

Executive Functioning in the Classroom

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A Word on the Presenter

- Licensed psychologist
- Specializations include:
 - n Dyslexia, other Learning Disability, & ADHD Testing
 - n Neuropsychological Evaluations
 - n Evaluations of Behavioral and Emotional Problems
 - n Consultation
 - n School faculty training & development
- For people struggling in school, at home, or at work I conduct psychological evaluation to determine:
 - n What is the problem? What is causing it? What can be done to help?
- www.toolsforstudents.info

Facebook Fan Page

- For handouts and information on a wide range of psychology and education topics become a “fan” of my Facebook page:
“Dr. Edward M. Petrosky.”

Executive Functioning

- A collection of skills used to organize and direct behavior towards purposeful goals.
- Helps us control and regulate our behavior.
- Self-monitor and guide our performance

Disorders Characterized by Poor Executive Functioning

- ◆ ADHD
- ◆ Asperger's
- ◆ Autism
- ◆ Depression
- ◆ OCD
- ◆ Tourette's
- ◆ Schizophrenia
- ◆ Others

Executive Functioning Skills

- ü Sustained Attention

- ü Cognitive Sets

 - ü Establishing

 - ü Maintaining

 - ü Shifting

- ü Balance between field independence and field dependence

- ü Planning

- ü Initiation

- ü Generativity

- ü Sequencing

Sustained Attention

- The ability to *maintain* focus over a prolonged period of time.
- Hold attention in one spot

How Poor Sustained Attention Shows up in the Classroom

- Poor attention
- Distractible
- Zones out

Strategies

- Inject novelty into instruction
- Frequent breaks
- Rotate subjects
- Extra review for material covered towards the end of a lesson
- Teach at a continuous pace; prepare in advance so that delays between tasks are minimized

Strategies

- Avoid rote drills
- Engage attention
 - n Through challenge
 - *“Few people know the answer to this...”*
 - n Active student participation

Difficulty establishing cognitive sets

- Difficulty catching on to what one is supposed to do

How this shows up in the classroom

- Does not independently begin tasks

- n E.g. sits and stares

- Does the wrong thing

- n Can occur even with adequate listening comprehension: student understands the words but can't put together what you want them to do.

Strategies

- Check to make they understand and don't take for granted that they do.
 - n Have them repeat back their understanding
 - n Have them complete a couple of practice items and check their work for understanding

Strategies

- Emphasize the *method* or *steps* needed to solve a problem.
- Make explicit the process one uses to arrive at the correct answer.
- Specifically outline exactly what s/he needs to do.
- Number the steps and put them on an index card in order for the student to keep the steps “top of mind.”

Lose cognitive sets

- Lost track of what they're supposed to do and veer off course

How this shows up in the classroom

- Don't follow the directions
- When students don't follow the directions it is not always simply that they didn't pay attention. They may have difficulty staying on the same path. They begin driving down one path and find themselves on another.
- Some answers are logical, others are incorrect and off task / uneven performance on the same task (i.e. they forgot what they were doing).

Strategies

- Can't assume that just because the student gets off to a good start that s/he will continue down the right track
- Check in at regular intervals to ensure the student is *still* following the directions

Strategies

- Teach the student to (re)orient when answering questions by asking him/herself:

- n What information does the question want?
 - n What am I supposed to be doing?

- Have them write the end goal at the top of the page as a reminder

- n E.g. “3 reasons why”

Shifting Cognitive Sets / Cognitive Flexibility

- Stop an old behavior and start a new behavior.
- Ability to mentally “switch gears”
- Lack of cognitive flexibility is cognitive rigidity
 - n Causes perseveration: keep repeating the same behavior despite the fact that the task requirements have changed

How A Lack of Cognitive Flexibility Shows up in the Classroom

- Difficulty with transitions
- Repeat themselves
- Continue with same solution even though the problem has changed

Strategies

- Do not give worksheets with mixed problems (one worksheet for addition, one for subtraction)
- Clearly segregate different types of problems (e.g. addition problems on one page and subtraction problems on another page)
- Create labels and signs to signal transitions
- Make new information as distinctive from previous information as possible

Strategies

- Pause in between different chunks of information to allow the student to consolidate information and clear his / her mind for the next set of information.
- Emphasize where one piece of information ends and the next begins (e.g. “That’s one point, here is the next point.” “O.K., moving on now to something different” etc.).

Strategies

- Change seat
- Change where standing
- Begin new unit after a break
- Ritual of putting one book away and taking out another

Field Dependent Behavior

- When behavior is determined or driven by the environment, as opposed to one's thoughts or reflections.
- Not necessarily bad. Sometimes you *want* to let the environment determine your behavior (e.g. when a car is swerving towards you when you're crossing the street)

How this shows up in the classroom

● Impulsivity

- n Running across the room and picking up a pencil that has dropped
- n Eating cotton balls
- n Running to the window to see snow

● Excessive exploratory behavior

- n Ripping apart an electrical socket
- n Opening drawers and doors
- n Simply because they are there

Strategies

- Minimize salient environmental stimuli (e.g. put the book away)
- Visual aids (e.g. holding up a cardboard stop sign)
- Tune the student back into his or her thoughts by asking questions
 - n What are we working on?
 - n What are we supposed to be doing?
 - n What's the easiest / most difficult part of this assignment?

Planning

- The ability to think ahead and formulate a solution to a problem, as oppose to diving in and working on it haphazardly

How this shows up in the classroom

● Run out

n time

- miss deadlines

- don't finish exams

- money – spend all of their allowance during the first minute of the school fair

n room on the paper, things are squished

● Complete tasks inefficiently with a lot of unnecessary mistakes

Strategies

- Envisioning the end goal
- Identifying resources you will need (people, materials)
- Breaking it down into steps
- Specifying what will need to do each step of the way
- Writing – rough drafts, prewriting exercises
- Verbal mediation
- Brainstorming consequences
- Many, many others

Thank You Very Much!

Call or Email me with
Any Questions

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