

***Executive Functions and Advanced/Gifted
Students: What to Know and What to Do***

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Interventions: Initiation

- Lack of initiation does not reflect noncompliance, defiance, or lack of interest but difficulty beginning the task.
- It is not because a student is lazy, unmotivated or uninterested, or irresponsible.

Interventions: Initiation

- Behaviors: What do they do or fail to do?
 - Slow to engage in an activity
 - Failure to engage in activities that are self-directed
 - Lack of initiation with peers
 - Difficulty getting out of bed in the morning

Interventions: Initiation

- Increase the structure in the environment
- Use routines to develop habits and automatic patterns
- External prompts (beepers)
- Work in pairs
- Set time limits
- Give short breaks
- Allow additional time

Interventions: Focus

- Focus: the ability to cue the direction of attention to the most relevant specifics of a given environment, situation, or content while downgrading or ignoring the less relevant elements.

Interventions: Focus

- Observed Behavior: The person is not attending to the information being presented or attending to the task they are supposed to be working independently on.

Interventions: Focus

- Oral reminders, or oral directions about the task
- Light physical touches to orient the child to the task
- Work in pairs with a person who is focused
- Eliminate sources of distraction
- Maintain a predictable class routine
- Move around the class to draw attention to the task without specific prompts

Interventions: Modulation

- Modulation: The ability to accurately cue the amount of effort and the quantity and quality of the cognitive abilities required to effectively perform a task.

Interventions: Modulation

- Individuals underestimate the amount of time or effort needed
- Or they have difficulty sizing up the situation and overestimate their ability to achieve the task
- As it gets harder they do not perceive that they do not realize this & they underestimate the cognitive capacity needed

Interventions: Modulation

- Behaviors:
 - Failure on easy tasks followed by success on more harder, challenging tasks
 - Comments that it is too easy followed by lack of success
 - Verbal indicators that the child realizes it was not as easy as anticipated
 - Better initial performance when task is harder

Interventions: Modulation

- Provide prompts that the task may require some effort or planning before beginning;
- Provide an overview and suggest it will take time to achieve, and it is not easy;
- Provide guidance initially and state what is needed to accomplish the goal;
- Show them their pattern of performance and how they have changed;
- Use flexible performance criteria to assess mastery of certain goals to reveal learning outcomes

Interventions: Shift-Flexibility

- Shift-Flexibility- the ability to cue the changing focus, and/or alter processing or responding based on new, often unanticipated, demands posed by changes in the needs of others, changes in the environment in which processing or responding is occurring, changes in the situation in which processing or responding was initiated, or sudden changes in the content of the information being processed or responded to.

Interventions: Shift-Flexibility

- Shifting requires a person to be flexible when the situation demands it
- Shifting requires the ability to stop an activity or switch to a new plan when necessary
- Shifting requires switching or dividing attention or alternating attention

Interventions: Shift-Flexibility

- Behaviors:
- Slow or failure to stop an activity when instructed to do so;
- Lack of discontinuance without external prompting;
- Insistence on rigidly adhering to a routine;
- Tendency to stick to a solution that does not work or strategy or path when it is no longer appropriate

Interventions: Shift-Flexibility

- Build in one or two optional activities as “routines”
- Announce changes in routine in advance
- Model, teach and encourage flexible problem-solving to permit alternative solutions to a problem
- Seek out alternative sources of information about inflexible atypical behaviors

Interventions: Hold

- Hold – the ability to cue the necessary cognitive processes required to maintain information in working memory and to continue cueing these processes until the information is processed, stored, retrieved, or acted on as desired.

Interventions: Hold

- Behavior:
 - Frequent requests for repetition
 - Failure to complete all aspects of a task
 - Vague, inaccurate responses to questions posed about information being held or manipulated by the person

Interventions: Hold

- Reduce the amount of information to be held at one time;
- Shorten or simplify multi-step directions;
- Write them on the board;
- Provide visual cues of the task;
- Prompt the child to listen carefully and wait for all of the directions;
- Talk about ways to visualize or take notes when a lot of information is being given.

Interventions: Sustain

- Sustain – the ability to cue continued attending, encoding, manipulating, storing, retrieving, or otherwise processing information for a prolonged period of time as well as the ability to continue to perform a motor act for a prolonged period of time.

Interventions: Sustain

- Behavior: Good initial performance followed by steady decrease in attending, or variable attending, or inconsistency as the test progresses

Interventions: Sustain

- Frequent prompts to maintain attention throughout;
- Verbal rehearsal to support repetitive activity;
- Reduce the length of time needed to sustain attention;
- Provide external sources of motivation to improve attending
- Set specific time limits.

Interventions: Inhibition

- Inhibition – the ability to cue resistance to acting on first impulse or to cue the suppression of the engagement of a specific behavior when it would be advantageous or appropriate not to display the behavior.

Interventions: Inhibition

- Behavior:
 - Difficulty with inhibition
 - Acts without thinking
 - Interrupts others
 - Over-reacts
 - Gets out of control
 - Restless
 - Inconsiderate of others

Interventions: Inhibition

- Increase the structure of the environment
- Model, preach & practice Stop, think & make good choice!
- Anticipate when impulsive behavior may be elicited and prompt cues
- Examine antecedents in environment
- Explicitly state expectations and limits of acceptable or unacceptable behaviors

Interventions: Time Sense

- Time Sense – the ability to cue the monitoring of the passage of time (e.g. cueing the engagement of the mental functions that enable a person to have an internal sense of how long they have been working) or to cue the use of time estimation routines (e.g. cueing the engagement of mental functions that enable a person to have an internal sense of how long something will take to complete or how much time is still left in a specific period of time).

Interventions: Time Sense

- Behaviors:
 - Very little work accomplished
 - Assignments handed in late
 - Requires more time to complete work
 - Often arrives late
 - Needs to be “hurried up” so as not to be late

Interventions: Time Sense

- Use timers, such as wrist watches, oven timers, microwave timers, or stop watches to assist in informing how much time remains;
- Prompt checks on time;
- Review timelines ahead of time & strategies for time management

Interventions: Pace

- Pace – the ability to cue awareness of and regulation of rate of performance of mental or physical acts.

Interventions: Pace

- Behaviors:
 - The child moves too slowly or too quickly
 - When given time constraints they ignore them and still work too quickly

Interventions: Execute

- Execute – the ability to cue the performance of an appropriate motor routing or other form of response based on the demands of the situation.

Interventions: Balance

- Balance – the ability to coordinate the cueing of the use of pattern and detail processing cognitive operators in the right mix, or regulating the trade-off between speed and accuracy, to enable effective encoding, manipulation, storage, or retrieval of information or to carry out motor acts in an efficient and effective manner to produce as high a quality response as possible.

Interventions: Plan or Organize

- Plan – the ability to cue the needed resources required to determine the most effective way to encode, manipulate, store or retrieve information or carry out a motor act based on the information available and on anticipation of future conditions or events.

Interventions: Monitor

- Monitor – the ability to cue appropriate routines for checking the accuracy of encoding, manipulation, storage, and retrieval of information or the performance of, or final product of, a motor routine.

Interventions: Generate

- Generate – the ability to realize that problem-solving efforts are required and to cue the use of the resources needed to carry out problem-solving routines.

Interventions: Correct

- Correct – the ability to cue appropriate routines for correcting errors or altering performance based on feedback from other executive functions.

Interventions

- For the Classroom Teacher
 - Three principles of instruction
 - brevity
 - variety
 - structure and routine (predictability)

What else works?

- Ways to “connect”
 - The least effective way to correct a child with AD/HD is verbally.
 - Make eye contact
 - Stand in close proximity
 - Use strong facial gestures

Appropriate Accommodations

- Modified assignments
 - Close monitoring of medication effects
 - Reduced written or copying tasks
 - Alternative testing methods
 - Use of compensatory tools in classroom
 - Advance notice and reminders of due dates
 - Outline of class discussion including key vocabulary words
 - Supplement verbal instructions with visual information
 - Use of peer tutor

Accomodations

- Copies of notes on a chapter provided directly to the student
 - Modified textbooks or worksheets
 - Provision on an extra book at home
 - Buddy phone system of names to call when unsure of assignment
 - A “directions helper” in class
 - Modification of nonacademic time (lunch, recess, physical education)

Interventions

- colorful, stick-on dots
- small, hand-held tape recorder
- colorful highlighting markers
- index cards in a variety of colors
- memory tape recorder
- large, brightly colored paper clips
- personal organizational planners
- wall calendar at home
- phone-address book (filled in)

Interventions

- Study Tools for Students with EFD
 - clipboard
 - electronic hand speller with dictionary
 - post-it notes
 - post-it tape pop-ups
 - 3-hole punch
 - super-large, 3 ring notebook with colored dividers
 - lightweight mechanic pencils and fine-tipped pens

For More Information:

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