



Under Construction: Fostering Executive Functioning Skills in Children and Teens

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Kingsbury Wellness and Learning Group



The Kingsbury Wellness & Learning Group



Our mission is to remove barriers and unlock potential for families with learning and behavior challenges.

Services

- Comprehensive Neuropsychological Testing
- Autism Evaluation
- Admissions Testing
- College Accommodations
- Individual Psychotherapy for Children and Adults
- Family Therapy
- Tutoring
- Speech Language Evaluation
- Consultation
- Professional Development

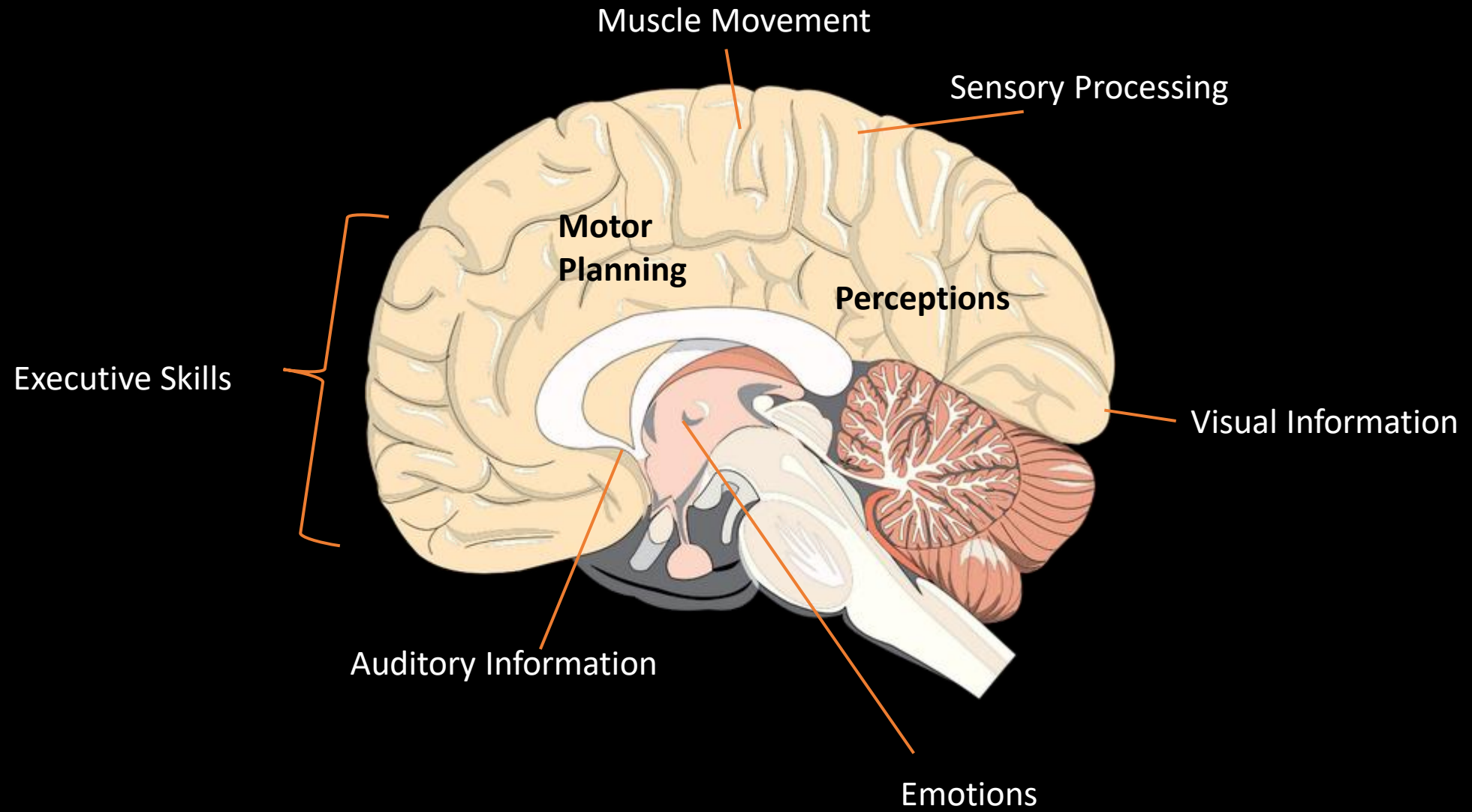
During Covid-19, telehealth services available.

Overview

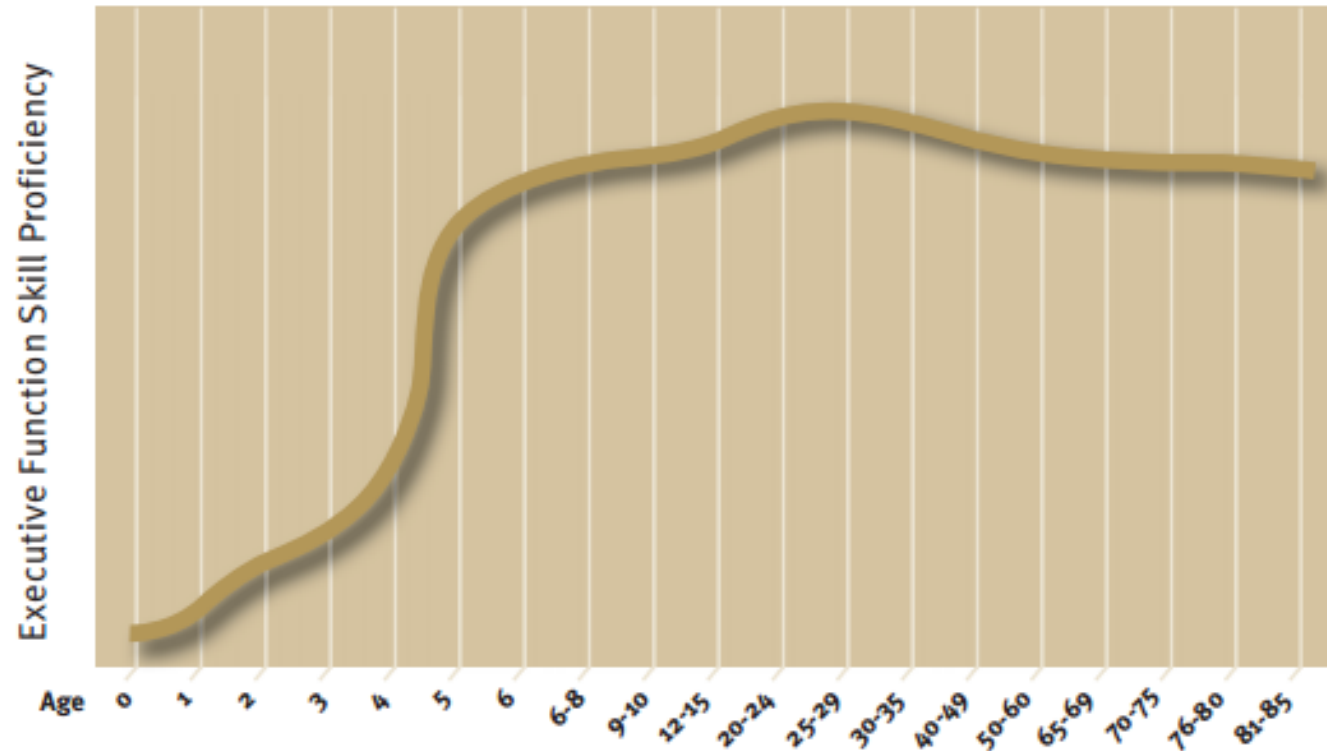
- What is Executive Functioning?
- Executive Functioning from a Developmental Perspective
- Parenting Strategies for Enhancing EF
- Child-Centered Strategies to Develop EF
- Your Questions answered by our panel:
 - Dr. Elliott Conklin
 - Dr. Lauren Siegel

Executive Functions are the Air Traffic Control System of the Brain





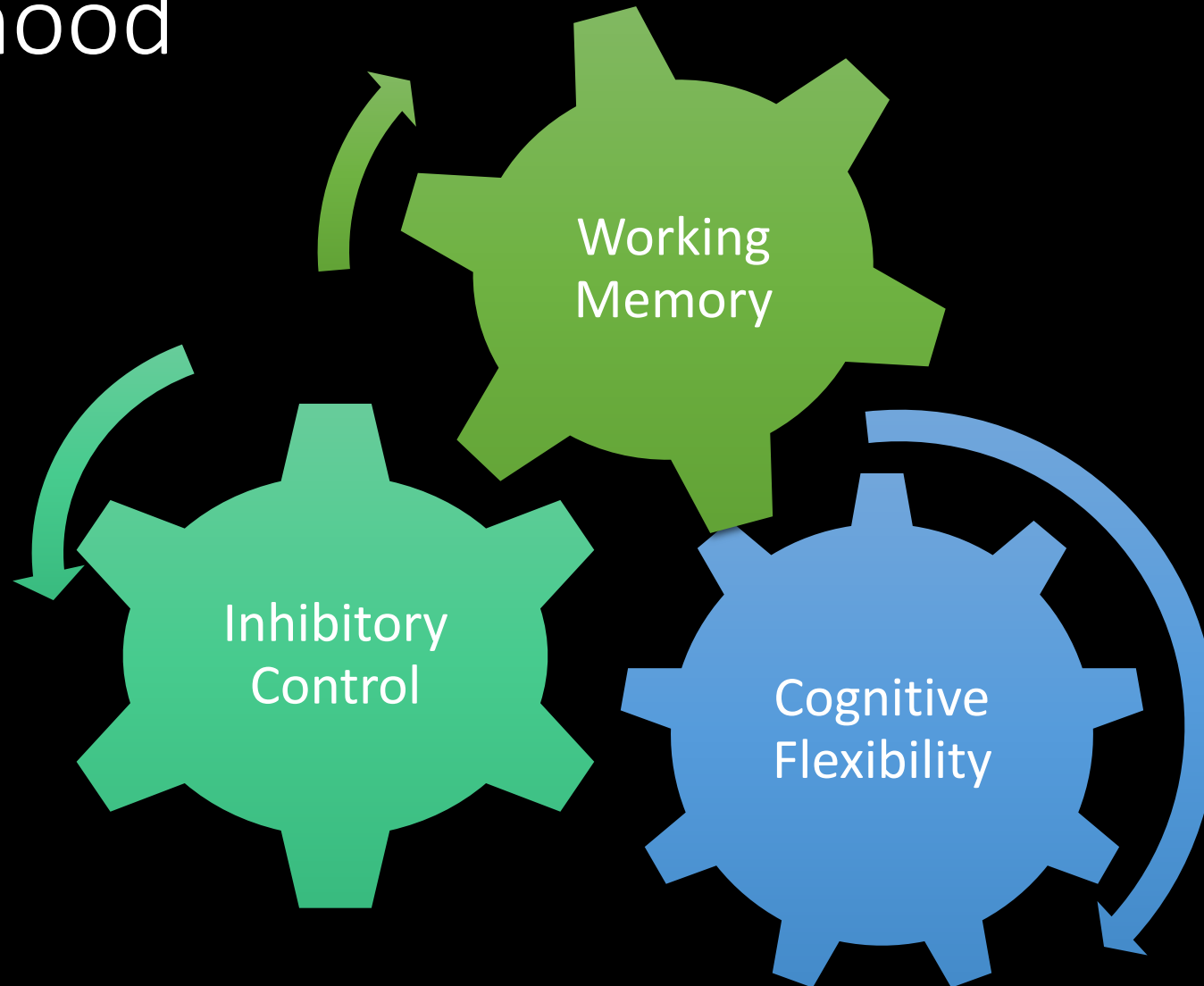
Executive Function Skills Build Throughout Childhood and Adolescence



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.

Source: Weintraub et al. (In Press).⁹⁹

Executive Functions Begin in Early Childhood





TASK
INITIATION



ORGANIZATION



TIME
MANAGEMENT



GOAL SETTING

School Age Executive Functioning Skills

Executive Functions in Adolescence

Metacognition	Cognitive Flexibility	Attention	Inhibition
Working Memory	Planning	Problem Solving	Behavioral Regulation
Emotion Regulation	Affective Decision Making	Social Skills	Theory of Mind

Cool vs. Hot Executive Functioning



Cool EF

- Logical
- Analytical
- Neutral

Problems with:

- Forgetting instructions
- Concentrating on homework
- Misplacing materials
- Careless errors
- Continuing with ineffective solution

Hot EF

- Context generates emotion motivation
- Immediate gratification vs. long-term rewards

Problems with:

- Interrupting conversations
- Making risky decisions
- Anger outbursts
- Misinterpreting others

Why are Executive Functions Important?

- Low EF at Kindergarten was associated with lifelong EF difficulties and negative outcomes for academic, life achievement, health
- Strong EF predicts: academic, professional, relationship success
- Strong EF predicts greater life satisfaction

- Executive Functions grow incrementally
- No one critical period but a longterm progression that goes into early adulthood
- Everyone has strengths and weaknesses in EF skills
- EF Skills can always improve
- Hot EF skills develop more slowly than cool EF



Executive Function Activity

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Executive Function Activity

How difficult was this activity?

What would have made it easier for you?

How did you feel during the activity?

What executive functions did you need to use to complete the tasks?

Executive Functions in Adolescence

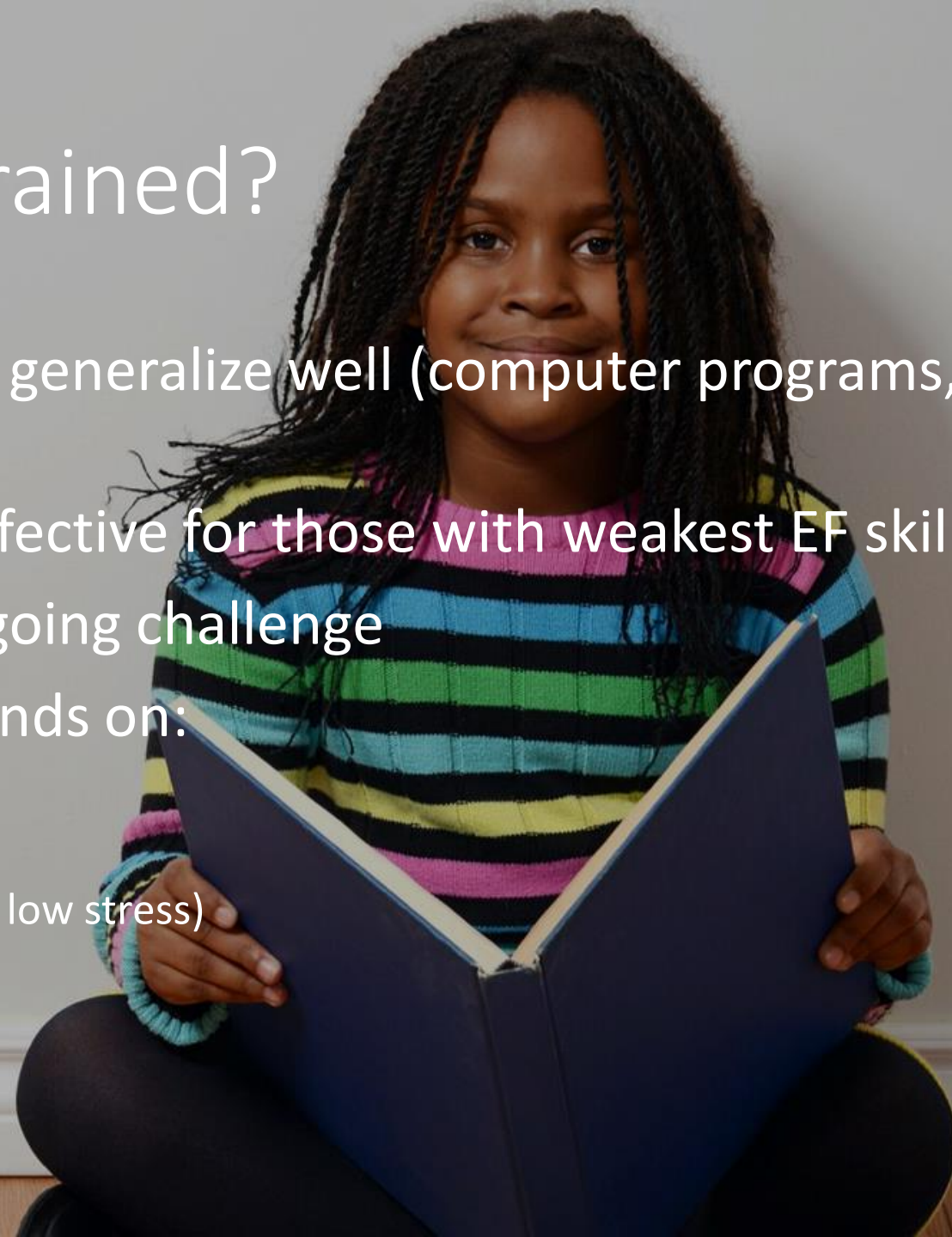
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Emotion Regulation	Affective Decision Making	Social Skills	Theory of Mind




Parenting Strategies for Enhancing Executive Functioning

Can EF Skills Be Trained?

- Formal EF training doesn't generalize well (computer programs, Tools of the Mind)
- Formal EF training most effective for those with weakest EF skills
- Training needs to have ongoing challenge
- Impact of EF training depends on:
 - Amount of time invested
 - Level of engagement
 - Context (calm environment, low stress)
 - Relationship to adults





Early Childhood: EF Supportive Environment (U of MN-Carlson)

- Adequate Economic Resources
- Good Nutrition
- Sleep Routines
- Reduced Stress
- Bilingualism
- Quality Caregiving:
 - Sensitivity
 - Synchronicity
 - Autonomy Support

Autonomy Support: Goldilocks Parenting

- Take Child's Perspective
- Respect Child's Pace
- Ensure Child has Active Role
- Provides Choices and Suggestions
- Scaffold task so that child can experience success



Child Directed Play



- No Cell Phone
- No Agenda
- Follow Child's Lead
- Use Facilitation Strategies
 - Reflection
 - Enthusiastic Describing
 - Imitation
 - Eyes On Attention

<https://www.youtube.com/watch?v=bOwQUB38ldw>

Autonomy Support Parenting Requires EF Skills

- Inhibit reflex to take over
- Come up with new strategies
- Plan ahead
- Understand how child is approaching task

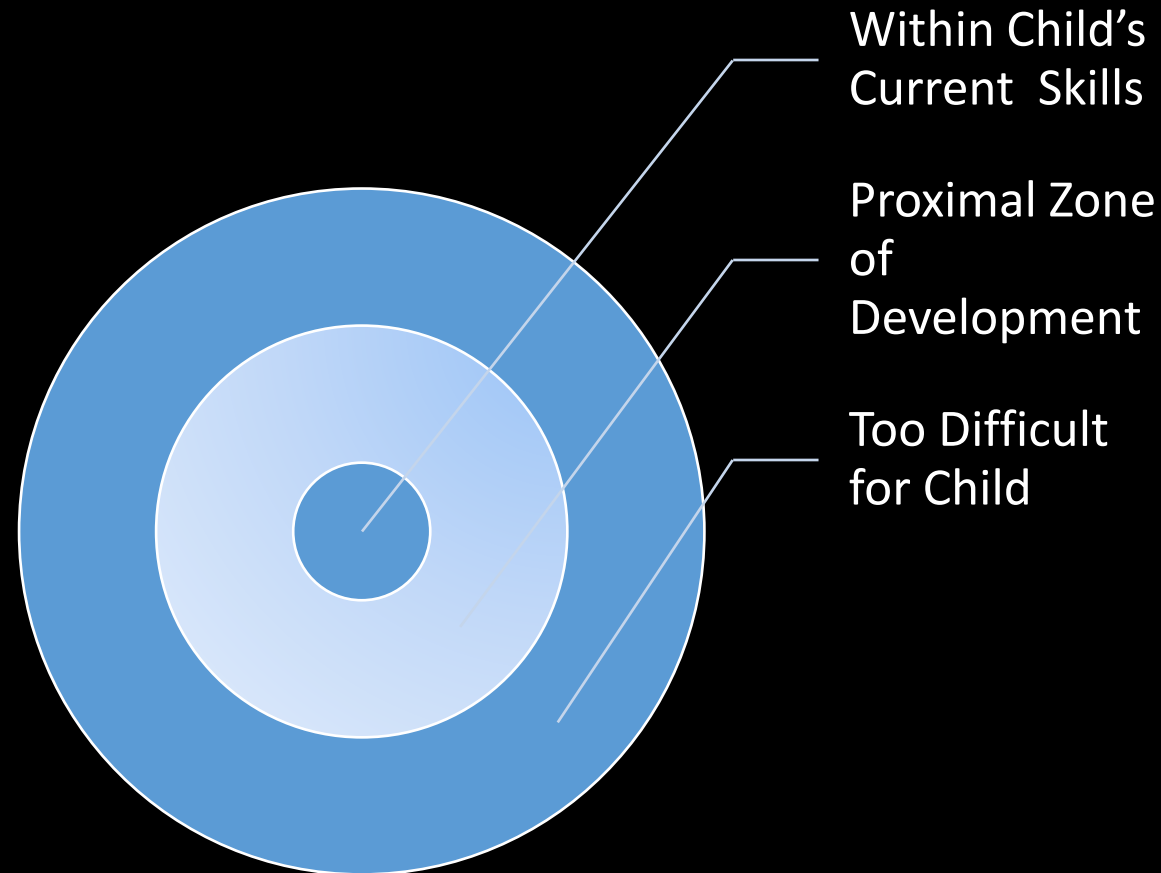


Parenting Strategies

- Establish Routines
- Scaffold for Moderate Challenge
- Reduce the Emotional Charge
 - Reframing
 - Psychological Distancing –What Would Batman Do?
 - Reflection
 - What is the context?
 - What are you feeling?
 - How do you want things to turn out?
 - What are your choices right now?

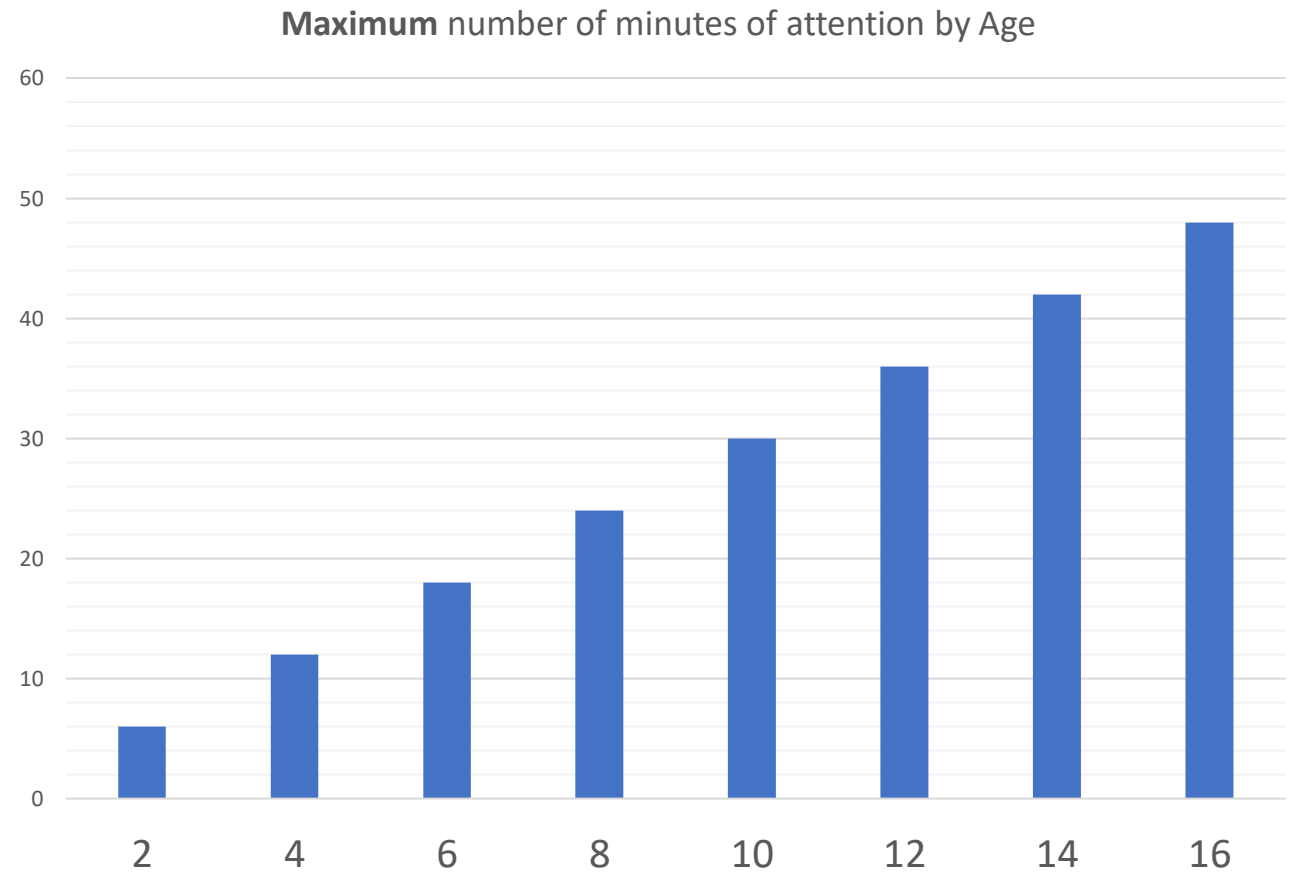


Zone of Proximal Development (Vygotsky)



Establish Realistic Expectations

- Deduct Minutes for:
- Hungry?
- Tired?
- Nonpreferred task?
- Competing demands?
- Emotion hurdles?
- Difficulty sitting at a computer?



Developmental Stages of Executive Functioning



K-2nd Grade

Self-care tasks

Bring papers to and from school

Complete up to 20 minutes of homework

Inhibit: follow safety rules, raise hand before speaking in class, keep hands to self



3rd-5th Grade

Remember to do something after school

Bring assignments, books, papers to and from school

Keep track of belongings

Complete up to 1 hour of homework

Plan simple school project

Keep track of daily schedule

Inhibit: Behave when teacher not present, Avoid rude comments, temper tantrums and bad manners



6th-8th Grade

Use systems for organizing schoolwork

Use assignment book

Follow complex schedule (changing teachers)

Plan and carry out long-term assignments

Plan time for tasks—estimate how long a task will take

Inhibit: Follow rules in absence of visible authority

Strategies to Increase Attention Span

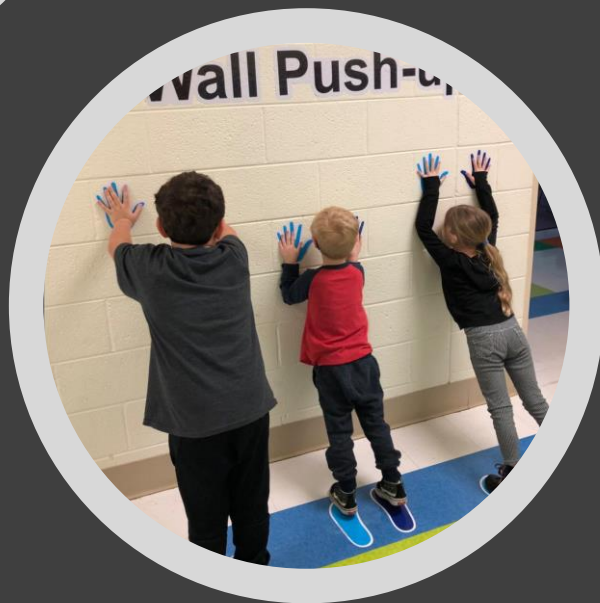
- Bring creativity to tasks your child doesn't enjoy.
- Try fidgets
- Frequent check-in on hard tasks
- Identify stumbling blocks and help with those first
- Extra breaks for tough tasks





Sensory Breaks

- Jumping Jacks
- Wall Pushups
- Animal walk
- Hallway Sensory Path
- Crawl under tables



Resource: The Inspired Treehouse Blog

Emotion Hurdles

Withdrawal or Shutting Down

Distracting Behaviors

Overactivity

Self-Stimulatory Behaviors

Emotionality



Possible Causes of Emotion Hurdles



Task may look too big to student



Student can't see individual steps



Student may be over-generalizing from past failure experiences—help them see how this situation is different



May feel criticized or believe can't meet expectations



May have been “rescued” rather than “guided” in past so has not experienced efficacy

Promoting Success



Visualize Outcome

Break Down into Small Steps

Use Goal Setting

Distinguish Procrastination from
Difficulty with Task Initiation

Beyond Zoom: EF Development in Child Centered Activities





“The child is not simply a blank slate that others write on. Rather, at least to some extent, the child plays the roles of the slate being written on, the chalk doing the writing, and the person holding the chalk.”
The Origins of You

A top-down photograph of a young child with brown hair, wearing a grey long-sleeved shirt and green overalls, sitting on a light-colored tiled floor. The child is holding a green wooden toy with a red top. To the left, an adult's arm in a maroon sweater is visible, holding another green wooden toy. Various other wooden toys, including a green cone and a yellow banana, are scattered on the floor. A dark circular overlay is positioned on the left side of the image, containing the title and a list of play types.

Types of Play

- Mastery (repeating to develop competence)
- Innovative Play—expanding and elaborating
- Kinship Play (same developmental level, relationship of mutual authority)
- Therapeutic Play—way of dealing with stress, dealing with impulses that are not socially acceptable



Multi-sensory Activities

Building With Recyclables

Nature Crafts

Cooking

Sports

Music Performance

Strategy Videogames may increase EF but does not generalize

Play Acting/Dress Up
Self-initiated Games
Fort Building



Wrapping It Up



- Executive functions develop over a long period of time
- Core skills of working memory, self-control, and cognitive flexibility form the foundation of EF in later life
- Supportive and sensitive parenting develops stronger EF skills
- Children can learn EF in child-directed play
- EF skills can always be improved
- Each of us has a pattern of EF strengths and weaknesses
- Strong EF skills promote happiness and success in daily life

References

- No Mind Left Behind by Adam Cox
- Smart but Scattered by Peg Dawson and Richard Guare
- The Power of Play by David Elkind
- The Origins of You by Belsky et al.

- OuiSi Game <https://shop.ouisi.co/>



Your Questions

Want to talk with us about your child?

Free 30-minute Phone Consultation

Define the Problem
Get Started on a Solution

Contact Us: info@kwlg.org
(202)545-2410