

EXECUTIVE FUNCTION



“The most efficient and effective strategy for improving academic achievement is probably not to focus only on academics but to nurture all aspects of the child.”

Adele Diamond



EXECUTIVE FUNCTION SKILLS ARE ESSENTIAL FOR LIFE IN THE 21ST CENTURY

Executive functions are a set of cognitive skills essential for thinking, planning, decision making, and problem solving. Executive function skills predict important outcomes including health, wealth, and quality of life. Promoting the development of executive function is essential for children’s academic and career success, as well as healthy relationships throughout life.



EXECUTIVE FUNCTION SKILLS DO NOT DEVELOP IN ISOLATION

Research shows that focusing on building executive function alone does not yield positive results. Executive functioning is developed in tandem with many other skills, including social and emotional learning and bilingual language development. Support balanced, high-quality early education for children.



HIGH-QUALITY CARE SUPPORTS EXECUTIVE FUNCTION SKILLS

One of the best ways to develop executive function skills is by fostering strong caregiver-child relationships and supporting a child’s autonomy. Provide early parent support programs so caregivers can learn and practice these skills and boost young children’s executive functioning.

THE RESEARCH: EXECUTIVE FUNCTION

Executive functions are a suite of mental processes, including the ability to focus, plan, problem solve, think flexibly, and inhibit impulses. **These skills predict important outcomes**, including health, wealth, and quality of life, and are essential for school readiness and life in the 21st century.¹ The foundations of executive functioning begin in the first year of life as infants develop their ability to make plans and use their working memory. Between the ages of 2 and 7 years, children’s executive function skills increase in sophistication. By 7 years of age, children demonstrate more advanced executive functioning, including some impulse control and more complex problem-solving abilities.

Executive function is central to children’s ability to learn and thrive, and there is increasing interest in helping children develop these skills. Research indicates that **executive function skills do not develop in isolation**. For example, a randomized controlled trial with adults found no effect of commercial cognitive training, such as “brain training” apps, on brain activity, choice behavior, or cognitive performance.² Instead, a well-rounded, child-centered, play-based learning environment is the best way to build executive functioning skills.¹ In childhood, **executive function skills are developed in tandem with many other skills**, such as building relationships, storytelling, dramatic play, music, and language learning. Bilingualism appears to give children a natural opportunity to practice and develop their executive function skills over time. As children learn more than one language, they build these skills as they switch between sets of rules, vocabulary and cultural contexts. Eye tracking studies indicate that cognitive gains for children raised in multilingual environments appear even before children are old enough to speak.³

Children’s early experiences form an important foundation for later executive functioning,⁴ and quality care is strongly linked to children’s executive function. **One of the best ways to build a child’s executive function is through positive, stable relationships with nurturing adults**. A strong relationship - or secure attachment - with a primary caregiver is a particularly strong predictor of executive functioning.⁵ Infants who experience high-quality interactions and parental sensitivity perform better on executive function tests at 3 years.

There is also a strong link between a child’s executive function skills and caregivers who practice autonomy support. **Autonomy support refers to specific adult behaviors, such as providing choices, following the child’s lead, taking the child’s perspective, and supporting the child’s growing independence**. Supporting a child’s autonomy requires adults to use their own executive function skills. For example, adults must control their own impulse to do something for their child, and instead give the child time to complete the task. Research shows that adults’ executive function skills are strongly correlated with those of their children,⁶ and that adult stressors, including mental and physical health and poverty can negatively impact the executive functioning skills of both parents and children. Importantly, caregivers can learn and practice these skills. Providing early parent support programs is an excellent way to boost young children’s executive function skills.⁷

RESOURCES & REFERENCES

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