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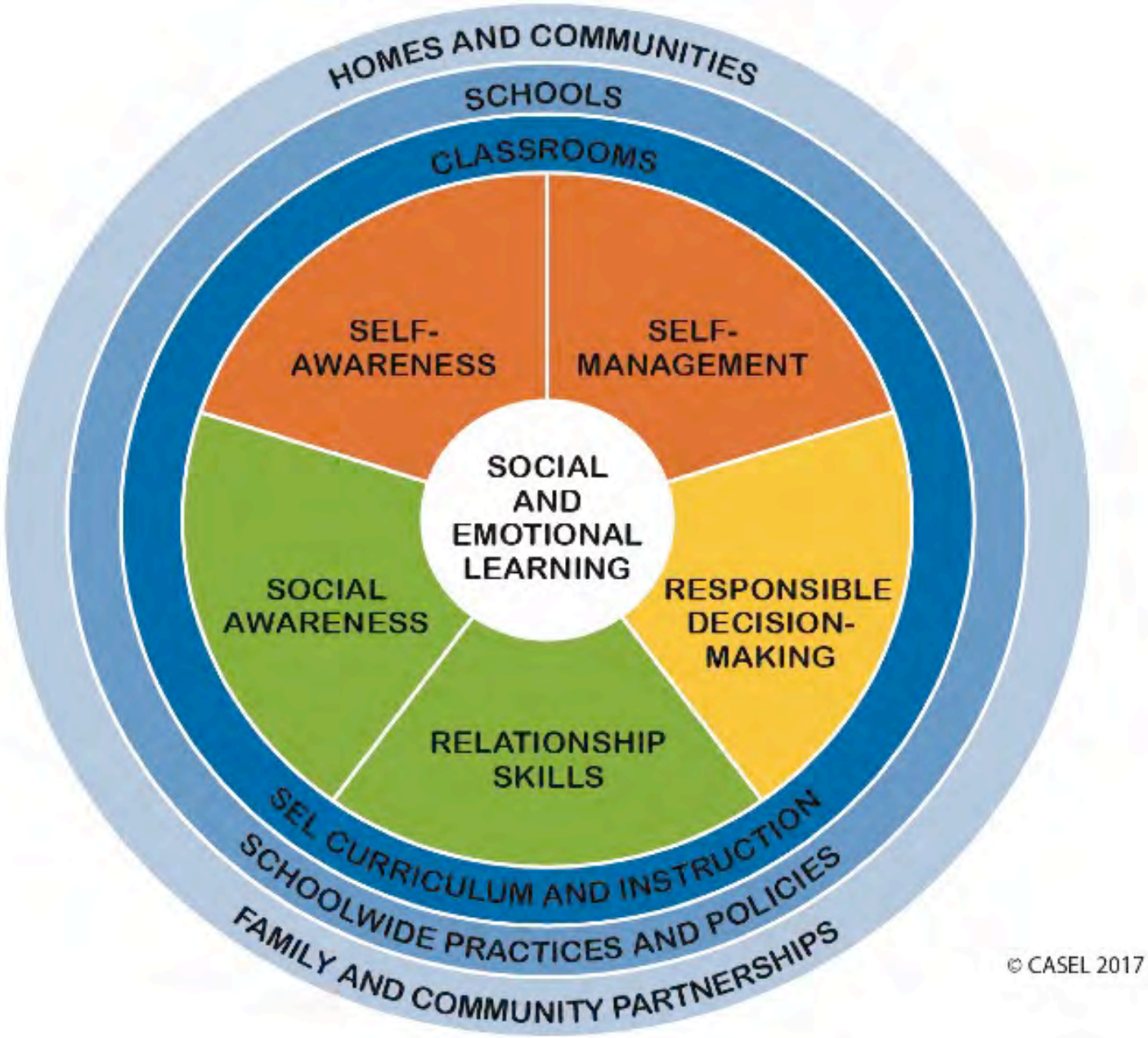
The Big Picture: Social and Emotional (and academic) Learning



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

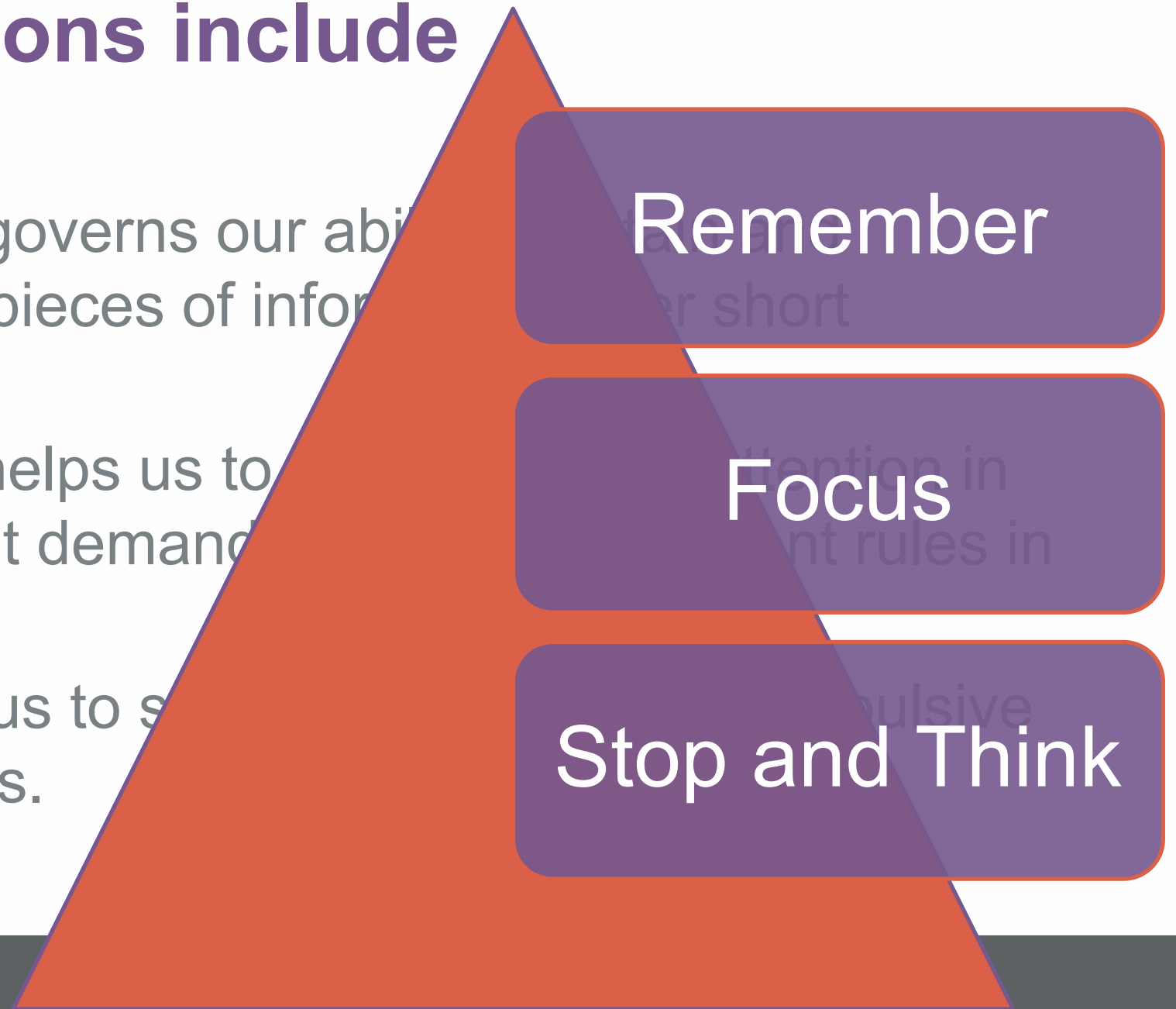
Self-Management means…

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

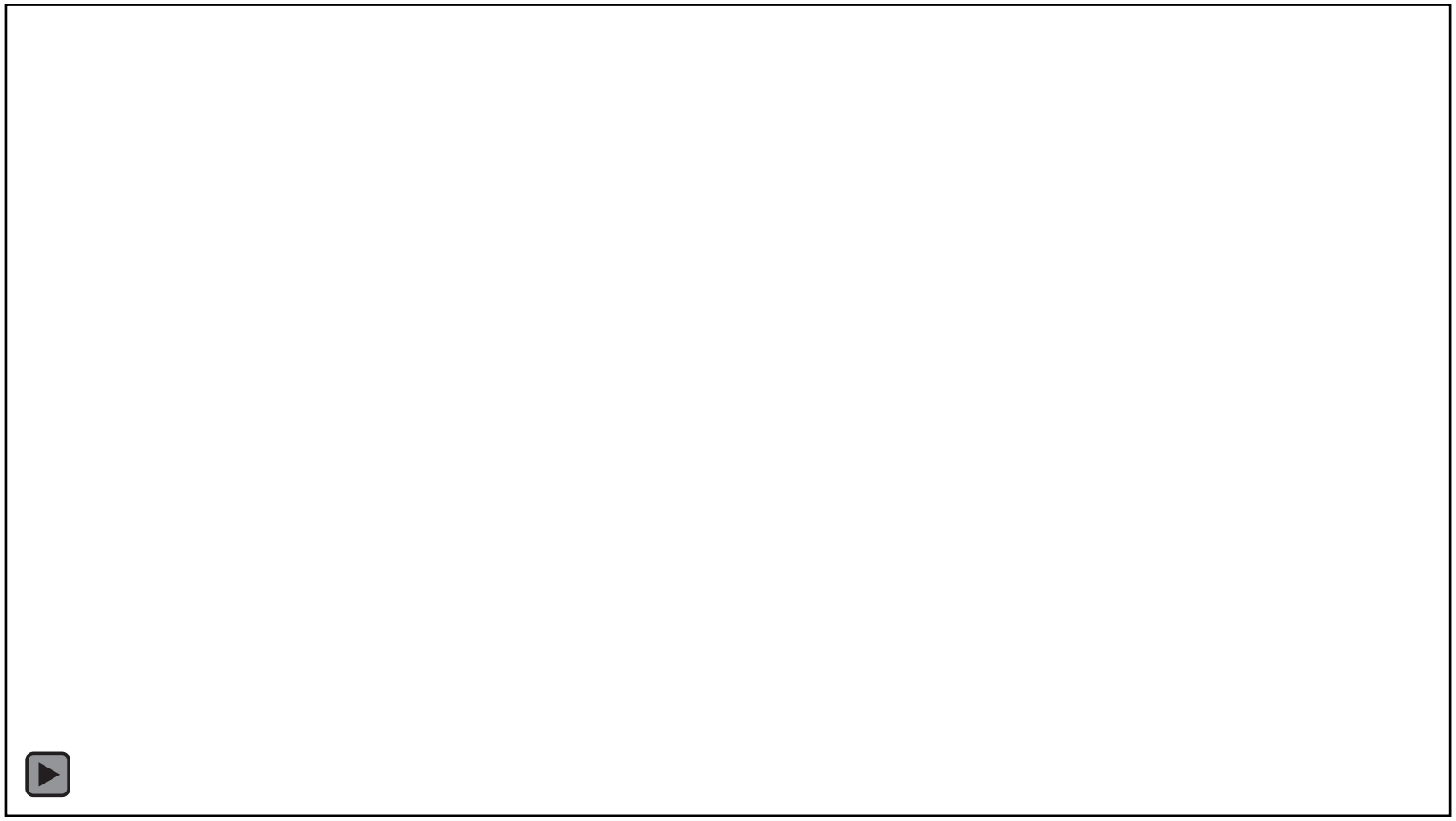
CASEL, 2013

Executive Functions include

- **Working memory** governs our abi
manipulate distinct pieces of infor
periods of time.
- **Attention control** helps us to
response to different demand
different settings.
- **Inhibition** enables us to s
actions or responses.



Executive Function



Updating
Working Memory - Simple
Working Memory - Complex
Complex EF
Inhibition
Inhibitory Control
Response Inhibition - Simple
Response Inhibition - Complex
Response Control
Shifting
Set Shifting
Attention Shifting
Cognitive Flexibility
Mental Flexibility
Creativity

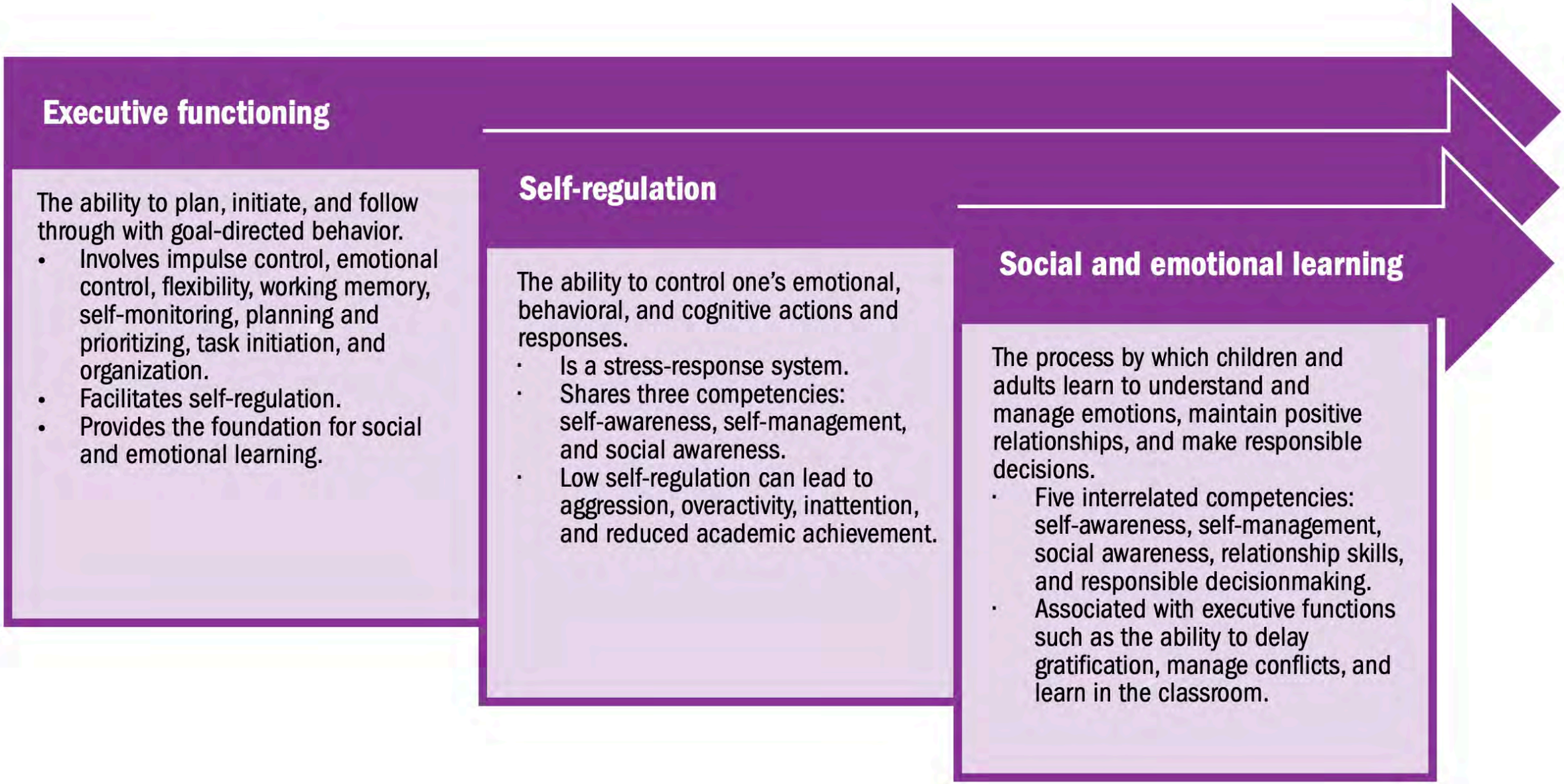
Attention Control
Sustained Attention
Impulsivity
EC - Focusing Attention
EC - Shifting Attention
Error Detection
Monitoring
Plan Actions (Planning)
Behavioral Regulation
Delay
Suppress/Initiate
Mindfulness
Self-Control
Self-Discipline
Delay of Gratification

Effortful Attention
Cognitive Control
Lack of Control
Persistence
Grit
Self-Regulation
Emotion Regulation
Hot EF
Cool EF
Delay EF
Conflict EF
Executive Attention
Executive Control
Problem Solving
Goal Setting

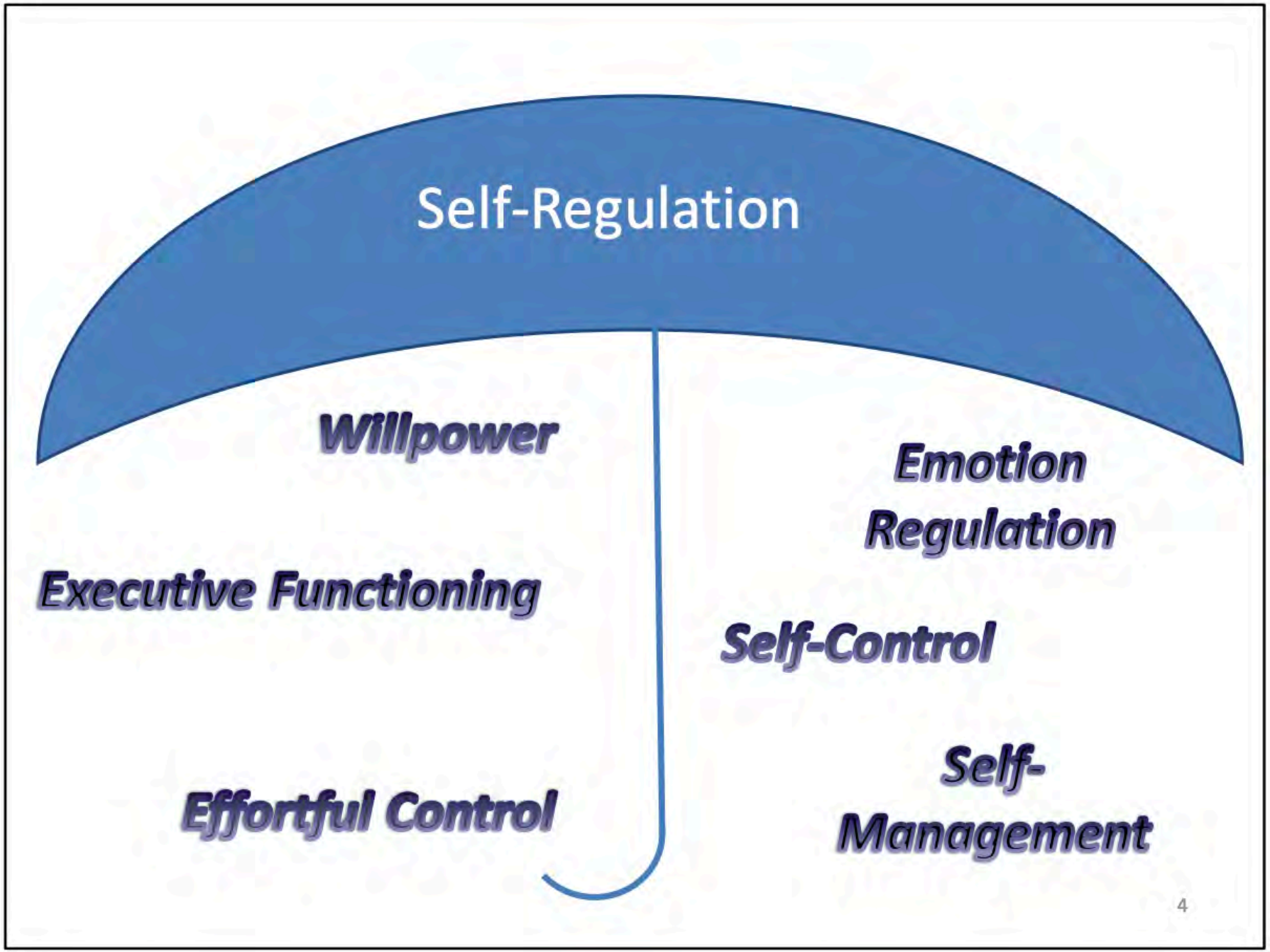
Self-regulation is…

- 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.

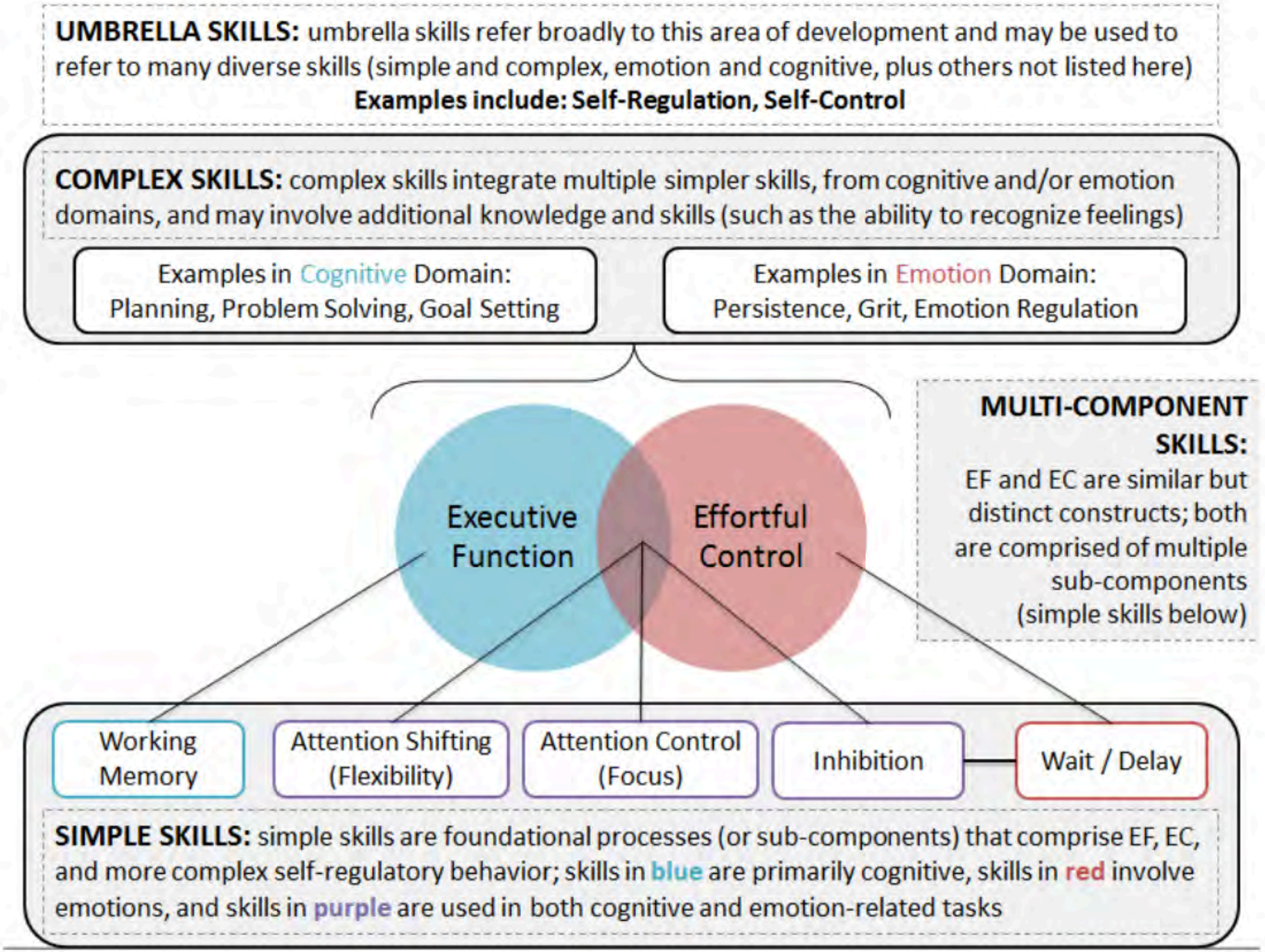
What is the relationship between EF and SR?



O'Connor et al., 2017



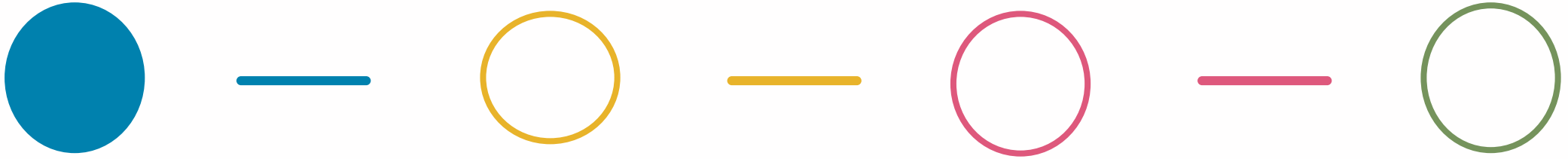
Murray et al., 2015



Jones et al., 2016

Self-Regulation

Essential Questions



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Jones et al., 2017

What do these skills

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

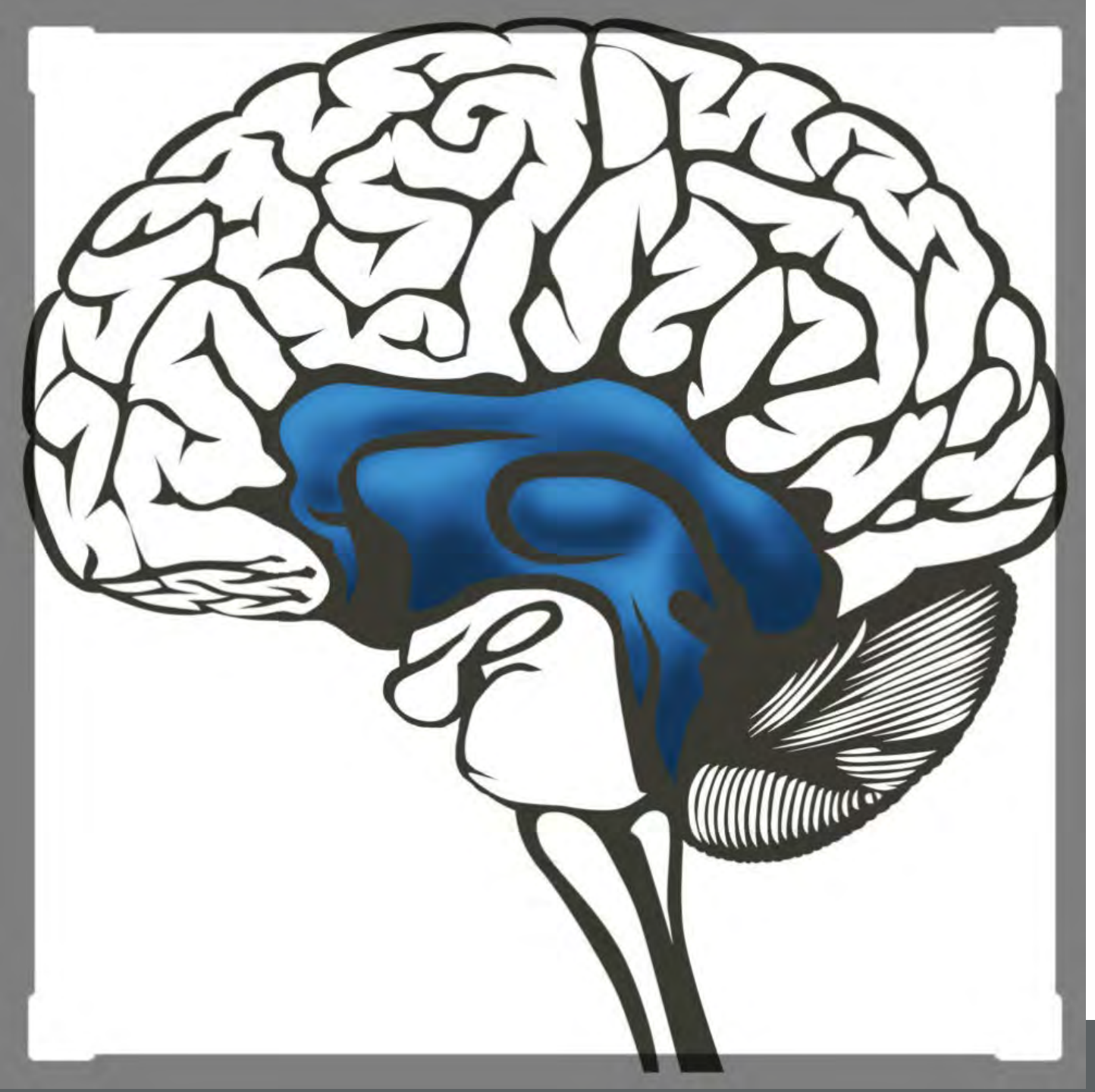
- Choose a card from the center of your table.
- Imagine a typical day in your classroom. Write down each activity that requires students to use your assigned skill.
- Describe your expectations in as much detail as possible.
  - Example: students sit quietly at their desks and pay attention as I teach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

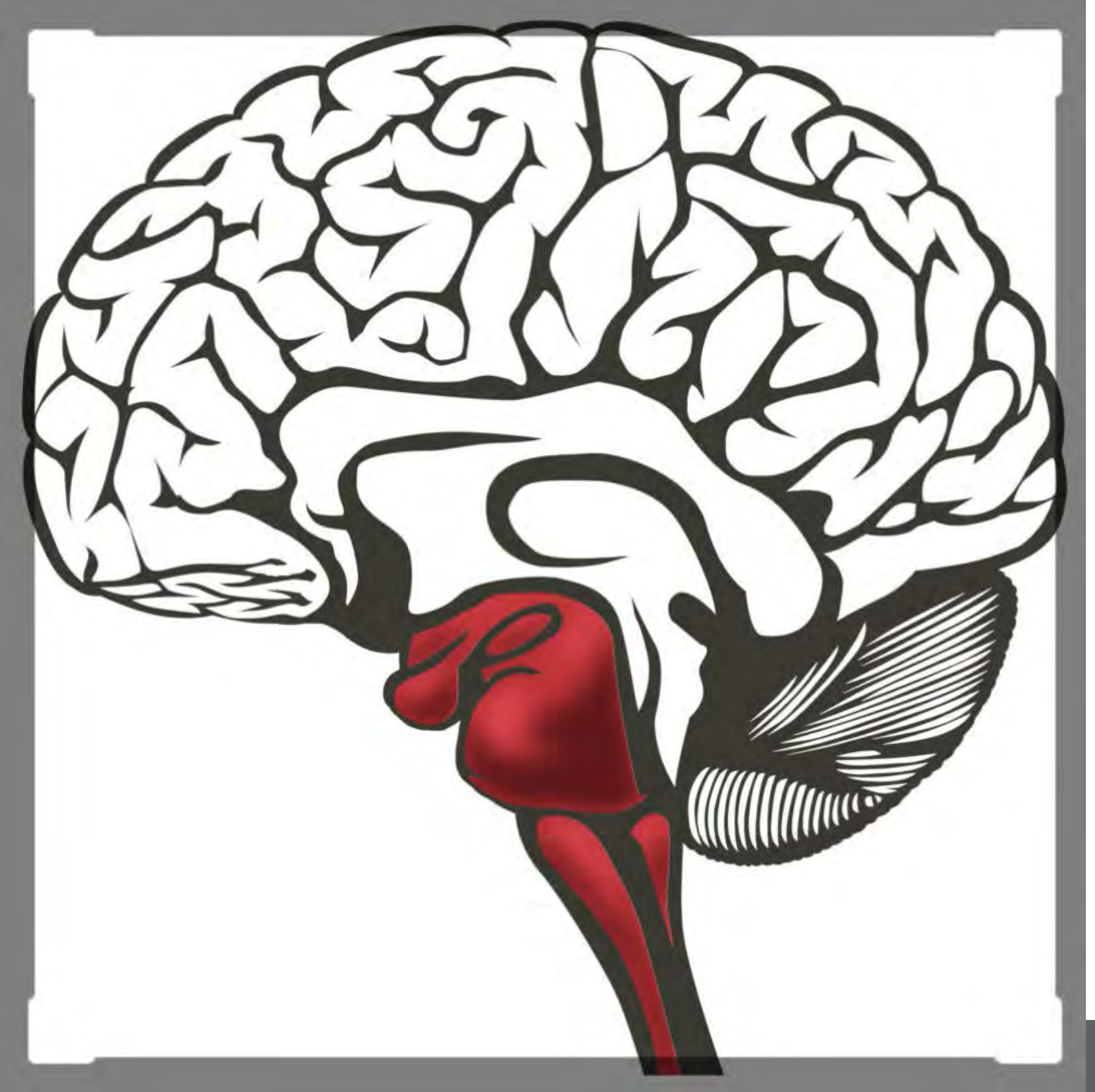
Executive State

Executive Functioning



Emotional State

Emotion Regulation



Survival State

Safety

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

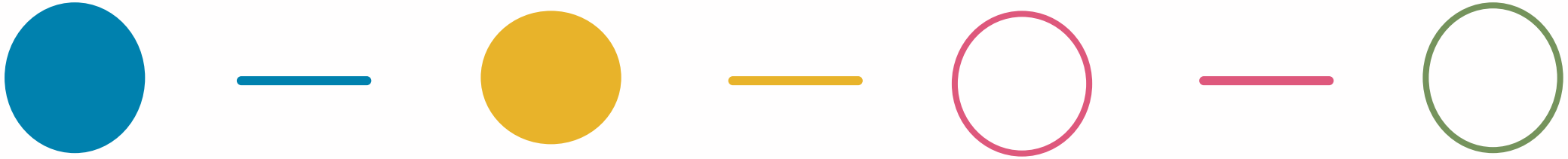
- Neurological differences
- Trauma and toxic stress
- Inadequate opportunities to develop skills
  - Overuse of passive technology
- Lack of supportive environment, engaging activities

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

Essential Questions



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Executive functioning and self-regulation skills are…

extremely **malleable** in early childhood

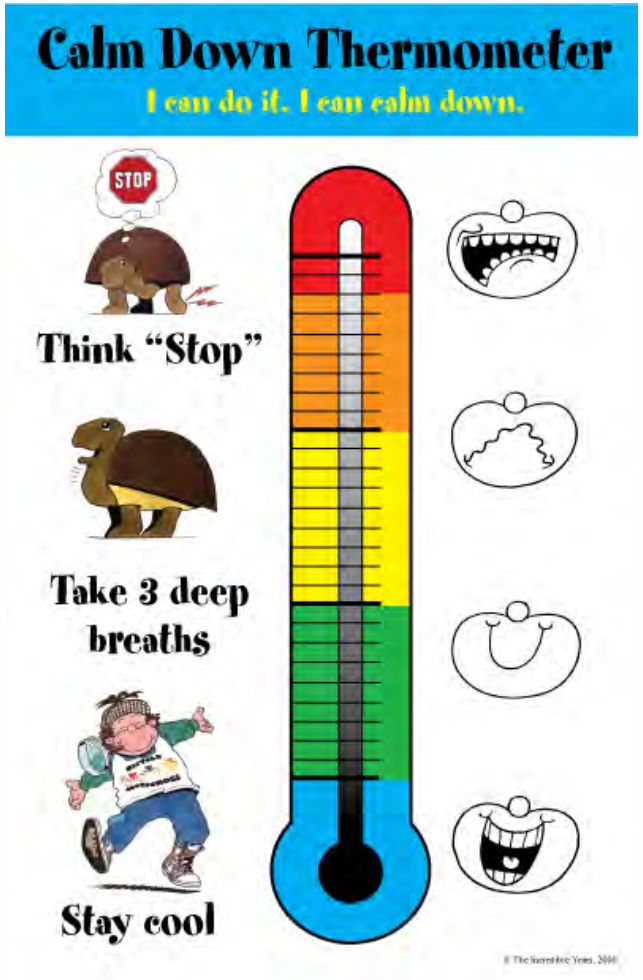
AND

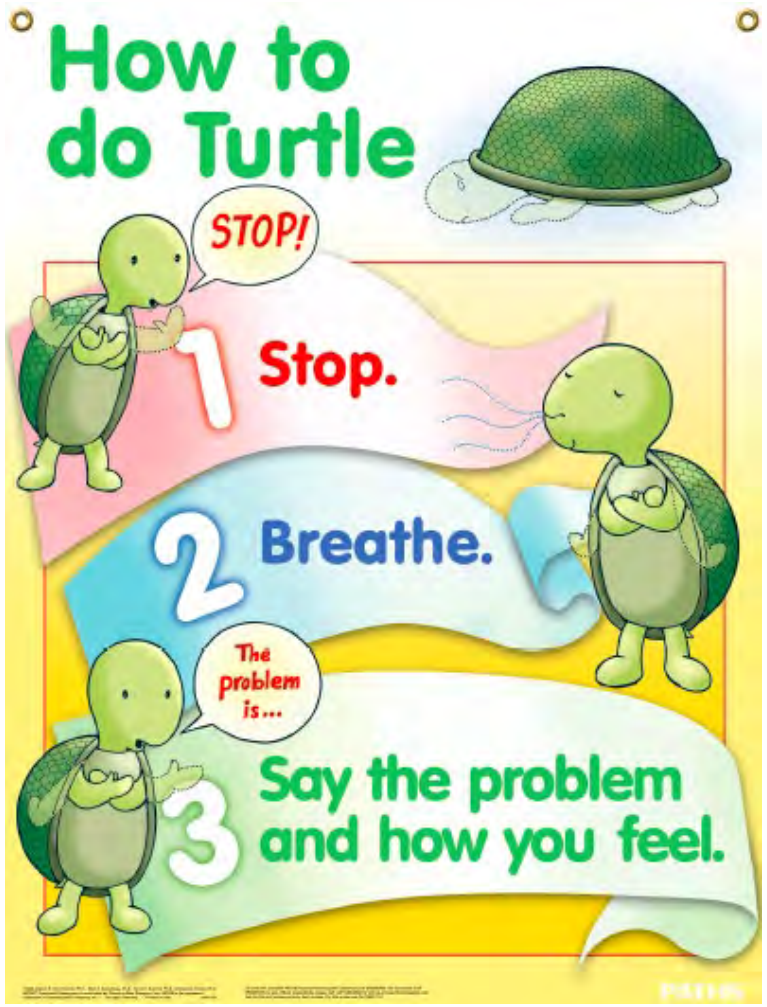
highly **context-dependent**

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

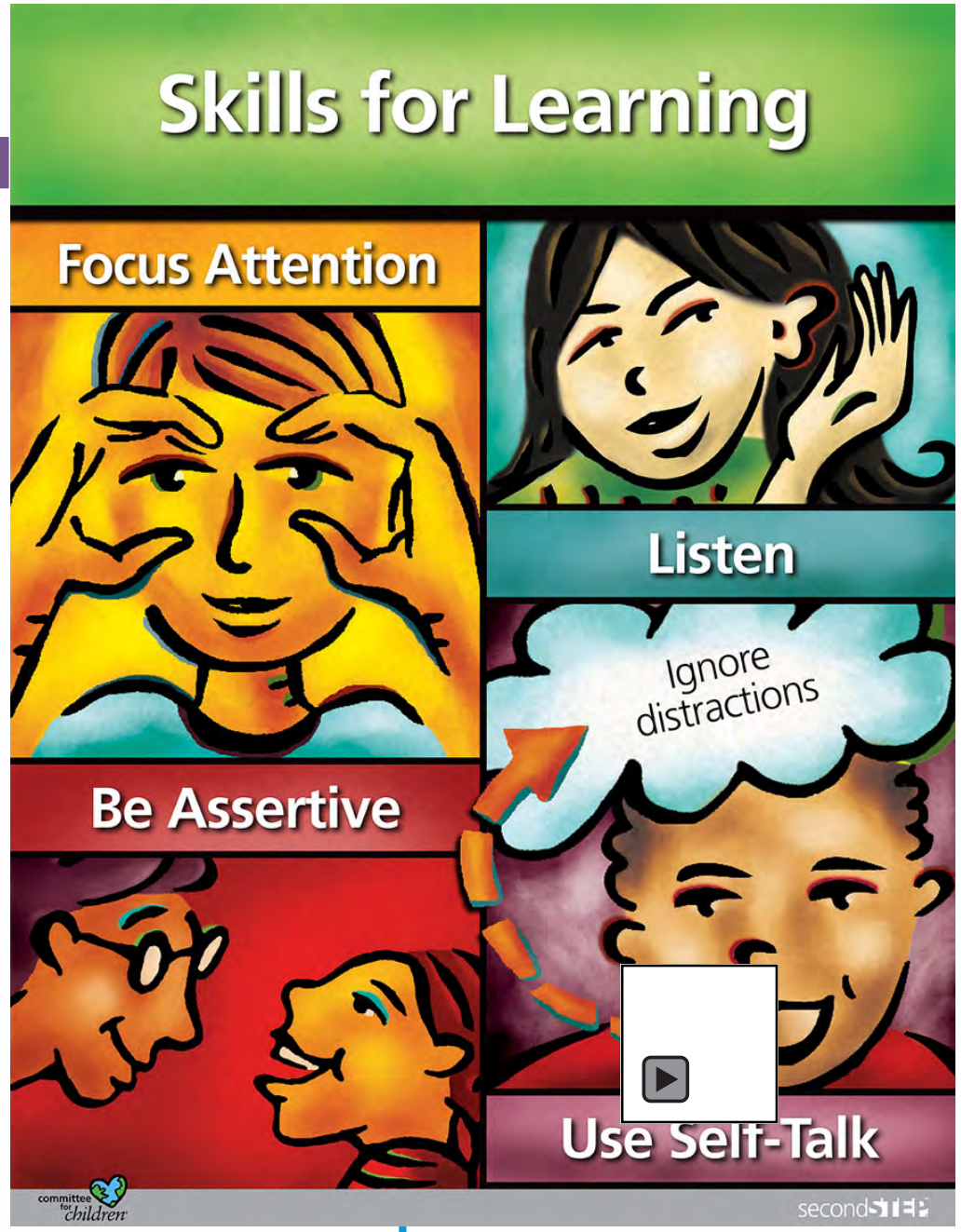
Strategies for Emotion Regulation





Strategies for Execu

- 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****.*

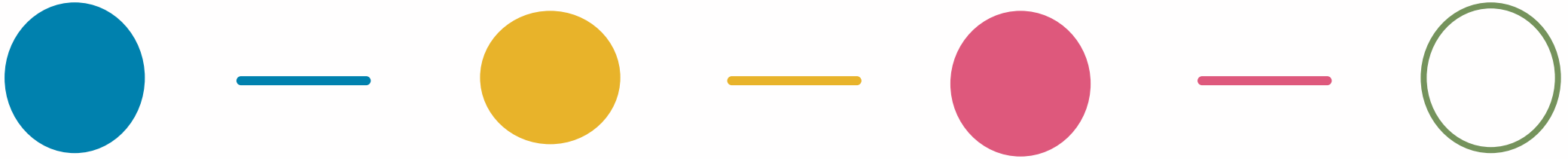
- Before playing, talk about why it's so important to remember things during the school day.
- Explain that you need to use your "remember power" for everything: tying your shoes, working on a math problem, or knowing how to get to your friend's house.
- After playing, ask students what made the game 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.

Essential Questions



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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)
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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
Treat all students with care and respect
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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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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?


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Treat all students with care and respect
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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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