Introductions

1. What’s your child’s grade level?
2. Are you familiar with Executive Functioning?
   - Very familiar
   - Somewhat familiar
   - A little familiar
3. What do you want to learn from this presentation?
Did You Need Any of These Skills?

– Attending
– Planning
– Organization
– Problem Solving
– Impulse Control
– Negotiation/Flexibility
A Few Words About Supports

We all have strategies that we use to help us with organization and problem-solving.

How would you feel if you didn’t have your supports?
Think You’d Manage?

Try getting through the day without one of these:
What is Executive Function (EF)?

- Executive functioning is an umbrella term for the neurologically-based skills involving mental control and self-regulation. (LDOnline.com)

- Higher-level cognitive skills used to control and coordinate other abilities and behaviors. (Executive Functions Frontotemporal Dementia)

- The ability to manage oneself and one’s resources in order to achieve a goal. (LDOnline.com)
Executive Function is ...

- The ability to mentally connect the dots
- The way the brain uses information from different “files” in the brain in tandem in order to carry out life, academic, and work skills
- Grounded in the real world experience
- Not exclusive to people with autism
Executive Functioning

Frontal lobe is responsible for much of the executive functioning of the brain.

These functions include:
- Attention
- Working memory
- Planning, organizing
- Forethought
- Impulse control
Executive Functioning Challenges

- **Action**: monitoring and self-regulating action
- **Activation**: organizing, prioritizing, and activating to work
- **Memory**: utilizing working memory and accessing recall
- **Emotion**: managing frustration and modulating emotions
- **Focus**: focusing, sustaining and shifting attention to tasks
- **Effort**: regulating alertness, sustaining effort and processing speed
Executive Functioning Skills

**Organization**
- Activation
- Attending
- Planning
- Working Memory

**Regulation**
- Impulse control
- Problem solving
- Effort
- Focus (Flexibility/Negotiation)
EF Skill Deficits

**Organization**
- Difficulty applying consequences from past actions
- Difficulty planning and initiating
- Difficulty with verbal fluency
- Difficulty processing, storing and/or retrieving information

**Regulation**
- Socially inappropriate behavior
- Moody or “roller coaster”
- Loss of interest in activities
- Inflexibility
- Difficulty multi-tasking
Thoughts to Consider

"I cannot hold one piece of information in my mind while I manipulate the next step in the sequence."

Temple Grandin

The loss of that “administrative” control affects the ability to organize and regulate multiple types of information and therefore, behaviors.

Autism Speaks
EF’s Effect on Everyday Life

~You need executive skills to formulate even the most fundamental task.

~How does it affect your child in everyday life?
Academic Problems Linked to Executive Functions

Activation
- Organizing, prioritizing, and activating to work
  - Procrastination
    - Problems organizing projects and written work
    - Problem-solving
  - Problems sustaining focus and shifting focus to tasks
- Once started, easily sidetracked
- Problems transitioning
- Overfocused

Focus
- Focusing, sustaining focus and shifting focus to tasks
- Drowsiness
- Slow completion
- Slow response time

Effort
- Regulating alertness, sustaining effort and processing speed
- Temper outbursts
- Argumentative
- Excitable
- Moody

Emotion
- Managing frustration and modulating emotion
- Remembering facts
- Learning foreign languages
- Losing items

Memory
- Utilizing working memory and accessing recall
- Impulsivity
- Social judgment

Action
- Monitoring and self-regulating action

<table>
<thead>
<tr>
<th><strong>Executive Functioning Challenge</strong></th>
<th><strong>Area of Deficit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebecca has difficulty following the steps required to begin an assignment such as writing her name at the top of the page, and then following the directions to complete the assignment.</td>
<td>MEMORY</td>
</tr>
<tr>
<td>It takes Kareem 10 minutes to get his material out for class</td>
<td>EFFORT</td>
</tr>
<tr>
<td>Tosha is unable to prioritize which information to study when preparing for the test.</td>
<td>ACTIVATION</td>
</tr>
<tr>
<td>Julie cried and screamed this morning while getting ready for school because she could not find her favorite pair of socks.</td>
<td>EMOTION</td>
</tr>
<tr>
<td>Sarah played with a girl or the first time on the playground. After playing, Sarah called the girl her best friend.</td>
<td>ACTION</td>
</tr>
<tr>
<td>Tom refused to leave the classroom at dismissal because he wanted to finish his assignment.</td>
<td>INFLEXIBILITY</td>
</tr>
</tbody>
</table>
10 Principles for Improving EF Skills

1. Teach deficient skills rather than expecting the child to acquire through observation

2. Consider your child’s developmental level

3. Teach externally before the skill is learned internally

4. The external includes changes you can make in the environment, the task, or the way you interact with your child.
10 Principles for Improving EF Skills

5. Use (rather than fight) the child’s innate drive for mastery and control

6. Modify tasks to match your child’s capacity to exert effort

7. Use incentives to augment instruction
10 Principles for Improving EF Skills

8. Provide just enough support for child to be successful

9. Keep supports and supervision in place until the child achieves mastery or success

10. When you do stop the supports, supervision, and incentives, fade them gradually
Students with ASD require direct instruction in executive skills and some “students with Autism may need individualized instruction to improve executive function skills.” (ACE-VCU)

- Organization skills
- Self monitoring skills
- Goal setting
- Self regulation techniques
- Prioritizing for success
- Flexibility training
Strategies for Teaching EF Skills - Activation

Organizing - Chunking Long Term Projects

Project Name ________________
Objective ____________________
Elements/Parts
  1. _____  2. _____  3. _____  4. _____

Timeline Dates
  1. finish by ____  2. finish by ____
  3. finish by ____  4. finish by ____
Strategies for Teaching EF Skills - Activation

Goal Setting, Prioritizing

[Images of goal setting templates]
Strategies for Teaching EF Skills - Activation

Problem Solving - Social Autopsy (cause & effect)

Social Autopsies Worksheet

What happened? ____________________________

<table>
<thead>
<tr>
<th>What was the social error?</th>
<th>Who was hurt by the social error?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What should be done to correct the error? ____________________________

What could be done next time? ____________________________
### Strategies for Teaching EF Skills - Action

**Time Management - “How do I spend my time?”**

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td></td>
</tr>
<tr>
<td>Snack</td>
<td></td>
</tr>
<tr>
<td>Video Games</td>
<td></td>
</tr>
<tr>
<td>Homework</td>
<td></td>
</tr>
<tr>
<td>Sleep, etc</td>
<td></td>
</tr>
</tbody>
</table>
Strategies for Teaching EF Skills - Action & Effort

Self-Regulation - Delay or inhibit response - “blurting”

- acknowledge/determine purpose/function of blurting
- allow for controlled opportunities
  - “talking stick” for turn
  - chips for number of allowed questions
- share the process and expectations with child
- model & role play
- planned opportunities and natural ones
- reinforce for success
<table>
<thead>
<tr>
<th>Looks Like</th>
<th>#</th>
<th>Name of Feeling</th>
<th>What I Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Angry" /></td>
<td>5</td>
<td>Angry</td>
<td>Go to my cool down area.</td>
</tr>
<tr>
<td><img src="image" alt="Upset" /></td>
<td>4</td>
<td>Upset</td>
<td>Ask for help, take a walk, self-talk</td>
</tr>
<tr>
<td><img src="image" alt="OK" /></td>
<td>3</td>
<td>OK</td>
<td>Do I need something?</td>
</tr>
<tr>
<td><img src="image" alt="Happy" /></td>
<td>2</td>
<td>Happy</td>
<td>Keep on working</td>
</tr>
<tr>
<td><img src="image" alt="Excited" /></td>
<td>1</td>
<td>Excited</td>
<td>Keep my body calm</td>
</tr>
</tbody>
</table>
Strategies for Teaching EF Skills - Focus
Visual Schedules for task completion

- morning routine
  - get dressed
  - eat breakfast
  - brush teeth
  - go potty
  - backpack/jacket
  - go to school

- Homework/Assignment Sheet
  - Directions: Each day, write the assignment in the proper spot. If you do not have enough space, use the back. Sometimes your teacher will have you write special directions for studying or finishing work on the back as well. If there is an assignment write “none.”
  - Math
  - Science
  - History
  - Spelling
  - Language
  - Reading
  - Monday
  - Tuesday
  - Wednesday
  - Thursday
  - Friday
Strategies for Teaching EF Skills - Focus

Flexibility - Start with something simple
How many ways can you eat an orange?
Tips for Success for Young Children

● Early intervention is key

● Keep routines short

● Reduce the number of steps

● Use picture cues rather than written lists

● Be prepared to provide prompts and supervision. You may have to work side by side with your child
Tips for Success for Older Children

● Make them full partners in the design of the routine, selection of rewards, and troubleshooting that may be needed to improve routines

● Be willing to negotiate rather than dictate

● Whenever possible use visual cues (could be written) rather than verbal cues-these seem a lot like nagging to older children
Tips for Success for All Ages

- Create routines/procedures
- Set reminders (timers/alerts)
- Utilize visual supports
- Organize the environment
- Reduce clutter
Explicit Teaching/ Task Analysis Home & Community

• Consider the steps for the following examples…
• Cleaning a bedroom
• Chatting in line at the store
• Waiting in line
• What to do if someone cuts the line
• Finding an item in the store
• Eating in a restaurant
• Shopping at the mall
• Going to a movie
Thinking Tool: Breaking it Down

Mom Said: Clean My Room

- Vacuum
- Dust
- Make bed
Identify Needed Materials

• After breaking a skill into “chunks” your child/student will need to identify materials for the task
• Practice this skill using the cluster organizer
• Once child has identified the needed materials, he should develop a materials list and use it to gather materials in advance (into a task box if appropriate)
Mom Said:

- Clean My Room
  - Vacuum
  - Dust Mitt
  - Pledge
- Make bed

Thinking Tool: ID Materials

- Vacuum Cleaner
- Vacuum
  - Dust
  - Dust Mitt
  - Pledge
## Materials Checklist

<table>
<thead>
<tr>
<th>Materials Needed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust mitt</td>
<td>✓</td>
</tr>
<tr>
<td>Pledge</td>
<td></td>
</tr>
<tr>
<td>Vacuum</td>
<td></td>
</tr>
</tbody>
</table>
Ordering Steps

• Steps or “chunks” need to be put into a logical order
• Ordering involves sequential thinking

– Teach child to utilize a sequential organizer or checklist to complete the process of putting the steps in order

– Then use the checklist as the “Action Plan” for completing the task
Putting Chunks in Sequential Order

Physically moving the chunks into a logical order helps them understand sequencing...

They have made their own checklist!!!
Sequential Organizer: Correct Faulty Thinking Patterns

Everything happens to me......
5 Must-Have Apps for Improving Executive Functioning in Children

Planning - 30/30

Working Memory App - Quizlet

Time Management App - InClass

Organization App – Google Calendar

Organization App - YouNote!
Practice Opportunities

“ I have failed over and over again, that is why I succeed.”
- Michael Jordan
Conclusions for Best Approaches:

1. Engage students’ passionate interests
2. Address stressors in students’ lives
3. Give students a sense of belonging and social acceptance
4. Give students opportunities to repeatedly practice EFs at progressively more-advanced levels
5. Do not focus on skills alone - address with emotional and social development
Final Thoughts… What can you do right now?

- Use a users' perspective
- Establish a partnership with a body within the state
- Make time
- Take care
- The overall framework is very useful and we will probably use it at our library (some parts of it), but a way should be found to measure direct effectiveness of users' progress in reading
- Keep telling about the framework – use media
- Always asking why we're doing things
- Build evaluation process into new projects
- Examples of successful evaluation in a continuous process
- Participants to complete evaluation
- A quick explanation of what it is and what we are looking to achieve
References & Resources

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