Executive Function: Building Core Capabilities for Life

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Definition:

A group of three skills that enable people to organize, plan and carry out a set of tasks in an efficient manner.
Three Skills of Executive Function

- Working Memory
- Cognitive Flexibility
- Inhibitory Control

EF (Executive Function)
Children aren’t born with these skills—they are born with the potential to develop them.

-Understood.org
Working Memory

What is it?
The ability to remember and use relevant information while in the middle of an activity

Examples
- Remembering steps in a recipe
- Recalling rules of a game
- Following instructions
Let’s Play “Simon Says”
What do we do or can we do to help children build working memory?
Ideas for Working Memory

BABIES (0-18 Months)
- Peek a boo
- Hide toys
- Sing songs
- Fingerplays
- Naming objects

TODDLERS (18-36 Months)
- Songs with actions
- Games that copy actions
- Fingerplays
- Imaginary play

PRESCHOOLER (3-5 Years Old)
- Build background knowledge
- Let children tell stories
- Songs that add movements
- Cooking!
Cognitive Flexibility

What is it?

- Helps people shift gears and think about things in different ways
- It’s a key part of problem solving
- Helps in planning tasks

Examples

- Routine at school is different than home routine
- Multiple ways of solving a math problem
- Rules to a game they play are a little different
Read the words

RED    GREEN    PURPLE
BLUE   ORANGE   PINK
YELLOW  GRAY    BLACK
Say the colors

RED GREEN PURPLE
BLUE ORANGE PINK
YELLOW GRAY BLACK
Which was easier?
What do we do or can we do to help children build cognitive flexibility?
Ideas for Cognitive Flexibility

BABIES (0-18 Months)
- Modify peekaboo games
- Change the words to songs
- Do silly things with objects
- Build together

TODDLERS (18-36 Months)
- Change the motions for songs
- Do things “incorrectly”
- Make predictions
- Matching and sorting games

PRESCHOOLER (3-5 Years Old)
- Use found objects for play
- Make up a story together
- Use complex movements and rhythms for songs
- Puzzles
Inhibitory Control

What is it?

- Being able to ignore distractions and resist temptation
- Helps children to regulate emotions and keep from acting impulsively

Examples

- Marshmallow test
- Not checking your phone immediately when it buzzes
- Holding onto a shaker egg without shaking it
The Marshmallow Test
What do we do or can we do to help children build inhibitory control?
Ideas for Inhibitory Control

**Babies (0-18 Months)**
- Bounces that start at stop
- Focus on one activity at a time
- Practice waiting
- Don’t give in!

**Toddlers (18-36 Months)**
- Change the speed in songs
- Books with movement
- Talk about feelings
- Don’t give in!

**Preschooler (3-5 Years Old)**
- Freeze games
- Take turns talking
- Activities that require focus
- Don’t give in!
How does this all affect us long term?
Skills that show success

KINDERGARTNERS
- Get along with others
- Follow directions
- Identify and regulate emotions
- Resolve conflicts
- Persist on tasks
- Engage in conversation and play
- Interpret others’ behavior and emotions

ADULTS
- Communication
- Organization
- Emotional Intelligence
- Negotiation
- Critical Thinking
- Focus
- Teamwork
- Confidence

EXECUTIVE FUNCTION SKILLS
- Pay attention
- Organize, plan and prioritize
- Stay focused until task is complete
- Understand different points of view
- Regulate emotions
- Keep track of what you’re doing

Lifehack.org, American Management Association and Forbes

http://www.msue.msu.edu
understood.org
What do you notice about all these skills?
When do we start learning EF skills?

A range of tests measuring different forms of executive function skills indicates that they begin to develop shortly after birth, with ages 3 to 5 providing a window of opportunity for dramatic growth in these skills. Growth continues throughout adolescence and early adulthood; proficiency begins to decline in later life.

What does this look like?

- It’s scaffolded
- Establishes routines
- Models social behavior
- Creates and maintains supportive relationships
- Fosters creative play
- Develops social connection
- Teaches how to cope with stress

All while decreasing adult supervision over time!
What additional things did you think we do or could do?
Resources

- **Harvard Center for Developing Child**
  
  Center on the Developing Child
  
  Activities to Develop EF Skills

- **Understood for Learning and Attention Issues**

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