

# Supporting the Learning Disabled, ADHD, and At-Risk Student Athlete

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# Goals

- ◉ Develop a better understanding of various disabilities and how they affect the student athlete
- ◉ Discuss how various disabilities correlate and how to notice the signs and symptoms of each
- ◉ Provide intervention concepts and strategies to facilitate better academic performance

# Executive Function & ADHD

## Executive Function

~ “Executive Function disorder is a disability of not being able to show what you know”

### ~ Three Primary Layers

- Self Regulation
- Organization & Integration
- Higher Order Reasoning Skills

~ Associated with many disabilities, including ADHD

~ Can have *EF* without being diagnosed with a learning disability

## ADHD

~ Considered to be a neurological disorder that affects self regulation through executive function deficits

~ lifespan disorder that impacts so many areas of a person’s daily functioning

### Three Subtypes:

- Inattentive
- Hyper-active-impulsive
- combined

# How does Executive Function Affect Learning?

## Executive function allows us to:

- ✓ Make plans
- ✓ Keep track of time and finish work on time
- ✓ Keep track of more than one thing at once
- ✓ Meaningfully include past knowledge in discussions
- ✓ Evaluate ideas and reflect on work
- ✓ Change our minds and make mid-course correlations while thinking, reading, and writing
- ✓ Ask for help or seek more information when we need it
- ✓ Engage in group dynamics
- ✓ Wait until we are called on

# 8 Pillars of Executive Control

Dr. Adam J. Cox, Ph.D.

- ① **Initiating Action**: able to organize one's thoughts to get started on a task without having to be asked multiple times
- ② **Flexible Thinking**: ability to adapt to various situations by shifting one's focus
- ③ **Sustaining Attention**: focus long and accurately enough to learn important information; able to block distractions
- ④ **Organization**: managing space—able to take the emotional impact of chaos seriously
- ⑤ **Planning**: managing time, uses time as a tool to clarify priorities and enhance productivity
- ⑥ **Working Memory**: ability to retain information long enough for it to be stored in long term memory---aka how to learn
- ⑦ **Self Awareness**: essential to making choices about how to act in situations that might be uncomfortable
- ⑧ **Regulating Emotions**: under/ over reacts to particular events

# Warning Signs of Executive Function Problems

A student will usually have trouble with the following.....

- ⦿ Planning projects
- ⦿ Comprehending how much time a project will take to complete
- ⦿ Telling stories (verbally or in writing), struggle to communicate details in an organized, sequential manner
- ⦿ Memorizing and retrieving info from memory
- ⦿ Initiate activities or tasks, or generate ideas independently
- ⦿ Retain info while doing something with it

# The components of executive function that impact functioning at school or work:

- **working memory and recall** (holding facts in mind while manipulating information; accessing facts stored in long-term memory)
- **activation, arousal and effort** (getting started; paying attention; completing work)
- **emotion control** (tolerating frustration; thinking before acting or speaking)
- **internalizing language** (using self-talk to control one's behavior and direct future actions)
- **complex problem solving** (taking an issue apart, analyzing the pieces, reconstituting and organizing them into new ideas)

# Strategies to help with EF

- Take step-by-step approaches to work
- Rely on visual organizational aids.
- Use tools like time organizers, computers or watches with alarms.
- Prepare visual schedules and review them several times a day.
- Ask for written directions with oral instructions whenever possible.
- Plan and structure transition times and shifts in activities.

- Help create **checklists** and **'to do' lists** where the student contributes to the list
- Help break long assignments into chunks
  - Assign specific time frames for completing each chunk—these students need to **see specific deadlines** for assignments
- Encourage students to write the due date on the assignment as soon as they receive it
- Use visual calendars to mark classes, practices, meetings, and due dates

# How to Manage Work

- Go over the assignment with the student to ensure the student understands what is expected. Repeat and ask for assurance—have the student verbally tell you what is expected
- Make a checklist *WITH* the student—step by step how to get through the assignment.
- Create step by step directions and timeframes for each step
  - > Must see there is an ‘end’
- Ask if there are any questions and have the student repeat the instructions to you

# A.D.H.D. and Medication: When it's not the only answer

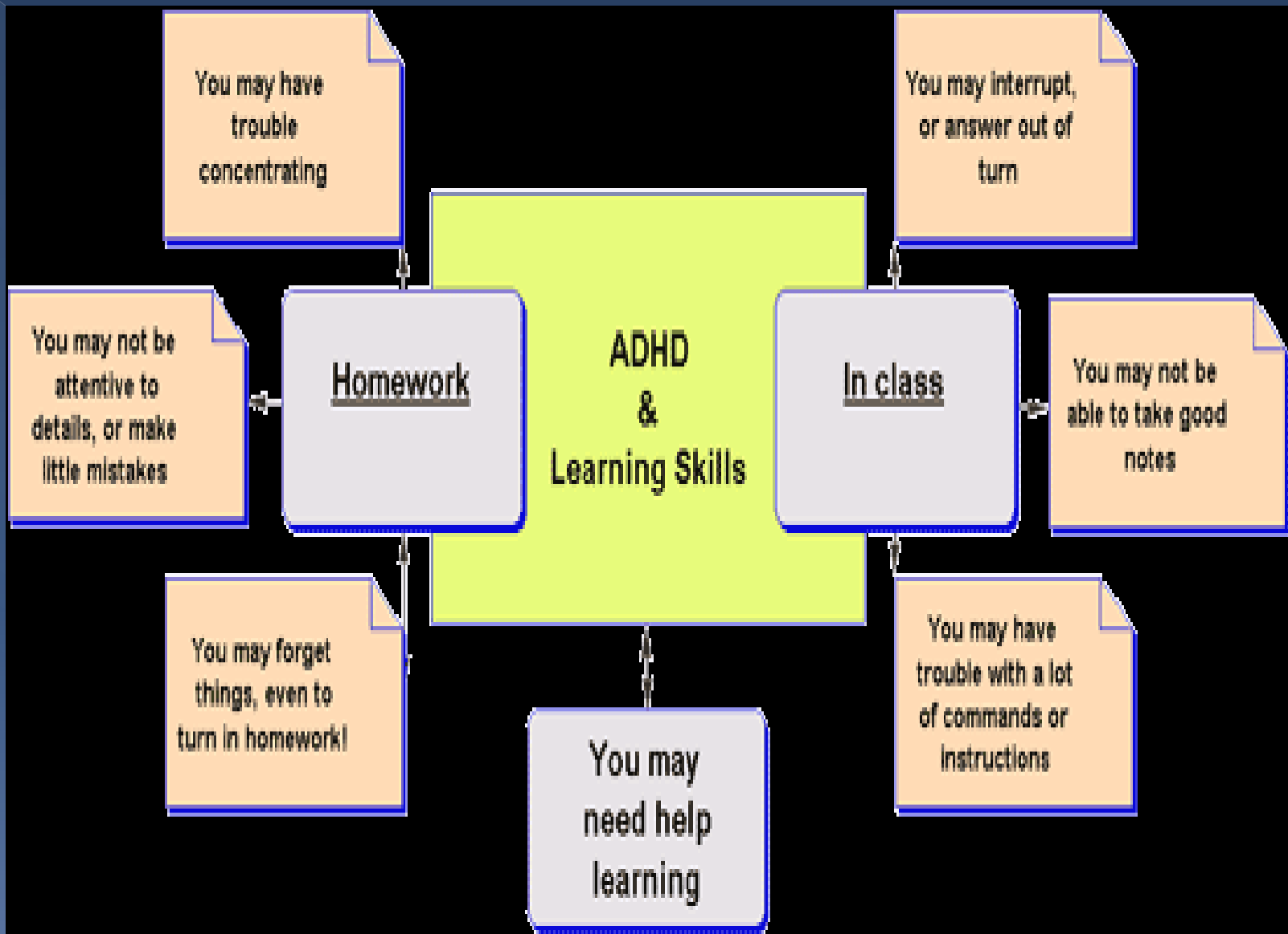
- A student diagnosed with A.D.H.D. that is prescribed medication might also need to work with someone on learning and attention strategies, such as.....
  - > How to manage time - **ROUTINE, ROUTINE, ROUTINE**
    - The more structured their day is, the more productive they will be
    - Calendar/ Schedule that includes class, study hall, meetings, tutors, practice, when to eat
      - Do not **overschedule....**they need down time
      - Be realistic about how much they can get done in between classes/ practice
      - Understand when they are most alert and focused
      - To do lists are their best friend

# A.D.H.D- Inattentive Type

- ⦿ Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- ⦿ Often has difficulty sustaining attention in tasks or activities
- ⦿ Often does not seem to listen when spoken to directly
- ⦿ 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)
- ⦿ Often has difficulty organizing tasks and activities

- Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- Often loses things necessary for tasks or activities (e.g., school assignments, pencils, books, or tools)
- Is often easily distracted by extraneous stimuli
- Is often forgetful in daily activities

Individuals must meet 6 or more of these symptoms if they  
ALSO meet certain criteria for diagnosis specified in the  
DSM-IV to be diagnosed with ADHD



# ADHD & Coexisting Disorders

The most common disorders to occur with ADHD are:

- ❖ Disruptive behavior disorders
- ❖ Mood disorders
- ❖ Anxiety
- ❖ Tics and Tourette Syndrome
- ❖ Learning Disabilities

# Auditory Processing Disorder

Previously known as CAPD: Central Auditory Processing Disorder

- ❑ Can not process information they hear because the brain and auditory pathways are not in sync
- ❑ Something adversely affects the way the brain recognizes and interprets sounds, most specifically the sounds composing speech
- ❑ Trouble recognizing subtle differences btw sounds in words, even if sounds are loud and clear
- ❑ Background noise is a natural listening environment-the students have difficulty understanding speech under less than optimal conditions

# Traits and signs of APD

- Easily distracted or unusually bothered by loud or sudden noises
- Noisy environments are upsetting
- Behavior and performance improves in quieter settings
- Difficulty following directions, simple & complicated
- Errors in reading, spelling, writing or other speech-language difficulties
- Abstract information is difficult to comprehend
- Math word problems are extremely difficult
- Disorganized and forgetful
- Hard to follow conversations

# Causes, Diagnosis, & Other Related Conditions

## Causes

Unknown but evidence suggests links to :

- head trauma - can occur at any age
- lead poisoning
- chronic ear infections during childhood
- Might be inherited or a birth defect

## How to Diagnose

- Only an audiologist can assess and diagnose
- Early hearing tests might not always catch a deficit

## Can be Associated with:

- Dyslexia
- ADD
- Autism
- PDD: Pervasive Development Disorder
- Specific Language Impairment

# Main Problem Areas for People with APD

- ✓ **Auditory Figure-Ground Problems:** student can't pay attention with noise in background—can become easily frustrated
- ✓ **Auditory Memory Problems:** difficulty remembering information—both immediate and delayed
  - ✓ Ex: directions, lists, or study materials
- ✓ **Auditory Discrimination Problems:** trouble hearing the difference between words or sounds that are similar
- ✓ **Auditory Attention Problems:** can't stay focused on listening long enough to complete a task or requirement—lectures are extremely difficult

- ◎ **Auditory Cohesion Problems:** higher level listening tasks are difficult.
  - > **Auditory cohesion skills**-drawing inferences from conversations, understanding poems, or comprehending math word problems (trouble also with Geometry, Physics) -they require heightened auditory processing and language levels

# How to Help

- Discuss with student different ways to reduce background noise while studying
- Encourage student to look at whoever is talking
- Explain things in simple, expressive sentences
- Speak at a slower rate and a lower volume if possible
- Ask student to repeat directions back to you and to keep repeating them aloud until directions are completed
- Work on maintaining a set schedule and organization in all aspects of life

# ***NLD: Nonverbal Learning Disorder***

- Can often go undiagnosed in many children
- The child appears to 'grow into' the disability
- The disability itself does not change, as more abstract demands are placed on the student as they get older, the severity of the disorder can become more pronounced
- Do not process non verbal/ linguistic information accurately
  - instead rely on their interpretation of the spoken or written word
  - Their interpretation is concrete, rigid, & not flexible

# Traits of a Student with NLD

- Talk a lot but really say very little
- See the 'trees' not the 'forest'
- Focus on details, don't apprehend the main idea
- Don't see the whole picture
- Trouble reading facial expressions, gestures—miss the subtleties or nuances
- Inappropriate in social interactions
- Friends with older or younger people
- Process info. in a linear, sequential fashion—cant see multiple dimensions—but can sequence well
- Trouble with cause-effect
- Shut down when faced with pressure to perform

# ***Academic Performance, Physical Appearance & Anxiety***

- ⦿ Usually auditory, unimodal learners
  - May not look or write while processing
- ⦿ Concept formation and abstract reasoning may be significantly impaired
- ⦿ Have difficulty generalizing information
- ⦿ Appear to lack coordination—better in individual than team sports
- ⦿ Impaired fine motor skills— poor hand writing
- ⦿ Anxiety/ depression could be severe
- ⦿ Trouble adapting to new situations or changes in routine

# How We Can Help

- ① Provide verbal mediation for nonverbal experiences
- ① Teach them to use their own verbal strengths to mediate their experiences
- ① Help them anticipate situations they might find difficult-plan in advance how to handle the situation
- ① Work on understanding facial expressions, gestures, & other aspects of nonverbal communication

- ① Teach them how to watch for and interpret indicators from others that they are talking too much or are communicating ineffectively
- ① Work on self-monitoring their understanding and ask to clarify questions
- ① Work on understanding spatial language
- ① Make cause-effect relationships as explicit as possible
- ① Help them anticipate cause and effect relationships and how to handle them

- ◎ Teach and practice organizational skills -
- ◎ Make sure they are not overwhelmed and try and control the demands for performance-both in the classroom and on the field
- ◎ Rely on verbal strengths-help them internalize the process of
  - > making decisions
  - > Setting goals
  - > Making plans
  - > Taking action to achieve these goals
  - > Reflect and evaluate the results

# ***Reading Comprehension Difficulty***

- ◉ Result of a broadly based language problem; trouble with word recognition
- ◉ Successful reading comprehension is correlated with oral reading fluency and vocabulary knowledge
- ◉ Students who struggle often give up too quickly
- ◉ Have difficulty determining important text vs. non important material

# Reading Comprehension

## Good Readers

- Can use previous knowledge in readings
- Able to synthesize and analyze what they read
- Can decode well
- Strong working memory– able to remember the beginning of the sentence once you get to the end

## Struggling Readers

- Struggle with phonemic awareness
- Trouble sequencing & with working memory
- Can decode well, but it takes too long to decode–so comprehension suffers
- Processes language at a slower rate

# ***Why Students Struggle with Reading***

## **Struggle with Inferences**

○ **Inferring:** The merging of background knowledge with clues in the text to come up with an idea that is not explicitly stated by the author. Reasonable inferences need to be tied to text.

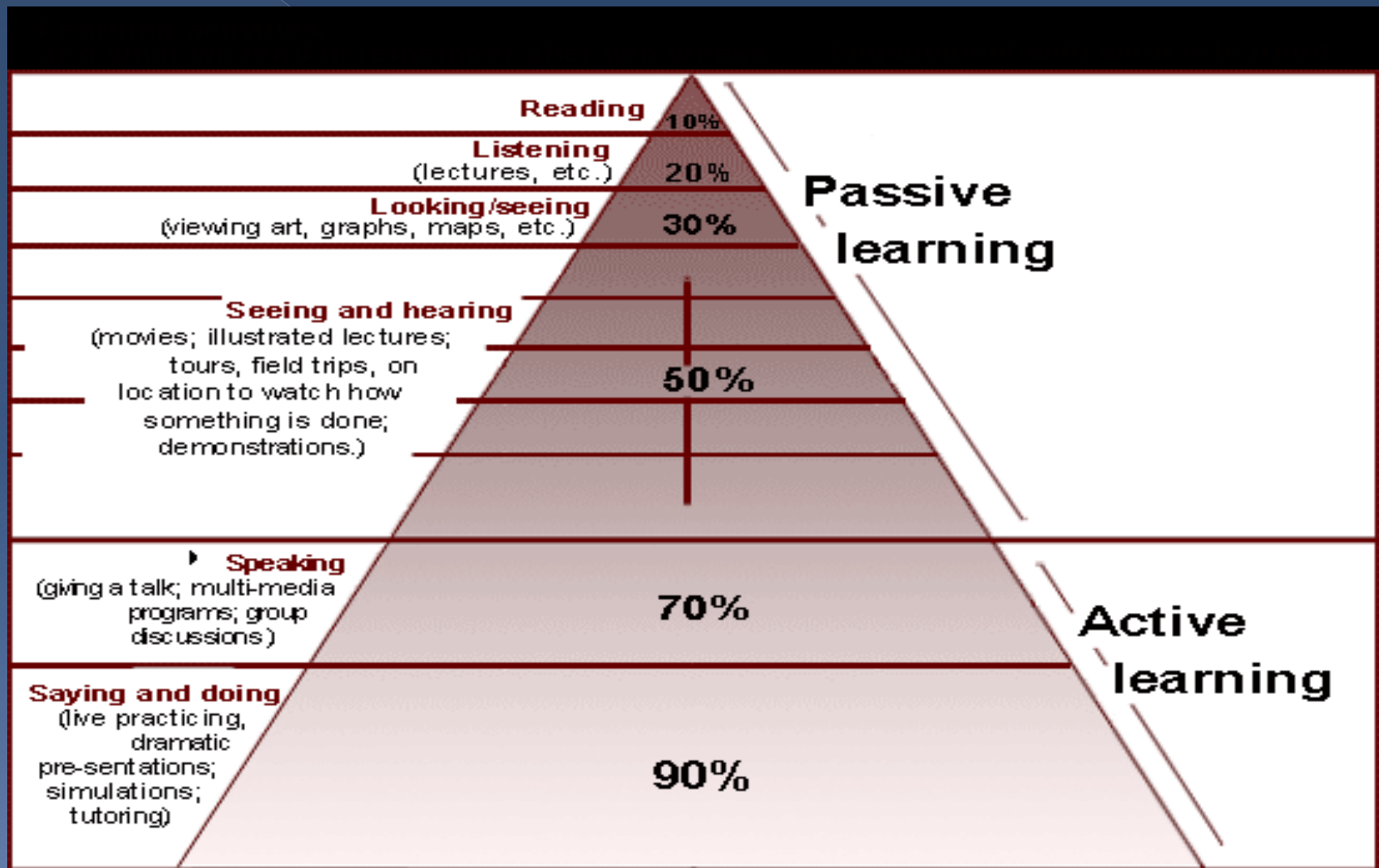
## **Students who have trouble reading struggle with:**

- Making predictions, inferring relationships
- Use context to figure out meaning of unfamiliar words
- Interpreting Language (figurative, idiomatic, & metaphoric)
- Visualizing and constructing the meaning of what is read
- Using text evidence to understand themes
- Draw conclusions based on textual evidence

# Intervention Strategies

- ◉ Discourage highlighting: Struggling readers don't even know what they are highlighting
- ◉ Turn headings into a question— read to answer and understand the question
- ◉ Read the summary at the end of the chapter first, write down important info and facts
- ◉ Break apart info into chunks—don't read the whole chapter at once

# Active vs. Passive Learning



# The 5 Rs of Note taking

- **Record, Reduce, Recite, Reflect, Review**
- Record what you hear in class, main ideas and information, outlines, pictures
- **Reduce** the information after class—rewrite key words, phrases or definitions
- **Recite** what you remember from class using the left margin's info—create examples
- **Reflect** and think over what the information relates to what you already know from class or readings
- **Review** your notes with a classmate, advisor, tutor, teammate or before you read new material

# Note Taking

<p><b>Heading</b> Date Class/subject or title or number</p>	<p><b>Heading, continued</b> Topic, lecture/discussion Guest speakers' names, including fellow students' thoughts or comments</p>
<p><b>2. Reduce:</b> <b>After the class</b> Summarize: key/cue words phrases questions Link to information from your textbook, Websites or other sources that helps you understand or study the material</p>	<p><b>1. Record/take notes in class here:</b> identify the main points capture the main ideas Use outlines or concept maps. Use words and pictures and graphs or whatever it takes to get the information down quickly. Avoid quoting unless it is necessary.</p>
<p><b>3. Take notes in this section when reviewing/studying</b></p>	



# Any Questions?

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