

What is Executive Functioning?



1. What are Executive Functioning Skills?

Executive functioning skills allow a child to control impulses and emotions, be flexible, plan and organize. These skills are needed for learning and day-to-day behavior and include such things as:

- **Flexibility:** the ability to change strategies or revise plans when conditions change.
- **Working Memory:** the ability to hold information in mind and use it to complete a task.
- **Self-Monitoring:** the ability to monitor and evaluate your own performance.
- **Planning and Setting Priorities:** the ability to create steps to reach a goal and to make decisions about what to focus on.
- **Task Initiation (Getting Started):** the ability to recognize when it is time to get started on something and then to begin without procrastinating.
- **Organization:** the ability to create and maintain systems to keep track of information or materials.

2. What are Some Examples of Limitations in Executive Functioning Skills?

- impulsive decisions
- difficulty calming down and doing homework
- trouble following directions, particularly when they are only given orally
- trouble proofreading and checking work
- doing things too fast or not paying attention to time limits
- coming to class unprepared
- turning assignments in late doing homework but forgetting to turn it in

What is Executive Functioning?

Parent Information



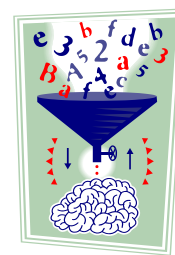
3. How can Parents Help their Child with a Learning Disability that Involves Executive Functioning Difficulties?

- Short-term strategies focus on the task to be completed and where in the home the task can best be completed. Help your child develop strategies on a day-to-day basis for meeting school demands. Knowing they have support from a caring parent helps to reduce the risk of depression, anxiety and low self-esteem.
- Long-term strategies focus on working with the teachers at school in directly teaching executive skills over time so your student will develop into a successful independent adult.
- General things to try: take step-by-step approaches to work, rely on visual organization aids, use tools like time organizers, computers, or watches with alarms, create checklists and “to do” lists, use visual calendars to keep track of long-term assignments, due dates, chores and activities, organize work space, minimize clutter, schedule a weekly time to clean and organize the work space.

4. Resources:

- Executive Skills and Your Child with Learning Disabilities, Goldsmith, B., NCLD
<http://www.nclld.org/types-learning-disabilities/executive-function-disorders/executive-skills-your-child-with-learning-disabilities>
- Learning Disabilities Association of America
<http://ldaamerica.org/>

What is Executive Functioning?



Intervention for Executive Functioning Difficulties

Assessment Information:

- Executive Functioning skills allow a student to control impulses and emotions, be flexible, plan and organize.
- A student should be referred for an evaluation if s/he demonstrates a significant difficulty *over time* in any of the following areas:

Area	What It May Look Like
Inhibit	Impulsive, fidgety, acts without thinking, blurts out, needs supervision, disruptive, distracted
Shift	Rigid, argumentative, upset with change in routine, impulsive, acts without thinking, blurts out, disruptive, needs supervision
Emotional Control	Overreacts to small problems, sudden angry outbursts, becomes teary easily, rapid mood changes, “hyper-silly,” easily melts down

General Principles of Effective Interventions:

- 1. Teach goal-directed problem-solving process** within everyday meaningful routines, having real-world relevance and application, using key people (parents/teachers/peers) as models, “coaches”.
- 2. External to internal process:**
 - External models of multi-step problem-solving routines.
 - External guidance to develop and implement everyday routines.
 - Practice application/use of routines.
 - Fade external support to cueing internal generation and use of routines
- 3. Interventions:**
 - Must fit with child, environment, teacher, parents
 - Must make rationale work for the teacher/parent
 - Involve teacher/parent in planning possible solutions
 - Measure success/failure
- 4. Strategies for Working Memory:**
 - Pre-teach • ‘Ready to listen’ • Teach chunking • Break up lengthy tasks
 - Self-talk • Classroom placement • Breaks with motor activity
- 5. Strategies for Planning and Organization:**
 - Increase structure and routines • Provide Modeling/Examples
 - Verbalize plans • Pre-organize
 - Break tasks into smaller steps • Teach use of visual plan/organize tools (folder system)

What is Executive Functioning?

Intervention for Executive Functioning Difficulties



Academic Information:

1. Intervention strategies for developing *internal control*

Strategy	Example
<ul style="list-style-type: none"> Increase Awareness 	increase awareness
<ul style="list-style-type: none"> Modeling 	modeling steps in a problem, use of peer notes
<ul style="list-style-type: none"> Teach specific skill/routine 	student checklists for self-monitoring, teach when to use specific strategies, teach in a systematic way
<ul style="list-style-type: none"> Self-regulation 	Goal-Plan-Do-Review, folder system
<ul style="list-style-type: none"> Verbal mediation 	social stories
<ul style="list-style-type: none"> Verbal/Nonverbal labeling 	teach expectations using a verbal/visual prompt
<ul style="list-style-type: none"> Teach the use of Internal Feedback 	using a verbal and/or visual “think” cue, 6,4,2 min timer
<ul style="list-style-type: none"> Establish self-administered rewards 	behavior charts – student marks card when timer rings

2. Intervention strategies for maintaining *external control*

Strategy	Example
<ul style="list-style-type: none"> Structuring the Environment 	provide materials early allowing sufficient time for
<ul style="list-style-type: none"> Structuring Time 	chunk large assignments, announce due dates early
<ul style="list-style-type: none"> Externalizing Cues for Effective Processing 	memorization, riddles, mnemonics
<ul style="list-style-type: none"> Providing Feedback 	sincere, timely
<ul style="list-style-type: none"> Providing Rewards 	take a break
<ul style="list-style-type: none"> Aligning External Demands with Internal Desires 	provide options, use technology, differentiated instruction

What is Executive Functioning?

Intervention for Executive Functioning Difficulties



Academic Information:

3. Help students set goals for their academic work behavior. Goal setting can be taught in much the same way as teaching any other skill strategy. Explain the importance of setting work goals, require that the student set a goal, and provide the student with the means to monitor his/her progress toward their goal. When instructing students on how to set goals, teachers should remember that the most effective goals are those that are specific, can be accomplished in a reasonably short time, and are moderately challenging.

4. Resources:

- McCloskey, G., Perkins, L. A., & Van Divner, B. *Assessment and intervention for executive function difficulties*. NY: Routledge, 2009.
- Meltzer, L., Greschler, M. “The Executive Function and School Performance: A 21st Century Challenge.” National Center for Learning Disabilities (www.nclld.org)
<http://www.nclld.org/types-learning-disabilities/executive-function-disorders/executive-functioning-strategies-success-teaching-students>
- Stuart, A. “How to Help a Child with Weak Working Memory.” National Center for Learning Disabilities (www.nclld.org)
<http://www.nclld.org/types-learning-disabilities/executive-function-disorders/how-to-help-child-with-weak-working-memory>
- University of Washington. “Academic Accommodations for Students with Learning Disabilities.” (2012) Permission granted to use???
http://www.washington.edu/doit/Brochures/PDF/accomm_ld.pdf

What is Executive Functioning?

Interventions for Executive Functioning Difficulties



Behavior Information:

1. The use of a behavior plan with rewards and punishments plays an important role in a good intervention program; however the ultimate goal is to help a student internalize executive control.
 - **Spell out the Rationale:** When teaching a student a new behavior strategy, it is essential that s/he understand the rationale behind it. Students with poor organization skills often feel pressured by their time commitments and responsibility. Teach and model strategies to help them commit to doing it for self-improvement and generalizing to new situations.
 - **Use Rewards:** This can be as basic as a point/behavior card, where the student can see the connection between practicing a new behavior/skill and experiencing success while using the skill.
 - **Establish a Routine:** This is important for older students who may struggle more with getting started on work assignments and completing work (i.e., folder system).
 - **Set Time Limits:** When working with students to get them to use steps of a targeted strategy, help them understand how long it might take to complete a task by setting time limits. Using a checklist is helpful for a student to self-monitor his/her success in using this strategy.
2. A teacher may not know beforehand whether a student exhibiting executive function difficulties will, or will not, respond as desired to a behavior management program. If, after a reasonable trial period, the program does not appear to be working, implement program modifications such as, reducing the time between the student demonstrating the desired behavior and receiving a reward.
3. If modifications to a behavior plan for a student with executive functioning issues are not working, rather than assume that the student's behavior is unalterable, a teacher should try to develop intervention programs that are not dependent on the use of rewards or punishment. Even when a behavior plan is producing the desired results with a student with executive function issues, a teacher should realize that a plan that relies strictly on rewards and punishments to produce the desired results are only external forms of control. **Teachers working with students with executive function issues must teach students the skill of becoming consciously aware of, reflecting on, and internalizing the control of their behavior.**
4. **Resources:**
 - McCloskey, G., Perkins, L. A., & Van Divner, B. (2009). *Assessment and intervention for executive function difficulties*. NY: Routledge 2009.
 - Ehmkke, R. Helping Kids who Struggle with Executive Functions. Learning specialists discuss how to get organized." (2012) Child Mind Institute (www.childmind.org)
<http://www.childmind.org/en/posts/articles/2012-8-20-helping-kids-executive-functions-organization>
 - Goldsmith, B. "Tantrums, Meltdowns and More: Executive Dysfunction and Behavior." National Center for Learning Disabilities (www.nclld.org).<http://www.nclld.org/types-learning-disabilities/executive-function-disorders/executive-dysfunction-behavior-problem>

What is Executive Functioning?



Website Resources for Executive Functioning

- Electronic Home Note (free app) – Can text parents from a computer program.
<https://www.remind101.com>
- Pinterest Board with list of Executive Functioning Apps. (free)
<http://www.pinterest.com/lasenders/apps-for-executive-function/>
- Dragon Dictation <https://itunes.apple.com/us/app/dragon-dictation/id341446764?mt=8>
- iHomework <https://itunes.apple.com/us/app/ihomework/id302786560?mt=8>
- Notetaking <https://itunes.apple.com/us/app/coursenotes/id364183278?mt=8>
- Note Taking and Recording Lectures
<https://itunes.apple.com/us/app/soundnote/id364789577?mt=8>
- Article “What is Executive Functioning” www.ldonline.org/article/29122?gclid=CNynl6u9-rUCFTcmPAodqgIAAw&theme=print
- For Parents – Executive Functioning Definitions <http://www.nclد.org/types-learning-disabilities/executive-function-disorders/terms-to-know-child-struggles-with-executive-functioning-issues>
- Motivating a Child with Executive Dysfunction <http://www.nclد.org/types-learning-disabilities/executive-function-disorders/motivating-child-executive-dysfunction>
- Organizing and Prioritizing Strategies <http://www.nclد.org/types-learning-disabilities/executive-function-disorders/executive-functioning-organizing-prioritizing?start=1>

What is Executive Functioning?

Assistive Technology Supports



Writing Supports – Hardware

- Fusion portable word processor
- AlphaSmart keyboarding device
- The Writer, perfect for keyboard instruction and writing support

Writing Supports – Software

- Co-Writer – works in conjunction with any application you write in.
- SOLO – a literacy suite of the most popular assistive technology accommodations, including a text reader, graphic organizer, talking word processor, and word prediction.
- WordQ - a software tool used along with standard writing software.
- Draft:Builder – breaks down the writing process into three manageable steps:
 - 1) brainstorming,
 - 2) note-taking and
 - 3) writing the first draft.
- Write:OutLoud – is simple to use and reads words as they are written, providing real-time auditory feedback.

Curriculum Supports

- Boardmaker Activity Pad – moves interactive activities beyond the computer and directly into the hands of the learner!
- Mobile Activity Player – lets you share adapted activities with all of your students for go-anywhere learning.

Reading Supports – Hardware

- The Readingpen® Basic Edition K-12 – designed specifically to help Elementary school-age readers improve their reading skills.
- The Pulse Smartpen – records and links audio to what you write, so you never miss a word.
- IRISPen Express – is an intuitive text recognition handheld scanner.
- iPad

Reading Supports – Software

- Book Wizard – a program to read digital talking books.
- Bookshare.org (Web Based) – accessible books and periodicals for readers with print disabilities.
- Read:OutLoud – provides accessibility supports like text-to-speech and study tools that help you read with comprehension.