

Executive Function

Supporting Executive Functions in the Classroom

Directions:

1. Review areas of executive functioning difficulties.
2. Identify structures, supports, skills or strategies to address each area of executive functioning.
3. Generate examples of instructional delivery from introduction of content, engagement & review of content, and assessment of content that accounts for each area of executive functioning.

Area of Executive Function	Structure, Support, Skills, Strategies	Lesson Plan Approach
<p>Activation –</p> <ul style="list-style-type: none"> • Avoids starting tasks, procrastinates • Struggles to identify, sequence & internalize the steps needed to complete a task • Becomes blocked because can't identify the appropriate established rule-governed behavior . • Low or high alertness/arousal 	<ul style="list-style-type: none"> • Attach first step of task to another approachable task • Starting task in presence of support • False deadlines - Show stages of task to someone • Separating task into 'baby steps' 	<p>Introduce content:</p> <ul style="list-style-type: none"> • Post Daily Agenda (in class; website; handout) • Activator – activate background knowledge in students of the content (brainstorm; connection to a video clip, song or poem; metaphor or example; concept mapping exercise) • Research investigation - Introduce content in form of question that students work in pairs or small groups to answer <p>Engagement with Content & Assessment of Understanding:</p> <ul style="list-style-type: none"> • Post key learning goals for lesson/activity • Post sequence of steps for task • Partner discussion of content and report out to class • Partner or small group activity (discussion; constructing visuals maps, posters, brochures; constructing models) • Start homework assignment in class • Choice of assignments – offer creative & meaningful assignments that are not just “busy work” • Collect, record, & post class ideas on required sequence of steps for task completion • Identify how content/task connects to real-world application • Show models of student work representing “A”/“B”/“C”/“D-F” quality •

<p>Focus –</p> <ul style="list-style-type: none"> • Hyperfocusing on the details, can't see big picture • Shifting attention between multiple tasks • Focus only on now – lack of forethought • Lack of sense of time 	<ul style="list-style-type: none"> • Create top-down picture of task – outline • Scheduling breaks during task = using timers or person • Establish absolutes list (what must absolutely get done vs. what can wait) • Schedule check-ins (email work in stages, show someone work in chunks) • Parking lot of less critical tasks 	<p>Introduce content:</p> <ul style="list-style-type: none"> • Daily agenda. • Focus Questions. • Concept Mapping. • Visual/auditory time markers (try http://learningforallages.com/Timers.htm). <p>Engagement with Content & Assessment of Understanding:</p> <ul style="list-style-type: none"> • Create timeline for how content fits into previous material and will fit into upcoming material. • Project-based partner or small group assignment (create board game/ podcast, video/YouTube clip, website, see Techsmith's www.JingProject.com, etc. = have to have purpose to game that matches "purpose" of content). • Movement breaks – some free breaks with "walk & talk cards" = hand partners review question cards that they discuss while taking a short walk around the classroom, hall, building, etc.) Come back and report out to whole group.
<p>Effort –</p> <ul style="list-style-type: none"> • Tires easily • Sleep issues • Extra time to process ideas • Struggles to generate rules & meta-rules • Struggles to sustain motivation 	<ul style="list-style-type: none"> • Physical movement and food breaks • Minimum and Maximum goals • Reward for completing baby steps • Start with hard task first • Establish routines • Set reminders to eat, sleep, exercise • Work with partner or study group 	<p>Introduce content:</p> <ul style="list-style-type: none"> • Guided organization of materials (can be simultaneous with agenda preview). • Students generate questions and post on poster sheets around the room. <p>Engagement with Content & Assessment of Understanding:</p> <ul style="list-style-type: none"> • Timed Snack scavenger hunt- students snack on or find protein snacks with attached content questions/clues/tasks/problems to solve/address hidden around the room/floor/building/campus. • Walk and Talk Discussion cards. • Partner Projects/ Study Group Assignments. • Content coverage is depth, not breadth (less schema switching-attention shifting).

<p>Emotion –</p> <ul style="list-style-type: none"> • Difficulty regulating mood & emotions • Difficulty managing stress • Trouble letting go of negative thoughts, experiences 	<ul style="list-style-type: none"> • Create parking lot of unwanted thoughts/feelings • Journaling/ no-send letters • Exercise • Mentor/someone to test perceptions • Reverse role play 	<p>Introduce content:</p> <ul style="list-style-type: none"> • Open with a joke/comic/bizarre fact of the day. • 5 minute “brain dumps” – “write down everything cluttering your mind before we move on”. • Reflection questions: “How does this topic connect to you?” “How will you feel if you do well in this class today?”. <p>Engagement with Content & Assessment of Understanding:</p> <ul style="list-style-type: none"> • Students teach and assess content. • Student choice in assignment/assessment. • Group discussions/ structured debates. • Frequent, constructive feedback – frequent formative assessments.
<p>Memory –</p> <ul style="list-style-type: none"> • Trouble remembering sequence of steps (remembers first or last, but not things listed in middle) • Has great ideas, but forgets them after writing down first one • Holding events in mind • Recalling past events and experiences • Trouble with internalization of speech, self-questioning & reflection 	<ul style="list-style-type: none"> • Talk self through the steps out loud • Write everything down/carry notebook/audio recorder/cell phone/ pda with alarms, pulse pen, task lists • Speech-to-text software • Concept mapping software • Outlines • Placed post-it reminders/color coded • Pairing a physical action with sequence of steps 	<p>Introduce content:</p> <ul style="list-style-type: none"> • Posted agenda. Track on one-page color-coded calendar. • Connect past content with new content (schema maps). • Students create metaphors for new concepts (ex. Neurotransmission is like the U.S. transportation system because they both...). <p>Engagement with Content & Assessment of Understanding:</p> <ul style="list-style-type: none"> • Activities & assessments that engage multiple memory pathways – visual, auditory, kinesthetic/procedural encoding. • Incorporate self-reflection/self-assessment questions into activities & assessments – “what did you do to prepare?” “What would you do differently” “what surprised you about...?”. • Process deadlines. • Project-based assignments/assessments.

<p>Action –</p> <ul style="list-style-type: none"> • Reconstitution (breaking down a behavior into component parts & recombining those parts into a new behaviors in pursuit of a goal) • Dropping a project midstream • Working at inconsistent pace = too slow at start, then rushing to finish • Acting/reacting impulsively, taking on too many tasks • Lacks internalization of rule-governed behavior • Struggles with regulation of motivation <p>Sources: 1. Brown, T. E. (2001). Manual for Attention Deficit Disorder Scales for Children and Adolescents. 2. Barkley, R. A. (1998). Attention-Deficit Hyperactivity Disorder. <i>Scientific American</i>.</p>	<ul style="list-style-type: none"> • Practice turning down requests • Schedule self-time • False deadlines • Reporting to someone/ show work in stages • Reward system • Prioritizing important tasks from less important • Sending self reminders (mail, delay email, pda, phone, etc.) • Attaching task deadline to another event • Single Daily Action Plan • Identify limits 	<p>Introduce content:</p> <ul style="list-style-type: none"> • Agenda (Maximum wishes outcomes list w/reward/treat – if we complete “x,y” by ____time, we will ____; but if we complete “x, y, z” by ____, we will ____. • Field trip/ guest speaker with reflection journal – “what was surprising about...” “how do you think the person felt when....”. <p>Engagement with Content & Assessment of Understanding:</p> <ul style="list-style-type: none"> • Problem-based assignments/activities – journals on problem-solving process (best when there isn’t just one write solution). • Partner/Group-based activities, assignments/assessments – students work in small teams but with each student responsible for individual component with all components assembled during class time or structured study groups (accountability to self, teacher, and peers/friends and process is coached by teacher and peers).
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