



Buffett
Early Childhood
Institute

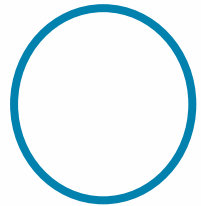
at the University of Nebraska

Supporting Executive Functioning and Self-Regulation in Kindergarten through 3rd Grade

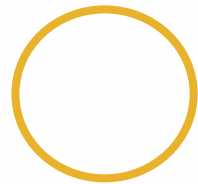
Amy Mart, PhD

Start early. Start well.

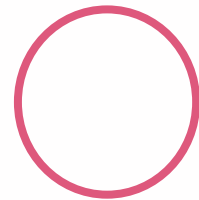
Essential Questions



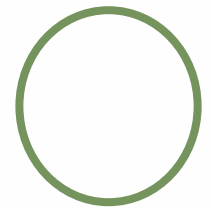
**How do we
define
Executive
Functioning
and Self-
Regulation?**



**How do these
skills manifest
in
Kindergarten
through 3rd
Grade?**



**How can we
teach these
skills in K-3?**



**How can we
create
environments
that support
EF and SR?**

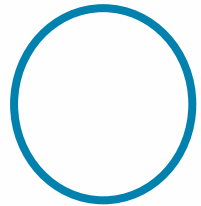
About me...



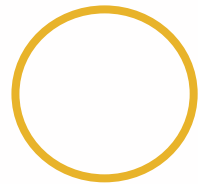
Who's in the room?

- State your name, school district (or other organization) and role.
- Proceed counterclockwise
- Each subsequent person introduces themselves AND the person to their right.

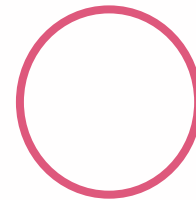
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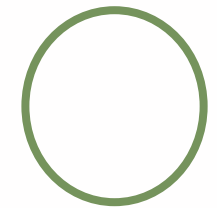
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The Big Picture: Social and Emotional (and academic) Learning



© CASEL 2017

A simple framework



Self

Others

Understand

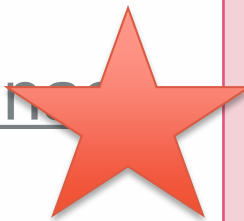
Self Awareness

Self concept
Self esteem

Social Awareness

Empathy
Perspective-taking
Cultural competence

Manage



Self Management

Executive functioning
Self regulation

Relationship Skills

Cooperation
Friendship Skills

Self-Management means...

- Regulate emotions
- Control impulses
- Focus and attend
- Maintain motivation
- Cope with stress
- Manage time and responsibilities
- Set and achieve goals

Executive Functions include

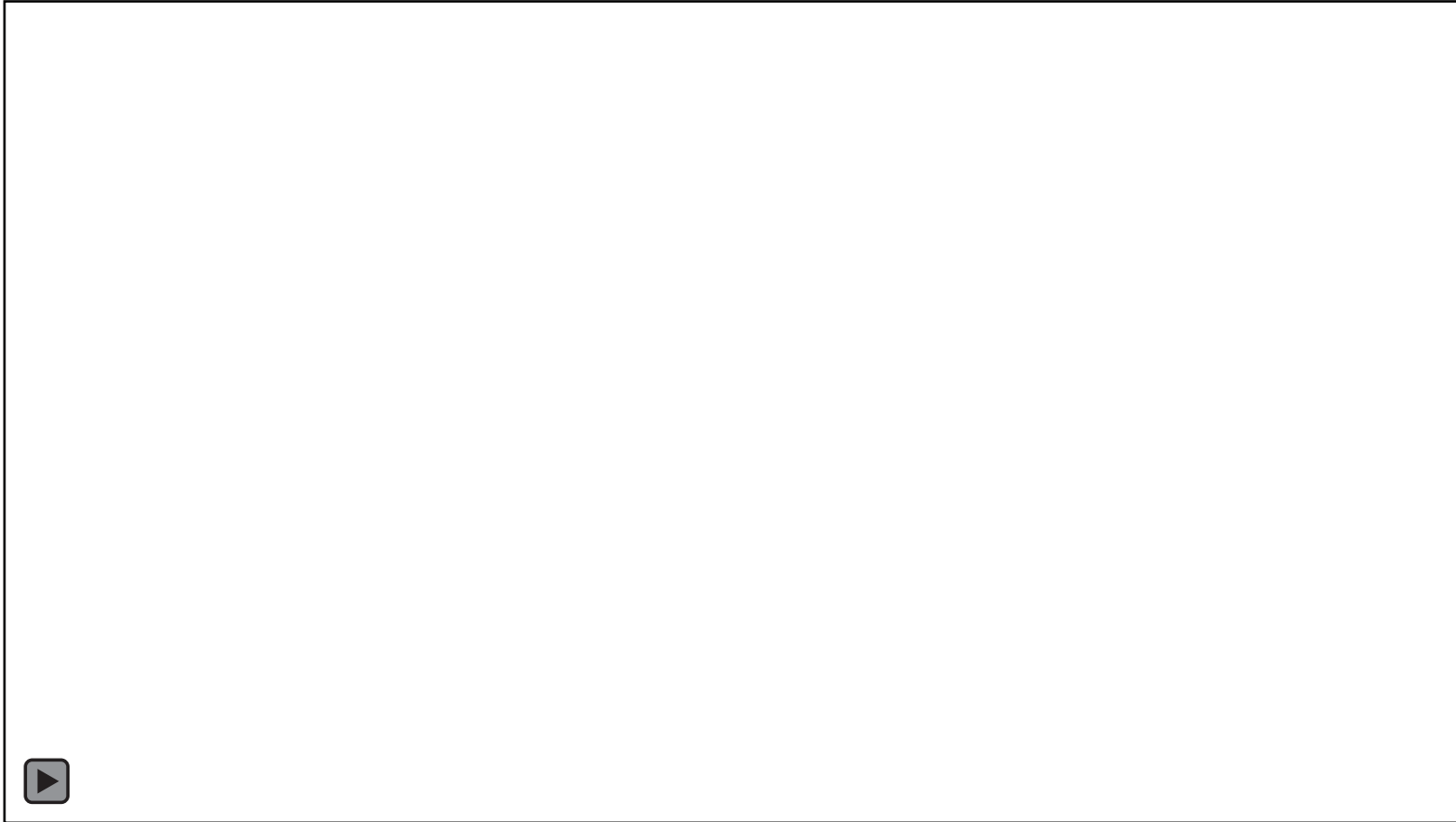
- **Working memory** governs our ability to hold and manipulate distinct pieces of information over short periods of time.
- **Attention control** helps us to respond to different demands in different settings.
- **Inhibition** enables us to suppress actions or responses.

Remember

Focus

Stop and Think

Executive Function



Updating	Attention Control	Effortful Attention
Working Memory - Simple	Sustained Attention	Cognitive Control
Working Memory - Complex	Impulsivity	Lack of Control
Complex EF	EC - Focusing Attention	Persistence
Inhibition	EC - Shifting Attention	Grit
Inhibitory Control	Error Detection	Self-Regulation
Response Inhibition - Simple	Monitoring	Emotion Regulation
Response Inhibition - Complex	Plan Actions (Planning)	Hot EF
Response Control	Behavioral Regulation	Cool EF
Shifting	Delay	Delay EF
Set Shifting	Suppress/Initiate	Conflict EF
Attention Shifting	Mindfulness	Executive Attention
Cognitive Flexibility	Self-Control	Executive Control
Mental Flexibility	Self-Discipline	Problem Solving
Creativity	Delay of Gratification	Goal Setting

Self-regulation is...

- The ability to flexibly adapt behavior, attention, emotions, and cognitive strategies in constructive ways in response to situational demands
- Management of attention and arousal in the service of goal-directed behavior.

What is the relationship between EF and SR?

Relationship Status:

Interested in:

Looking for:

A dropdown menu is open, showing a list of relationship status options. The options are: Single, In a Relationship, Engaged, Married, It's Complicated (highlighted with a blue background), In an Open Relationship, and Widowed. The menu is positioned to the right of the 'Looking for:' label.

Executive functioning

The ability to plan, initiate, and follow through with goal-directed behavior.

- Involves impulse control, emotional control, flexibility, working memory, self-monitoring, planning and prioritizing, task initiation, and organization.
- Facilitates self-regulation.
- Provides the foundation for social and emotional learning.

Self-regulation

The ability to control one's emotional, behavioral, and cognitive actions and responses.

- Is a stress-response system.
- Shares three competencies: self-awareness, self-management, and social awareness.
- Low self-regulation can lead to aggression, overactivity, inattention, and reduced academic achievement.

Social and emotional learning

The process by which children and adults learn to understand and manage emotions, maintain positive relationships, and make responsible decisions.

- Five interrelated competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decisionmaking.
- Associated with executive functions such as the ability to delay gratification, manage conflicts, and learn in the classroom.

O'Connor et al., 2017

Self-Regulation



Willpower

Executive Functioning

Effortful Control

*Emotion
Regulation*

Self-Control

*Self-
Management*

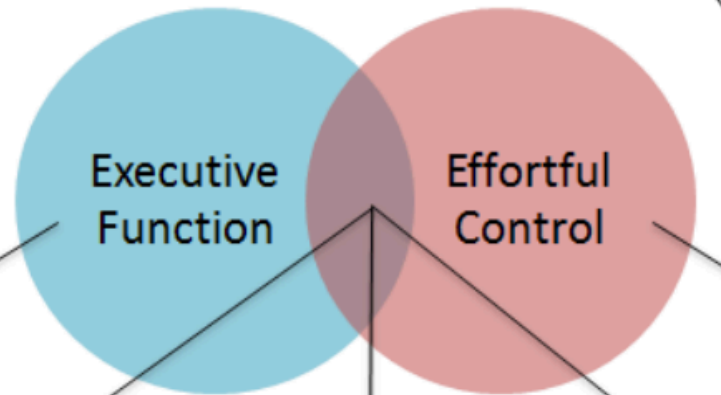
UMBRELLA SKILLS: umbrella skills refer broadly to this area of development and may be used to refer to many diverse skills (simple and complex, emotion and cognitive, plus others not listed here)

Examples include: Self-Regulation, Self-Control

COMPLEX SKILLS: complex skills integrate multiple simpler skills, from cognitive and/or emotion domains, and may involve additional knowledge and skills (such as the ability to recognize feelings)

Examples in **Cognitive** Domain:
Planning, Problem Solving, Goal Setting

Examples in **Emotion** Domain:
Persistence, Grit, Emotion Regulation



MULTI-COMPONENT SKILLS:

EF and EC are similar but distinct constructs; both are comprised of multiple sub-components (simple skills below)

Working Memory

Attention Shifting (Flexibility)

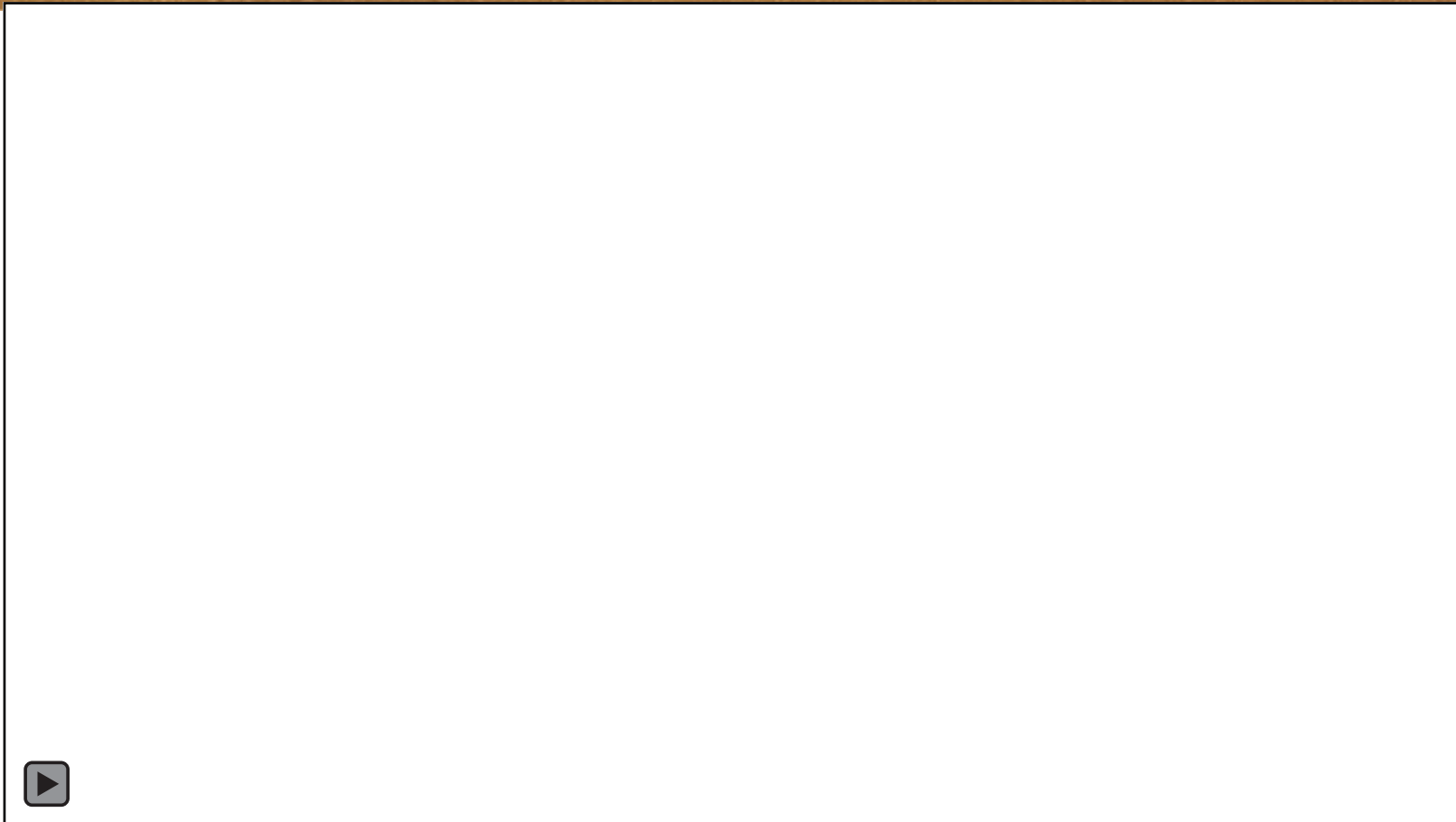
Attention Control (Focus)

Inhibition

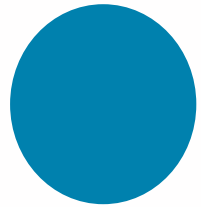
Wait / Delay

SIMPLE SKILLS: simple skills are foundational processes (or sub-components) that comprise EF, EC, and more complex self-regulatory behavior; skills in **blue** are primarily cognitive, skills in **red** involve emotions, and skills in **purple** are used in both cognitive and emotion-related tasks

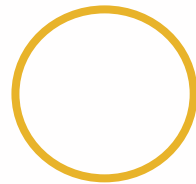
Self-Regulation



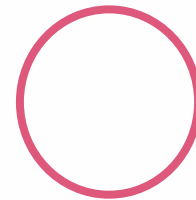
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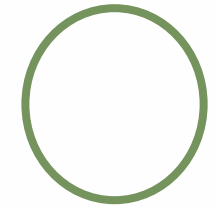
How do we define Executive Functioning and Self-Regulation?



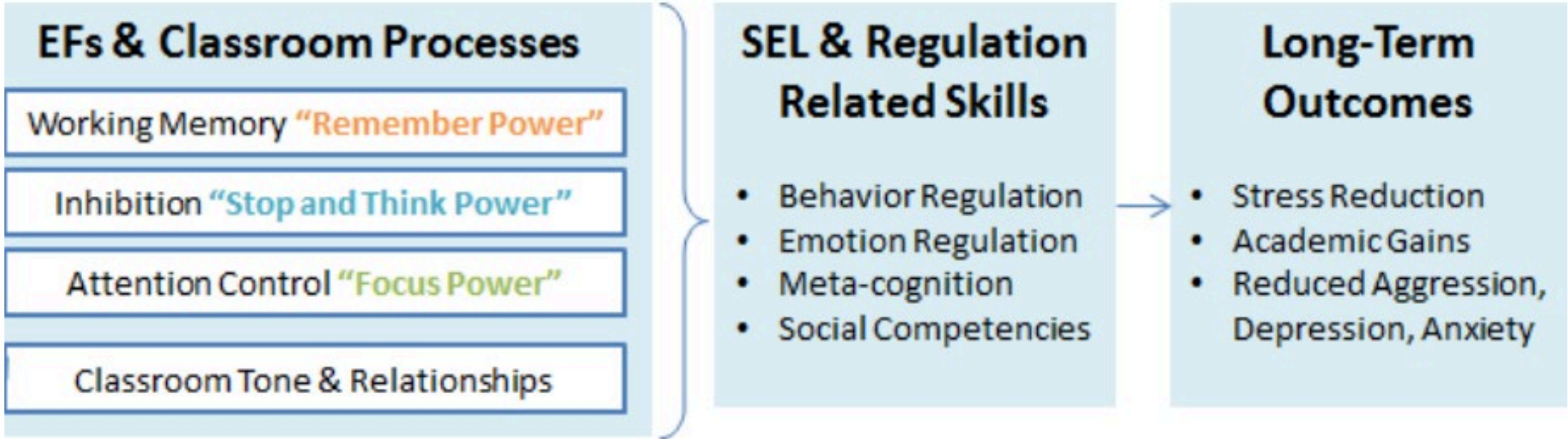
How do these skills manifest in Kindergarten through 3rd Grade?



How can we teach these skills in K-3?



How can we create environments that support EF and SR?



Jones et al., 2017

What do these skills

Spades: Focus (attention control)

Clubs: Remember (working memory)

Diamonds: Stop and think (inhibition)

Hearts: Managing emotions

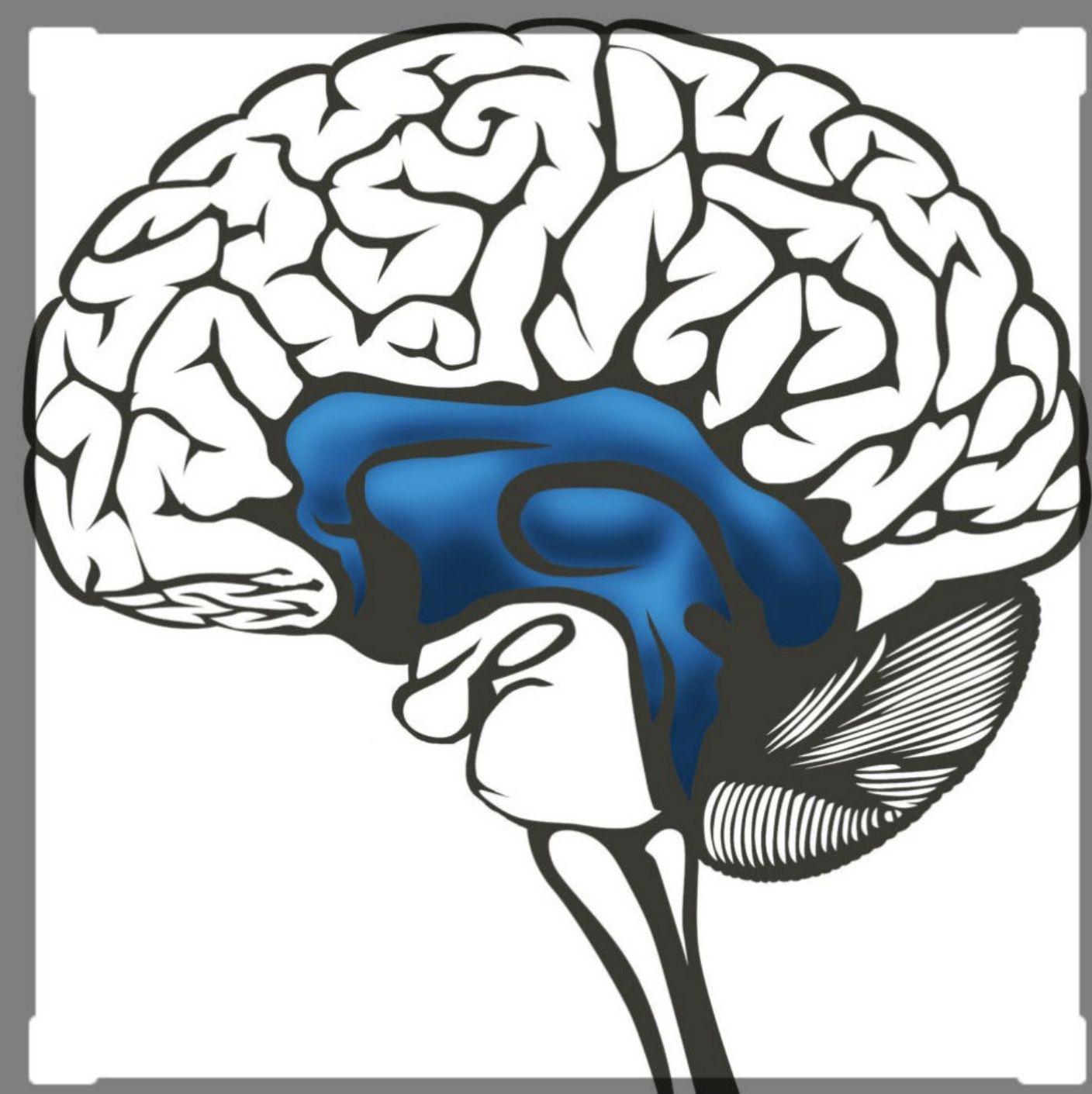
- Choose a card from the center of your table.
- Imagine a typical day in your classroom. Write down each activity that requires students to use your assigned skill.
- Describe your expectations in as much detail as possible.
 - Example: students sit quietly at their desks and pay attention as I teach a mini-lesson for 20 minutes (focus).

Scramble and share

- Stand up and find a partner
- Describe one of the activities that you wrote about
- Discuss
 - What percent of your students are consistently successful in this activity?
 - What happens when students do not meet your expectations?
 - How difficult was it to think of activities that require your assigned skill?



Executive State
Executive
Functioning



Emotional State
Emotion Regulation



Survival State
Safety

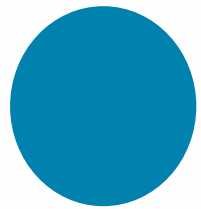
Why do some students struggle with self-regulation and executive functioning?

- Neurological differences
- Trauma and toxic stress
- Inadequate opportunities to develop skills
 - Overuse of passive technology
- Lack of supportive environment, engaging activities

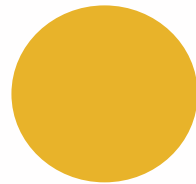
*When you plant lettuce, if it does not grow well,
you don't blame the lettuce. You look for
reasons it is not doing well. It may need fertilizer,
or more water, or less sun.
You never blame the lettuce.*

-Thich Nhat Hanh

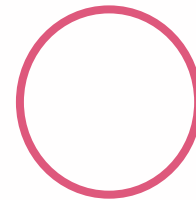
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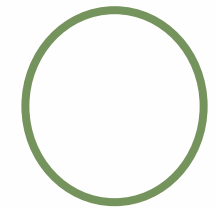
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How can we create environments that support EF and SR?

Executive functioning and self-regulation skills are...

extremely **malleable** in early childhood

AND

highly **context-dependent**

Cantor et al., 2018

**Teach and practice
specific skills**

**Treat all students with
care and respect**

**Build your own
self management
skills**

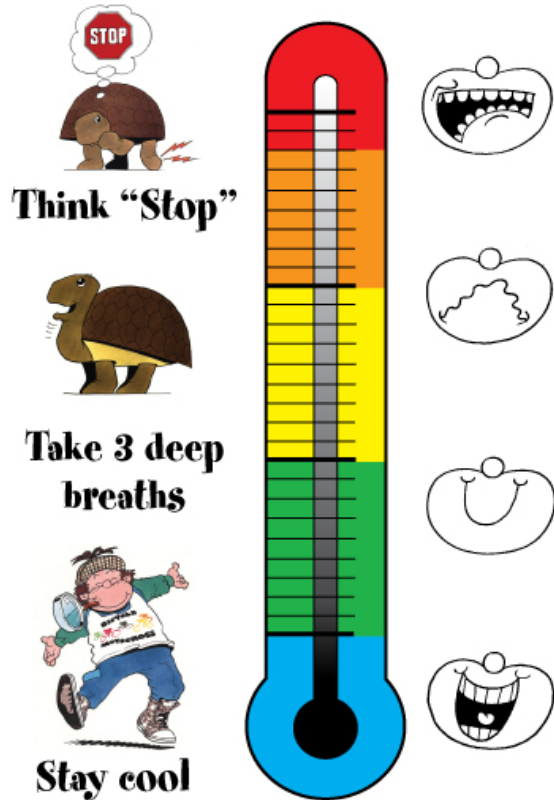
**Create classroom
routines that support
skills**

Partner with families

Strategies for Emotion Regulation

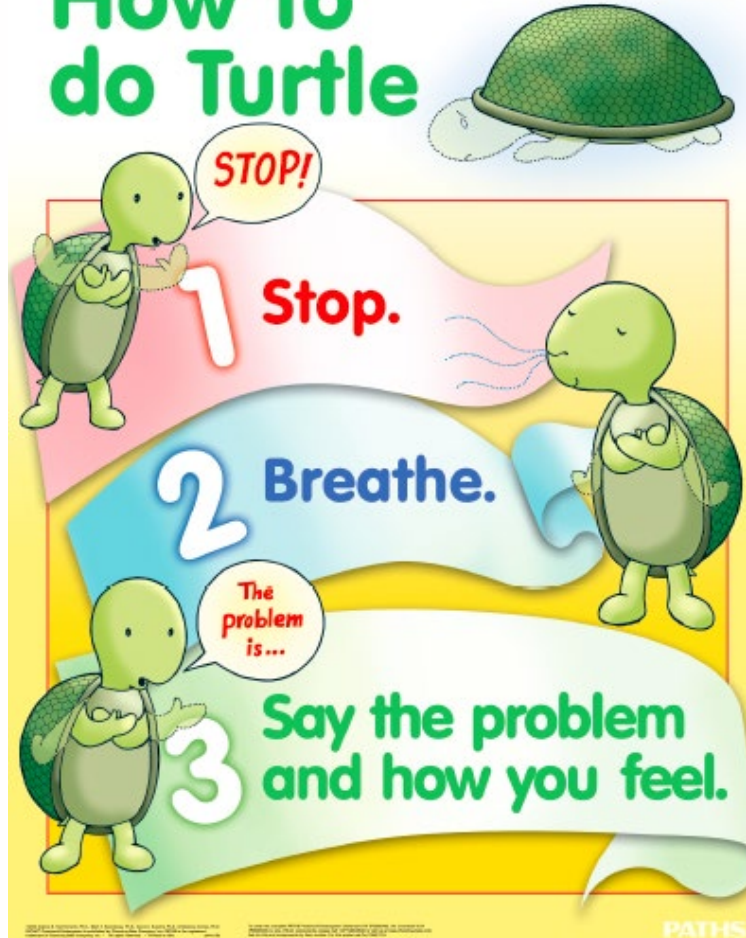
Calm Down Thermometer

I can do it. I can calm down.



© The Incredible Years, 2006

How to do Turtle



PATHS

How to Calm Down

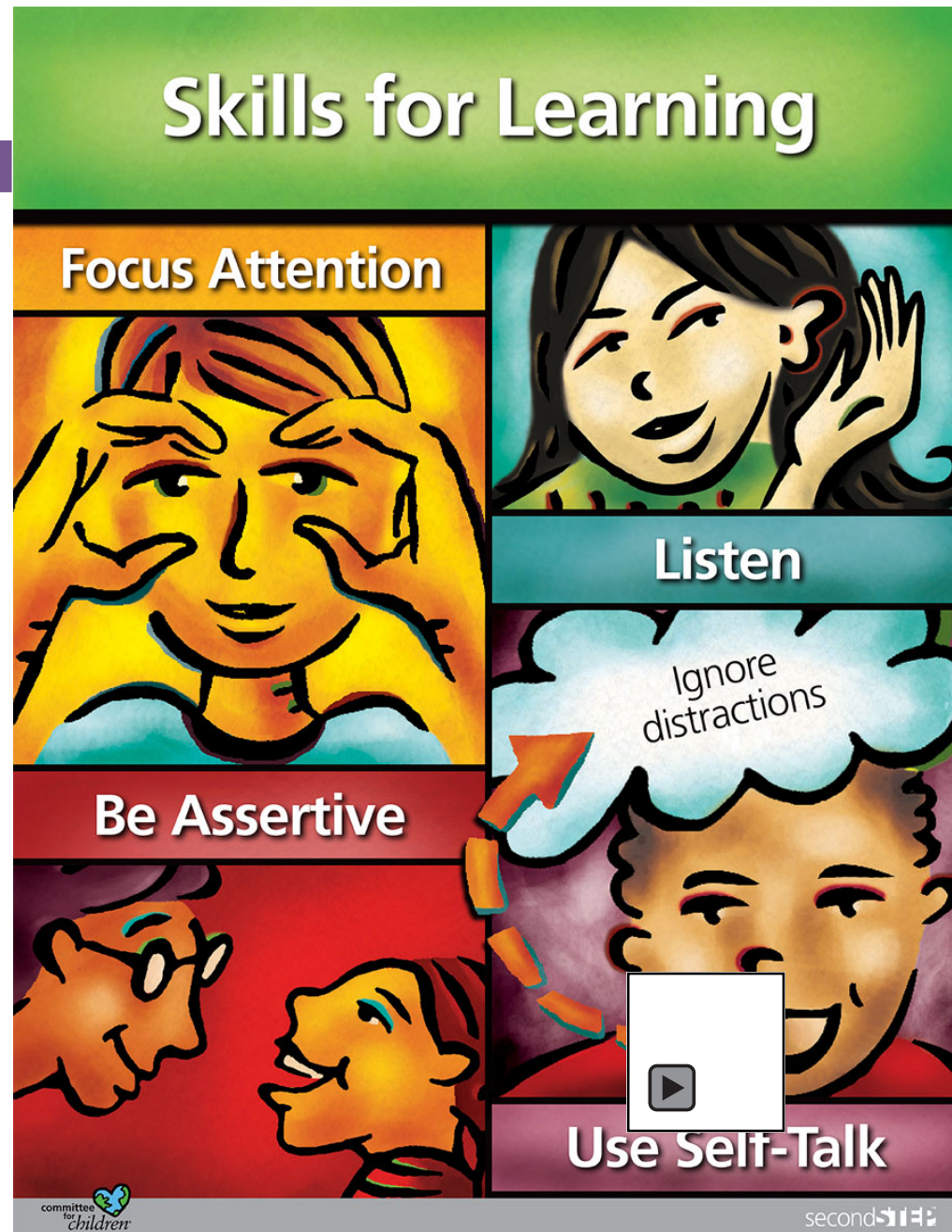


committed for children

secondSTEP

Strategies for Executive

- Eyes are watching
- Ears are listening
- Voices quiet
- Bodies calm
- This is how we listen
- This is how we listen
- At group time
- At group time



Brain Builder Games

These simple and fun brain-building games are designed to boost children's skills for paying attention and controlling their behavior. These skills help children do better in school and get along with others. Play these games with your children to help them strengthen their ability to:

- Pay attention to the game leader, the rules, and how they're doing in the game
- Remember and apply game rules that change or get harder
- Control their behavior, for example, by starting or stopping an action in order to follow game rules

I Spy

*The teacher says, “I spy with my little eyes something that is ___” (choose a color or shape to describe an object in the room). Students look and point at what they think the object is. This process — deliberately orienting and shifting attention — is known as **focus power**.*

- Before playing, ask students to put on their “focus binoculars” to help them see clearly. You can ask this figuratively, or ask students literally to bring their hands up like binoculars around their eyes.
- Explain that using your “focus power” means using not just your eyes to see clearly, but also your ears to hear clearly and your brain to tune out distractions.
- After playing, talk to students about times when they felt distracted or frustrated during the game. Ask for suggestions on how they re-centered their attention.
- Discuss with students when else it’s important during school to use their focus power.

The Name Game

*Students stand in a circle. One by one, each student says his or her name and does a motion along with it. The rest of the class then repeats the name with the motion as a group, ultimately trying to remember and repeat all names and motions. The researchers refer to these skills — mentally keeping track and updating information — as **remember power**.*

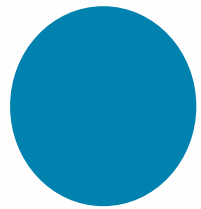
- Before playing, talk about why it's so important to remember things during the school day.
- Explain that you need to use your “remember power” for everything: tying your shoes, working on a math problem, or knowing how to get to your friend's house.
- After playing, ask students what made the game hard or easy for them.
- Discuss tips and tricks to remember important information and routines, and talk about times during the day when it's especially important to use your remember power.

Simon Says

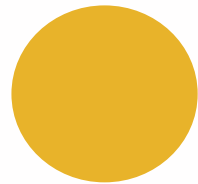
*Students follow the teacher's directions and movements, but only when the teacher says "Simon says" first. The skills involved here — inhibiting an automatic impulse, or replacing the impulse with some other action — are called **stop and think power**.*

- Before playing, explain to students how our brains tell our bodies when and how to move.
- Talk about "stop and think power," and all the times during the day — playing basketball, waiting in line, or writing a story — when students need to stop and think before acting.
- After playing, ask students what they did to keep themselves from moving during the game. Ask what it felt like when they were trying not to move.
- Offer suggestions for ways to stop and think throughout the school day, such as taking deep breaths or counting quietly.

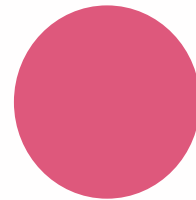
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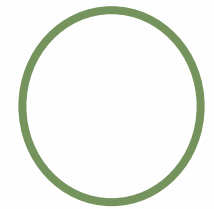
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Carousel Activity

- Choose a card from the center of your table
- Walk to your assigned poster
- Share and discuss strategies
- Record your ideas on the poster
- Rotate and repeat

- Whole group share out

Spades: Focus (attention control)
Clubs: Remember (working memory)
Diamonds: Stop and think (inhibition)
Hearts: Managing emotions

Teach and practice
specific skills

Treat all students with
care and respect

Build your own self
management skills

**Create classroom
routines that
support skills**

Partner with families

Routines to support executive functioning

- Provide accommodations to minimize sensory distractions
- Nonverbal transition cues
- Maximize physical activity
- Visual schedules and checklists
- Learning through imaginative play
- Explicitly teach behavior expectations and post prominently

Blair & Raver, 2014; Carlson et al., 2014; Dawson, 2013; Lillard et al., 2013; Thibodeau et al., 2016; Best, 2010, 2012; Shields et al., 2017; Staiano, Abraham, & Calvert, 2012

Routines to support emotion regulation

- Morning meeting
- Check-ins
 - mood meter, feeling faces
- Cool-down corner

Dawson, 2013;

Supporting self-regulation through mindfulness

Teach and practice
specific skills

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management skills

Create classroom
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skills

**Partner with
families**

Partnering with families to promote Self-Management

- Focus on strengths
- Frequent two-way communication
- Share information about classroom routines and expectations
- Exchange strategies and resources
- Assume positive intent, avoid blaming

Teach and practice
specific skills

**Treat all students
with care and
respect**

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management skills

Create classroom
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skills

Partner with families

Calm, neutral, assertive voice

<https://www.edutopia.org/video/demonstrating-self-regulation-tone-voice>

Assumptions about challenging behaviors

- Challenging behavior usually has a message: *I am bored, I am sad, you hurt my feelings, I need some attention.*
- Children often use challenging behavior when they don't have the skills they need to be successful in your classroom.
- Behavior that persists over time is usually “working” for the child.
- We need to focus on teaching children what to do in place of the challenging behavior.

Responding to challenging behavior

Think-Pair-Share

Which behaviors really “push your buttons”?

How do you respond when a student exhibits one of these challenging behaviors?

Which self-regulation skills underlie each these behaviors?

Responding to challenging behavior

Think-Pair-Share

Call to mind one student who frequently engages in one of these behaviors that “push your buttons”

How does your response impact your relationship with that student?

How could you respond differently?

Teach and practice
specific skills

Treat all students with
care and respect

**Build your own
self management
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Partner with families

Modeling self-regulation

<https://www.edutopia.org/video/teaching-self-regulation-modeling>

Teacher Self-Management

Adults who have the ability to recognize, understand, label, express, and regulate emotions are more likely to demonstrate patience and empathy, encourage healthy communication, and create safe learning environments.

Brackett, Katella, Kremenitzer, Alster, and Caruso, 2008

Teacher Self-Management

Emotional skills of teachers influence student conduct, engagement, attachment to school, and academic performance.

Baker, 1999; Hawkins, 1999; Schaps, Battistich, Solomon, 1997; Sutton & Wheatley, 2003; Wentzel, 2002

Only 36% of school staff were able to accurately identify and label their emotions as they happen.

Bradberry & Greaves, 2009

Teacher Self-Management

Teachers skilled at regulating their emotions report less burnout and more positive affect while teaching.

Brackett, Mojsa, Palomera, Reyes, & Salovey, 2008

Quality of student-teacher relationships is a better predictor of academic performance (grades) than teacher education, experience or class size.

Mashburn et al., 2008

Good News...

The Executive Functioning and Self-Regulation strategies we use with students are also effective for teachers!


- . Remove sensory distractions from your classroom
- . Use lists and visual reminders
- . Use self-talk
- . Pay attention to your emotional state
- . Practice self-calming strategies

A few helpful resources

- <https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing-executive-function-skills-with-children-from-infancy-to-adolescence/>
- <https://www.gse.harvard.edu/news/uk/16/08/fun-and-brain-games>
- <https://theopportunityinstitute.org/science-of-learning-and-development>

Closing:
**What is one thing
you will do
differently as a result
of this session?**





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buffettinstitute.nebraska.edu

Start early. Start well.

