

**Executive Functioning
and Social Thinking
Strategies for Home and
Classroom**

Kate Brown, M.A., CCC-SLP
Barbara Northrup, M.A., CCC-SLP
Lynn Vottero, M.A., CCC-SLP

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Northrup & Associates
www.northrupandassociates.com

Executive Function Social Thinking

These two skills overlap.

Speech/Language Pathologist

Executive Functions Social Thinking

What do SLPs have to do with Executive Functioning and Social Thinking?

Executive functions and social thinking skills impact communication, both academic and social.

Executive functions impact higher level language skills.

- Processing of oral and written language
- Making inferences
- Interpreting figurative language
- Critical thinking/problem solving skills

What do SLPs have to do with Executive Functioning and Social Thinking?

What is ADHD?

Attention-Deficit / Hyperactivity Disorder DSM-IV-TR Diagnostic Criteria

Inattention

- (a) often fails to give close to details or makes careless mistakes in schoolwork, work, or other activities
- (b) often has difficulty sustaining attention in tasks or play activities
- (c) often does not seem to listen when spoken to directly
- (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
- (e) often has difficulty organizing tasks and activities
- (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- (g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
- (h) is often easily distracted by extraneous stimuli
- (i) is often forgetful in daily activities

What is ADHD?

Attention-Deficit / Hyperactivity Disorder DSM-IV-TR Diagnostic Criteria

Hyperactivity

- (a) often fidgets with hands or feet or squirms in seat
- (b) often leaves seat in classroom or in other situations in which remaining seated is expected
- (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- (d) often has difficulty playing or engaging in leisure activities quietly
- (e) is often "on the go" or often acts as if "driven by a motor"
- (f) often talks excessively

What is ADHD?

Attention-Deficit / Hyperactivity Disorder DSM-IV-TR
Diagnostic Criteria

Impulsivity

- (g) often blurts out answers before questions have been completed
- (h) often has difficulty awaiting turn
- (i) often interrupts or intrudes on others (e.g., butts into conversations or games)

"Actions we perform to ourselves and direct at ourselves so as to accomplish self-control, goal-directed behavior, and the maximization of future outcomes."
~ Dr. Russell Barkley

What Are Executive Functions?

These are skills that we **all** need to function day to day.



What Are Executive Functions?

1) **Response Inhibition** : the capacity to think before you act – to resist the urge to say or do something before you've had a chance to evaluate the situation.

2) **Working Memory** : the capacity to hold information in mind while performing complex tasks. Children develop nonverbal working memory before they develop verbal working memory because this skill begins to emerge before language does. When children develop language, however, their working memory skills expand, because now they can draw on visual imagery and language to retrieve information.

3) **Emotional Control** : the ability to manage emotions to achieve goals, complete tasks or control/direct your behavior.



What Are Executive Functions?

4) **Sustained Attention** : the capacity to keep paying attention to a situation or task in spite of distractions, fatigue or boredom.

5) **Task Initiation** : ability to begin projects or activities without undue procrastination, in an efficient or timely manner.

6) **Planning/Prioritization** : the ability to create a roadmap to reach a goal or complete a task, as well as the ability to make decisions about what's important to focus on.

7) **Organization** : the ability to establish and maintain a system for arranging or keeping track of important items.

What Are Executive Functions?

8) **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.

9) **Flexibility** : ability to revise plans in the face of obstacles, setbacks, new information or mistakes; relates to an adaptability to changing conditions; "go with the flow."

10) **Goal-directed Persistence** : setting a goal and working toward it without being sidetracked by competing interests.

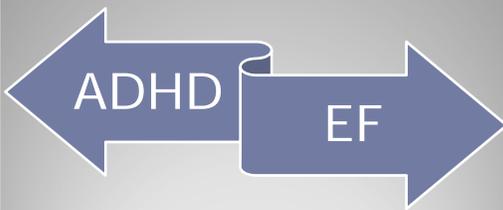
11) **Metacognition** : ability to stand back and take a bird's-eye view of oneself in a situation; ability to observe how you problem solve; being able to self-monitor and self-evaluate.

What Are Executive Functions?

What Executive Functions did **you** use to get here today?



The illustration shows a sequence of three steps: a house, a red car, and three people sitting at a desk. Arrows connect the house to the car, and the car to the people, indicating a progression from home to school.



ADHD EF

What is the relationship between ADHD and Executive Functions?

All students with ADHD have some deficits of Executive Functioning.



ADHD EF

The most commonly impacted EFs are:

- Response Inhibition
- Sustained Attention
- Working Memory
- Time Management
- Task Initiation
- Goal-Directed Persistence



A diagram consisting of two blue arrows pointing towards each other, one labeled 'ADHD' and the other 'EF', positioned below the list of EFs.

Not all students with Executive Functioning deficits have ADHD.

Individuals with developmental disabilities, traumatic brain injury, and certain illnesses and disorders may also exhibit some degree of EF deficits.



A diagram consisting of two blue arrows pointing towards each other, one labeled 'ADHD' and the other 'EF', positioned below the explanatory text.

Development of Executive Functions

First 6–12 Months:

- Response Inhibition
- Working Memory
- Emotional Control
- Attention
- Planning

12–24 Months:

- Flexibility

Preschool – Elementary:

- Task Initiation
- Organization
- Time Management
- Goal-Directed Persistence
- Metacognition



An illustration showing a baby on the left and a young child sitting at a desk with a book on the right.

Development of Executive Functions

Executive functions are critical to independent living.

At birth, executive functions exist only as potential (biology and environment).

The frontal lobes of the brain and executive functioning require 18 to 20 years, or even longer to develop fully.

Development of Executive Functions

Research has shown that students with ADHD are generally delayed 2-3 years in social-emotional development.

When thinking about the ages at which EF develop, expectations may need to be adjusted.

The Executive Functions are everywhere!



- Include the words "with directed assistance" in the IEP
- Find what motivates the student
- Use traditional desk placement
- Preferential seating
- Have student complete unfinished classwork at school
- Modify workload and homework
- Provide extended time for tests and projects
- Preview new material
- Supported study hall, homework clubs, study tables
- No study hall first period
- Provide guided notes, study buddy
- Use technology
- Make it visual
- Frequent breaks and alternating low/high appeal activities
- Check in/check out person
- Organizational techniques – ex. color-coded folders
- Don't take away recess
- Extra set of books at home

Executive Functions Classroom Strategies

- Recognize the developmental nature of these skills
- Be aware of your child's strong and weak areas
- Be aware of your strong and weak areas
- Some skills may have to be directly taught
- Have a routine and schedule
- Have a dedicated work space
- Allow your child to make a choice when possible
- Acknowledge appropriate behavior
- Find what motivates your child
- Work with the teacher(s) while being your child's advocate
- Maintain the right amount of communication with school
- Assist with organization at home
- Natural consequences help learning
- Offer options for study habits

Executive Functions Home Strategies

Use technology!
- Smart phones, iPod touch, iPad

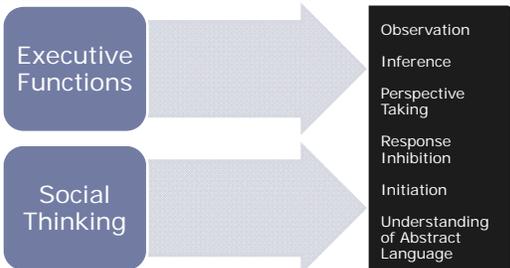
Adapt!
- Strategies may need to be changed and modified depending on age and context.
- Use a variety of strategies!

Executive Functions Strategies



Social Interaction.
It's more than just eye contact.

What is the relationship between Executive Functions & Social Thinking?



Executive Functions

Social Thinking

Observation
Inference
Perspective Taking
Response Inhibition
Initiation
Understanding of Abstract Language

Michelle Garcia Winner, M.A., CCC-SLP, observed that a simple social interaction requires many skills.

I - Initiation
L - Listening with Eyes & Brain
A - Abstract & Inferencing
U - Understanding Perspective
G - Gestalt: The Big Picture
H - Humor & Human Relatedness

Michelle Garcia Winner identified 6 primary skills needed for social interaction.

I LAUGH!

Social Thinking

Each of us is a "social thinker" every day, each time we are around other people. It means we are always aware that people are around us and having thoughts about each of our behaviors.

Social Smarts
School Smarts
Body in the Group
Brain in the Group
Thinking with your Eyes
Expected
Unexpected

A curriculum by Michelle Garcia Winner

Our Actions

Other People's Thoughts & Feelings

How They Treat Us

How We Feel

Resources for Social Thinking

Social-Behavioral Mapping

"Social Detective" - a comic book that teaches students to use their eyes, ears, and brain to observe and make smart guesses about what is expected or unexpected.

"Superflex® and the Unthinkables" - a comic book that addresses executive functions and social thinking skills through bad guys (The Unthinkables) and a super hero (Superflex).

Resources for Social Thinking

Being a Social Detective

"Succeeding in school is one of the most therapeutic things that can happen to a child! So do whatever it takes to help the child succeed in school."

~ Chris A. Zeigler Dendy

Resources

Books and Periodicals

- Attention Magazine (CHADD)
- Executive Function in the Classroom: Practical Strategies for Improving Performance and Enhancing Skills for All Students (Kaufman)
- Executive Skills in Children and Adolescents: A Practical Guide to Assessment and Intervention (Dawson, Guare)
- Fostering Independent Learning: Practical Strategies to Promote Student Success (Harvey, Chickie-Wolfe)
- Inside Out: What Makes a Person With Social Cognitive Deficits Tick? (Winner; 2006)
- Lost in School and The Explosive Child (Green)

Resources

Books and Periodicals (continued)

- Money Doesn't Grow On Trees: A Parent's Guide to Raising Financially Responsible Children (Godfrey)
- No Mind Left Behind: Understanding and Fostering Executive Control--The Eight Essential Brain Skills Every Child Needs to Thrive (Cox)
- Organizing from the Inside Out for Teenagers: The Foolproof System for Organizing Your Room, Your Time, and Your Life (Morgenstern)
- Organizing the Disorganized Child: Simple Strategies to Succeed in School (Kutscher, Moran)
- Promoting Executive Function in the Classroom (Meltzer)
- Raising Money Smart Kids: What They Need to Know about Money and How to Tell Them (Bodnar)

Resources

Books and Periodicals (continued)

- Raising a Thinking Preteen: The "I Can Problem Solve" Program for 8- to 12- Year-Olds (Shure, Israeloff)
- Smart but Scattered (Dawson, Guare; 2009)
- Social Thinking at Work – Why Should I Care? (Winner, Crooke; 2011)
- Study Skills: Research Based Teaching Strategies (Newhall)
- Superflex series (Winner et al)
- Teenagers with ADD and ADHD: A Guide for Parents and Professionals (Dendy; 2006)

Resources

Books and Periodicals (continued)

- Teaching Teens With ADD, ADHD & Executive Function Deficits: A Quick Reference Guide for Teachers and Parents (Dendy; 2011)
- That Crumpled Paper Was Due Last Week: Helping Disorganized and Distracted Boys Succeed in School and Life (Homayoun)
- Tools of the Mind: The Vygotskian Approach to Early Childhood Education (Bodrova, Leong)
- You are a Social Detective (Crooke, Winner; 2008)

Websites

- www.northrupandassociates.com
- www.socialthinking.com
- www.chrisdendy.com

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Crooke, P., & Winner, M. G. (2008). *You are a social detective*. San Jose, CA: Think Social Publishing, Inc.
- Dawson, P., & Guare, R. (2009). *Smart but scattered*. New York: The Guilford Press.
- Dendy, C. A. Z. ("n.d."). *Executive function...what is this anyway*. Retrieved September 14, 2011 from www.chrisdendy.com, Web site: <http://www.chrisdendy.com/executive.htm>

References

- Gioia, G. A., Isquith, P. K., Guy, S. C., & Kenworthy, L. (2000). *Behavior Rating Inventory of Executive Function*. Odessa, FL: Psychological Assessment Resources.
- Guy, S. C., Isquith, P. K., & Gioia, G. A. (2004). *Behavior Rating Inventory of Executive Function (Self-Report Version ed.)*. Odessa, FL: Psychological Assessment Resources.
- Katz, M. (2011, August 12). Learning to think socially: The ILAUGH model of social thinking. *Attention*.

References

- Keeley, S. P. (2003). *The source for executive function disorders*. E. Moline, IL: LinguiSystems.
- Madrigal, S. (2008). *Superflex takes on rock brain and the team of unthinkables*. San Jose, CA: Think Social Publishing, Inc.
- Madrigal, S., & Winner, M. G. (2009). *Superflex takes on glassman and the team of unthinkables*. San Jose, CA: Think Social Publishing, Inc.

References

- Singer, B. D., & Bashir, A. S. (1999). What are executive functions and self-regulation and what do they have to do with language-learning disorders? *Language, Speech, and Hearing Services in Schools*, 30(3), 265-273.
- Turkstra, L. S. & Byom, L. J. (2010, December 21). Executive Functions and Communication in Adolescents. *The ASHA Leader*.
- Winner, M. G. (2000). *Inside out: What makes a person with social cognitive deficits tick*. San Jose, CA: Think Social Publishing, Inc.

References

Winner, M. G. (2008). *Think social: A social thinking curriculum for school age students*. San Jose, CA: Think Social Publishing, Inc.

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Northrup & Associates Ph: 614-864-6620
6422 East Main Street Fax: 614-864-6690
Reynoldsburg, OH 53068

Web: www.northrupandassociates.com
Email: www.northrupandassoc@aol.com
