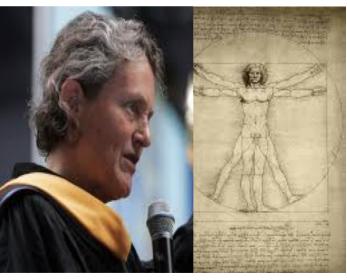
5. Keep it Positive

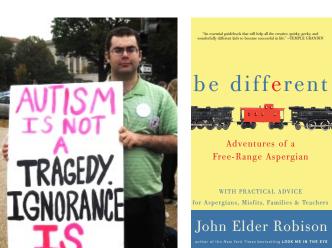
Keep it Positive



Accommodate, then Remediate







6. Avoid Overload

The Power of a Safe Person

Russell Lehmann & David Apkarian @ STORYCORPS





GOAL: Increase your understanding of executive functions and how to enhance them

WHY: Executive Functions are fragile, necessary and teachable

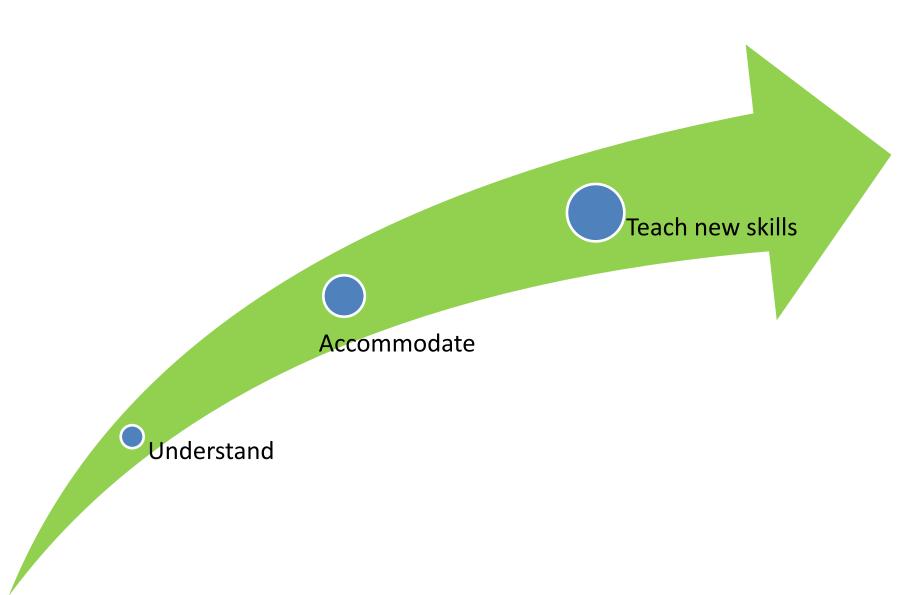


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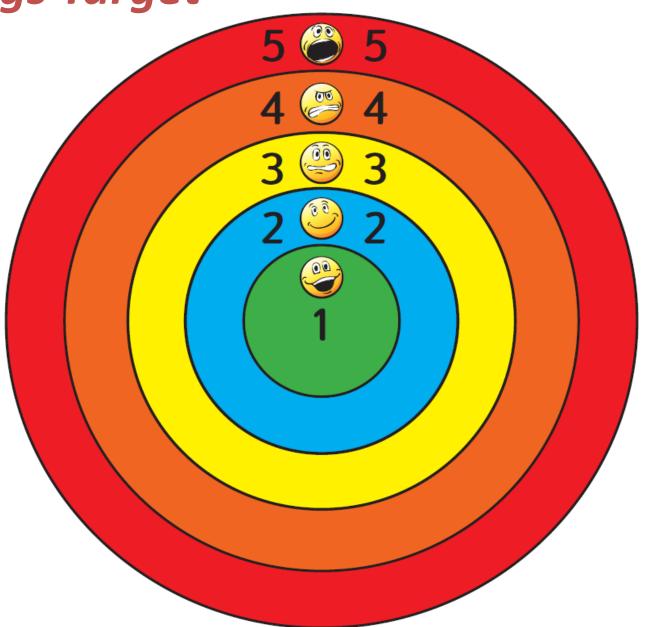




Learning Executive Function During covid:



Feelings Target



Self-Regulatory Scripts

- ✓ Avoid too much talking
- ✓ Refer to the big picture
- ✓ Build an alliance
- ✓ Need to be practiced to automaticity



Self regulatory Scripts = Shared, Automatic Vocabulary

Flexible

• Great job being flexible

Unstuck

I'm getting stuck on ____, how can I get unstuck?

Compromise

 Let's compromise so we both get some of what we want

Plan A/Plan B

What is our plan?

Big Deal/Little
Deal

What is our Plan B?

 How can we make this big deal into a little deal?

Goal-Why-Plan-Do-Check

Teacher Goal: To go to bus To keep playing
-Play for 20 minutes
-play the next morning
Plan:
Do: Have we done all the steps to accomplish the goal? Check: How did it go?

Modeling GWPDC

Plan

- "Let's make a plan!"
- "I need a plan."
- "Let's make a Plan B/Plan C, etc."
- "Are you working on your plan?"
- "Do you have a plan?"
- "You are terrific at making plans!"

Check

- "How did it go?"
- "Okay, now I will check to see if I followed my plan."
- "Did your plan take more or less time than you predicted?"
- "You did such a terrific job trying out your plan, did it work?"



Sample Flexibility IEP Goals for "Jamal"

- Given training in and visual reminders of, self regulatory scripts (such a deal/little deal", "choice/no choice", ("plan A/plan B" and "handling the unexpected") Jamal will manage unexpected events and violations of routine without disrupting classroom activities.
- With fading adult supports, Jamal will use a structured recipe or routine for generating new ideas, or brainstorming to respond successfully to open ended assignments.
- When faced with changes and/or transitions in activities or environments, Jamal will initiate the new activity after only two (one, three) reminders (or within 2, 4, 5 minutes).
- Given concrete training, visual supports and fading adult cuing, Jamal will correctly label flexible and stuck behaviors in himself.
- Given training, practice, visual supports and fading adult cuing in the use of specific coping strategies, Jamal will identify and use a coping strategy when he indicates that he is stuck or upset.

Unstuck Materials



Parent/Teacher book on using Unstuck vocabulary, accommodations & IEP goals, Brookes Publishing Inc.



Curriculum kit for 21 small group lessons, Brookes Publishing Inc.



On-line parent training modules http://www.unstuckontarget.com/

Unstuck and On Target Executive Function Curricula

Unstuck and On Target

On Target for Life

Flexible Futures

Elementary School: Fun

games/experiments to learn to be flexible with body and mind, set goals, make plans

Middle School: Plan fun group activities to build flexibility, goal setting and planning skills in context of collaborative projects

High School: Personal goals, self advocacy, neurodiversity, college readiness

Common Vocabulary

Flexible
Goal
PlanA/PlanB
Compromise
Stuck on a
Detail
Power Plan
Big Picture
FlexibleFeelings

Thank You!

- Teachers and staff:
 - The Ivymount School
 - Fairfax County Public Schools
 - Arlington Public Schools
- Students and their families
- Funders:
 - Organization for Autism Research
 - NIMH
 - PCORI

The Unstuck Research and Development Team



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