

Executive Function: What's Play Got To Do With It?

"Nothing lights up a child's brain like play!" (Stuart Brown 2008)

Executive Function: Specialized cognitive skills, primarily in the frontal lobe of the brain which work together to regulate, recall, and plan a person's actions. These skills help a child remember and follow multiple-step instructions; avoid distractions and impulsive responses; adjust when rules or instructions change; keep trying after an initial failure; organize and manage projects and long-term assignments.

How can early care professionals support a young child's executive function development?

There are simple, strategic choices that a teacher can make in the classroom to nurture a child's executive function development. Here are a variety of easy-to-implement ideas.

Enrich play (add complexity).

Pretend play involves internal rule following as a child follows the rule of what a mother acts like or how to purchase something in a grocery store. Children who are not used to imaginative play usually need support from teachers to follow through on play ideas and interact with playmates. Take care to avoid dismissing play ideas when possible; use "I see the doll is swimming" rather than "Dolls don't go in cups." Try extensions: "You took Tamika's order for lunch yesterday. You might want to use these menus I brought from the diner."

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.

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.



Reinforce step-by-step routines.

Use transition songs, picture signs (PECS—picture exchange cards), class photo books that illustrate routines. Visual and auditory cues help a child remember rules or a sequence of instructions and support children with recall, following multiple step instructions, organizing actions, and avoiding distractions.



Children benefit when you break large tasks into smaller tasks. You can model this. “Now in order to put on the play, I must first... then I must...” You could record them on a flip chart as a visual reminder. This is especially helpful for bigger, more complex tasks.

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.

References:

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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.

Time.

Don’t force rotations or certain time length in a center. Children need time for play to evolve to a complex level. They need time to process. Flexible, yet intentional, schedules may actually provide greater support for executive function and overall cognitive development than rigid ones. Use a work-in-progress sign to protect play and creative expressions when a break must be taken.

Calming space.

Create in your room a “safe place to calm” – an area filled with materials to help a child regain composure. After the child has calmed, then a teacher can join the child there and guide her to reflect on an experience and appropriate responses.