

Supporting Executive Functioning Skills in the Preschool Classroom



Trainer Does: Prepare to facilitate this module by doing the following: Before beginning the module, it will be helpful to download and familiarize yourself with the **Facilitator's Guide**, and the **Instructional Resources** from the Director's Toolkit. The **instructional resources** are intended to enhance content knowledge and provide useful examples to share with participants.

- Copy enough **Self-Assessment** documents for each participant (Word document in Director's Toolkit)

You will need:

- Copies of **The Florida Early Learning and Developmental Standards Four Years Old to Kindergarten (2017)** at least one per table or small group. This resource may be downloaded from, [Florida Early Learning and Developmental Standards: 4 Years Old to Kindergarten \(2017\)](#)
- Post-It notes or index cards with the following imaginary play scenarios listed on them (one scenario per note): Veterinarian's Office, Restaurant, Space Station, Farm Stand, Bakery, Campsite, Flower Shop, Post Office, Beach, Doctor's Office
- Index Cards or Post-It notes with the eight domains of the Florida Early Learning and Developmental Standards printed on them (one domain per card or note) **Physical Development, Approaches to Learning, Social and Emotional Development, Language and Literacy, Mathematical Thinking, Scientific Inquiry, Social Studies, Creative Expressions Through the Arts**

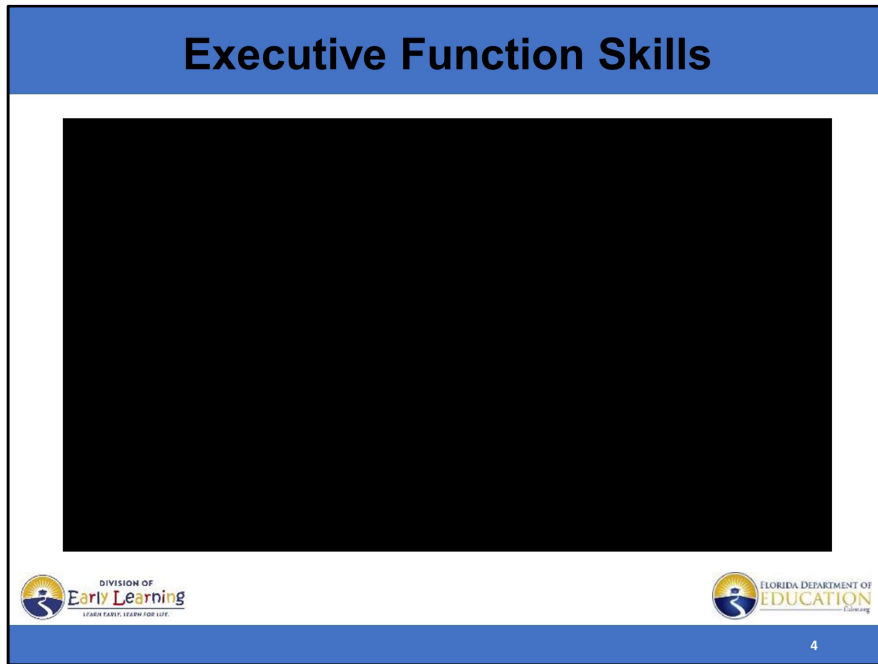
Trainer Says: “Welcome to Supporting Executive Functioning Skills in the Preschool Classroom. Think about your current understanding of executive functioning skills. Briefly define them to the best of your knowledge and discuss why you think it they are important for children's development.”

Agenda

- **Welcome, Introductions, and Agenda Review**
Introduction to Executive Functioning Skills
- **Self-Assessment**
Cognitive Flexibility, Working Memory, Inhibitory/Self-Control
- **Supporting Executive Functions Throughout the Day**
Putting Our Executive Functioning Skills To Work
- **Executive Functions in Action**
Addressing The Florida Early Learning and Developmental Standards
- **Review, Take Aways, and Next Steps**



Trainer Does: Review the agenda items and outline your expectations for the training (e.g., full participation, note taking etc.).



Trainer Needs to Know:

Trainer Says: “Let’s take a look at executive function skills and why they are so important.”

Trainer Does: Play the video

Self-Assessment

What strategies and activities do you implement in the classroom that foster executive functioning and self-regulation skills?



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Trainer Says: “Think back to the skills mentioned in the video. How are you fostering them in your classroom?” (Encourage participants to share their strategies and/or activities.)

“Let’s take a moment and fill out the **Self-Assessment** form. We will revisit this form at the end of the training and use it to guide our next steps.”

Trainer Does: Ask participants to complete the **Self Assessment document**, found in the **Facilitators Guide** section of the director’s toolkit: Supporting Executive Functioning Skills in the Preschool Classroom module.

Executive Function & Self-Regulation

Executive function and self-regulation skills are a set of cognitive abilities involved in important tasks such as regulating emotions, controlling impulses, following directions, and adjusting to changing demands.

These skills depend on three types of brain function: **cognitive flexibility**, **working memory**, and **inhibitory/self-control**.



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Trainer Needs to Know: These functions are fundamental to building a strong foundation for both cognitive and social skills.

Trainer Does: Read the slide

Trainer Says: “Think about examples of how you regulated your emotions, controlled your impulses, followed directions, and adjusted to changing demands today. Does anyone want to share an example?” Encourage participants to share their responses. “Now think of opportunities your students had to do these things today. What activities were they engaged in?”

Trainer Does: Asks questions and leads discussion.

Cognitive Flexibility

The capacity to easily switch gears, take another perspective, and adjust to changing demands.

- Take different perspectives
- Shifting priorities and making a new plan
- Adapting to a new classroom routine or schedule change
- Transitioning from one activity to another (moving from outdoor play to indoor snack time)
- Following new rules introduced during a game or activity
- Share toys and taking turns with peers during playtime



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Trainer Needs to Know: This skill is crucial for problem-solving, creativity, critical thinking, managing daily life, and adapting to sudden changes. Cognitive flexibility is a subset of mental flexibility that specifically refers to the brain's ability to switch between different tasks, rules, and perspectives.

Trainer Does: Reads slide

Trainer Says: "Remember, preschoolers are **developing** this skill, they have **not mastered** it. It is important to keep this in mind when managing our expectations and redirecting their behavior. One way to support this skill is to encourage the transformation of things. Invite children to change the way they see things differently by turning things into other things (e.g., turn dirt and water into mud, find a pile of sticks and decide to build something new and exciting, etc.).

Working Memory

The ability remember and apply information to everyday activities.

- Following the rules of a game
- Doing mental math
- Completing a multi-step process in correct order
- Remembering story details
- Sorting and matching



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Trainer Needs to Know: Working memory refers to the capacity to store and manipulate information over time. This skill allows children to follow multi-step directions, remember the actions and words to a familiar song, and easily rejoin a game.

Trainer Does: Reads the slide

Trainer Says: “Activities such as card games, matching, sorting, memory games, and progressive storytelling (each child takes a turn at adding a sentence to an ongoing story) support his important skill. What are some activities or resources you could use/add to your classroom to assist children in practicing and enhancing working memory?”

Trainer Does: Encourage participants to respond and facilitates the discussion.

Inhibitory/Self-Control

The ability to set priorities and resist impulsive actions or responses.

- Raising a hand and waiting to be called on
- Completing a task
- Focusing on a story
- Sharing a toy
- Taking turns



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Trainer Needs to Know: Inhibitory control describes the ability to manage thoughts and impulses. It supports preschoolers as they learn to take turns and follow rules. Young children display this skill when they focus on an activity, wait their turn, and seek teacher assistance to resolve a conflict.

Trainer Does: Reads slide

Trainer Says: “Remember, preschoolers are **developing this skill**, they have **not mastered** it. It is important to keep this in mind when managing our expectations and redirecting their behavior. Games such as Simon Says, Red Light, Green Light, and Freeze Dance provide fun practice for this skill.”

Support Throughout the Day



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Trainer Needs to Know: Content Information: Movement challenges: songs and games **The demands of songs and movement games support executive function because children have to move to a specific rhythm and synchronize words to actions and music.** All of these tasks contribute to inhibitory control and working memory. It is important that these songs and games become increasingly complex to interest and challenge children as they develop more self-regulation skills. Source: [Executive-Function-Activities-for-3-to-5-year-olds.pdf](#) (harvardcenter.wpenginpowered.com)

Trainer Does: Before playing the video, ask teachers to look for activities they implement in their classrooms (as they watch). Play the video.

Trainer Says: “Which of the activities and routines depicted in the video do you implement in your classroom? How do they specifically support executive function skills? Are there any activities from the video that you might like to try?” (Call on participants and discuss their responses).

Trainer Does: Present and Discuss the following Talking Points:

- Provide many opportunities for children to test themselves physically through access to materials such as climbing structures, balance beams, seesaws, etc. Setting challenges for children—such as obstacle courses and games that encourage complex motions (skipping, balancing, etc.)—can also be fun. When children are trying new and difficult activities, they need to focus attention, monitor and adjust their actions, and persist to achieve a goal.
- Play some music and have children dance really fast, then really slowly. Freeze dance is also fun, and it can be made more difficult by asking children to freeze in particular positions. (Tools of the Mind uses stick-figure pictures to direct children.) When the music stops, children must inhibit action and shift their attention to the picture to imitate the shape depicted.
- Songs that repeat and add on to earlier sections (either through words or motions) are a great challenge to working memory, such as the motions to She'll Be Coming 'Round the Mountain, the words to Bought Me a Cat, and backward-counting songs, such as Five Green and Speckled Frogs and songs repeating a long list (the Alphabet Song). Source: [Executive-Function-Activities-for-3-to-5-year-olds.pdf \(harvardcenter.wpeninepowered.com\)](https://www.harvardcenter.wpeninepowered.com/Executive-Function-Activities-for-3-to-5-year-olds.pdf)

The Teacher's Role

Children are not born with these skills—they are developed over time through positive and supportive social interactions with caring adults, creative play, activities, and nourishing experiences. These relationships and experiences foster the preschooler's ability to filter distractions, focus on tasks, realize goals and behave appropriately.



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Trainer Needs to Know:

Trainer Does: Read the slide.

Trainer Says: Ask, “What are some of the ways that you provide positive and supportive interactions with your students?”

Trainer Does: Invites participants to share their strategies.

The Role of Play

“Play is often talked about as if it were a relief from serious learning. But for children, play is serious learning. Play is really the work of childhood (Fred Rogers).”



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Trainer Needs to Know:

Trainer Does: Read the slide.

Present and discuss the following talking points (be sure to encourage participants to share their thoughts and wonderings) :

As children play, expect them to talk to themselves.

- This “private speech” is a major sign that a child is regulating their own thinking – using their executive function skills. It is a sign that the child is internalizing guidance from others into their own patterns of behavior. Private speech helps a child problem-solve and delay gratification. It is not a sign of inattentiveness.

Encourage storytelling

- Oral storytelling challenges children to use working memory. While telling a story, the child must tap into executive function to chain the parts of the story together and to create elements that naturally relate. While listening to others and waiting their turn, they rehearse impulse control skills. This also affirms children whose families have rich oral storytelling routines in their homes.

Incorporate “Pair and Share” opportunities for children to talk and share ideas and experiences.

- Rather than using large group time to go around a circle and share one at a

time, pair children for sharing. This allows more sharing with less waiting. This technique is especially helpful for the young child just beginning to demonstrate impulse control.

Stop, look, and listen

- Model pausing and thinking before taking action. You might even talk out loud, “Now...let me think for a minute (long pause). I could do...or perhaps... or.... If I do this, it seems....” This shows the children a thinking pattern that they can imitate when they have to compare options and decide. Facilitate games that involve turn-taking, stop-and-go concentration (like Freeze Dance or Red Light-Green Light) and strategy games (like checkers and dominoes). Point out cause and effect play opportunities or experiments.

Choose questions and statements that expand the inquiries and play in the classroom.

- “Why do you think....? What is your goal? What else might you try? What do you notice about this? What made you think of doing that instead?” Write down the plans. It gives them value. And remember it is perfectly okay to change plans. In the best play, the teacher is not telling children what to do, but uses questions to prompt them to further explore a challenge.

Welcome flexible use of materials and vary available props.

- Open-ended play supplies—paper, writing materials, scissors, pieces of fabric, blocks, wheels, boxes, buckets, plastic containers, cardboard tubes, string, scales, magnifying glasses, sand, clay, wrapping paper, aluminum foil, sticks, water, glue, grocery and lunch bags, envelopes, trays, squeeze bottles, PVC pipe and connectors, leaves, seeds, flowers, Plexiglas squares, straws, masking tape—inspire complex, creative play.

Source: [Executive function: What’s play got to do with it? — Better Kid Care — Penn State Extension \(psu.edu\)](#)

Imaginary Play



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Trainer Needs to Know: Prepare a Post-It Note for each group with one of the following imaginary play scenarios listed on it: Veterinarian's Office, Restaurant, Space Station, Farm Stand, Bakery, Campsite, Flower Shop, Post Office, Beach, Doctor's Office (These will be used after the video has been watched and the talking points discussed).

Content Information:

During intentional imaginary play, children develop rules to guide their actions in playing roles. They also hold complex ideas in mind and shape their actions to follow these rules, inhibiting impulses or actions that don't fit the "role." Players often take ideas from their own lives, such as going to the doctor's office. They might act "sick," be examined by the doctor, and receive a shot. The "doctor" talks and acts like a doctor (calm and reassuring), the "sick child" talks and acts like a sick child (sad and scared), and the child in the role of "parent" talks and acts like a concerned parent (worried and caring). While younger children tend to play alone or in parallel, children in this age range are learning to play cooperatively and often regulate each other's behavior—an important step in developing self-regulation. Source: [Executive-Function-Activities-for-3-to-5-year-olds.pdf \(harvardcenter.wpenpowered.com\)](https://www.harvardcenter.wpenpowered.com/Executive-Function-Activities-for-3-to-5-year-olds.pdf)

Trainer Does: Before Playing the video, ask teachers to jot down (as they watch the video) one-way imaginary play supports executive function skills. Then Play the video.

Trainer Says: After the video, invite participants to share their responses. “How does imaginary play support executive function skills?”

Present and Discuss the following talking points for supporting high-level imaginary play:

Read books, go on field trips, and use videos to make sure that children know enough about the scenario and roles to support pretend play.

Provide a varied set of props and toys to encourage this type of play. Younger preschoolers may need more realistic props to get the play started (e.g., toy medical kits), while older children can re-purpose other things to turn them into play props (e.g., paper towel tube that is used as a cast for a “broken arm”). Reusing familiar objects in a new way also practices cognitive flexibility.

Allow children to make their own play props. Children must determine what is needed, hold this information in mind, and then follow through without getting distracted. They also exercise selective attention, working memory, and planning. If the original plans don’t work out, children need to adjust their ideas and try again, challenging their cognitive flexibility.

Play plans can be a good way to organize play, as shown by one early education program designed to build self-regulation, Tools of the Mind. Children decide who they are going to be and what they are going to do before they start playing, and then draw their plan on paper. Planning means that children think first and then act, thus practicing inhibitory control. Planning play in a group also encourages children to plan together, hold these plans in mind, and apply them during the activity. It encourages social problem solving, as well as oral language.

Source: [Executive-Function-Activities-for-3-to-5-year-olds.pdf](#)
(harvardcenter.wpenginpowered.com)

Trainer Does: Ask each group to brainstorm a list of props to accompany the following imaginary play scenarios: Veterinarian's Office, Restaurant, Space Station, Farm Stand, Bakery, Campsite, Flower Shop, Post Office, Beach, Doctor’s Office

The Stroop Test

Read the word



Red Yellow Green Blue Black Purple

Say the color of the letters

Green Red Purple Black Blue Yellow

Say the color of the letters

**Purple Red Yellow Blue Green Black
Green Purple Yellow Red Black Blue**

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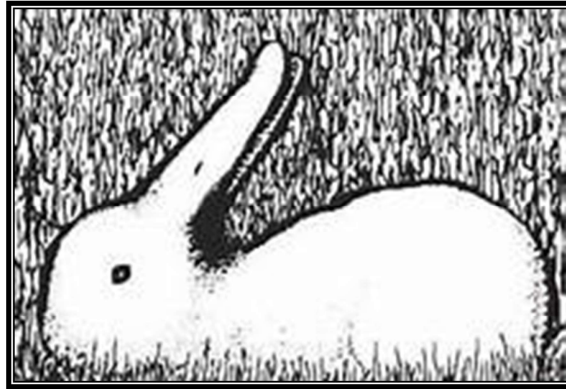
Trainer Says: “Let’s take a few minutes to give our executive functioning skills a workout.”

Trainer Does: Invites participants to read through the slide one line at a time, following the directions.

Trainer Says: “Which line was hardest/easiest? Why? • How does your brain feel? • How does this apply to our work? • What strategies did you use as this task became more complex?”

What is going on? The Stroop Test is a measure of working memory and attention. When the colors and words are conflicting, the brain must work hard to filter out competing signals. Reading is such an automatic task that the brain needs to actively inhibit it and direct its attention instead to saying the color of the letters. The resulting delay is called the Stroop Effect. When the colors and words match, or when the words are neutral, there is no conflicting information for the brain to have to filter out.” Note: This activity is not appropriate for preschoolers, it is simply a demonstration of executive functioning skills at work.

Cognitive Flexibility



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Trainer Does: Show the slide and ask participants what they see. Some will see a duck while others see a bunny.

Image from [This Centuries-Old Optical Illusion Will Leave You Scratching Your Head | Ilusiones, Ilusiones ópticas para niños, Arte de la ilusión óptica \(pinterest.com\)](#)

Trainer Says: “What do you see? Some said a duck while others said a bunny. Can you see both? Cognitive flexibility allows us to see other perspectives. Key academic skills like reading, writing and math are also easier to learn when children can think in flexible ways. For example, one needs to think flexibly about letters to understand that they can have different sounds. Cognitive flexibility is necessary to grasp the many exceptions and complexities to the rules of grammar. And it’s needed in math to understand that there’s more than one way to solve a problem.”

Your preschoolers may enjoy the book, *Duck Rabbit* by Amy Krouse Rosenthal & Tom Lichtenheld

Head, Shoulders, Knees, & Toes Mix-Up

Head, shoulders, knees, and toes,
knees, and toes.
Head, shoulders, knees, and toes,
knees, and toes.
Eyes and ears and mouth and nose,
Head, shoulders, knees, and toes,
knees, and toes



4

Trainer Does: Asks the participants to stand and sing the song along with the motions. After the first round, change the rules. Say, “This time, when we sing the word *head* you are going to touch your **toes** and when we sing the word *toes*, we are going to touch our **heads**.”

Direct everyone to sing and move using the new rules. If participants are up for it you may choose to sing another round mixing up head & toes **and** shoulders & knees.

Trainer Says: Debrief • “Which was hardest/easiest? Why? • How does your brain feel? • How does this apply to our work? • What strategies did you use as this task became more complex?” Explain that this activity requires working memory, cognitive flexibility, and inhibitory control.

Developing Skills

Executive functioning skills begin to develop shortly after birth and have an opportunity for dramatic growth during the preschool years.

They continue to develop throughout adolescence and into early adulthood.

With the support of caring and knowledgeable adults, these skills can be taught, practiced, and improved.



Trainer Does: Reads slide

Executive Functions In Action



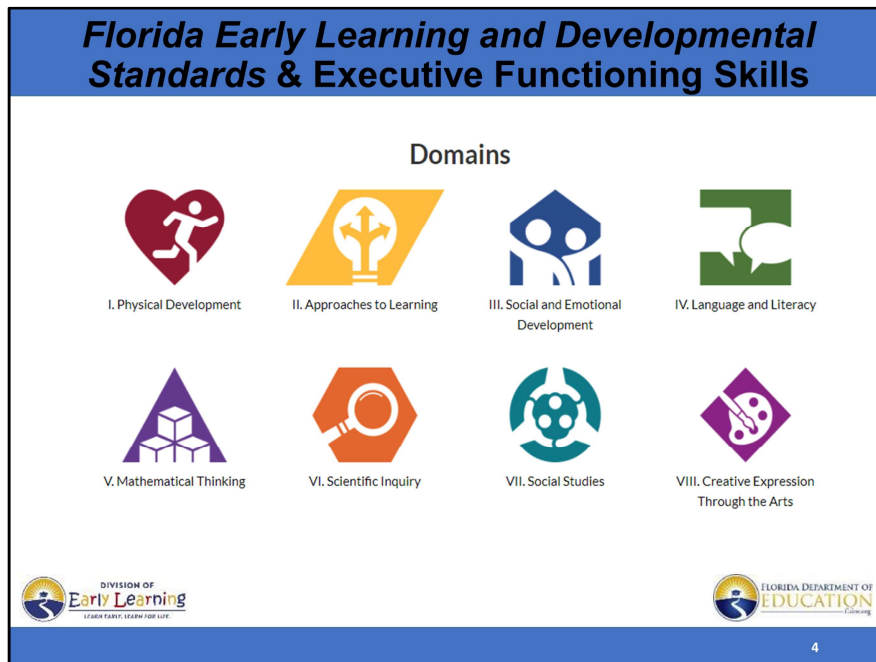
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Trainer Does: Before playing the video, direct participants jot down some of the routines and activities they see.

Trainer Says: "This next video focuses on opportunities for children to practice executive functioning skills during everyday routines and activities. As you watch, take a moment to jot down some of activities that you are already offering in your classroom or maybe some you might like to implement."

Trainer Does: Play the video.

Trainer Says: "It's time to share your responses. What activities or routines are already part of your classroom? Which ones do you think you might implement in the future? Which executive functioning skills are embedded in these activities?"



Trainer Needs to Know: Each table or small group of participants will need to be assigned a domain and given at least one copy of the Florida Early Learning and Developmental Standards Four Years Old to Kindergarten (2017) available at, [Florida Early Learning and Developmental Standards: 4 Years Old to Kindergarten \(2017\)](#)

Trainer Says: “Executive functioning skills are foundational for success in educational settings and social situations. They have been cited as a stronger prediction of early academic success than I.Q. scores (Blair & Razza, 2007).

Support for these key skills should be embedded into all aspects of a preschooler’s day. Activities and lessons that foster executive functioning skills while addressing specific standards can easily be incorporated into the classroom. For example, modeling the directions to maneuver through an obstacle course and then encouraging children to complete it supports their developing working memory, and impulse/self-control skills. The activity also addresses the following standards:

- I. Ba1 Demonstrates use of large muscles for movement, position, strength and coordination and
- V. E2 Uses directions to move through space and find places in space

Now it’s your turn, I’m going to give each group a copy of the Florida Early Learning and Developmental Standards Four Years Old to Kindergarten (2017) and a card with a domain printed on it. Plan an activity that addresses a standard in your assigned domain and at least one executive functioning skill. Be prepared to share with the whole group.”

Trainer Does: Disseminates materials, allows 5-7 minutes for small groups to work, and calls on participants to share their responses.

Review



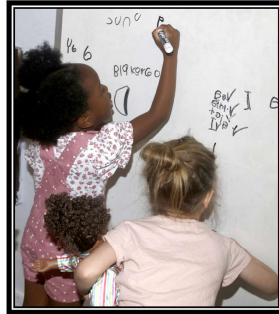
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Trainer Does: Before playing the video, ask participants to jot down 1 “take away” that they want to remember as they watch the video.

Trainer Says: “Let’s revisit some of the key points we’ve discussed throughout this module. As you watch the video, jot down 1 *take away* that you want to remember or learn more about.”

Next Steps

Key Take Aways Self-Assessment Review Plan for Practice



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Trainer Does: Invite participants to share their key take aways from the video and/or module. Facilitate a discussion around their responses.

Ask participants to revisit the *Self Assessment* document they completed at the beginning of the module.

Trainer Says: "Let's review the *Self-Assessment* we completed at the beginning of this Module and identify one area to focus on when supporting executive functioning skills in our classrooms." Make the links to the **Content Support Documents** (located in the **Facilitator's Guide**) available to participants so that they may *dig deeper* on their own. Work together as a group to create a plan for implementing the information presented in this module.

Trainer Needs to Know: Use this time to answer any questions the participants may have.