

DTs Today:  
It's so much more than (toy) play...

# Understanding Our Role with Children and Families from the Inside Out!

A Conversation for the IDTA Conference...

October 1, 2021 11:00- 12:00

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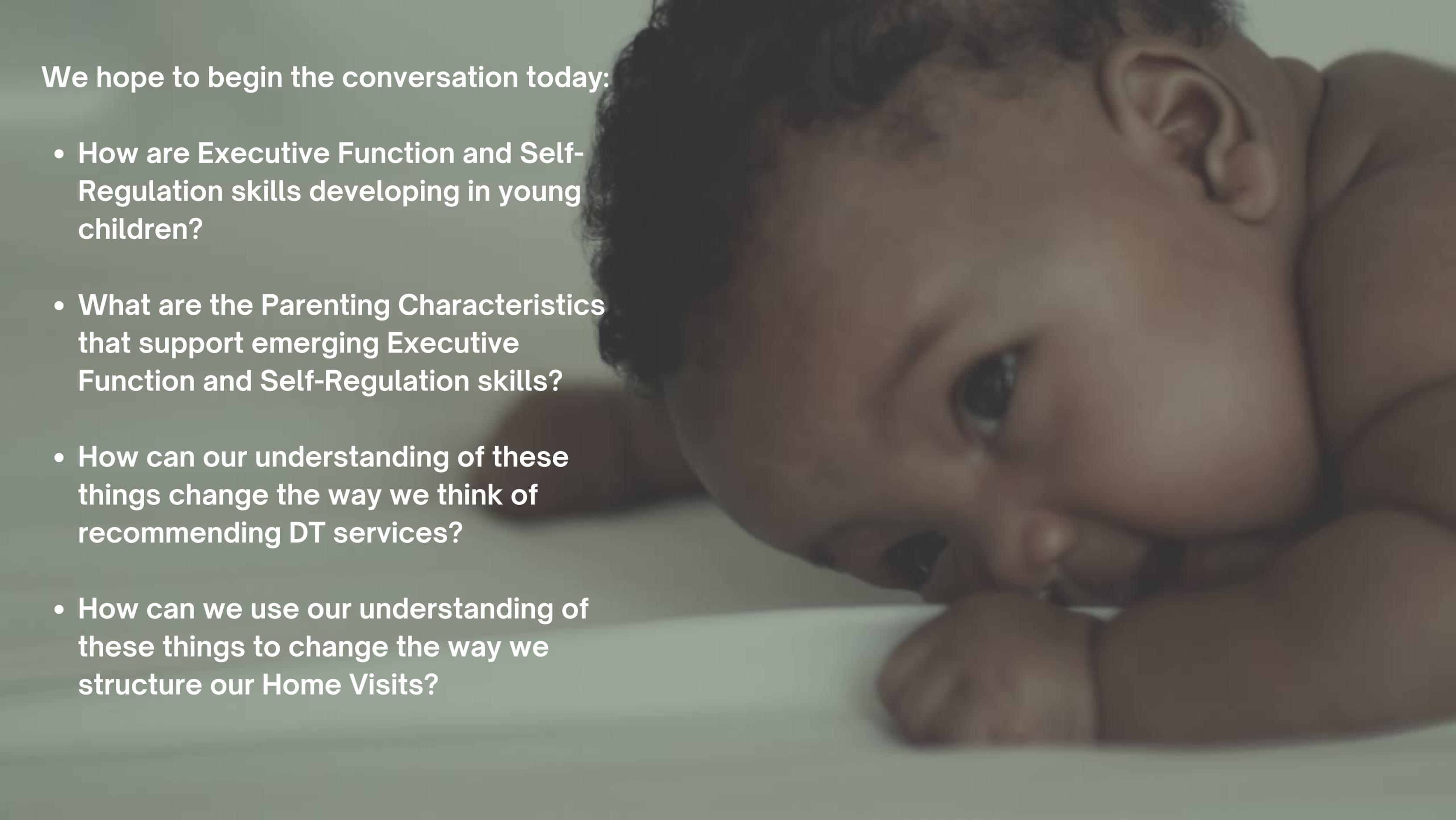
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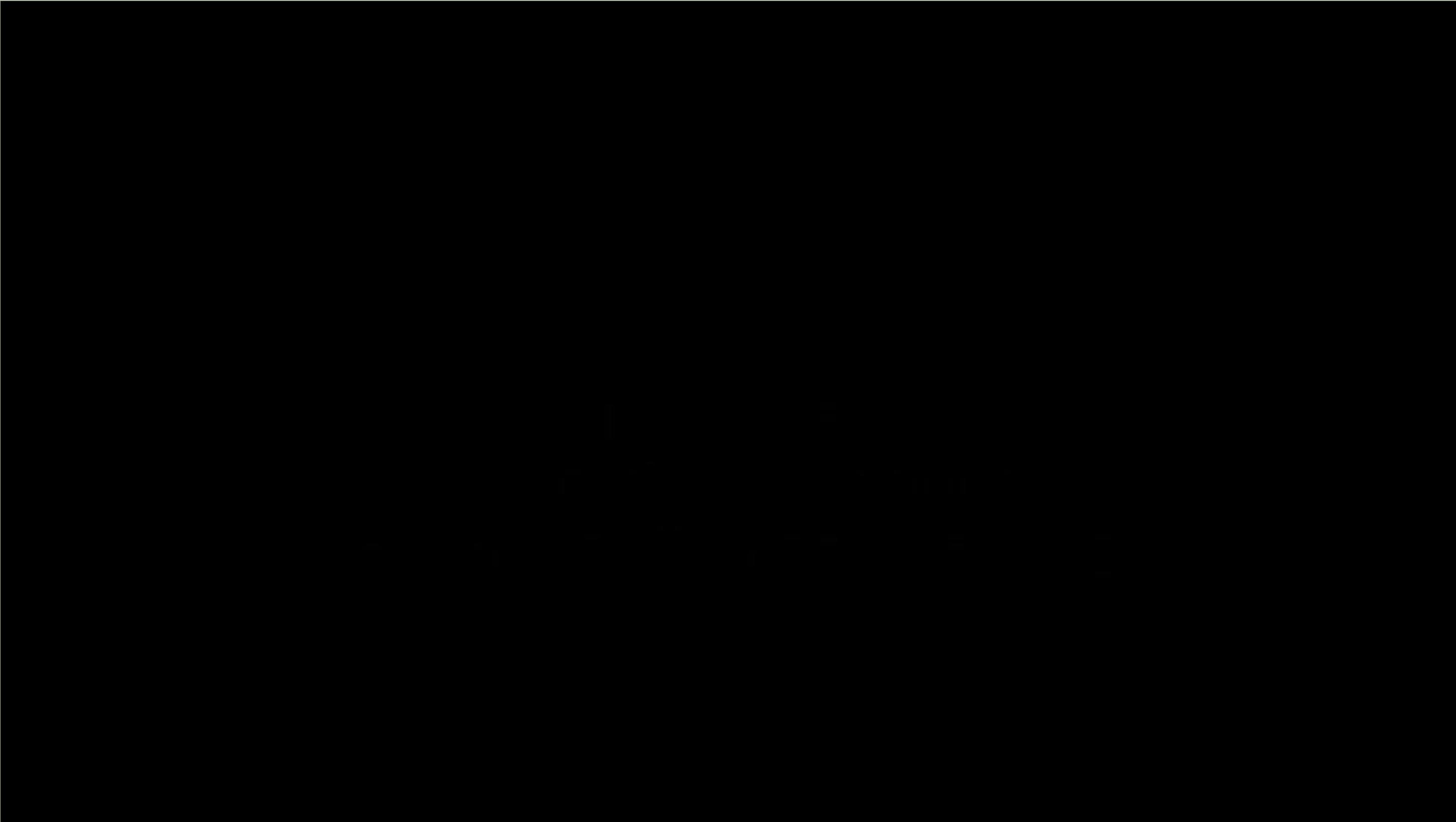
**We hope to begin the conversation today:**

- **How are Executive Function and Self-Regulation skills developing in young children?**
- **What are the Parenting Characteristics that support emerging Executive Function and Self-Regulation skills?**
- **How can our understanding of these things change the way we think of recommending DT services?**
- **How can we use our understanding of these things to change the way we structure our Home Visits?**

**Executive Function  
Self-Regulation  
EF/SR**

**What's with all the airplane references and how does this apply to my role as a Developmental Therapist in Early Intervention?**





**What is executive function?**



A combination of motor, sensory, communication, and cognitive skills used to learn, play, and socialize

**When do we use executive function skills?**

 Begin developing as a newborn

 Applied when we learn information and use it to complete a task

**What are some of the tasks executive function helps with?**

 Completing homework and chores

 Finishing a project

 Playing with friends and having control over emotions

 Asking for help and alerting others when needed

 Getting to work and school on time

**What are some ways you can help?**

 Have predictable routines

 Bring children with on errands

 Let them have unstructured playtime

**Executive function skills combine motor, sensory, communication, and cognitive skills we've developed.**

**Beginning at a very young age, we apply this combination of skills to daily activities and situations, such as playing, learning, and socializing.**

**This is what makes a focus on EF so perfect for the Role of the DT in EI!**



**Looking at Executive Function - Emotional and Behavioral Self-Regulation, Cognitive Flexibility, Initiative, Curiosity, and Creativity allows us to focus on the bigger picture of HOW young children learn...**

**Working memory — The ability to hold information in mind and use it.**

**Inhibitory or Self-control — The ability to master thoughts and impulses so as to resist temptations, distractions, and habits, and to pause and think before acting.**

**Cognitive or Mental flexibility — The capacity to switch gears and adjust to changing demands, priorities, or perspectives.**

## Working Memory.

This type of memory helps us remember and apply information to everyday activities, to put our memories to “work”.

Takes in new information and uses it to complete a task e.g. follows simple instructions from adults without reminders.

Follows the steps of a familiar routine - brush teeth, pick a bedtime book, get in bed.





## Self-control

The ability to think about what to do before doing it, with control over our reaction.

- Beginning to be able to wait for their "turn".
- Beginning to be able to "share" toys.
- Increasing ability to "work" on a task without getting distracted.

## Cognitive/Mental Flexibility

This is a key skill set to participate in learning, play, and social environments that require problem-solving, working with others, or trying new things. For example, mental flexibility is at work when we switch from unstructured free play to circle time with rules and expectations.



**Adults aid in the development of a child's executive function skills in various ways including:**

- Establishing and maintaining regular routines**
- Using picture schedules and visual supports**
- Creating space for focused, independent play with minimal distractions**
- Encouraging choice-making, problem-solving, and creativity**
- Scaffolding or providing "just enough" help or support for challenging tasks**
- Demonstrating, narrating, and reinforcing social behaviors**
- Providing supportive, engaged, stable relationships.**

**It is important for families to understand that children are not born with these skills, but they're born with the potential to develop them and we can give families specific strategies to encourage their child's developing working memory, self-control, and cognitive flexibility.**



Parental Scaffolding

Parental Stimulation

Parental Sensitivity

Parental Discipline

(Developmentally appropriate expectations  
and responses to behaviors)

This is where we as DTs can  
play an important role in  
how we recommend services  
and HOW we use or  
structure our home visits!

Consider situations that call for us to be more proactive in supporting parent-child relationships and coaching parents on strategies to support a child's EF/SR skills, rather than relying mainly on a more reactive approach to existing cognitive delays.

During home visits, try  
to focus more on HOW...

Relationships

Routines

Do One, Teach One, Observe One

Reflect

Revise

Reinforce

Repeat



Instead of only focusing on what children need to learn, we can also help families understand and support HOW children learn...

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## Early Head Start Infant/Toddler Approaches to Learning Sub-Domains Related to Executive Function

**Emotional and  
Behavioral  
Self-Regulation**

**Cognitive  
Self-Regulation**

**Initiative and  
Curiosity**

**Creativity**

[www.eclkc.ohs.acf.hhs.gov](http://www.eclkc.ohs.acf.hhs.gov)

<https://eclkc.ohs.acf.hhs.gov/interactive-head-start-early-learning-outcomes-framework-ages-birth-five>

# Approaches to Learning Goals for Emotional and Behavioral Self-Regulation (Executive Function Area of Inhibitory or Self-Control)

**Goal 1. Child manages feelings and emotions with support of familiar adults.**

## Indicators by 36 Months

**Looks to others for help in coping with strong feelings and emotions.**

**Uses strategies, such as seeking contact with a familiar adult or removing oneself from a situation, to handle strong feelings and emotions.**



# Approaches to Learning Goals for Emotional and Behavioral Self-Regulation (Executive Function Area of Inhibitory or Self-Control)

**Goal 1. Child manages feelings and emotions with support of familiar adults.**

## Developmental Progression

### Birth to 9 Months

Engages with familiar adults for calming and comfort, to focus attention, and to share joy.

### 8-18 Months

Seeks to be close, makes contact, or looks to familiar adults for help with strong emotion

### 16-36 Months

Uses various strategies to help manage strong emotions, such as removing oneself from the situation, covering eyes or ears, or seeking support from a familiar adult.

# Approaches to Learning Goals for Emotional and Behavioral Self-Regulation (Executive Function Area of Inhibitory or Self-Control)

**Goal 2. Child manages actions and behavior with support of familiar adults.**

## Indicators by 36 Months

**Participates in and follows everyday routines with the support of familiar adults.**

**Communicates verbally or non-verbally about basic needs. Manages short delays in getting physical needs met with the support of familiar adults.**

**Learns and follows some basic rules for managing actions and behavior in familiar settings, such as holding an adult's hand when crossing the street.**



# Approaches to Learning Goals for Emotional and Behavioral Self-Regulation (Executive Function Area of Inhibitory or Self-Control)

Goal 2. Child manages actions and behavior with support of familiar adults.

## Developmental Progression

### Birth to 9 Months

Responds to attentive caregiving by quieting or calming down, such as when being fed or being comforted during moments of physical distress.

### 8-18 Months

Looks to familiar adults for assistance and guidance with actions and behavior. May try to calm self by sucking on fingers or thumb when overly excited or distressed.

### 16-36 Months

Begins to manage and adjust actions and behavior with the guidance of familiar adults using words or signs such as "Stop" or "No" during conflict with a peer instead of hitting. Lets the adult know when they are hungry or tired.

# Approaches to Learning Goals for Cognitive Self-Regulation (Executive Functioning Area of Cognitive or Mental Flexibility)

## Goal 3. Child maintains focus and sustains attention with support.

### Indicators by 36 Months

Maintains engagement in interactions with familiar adults and children.

Chooses to join in activities or pays attention to tasks and activities that are self-initiated.

Maintains focus and attention on a simple task or activity for short periods of time.



# Approaches to Learning Goals for Cognitive Flexibility and Self-Regulation

Goal 3. Child maintains focus and sustains attention with support.

## Developmental Progression

### Birth to 9 Months

Develops some ability to filter out distracting sensory stimuli in order to focus on and attend to important people or objects in the environment with support.

### 8-18 Months

Shows increasing ability to attend to people, objects, and activities in order to extend or complete an activity, or to join others in a common focus.

### 16-36 Months

Participates in activities and experiences with people, objects, or materials that require attention and common focus.

# Approaches to Learning Goals for Cognitive Flexibility and Self-Regulation

**Goal 4. Child develops the ability to show persistence in actions and behavior.**

## Indicators by 36 Months

**Persists in learning new skills or solving problems.**

**Continues efforts to finish a challenging activity or task with support of an adult.**



# Approaches to Learning Goals for Cognitive Flexibility and Self-Regulation

**Goal 4. Child develops the ability to show persistence in actions and behavior.**

## Developmental Progression

### Birth to 9 Months

**Shows increasing ability to continue interactions with familiar adults or toys for more than just a brief time.**

### 8-18 Months

**Shows willingness to repeat attempts to communicate or to repeat actions to solve a problem even when encountering difficulties.**

### 16-36 Months

**Shows increasing ability to stay engaged when working towards a goal or solving a problem. Often tries different strategies until successful.**

# Approaches to Learning Goals for Cognitive Flexibility and Self-Regulation

**Goal 5. Child demonstrates the ability to be flexible in actions and behavior.**

## Indicators by 36 Months

**Adjusts to changes in routines or usual activities when informed ahead of time by adults.**

**Makes common, everyday transitions that are part of a daily schedule.**

**Shows flexibility in problem-solving by trying more than one approach.**



# Approaches to Learning Goals for Cognitive Flexibility and Self-Regulation

Goal 5. Child demonstrates the ability to be flexible in actions and behavior.

## Developmental Progression

### Birth to 9 Months

Shows repetitive patterns in actions or behaviors but sometimes tries more than one approach to solving a problem or engaging someone in interaction

### 8-18 Months

Shows ability to shift focus in order to attend to something else, participate in a new activity or try a new approach to solving a problem.

### 16-36 Months

Modifies actions or behavior in social situations, daily routines, and problem solving, such as playing quietly when asked or adjusting to changes in schedule.

# Approaches to Learning Goals for Initiative and Curiosity (Executive Functioning Area of Cognitive or Mental Flexibility)

**Goal 6. Child demonstrates emerging initiative in interactions, experiences, and explorations.**

## Indicators by 36 Months

**Engages others in interactions or shared activities.**

**Demonstrates initiative by making choices or expressing preferences.**

**Attempts challenging tasks with or without adult help.**

**Shows eagerness to try new things.**



# Approaches to Learning Goals for Initiative and Curiosity (Executive Functioning Area of Cognitive or Mental Flexibility)

Goal 6. Child demonstrates emerging initiative in interactions, experiences, and explorations.

## Developmental Progression

### Birth to 9 Months

Initiates interactions with familiar adults through expressions, actions, or behaviors.

### 8-18 Months

Points to desired people, objects, or places, and initiates actions, such as looking for a favorite toy or bringing a book to an adult to read. Actively resists actions or items not wanted.

### 16-36 Months

Prepares for or starts some activities without being directed by others, such as getting ready for the next activity or bringing a ball to a new child at the playground.

# Approaches to Learning Goals for Initiative and Curiosity (Executive Functioning Area of Cognitive or Mental Flexibility)

**Goal 7. Child shows interest in and curiosity about objects, materials, or events.**

## Indicators by 36 Months

**Asks questions about what things are, how they are used, or what is happening.**

**Experiments with different ways of using new objects or materials.**

**Shows awareness of and interest in changes in the environment, such as changes in room arrangement, weather, or usual activities.**



# Approaches to Learning Goals for Initiative and Curiosity (Executive Functioning Area of Cognitive or Mental Flexibility)

**Goal 7. Child shows interest in and curiosity about objects, materials, or events.**

## Developmental Progression

### Birth to 9 Months

**Shows excitement when engaged in learning, such as smiling at an adult, laughing after batting at a mobile, or knocking over a toy.**

### 8-18 Months

**Approaches new events, experiences with others, or materials with interest and curiosity, such as intently listening to a new song or examining new toys or materials.**

### 16-36 Months

**Participates in new experiences, asks questions, and experiments with new things or materials, such as collecting leaves and pinecones in the fall.**

# **Approaches to Learning Goals for Creativity (Executive Functioning Area of Cognitive or Mental Flexibility)**

**Goal 8. Child uses creativity to increase understanding and learning.**

## **Indicators by 36 Months**

**Pays attention to new or unusual things.**

**Shows willingness to participate in new activities or experiences.**

**Uses language in creative ways, sometimes making up words or rhymes.**



# Approaches to Learning Goals for Creativity (Executive Functioning Area of Cognitive or Mental Flexibility)

Goal 8. Child uses creativity to increase understanding and learning.

## Developmental Progression

### Birth to 9 Months

Uses a variety of ways to interact with other people. Modifies expressions, actions, or behaviors based on responses of others.

### 8-18 Months

Finds new things to do with familiar, everyday objects, such as using a cooking pot for a hat or a spoon as a drumstick.

### 16-36 Months

Combines objects or materials in new and unexpected ways. Shows delight in creating something new.

# Approaches to Learning Goals for Creativity (Executive Functioning Area of Cognitive or Mental Flexibility)

**Goal 9. Child shows imagination in play and interactions with others.**

## Indicators by 36 Months

**Uses pretend and imaginary objects or people in play or interaction with others.**

**Uses materials such as paper, paint, crayons, or blocks to make novel things.**



# Approaches to Learning Goals for Creativity (Executive Functioning Area of Cognitive or Mental Flexibility)

**Goal 9. Child shows imagination in play and interactions with others.**

## Developmental Progression

### Birth to 9 Months

*Emerging*

### 8-18 Months

Uses sounds, gestures, signs, or words playfully through songs, finger plays, or games.

### 16-36 Months

Uses imagination to explore possible uses of objects and materials. Engages in pretend or make-believe play with other children.

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## Some Possible Warning Signs of an Executive Function Issue

- Struggles with time management
- Difficulty starting tasks on their own
- Disorganized
- Difficulty using and applying information from memory
- Forgets rules easily
- Difficulty planning and completing projects
- Needs to follow rigid routines
- Dislikes change
- Appears impulsive
- Poor emotional control
- Struggles with open-ended tasks



**Getting Ready in the Morning or at Bedtime - Try for consistency in routines, provide verbal and visual cues or prompts to help build sequencing and organizational skills.**

**Doing What You Ask When You Ask - Constantly repeating yourself when giving your child a directive? Hold their attention by getting down at their level, making eye contact, and having them repeat back the direction or request.**

**Avoiding Distractions - It can be difficult for some children to resist the urge to wander off in search of something more exciting, so we can help more at first by decreasing distractions, offering a few simple, desired options, engaging in routines that have a beginning, middle and end and allowing time for open-ended, self-directed, sensory-based or movement activities.**

**Where Do Things Go - Using picture labels can be a handy reminder for your child to put things in their proper place while also sharpening organizational skills.**

**Remembering Multiple-Step Instructions - First/Then visuals and simple songs can help your child remember multiple-step instructions.**

**Little People with Big Feelings - Help them understand their own emotions by labeling, explaining, and validating them to help them learn emotional control.**

**Accepting Alternative Options - Help your child learn to deal with situations that don't go their way by practicing "first-then and "either-or" techniques to lessen anxiety and build flexibility.**

# Activities to Develop Executive Function Skills

## 6-12 Months

Play Peek-A-Boo to practice remembering where an object is, even if it can't be seen. Talk to baby often to help build attention and focusing skills. Provide age-appropriate toys and household objects, like spoons or pots, for your baby to explore. Use imitation games, e.g. clapping hands, to build memory skills and teach baby how to copy you.

## 13-24 Months

Play pointing games, e.g. point and say the name of objects, to practice paying attention and learning how words and objects relate. Provide simple directions to improve listening skills, remembering instructions, and starting new tasks. Try finger painting with different colors to encourage creative thinking. Scoop and pour beans from one bucket to another using a plastic cup, which can help kids learn to concentrate on a specific task.

## 2-3 Years

Sing songs and play games that include instructions to practice taking turns and remembering words to complete an action. Play in different environments to practice adjusting to new experiences. Put away toys and games after play to help build organizational skills. Play Follow the Leader to develop listening skills, the ability to follow directions, and learning how to wait for a turn.

## **Additional Resources**

**Executive Function & Self-Regulation. Center on the Developing Child at Harvard University. <https://developingchild.harvard.edu/science/key-concepts/executive-function/>. Accessed October 26, 2017.**

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**Mermelshtine R. Parent-child learning interactions: A review of the literature on scaffolding. *British Journal of Educational Psychology*. 2017; 87(2):241-254. doi:10.1111/bjep.12147**

**Key Concepts: Executive Function. Center on the Developing Child Harvard University. [www.developingchild.harvard.edu/](http://www.developingchild.harvard.edu/). Accessed 19 Nov 2014.**

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