



Materials that are included in this course may include interventions and modalities that are beyond the authorized practice of mental health professionals. As a licensed professional, you are responsible for reviewing the scope of practice, including activities that are defined in law as beyond the boundaries of practice in accordance with and in compliance with your profession's standards.

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One Day In The Kinetic Classroom

- Biological precursors of cognition and behavior
- How to teach executive function skills
- Rhythmic coordinative cognitive-motor activities
- Heavy work for dysregulation and distress
- In-the-moment self-regulation activities to calm the
- Caveman and engage the Thinker
- Cognitive-movement strategies to help children move out of the stress response into an alert state of calm
 The "cognitive conversation" about executive functions

- including self-control, attention and memory
- Musical Thinking the original visual-motor language to engage the brain

The Morning Program

- The "Ready to Learn" Brain
 Building Prosocial Behaviors
 Engaging Subcortical Structures
 Musical Thinking

- Building Your Own Cognitive-Motor Patterns Sequences & Phrases
 Cognitive Neuroscience

The Afternoon Program

- The "Cognitive Conversation" about Attention
 CogniTap for Alerting & Regulating
 Music, Drumming and Sound for Cognitive
- Engagement
- Developing Cognitive-Movement Sequences for Your
- Setting
- Language, Dyslexia, Reading & Learning
- Bean Bags, Attention & Memory
 The "Cognitive Conversation" about Working
- Memory Self-Regulation, Response Inhibition, Self-Control and .
- Emotional Modulation
- Spotlight
- Rhythm Ball

FOCUS ON THE BEAT

Priming the Brain for Listening and Learning

• Implement research-based activities to improve thinking, self-regulation and behavior.

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- Characterize the relationship between cognition and motor movement.
- Explore bringing physical activity back to the classroom with neurocognitive activities.
- Practice over 30 activities you can do to help children with ADHD, dyslexia, ODD, sensory processing challenges, dyspraxia, anxiety and behavioral issues.
- Evaluate the integration of computer-based cognitive skills training and motor movement activities. ٠
- Choose how to enhance collaboration and cooperation by • teaching students applied neuroeducation.

Advancements in Technology Neuroscience

Then...

Alexander Luria fMRI Diffusion Tensor Imaging Deep Brain Stimulation

Now...

Research Study Design

There are four main types of Quantitative research: Descriptive, Correlational, Causal-Comparative/Quasi-Experimental, and Experimental Research.

Randomized controlled trial: (RCT) A study in which people are allocated at random (by chance alone) to receive one of several clinical interventions including a control group. RCTs attempt to establish cause-effect relationships among the variables.

A cross-sectional study is descriptive. It examines the relationship between disease (or other health related state) and other variables of interest as they exist in a defined population at a single point in time or over a short period of time (e.g. calendar year).















The New Preliteracy

While we were paying attention to BEHAVIOR we learned through science, that there are important SKILS that precede behavior. This redefines literacy for education. We learned that there are cognitive, social-emotional, and physical skills that precede both learning and behavior.

•Self-Regulation, the ability to manage one's internal energy, emotions and impulses. •Focused Attention, the ability to maintain attention on a specific target

Focused Attention, the ability to maintain attention on a specific target stimulus, long enough to take action on it.
 Working Memory, the ability to transiently hold and manipulate necessary information for relatively immediate access, in a short period of time.
 Sequencing, the ability to place content, words, thoughts and actions in order.
 Self-Control, the ability to recognize and resist cognitive and motor impulses sufficiently to take appropriate action in the moment.



More than a decade of research has shown that executive function skills, and the prosocial behaviors they promote, are more accurate predictors of academic readiness and life success than IQ or any other performance marker.

Studies have shown that children with stronger executive function skills engage more effectively with classroom learning activities and have higher reading and math achievement in elementary school than those with weaker skills, Brain Futures 2019.





50% more likely to Repeat a Grade 57% Receive More Disciplinary Actions 50% more Money to Educate 2x More Teacher Time 8 x more likely to drop out of high school





SAM

Self-Regulation Self-Control Attention Working Memory Cognitive Flexibility

EF's and Self-Regulation Predict Achievement and Lifelong Success

The evidence is clear: every school in the U.S. should adopt an executive function program and executive function training should be a standard component of teacher certification programs.

Brain Futures 2019

Early EF Predicts Math & Reading

A wealth of studies on the relationship between EF and emergent academic skills in preschoolers, kindergartners, and older children has shown that EF significantly relates to both mathematics and literacy skills (a.g., Alexander et al., 1993; Bull and Scerit, 2001; Blait and Bazz, 2007; McCelland et al., 2007; 2014; Clark et al., 2010; 2013; 2014; Weish et al., 2010; Roebers et al., 2012; Shaul and Schwarz, 2014; Blait et al., 2010; Roebers et al., 2010; Clark et al., 2010; Clark et al., 2010; McCelland et al., 2007; McCelland et a

Detecting a pattern within a sequence of ordered units, defined as patterning, is a cognitive ability that is important in learning mathematics and influential in learning to read.

Bock et al. 2018

Early EF, assessed in children as young as two years, is predictive of emerging academic skills at the end of kindergarten. Differences in early EF are particularly predictive of emergent mathematics, but also play a role in the development of early literacy skills. Mulder et al. 2017

Improving Executive Function: Evidence-Based Interventions

Cognitive Skills Training

Computerized Cognitive Training (CCT)
Social-Emotional Learning

Neurofeedback

Brain Literacy

Mindfulness

Physical Activity



Physical Activity is Associated with Enhanced Cognition

Advancements in use of fMRI, diffusion tensor imaging (white matter), EEG (ERPs) and biometric measures (VO2 max) have strengthened the neuroscientific rationale for the beneficial effect of physical exercise and fitn ess on brain development and cognitive functioning in children and adolescents.

Physical Fitness

Globally, more than half of school-aged children do not engage in the recommended 60 minutes of daily moderate to vigorous physical activity (MVPA) and the childhood obesity rate has increased from 13.9% in 2000 to 18.4% in 2016 in the United States, Lee at al., 2020.

Physically fit children demonstrate greater attentional resources, have faster cognitive processing speed, and perform better on standardized academic tests.

Health Consequences of Physical Inactivity

Research indicates that physical inactivity and sedentary behaviors are significant correlates of childhood obesity, Childhood obesity and physical inactivity may result in serious adverse health consequences such as poor executive function, cardiovascular disease, type 2 diabetes, asthma, sleep apnea, depression, anxiety and psychosocial issues, Lee at al., 2020; Favieri et al., 2019.

Fitness, Cognition & Mental Health

FITNESS and TEST STANDARDIZED SCORES – Physically fit children demonstrate greater attentional resources, have faster cognitive processing speed, and perform better on standardized academic tests. Source: Educating the student body.

FITNESS and EF's – A growing body of research in children and adults indicates that higher levels of fitness are associated with better control of attention, memory, and cognition (Colcombe and Kramer, 2003; Hillman et al., 2008; Chang and Etnier, 2009).

FITNESS AND COGNITIVE EFFICIENCY – The cognitive efficiency seen in higher-fit children, is a predictor of arithmetic and reading aptitude independently of IQ and school grade (Hillman et al., 2012).

 $\mathsf{FITNESS}$ and MENTAL HEALTH – $\mathsf{Fitness}$ is also associated with less depression and anxiety, (Kandola et al., 2019).













Stress, Brain Stimulation and Readiness to Learn

Children need low-stress high caring environments for optimal learning.

Resting state coupling between the amygdala and ventromedial prefrontal cortex is related to household income in childhood and indexes future psychological vulnerability to stress, Hanson et al., 2019.

Poverty as a Predictor of 4-Year-Olds' Executive Function: Poverty and poverty-related stressors are generally associated with higher allostatic load, lower executive function ability, and compromised self-regulation for young children, Raver at al., 2017.

Early EF Predicts Social Competence

Social competence is understood as the repertory of abilities that allow people to contend with the demands of a social situation in an acceptable manner (Mcloughlin, 2009); to initiate and sustain cooperative and positive social interactions; as well as to know how to resolve conflicts or make friends (Hubbs-Tait, Osofsky, Hann, & Culp, 1994) in Romero-López et al., 2018.

Inhibitory control and cognitive flexibility are key developing skills in preschoolers, Buttelmann & Karbach, 2017.

Create a Classroom Culture of Kindness, Respect & Trust

Behavior

It's WHAT WE ATTend To

Students who "misbehave" Students who "act out" Students who "want attention" Students who "do not pay attention" Students with "who are lazy" Students who "are a distraction""

The ONE Important Thing

98% of the time, it's a skill deficit, it's NOT non-compliance

Trauma Learning Difficulties Violence Miscommunication Misunderstanding Sensory overload Agitation Anger Frustration Not feeling understood Not feeling heard Executive Function Dysfunction Mood Regulation Self-Regulation Motor Skill Deficits

The Discipline Trap

Believing we can Consequence children into new prosocial skill sets



Damage Control

Waiting for the behavioral disruption to appear before intervening.

Prepare, Partner, Practice and Prevent



What the Science Tells Us We Can Do Instead

We become Detectives and look at:

- What does the behavior say?
- What are the skill deficits?
- What are the triggers?
- What puts the student into overwhelm?
- What can We do to prepare & prevent?
- What can WE do to remain calm & connected?

ONLY then can we begin to better build a prosocial brain















Our vestibular system is like a

gyroscope for the body Depending on how we move our head (rotation/direction/speed), specialized cells send signals to our brain which then 'informs' our body's reaction

- A well-functioning vestibular system: Better balance Less clumsiness Better visual tracking Better head-eye coordination Smoothly look up at a whiteboard, then down at their work Reading fluidly, finding next line of text Ball skills

- Reasons
 Ball skills
 Better posture and muscle tone Better positive and maske tone
 better positive and maske tone
 senses
 Promotes self-regulation

Balance, Weight Shift & Posture

Let's Drive a Car

Let's Be a Crane

The Posture Song

Posture

The Ready Position Song

Head Shoulders Hips and Knees Hips and Knees Head Shoulders Hips and Knees Hips and Knees

Chin up tall Belly in and Tailbone down

Head Shoulders Hips and Knees Hips and Knees

Proprioception and Kinesthesis

Kinesthetic sense. The ability to know accurately the positions and movements of one's skeletal joints. Kinesthesis refers to sensory input that occurs within the body. Postural and movement information are communicated via sensory systems by tension and compression of muscles in the body. Proprioceptive senses relay information about the position and movement of our limbs and trunk, the sense of effort, the sense of force, and the sense of heaviness. Receptors involved in proprioception are located in skin, muscles, and joints.



































Balance, Beat and Coordination

A systematic review of the research suggests that short bursts of fine and gross motor coordinated bilateral physical activity may improve attention, processing speed, and focus, van der Fels et al. 2015.

In a systematic review of research studies on the impact of physical activity on attention, deSousa et al. 2018 observed that continuous exercises that required greater cognitive involvement like activities with coordination and balance were related to a better performance during attention-demanding tasks than continuous exercises with fewer or no cognitive challenges (Budde et al., 2008; Palmer et al., 2013).

Bonacina et al. 2019 reported the use of clapping in time training as a way to possibly affect a broad spectrum of rhythmic abilities that are linked to language and literacy processes. Classroom physical activity benefits students by:

- Improving their concentration and ability to stay on-task in the classroom.
 Reducing disruptive behavior, such as
- fidgeting, in the classroom. • Improving their motivation and
- engagement in the learning process.Helping to improve their academic
- performance (higher grades and test scores).
- Increasing their amount of daily physical activity.

Centers for Disease Control, 2018











"Executive Functions are Cognitive Skills and Cognitive Skills can be Learned."





8 Musical Thinking Executive Function Brain Lessons

- 1. I am Musical
- 2. I am the Best Coach for My Own Brain I
- 3. I Move to Learn
- Neuronal Highways
 How My Brain is Built
- 6. My Attention Engine
- 7. My Memory Window
 8. I am the Best Coach for My Own Brain II



Rhythm, Tempo + Timing

Motor rhythm and timing are precursors to behavioral and academic learning. Further, patterning which is a central element of learning, coincides with tempo, rhythm and timing in both reading and math, Center on the Developing Child - Harvard, 2015.













Musical Thinking Communication Signals

Fists gently placed in front of the body next to one another palms down, waist high.

"Please wait a moment, I'm Thinking." Index finger gently pointing to head temple high.

Pause

May I please get up for some movement now? Index finger spinning upward. (mini-break)

May I please take a moment to Bess Rest? (I am overwhelmed, Lired Upper body hug, arms crossed to or needing to take a breather and calm myself for a moment.)

















Cueing is Scaffolding

Auditory cueing could also lead to a different type of motor learning process by providing a richer setting for motor learning and stimulating connectivity between auditory and motor areas. Rather than simply speeding up learning, motor activation would result in a different learning process than uncued movement. (Schaefer, 2014).

Counting Saying what you are do it Right, Left 1 Clap 3 Bounce Words in motion – bounce, catch, pass





















The Importance EF, Self-Regulation & Social Competency for Academic Achievement

Self-regulation refers to the conscious control of thoughts, feelings, and behavior, and involves both emotional and behavioral self-regulation. McClelland et al. focus on the behavioral aspects of regulation, which stem from underlying executive function processes of attentional flexibility or shifting, working memory, and inhibitory control (Best & Miller, 2010; Garon, Bryson, & Smith, 2008; McClelland & Cameron, 2012).

Executive Functions including Self-Regulation as early as 2 years of age predicts future academic and social success (Mulder, 2017).

Preschool social-emotional competencies predict school adjustment in Grade 1, Nakamichi, 2019.



Effective transitioning of students between learning activities occurs when teachers establish routines and expectations of С student movement and behavior wherein students stop one activity and quickly and smoothly move to the next activity. Effective student transitions increase learning time and provide daily А L practice of safe movement (Carter, 2017). Μ Orderly transitions in school also increase the time that could be committed to classroom teaching and learning. Daniel (2007) identifies that even 10 minutes a day (a conservative estimate) of Μ Е lost classroom time due to student disruptions and poorly executed transition adds up to a staggering 30 hours of lost class D time per school year. 0 Reducing the transition time before and after activities by just one W minute per hour could reclaim 20 hours of lost time-on-task per student, per school year (Carter, 2017).

- Ν
- S Improving student time-on-task while transitioning supports more teaching time and imparts important self-regulation and executive function skills to last a lifetime.





I am the BEST COACH for My Own Brain I

"When we make the application of executive functions to learning transparent and easily understood, children gain better control over what was previously mysterious to them, that is, the process of thinking and learning."



³ I Move to Learn

- My body moves to help me concentrate
- I need to recognize when I need to tap, pat or move to re-alert
- Sometimes I need to calm not energize
- What's My PLAN
- What are my go-to activities?













Cognition is Mediated by the Cerebellum

"When we consider brain anatomy, we recognize the importance of the integration of the cortical and subcortical structures of the brain in learning and behavior. We need to keep front of mind that the higher level cognitive systems, rest on the subcortical structures including the limbic system and the cerebellum. Proper integration is needed for high quality learning. As the phylogenetically older of the brain systems, the cerebellum precedes the prefrontal cortex, in the automaticity of learning and behavior. Both are stored in and mediated by the cerebellum." (Kenney & Comizio, 2016)

Genes are Not Destiny

Depression & Anxiety Choi et al. 2019, Harvard

Autism, Allergies, ADHD, Asthma www.neurologicalhealth.org, ASU

My Attention Engine

Talking about My Attention Engine and the Attention Cycle May Improve:

- Student metacognitionStudent mindful awareness
- Student awareness of their attention engineStudent awareness of their attention cycle
- Student ability to focus, in order to tak in information necessary for learning
 Ability to choose salient targets of attention
- Ability to couse salient targets of atte Ability to sustain focused attention
 Ability to recognize when they drift
 Strategies to re-alert, re-select and re-attend
 Student-derived cognitive strategies

- Student derived cognitive strategies
 Student ampowerment and confidence
 Student agency and participation
 Classroom social cohesion
 Student prosocial behavior

8





I am the Best Coach for My Own Brain II

- I understand that I need practice and repetition to
- build the connections in my brain I understand that my THINKER rests on my Caveman and Boots
- I know that Attention is more than ONE thing
 I know I need to OPEN my memory window to let information in to become knowledge
- I understand that sometimes I need to move to THINK
- I will ask for help when I need it, I have a language now to do that







Attention is more than ONE Thing





Get the Conversation Started Prompts:

- What is attention?
- What makes it easy to pay attention?What makes it difficult to pay attention?What are the parts of the attention cycle?
- How do you turn on your attention engine?
- What helps your attention engine run smoothly?
 What helps your attention engine run smoothly?
 What does it mean to be alert?
 When does your attention need a break?
 When you drift where do you go?
 When you drift where do you go?

- What distracts you?What helps you remain focused?
- •
- What do you tell yourself when you brain needs a break? How long do you think a brain breather should last? How do you re-alert your attention? •
- .
- What do you say to yourself to re-alert your attention?Are there ways we, as a class, can help one another remain
- alert?

Selecting and Attending Prompts:

- How do you use your headlights to choose the proper target of your attention?
- What do you see, think and hear when you select different targets of your attention?Can you show me how you direct your headlights to the
- person, place or thing you are to focus on now? What do you tell yourself about selecting the proper focus of
- your attention? How do you know if your headlights are off-target? Attending is directing your mental energy toward a specific
- target. Can you show me what attending looks like? •
- If I am the target of your attention, what will you look like when you are attending to me?
 If your book is the target of your attention, what will you look
- Ike when you are reading?
 If a classmate is the target of your attention, what will you look like when you are attending to your classmate?

Ms. Johnston's Cogentres Cleasecom I am My Brain's Best Coach Ways to turn my TORCH On! (alert) I. 2. 3.	Lam My Brain's Best Coach Ways to draw My Attention to a specific target (select) 1. 2. 3.
I am My Brain's Best Coach Ways to help me FOCUS (attend) during the day 1. 2. 3.	Lam My Brain's Best Coach My favorite ways to 'switch off' and take a break (drift) 1. 2. 3.

Contraction Contraction Hey ATTENTION, how are you? Wake up we have much to do Worke up we have much to do FOCUS on what's important Turn on your headlights take it in Thank you ATTENTION you are my friend Now the learning is about to begin

Wait!

Wait, wait, wait it out THINK ABOUT IT FIRST Before you do anything

It's **smart** to think it out

When you get the urge to act You can wait and think All the possibilities Result in different things

You want what you do To be good for all When you wait and you think Things will turn out well

eddynebarney 209; 2020





































How Rhythm and Music **Enhance** Cognition

Learning includes recognizing, understanding and responding to patterns and sequences

Tasks of daily living, dressing, cooking, walking to school, playing
 Reading & writing

- Numeracy
 Spelling and vocabulary
 Homework and projects require sequencing

Rhythm and Tempo provide the opportunity to anticipate, respond, and create.

Timing supports and enhances coordination which underlies cognition. $% \label{eq:cognition}%$

Benefits of Music & Movement Training

Music and movement instruction has been shown to engage children's memory, cognitive development, social skills, learning and auditory processing.

- Develop fine motor skills
- Develop gross motor skills
- Learn to express emotions
- Learn how to manage one's body in space
- Improve balance and coordination
- Improve social interaction
- Improve self-regulation
- Increase working memory load
- Increase selective attention

Music and Movement in Curriculum

Integrating music and movement into the curriculum, has shown to directly affect numerous areas, including recall, reading levels, mathematics skills, engagement, and motivation (Cole & Boykin, 2008; Vazou, Gavrilou, Mamalaki, Papanastasiou, & Sioumala, 2012; Jensen & Kenny, 2004; Iwasaki et al., 2013; Mendelson, Greenberg, Dariotis, Gould, Rhoades, & Leaf, 2010; Song, Capraro, & Tillman, 2013), Hall 2019.















Developmental dyslexia is a childhood learning difficulty that is defined as a specific difficulty in reading and spelling that cannot be accounted for by low intelligence, poor educational opportunity or obvious sensory/neurological damage.

The core cognitive difficulty in developmental dyslexia lies with phonology, as measured by the ability to reflect on the sound structure of words (Snowling, 2000).

Children with dyslexia have difficulty in manipulating sound elements in words and in recognizing shared sounds in words (Ziegler & Goswami, 2005; Ziegler et al., 2010, for recent reviews).

They frequently also have difficulties with phonological short-term memory and rapid naming of familiar word forms (Wagner & Torgesen, 1987; Ziegler et al., 2010).

More recent studies show that the phonological difficulties in dyslexia extend beyond single words to the processing of intonation, syllable stress, speech procody and speech hydrm (e.g. Goswami, Gerson, & Astruc, 2010; Goswami & Leong, 2013; Goswami et al., 2013b; Leong, Hämäläinen, Soltész, & Goswami, 2011).

Source: Bishop-Liebler et al. 2014















Dyslexia: Early Intervention is Key

- · Dyslexia is a specific learning disability that is neurobiological in origin.
- Research has shown that brain plasticity decreases through childhood. It takes 4 X as long to intervene in fourth grade as it does in late kindergarten (NICHD) because of brain development and due to the increase in content for students to learn as they grow older.
- · Children at risk for reading failure can be reliably identified even before kindergarten
- "Deficits in phonological awareness, rapid automatized naming, verbal working memory and letter knowledge have been shown to be robust precursors of dyslexia in children as young as age three" (Gaab, 2017). Extensive evidence exists that supports the fact that early intervention is critical.
- Struggling readers who do not receive early intervention tend to fall further behind their peers (Stanovich, 1986).

Early Intervention: Detect Earlier

- Know to look for the signs and symptoms of Dyslexia, ADHD and DCD
- Be mindful of 40%+ comorbidity
 Refer students for Dyslexia screening if the following are present:

		not at all	a little	Sometimes	quite a bit	a great deal
1.	Has difficulty with spelling	1	2	3	4	5
2.	Has/had difficulty learning letter names	1	2	3	4	5
3.	Has/had difficulty learning phonics (sounding out words)	1	2	3	4	5
4.	Reads slowly	1	2	3	4	5
5.	Reads below grade level	1	2	3	4	5
6.	Requires extra help in school because of problems in reading and spelling	1	2	3	4	5

- Support a full dyslexia intervention if it is needed
 Use gestures and visual supports
 Maximize time outdoors for play + recess
 Add 5 minutes of cognitive-motor movement to your classroom every 45 minutes
 Look into Whole Brain Teaching

Why is Rhyming Important?

1. Rhyming teaches children about timing and meter in speech.

- 2. Rhymes help children begin to learn prosody,
- speaking and reading with expression.
- 3. Rhyming helps children make predictions related
- to speech sounds.
- 4. Rhyming while reading engages the visual and
- auditory centers of the brain.
- 5. Rhyming is fun and leads to social entrainment.





Rhythm Matters in Reading

 Rhythm plays an organizational role in the prosody and phonology of language, and children with literacy difficulties have been found to demonstrate poor rhythmic perception, Lundetræ & Thompson, 2018

•Size and synchronization of the auditory cortex promotes musical, literacy, and attentional skills in children, Seither-Preisler et al, 2014.

•Rhythmic cues provide a regular temporal scaffolding supporting motor coordination Cochen De Cock et al, 2018.

•Responding to music helps improve self-control, as students anticipate changes in rhythm and tempo engaging their ability to wait, listen and respond Antonietti, 2018.

•Music provides structure to help students manage their internal timing according to variations in the external time of music while they synchronize behavior with external stimuli, Antonietti, 2018.

Play Matters Too

The children in our classrooms have lower language development, core, and physical skills than in the past, this impacts their executive functions which precede learning. They no longer swing on jungle gyms, swing on swing sets or play hopscotch and hand rhythm songs/games. Parents of young child need to know the research. Children need to get outside and play. They need to interact, draw, color, sing, dance, move and be connected.

The LiiNK Project®: Effects of Multiple Recesses and Character Curriculum on Classroom Behaviors and Listening Skills in Grades K-2 Children – Rhea et al. 2018 https://www.frontiersin.org/articles/10.3389/feduc.2018.00009/full

















Cognibags Alerting, Calming, Memory, Response Inhibition and Cognitive Flexibility



Cognibag One Bag Two People

Patterns, Sequences and Constellations



















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Self-Regulation, School Readiness & Academic Achievement

Self-regulation has been established as a key mechanism associated with a variety of outcomes including **school readiness** (Blair and Razza, 2007;McClelland et al.,2007a; Morrison et al.,2010), **academic achievement** during childhood and adolescence (Mc Clelland et al., 2006; Cameron Ponitz et al.,2009; Duckworth et al., 2010; Li-Grining et al., 2010), and **long-term health** and **educational outcomes** (Moffitt et al., 2011; McClelland et al., 2013).

The behavioral aspects of self-regulation maybe especially important for academic and school success (McClelland et al., 2007a; Cameron-Ponitz et al., 2009; McClelland and Cameron, 2012).





 Someone who has good emotional self-regulation has the ability to recognize, identify and manage their emotions. • This allows them to cope with the ups and downs of daily life without falling apart. • They are able to shift their mood to a new state by employing positive coping skills. • They are able to interact with others when over-energized by resisting responding with impulsive words, toughts or actions. • They prevence a flexible range of thinking, communication and behavioral responses allowing themselves to adapt their thinking and behavior to best suit the task demands and stimuli in their environment. 			0000
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Move Before You Lose It

Children prone to inattention, agitation, and over-excitability are best to move before disruptive patterns emerge. Frequent movement allows for regulation of internal energy, alerting the attention system and mood management.

Spotlight

Meet Spotlight

Spolight is an engaging visually-based 5-minute physical activity program for students and adults (ages 5 and up) that engages attention, memory, self-regulation, and social interaction by requiring you to think while you move. Reading the cognitive-visual-language in order to move in a coordinative, rhythmic pattern engages cognition.

The "Anyone, Anywhere" Visual Cognitive-Motor Activity A flexible "for anyone" program, Spatilght can be implemented easily with no equipment, in a brief time-frame with little training. While we focus on school-aged children, we have adapted Spatilght for seniors, sports teams, and office settings.

What are the Spotlights?

What are the Spatilghts' The Spatilghts are colors that communicate one movement per beat, 4 beats to a measure, 16 beats to a page. We call each page an Element. Each Element consists of patterns of movement that participants can mix and match over time. As students develop better beat competency, you can add rhythm to your movements by adding pauses, doing movements in half-time or double time or by changing tempo.



Musicality You don't need to be musical to play Spotlight. Our experience doing Spotlight with hundreds of students is that the children are naturally hythmic and creative, they will offer ideas or make suggestions almost immediately.

The Color Code

Each color code Each color represents a move with a body part. Red = right foot, blue = left foot, yellow = both hands, purple = right hand, pink = left hand, and green = free move. You may move with the body part any way you choose. Initially, we step or stomp, clap and tap to get the activity started.

Cognitive Cueing While you are reading the Spotlights and moving together on the beat, it is helpful to use your valce to cue your movements. Cueing is like a scaffold for the brain, it enhances your ability to keep the beat.



















Activity	If-Regulation
#17	TO 'N DIIGH
	IP N POON
DESCRIPTION: Teaching children l establish timing and sequencing. W	how to bounce balls is a wonderful way to help them ie have bounced balls with hundreds of children, many
times, and find they do not know he	aw to efficiently bounce the ball, so we teach them how
to rap n ruan.	
MATERIALS: One racquetball.	
RELATED SKILL SETS YOU MAY WIT	SH TO EXPLORE WITH THE CHILDREN:
 Balance 	Motor Sequencing
 Coordination 	 Rhythm
 Impulse Control 	 Sequencing
 Motor Management 	Successive Processing
 Motor Planning 	
GET READY: Show the child how to s with toes facing forward, as if one is	tand with both feet firmly planted shoulder width apart, standing on a line.
LET'S PLAY: Hand the racquetball to	the child and tell him we are going to practice how to
bounce a ball. Holding the ball in a	supine position, rotate the wrist over and push the ball
to the ground. See, I take the ball, I his own ball.	mp it and pass it. There are cause can initiate you with
The child bounces the ball with	h his right hand eight times and transfers the ball to his
left hand and bounces the ball with th to count the beats with the child to	he same supine then rotating wrist technique. It's helpful cue consistent rhythm.



Swing, Sway, Swaddle, Sing, Hum

Yoga Meditation Tai Chi Movement in 3, 5, 7, 9 Hydration Deep Breathing Stretching Rocking Pressure Point Hand Massage Yoga Ball Belly Rocking Heavy Work

















