



REFLECTION SCIENCES™

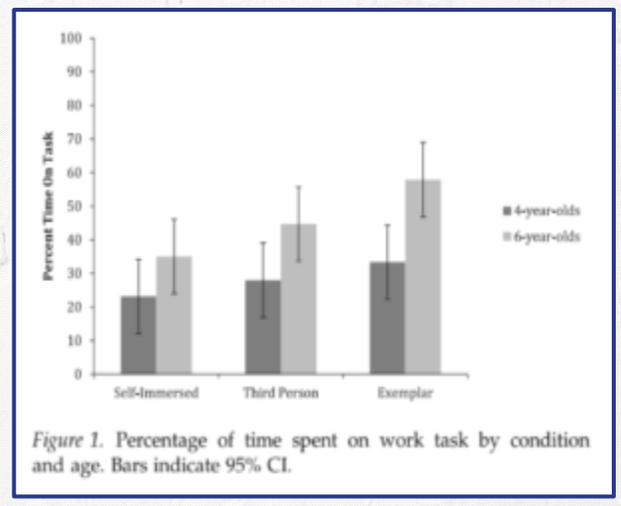
MEASURE WHAT MATTERS!

The Batman Effect: How to Get Kids to Focus Using Superheroes

For young children, the importance of pretend play is more than just the ability to have fun. In a recent study by Dr. Stephanie M. Carlson, University of Minnesota Professor and Reflection Sciences CEO and Co-founder, and U of MN alums Dr. Rachel White, Dr. Emily Prager, and Catherine Schaefer, children who pretend to be their strong-minded hero are more likely to persist at boring tasks and wait longer for rewards. One hundred and eighty children aged 4- to 6-years-old were asked to “be a good helper” and perform a long, tiresome computer task for as long as they could. They were told that if the chore got too boring, they could take a break and play on a nearby tablet.

In one group, the researchers gave children a prop, such as a cape or crown, and asked them to pretend to be a well-known cartoon superhero, such as Batman. Over the next 10 minutes, they were periodically asked, “Is *Batman* working hard?” This was referred to as the “Exemplar Condition”. The children in the other two groups were either periodically asked, “Am I working hard?” (First Person) or, using their own name, “Is ---- working hard?” (Third Person).

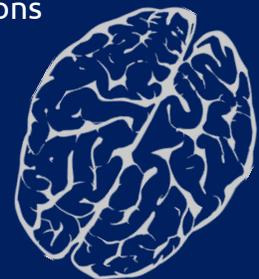
Those children who were invited to pretend play persevered on the tedious computer task on average 46% of the 10-minute period, compared to 36% in the third-person group, and 29% in the first person group.



Researchers speculate that pretending during this tedious task allows children to see things from a completely different perspective. This “psychological distance” enables people of all ages to have greater control over their thoughts, feelings, and behaviors. So the next time your child is struggling to persist at homework, try asking, “What would Batman do?”

Did you know?

In the first **five** years, the brain makes
700 neural connections
every single second!



Source:
www.joinvroom.org

How Executive Function Promotes Healthy Emotional Development in Children 4–9 Years

As children grow, there are important developmental benchmarks parents and teachers should monitor to ensure healthy development. A child's well-being goes far beyond physical health—mental, emotional, and social considerations are crucial.

Executive Function (EF) is an umbrella term for the self-regulatory skills children need to flourish and achieve success in school and everyday life. This set of skills allows children to:

- Pay attention
- Hold information in mind and work with it
- Manage behavior and impulse control
- Think flexibly and problem-solve

Well-developed EF skills allow children to plan, organize, and complete tasks, such as getting dressed in the morning and finishing assignments and following instructions in class. Without these skills, children can quickly fall behind their peers.



What Is Emotional Development in Children?

Emotional development encompasses children's ability to feel, express, understand, and regulate their emotions. Just as importantly, it also involves the ability to recognize the emotional states of others and effectively adapt to social environments and expectations.

Healthy emotional development in children 4–9 years old has a positive effect on their coping and decision making skills, ability to accomplish goals, and social development. For example, a child who can effectively process and express anger or frustration verbally rather than physically (e.g., hitting) will cope better with the stress of everyday situations such as receiving criticism or losing a game.

Some Emotional Milestones in Children 4–6

- Understands language and can express their feelings in words
- Show empathy towards others (understand others' emotions)
- Willing to play cooperatively, take turns, and share
- Understand consequences of actions

Some Emotional Milestones in Children 7–9

- Understand the concept of having mixed emotions about an event
- Can adjust own emotional displays based on their culture's expectations
- Use emotional role-taking with others
- Can use a number of different strategies to regulate emotions

How Executive Function Promotes Healthy Emotional Development

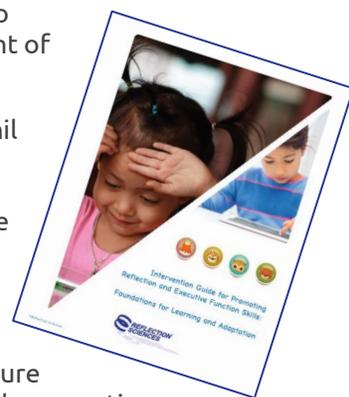
Executive Function—often referred to as the traffic control system of the mind—helps children to regulate their emotions and behaviors so they can achieve success in school and beyond.

Our Intervention Guide:

Reflection Sciences is happy to announce that our Intervention Guide is available directly from our website! This resource offers educators and parents effective, evidence-based ways to promote the healthy development of EF skills in their children.

Written by our Co-founder, Dr. Phil Zelazo, a leading expert in cognitive neuroscience and early education, the Intervention Guide includes background information about EF and early brain development, as well as best practices for EF intervention.

Readers are taught how to structure engaging activities that help children practice and develop their Reflection skills in the classroom and in other everyday settings. Contents include classic games that have been modified to challenge children's EF; mindfulness practices for children; and ways of engaging families in the cultivation of children's EF skills. Find it on our Interventions page: <http://reflectionsociences.com/services/interventions/>



How can I Approach my Child's Teacher or School about EF?

Try sharing our Parent Newsletter or our website with your child's teacher or school. You can also download the flyer below to take to your child's school so they can partner with Reflection Sciences.

Link to Parent Newsletters: <http://reflectionsociences.com/category/parent-newsletters/>

Link to our Website: <http://reflectionsociences.com/>

Link to Downloadable Flyer: <http://reflectionsociences.com/downloadable-flyer-teachers-schools/>

Executive Function and Autism Spectrum Disorders (ASD)

When children have an ASD, they process information much differently from typically developing children. They may experience mild or severe executive function challenges, and there are a variety of ways these difficulties can impact their daily lives.

Trouble Maintaining Thoughts

It may be difficult for a child with autism to follow complex directions that involve more than just a single step. Learning how to break down steps, a key executive function skill, can help children with autism to organize their thoughts and follow multi-step instructions.

Organization Issues

Kids with autism sometimes have trouble sequencing thoughts, which can cause problems when they need to retrieve them in a specific order. When we need to get ready for the day, run errands, or complete work, we rely on an "order of operations" to execute tasks in the right steps. Helping children with ASD organize can help them to complete daily tasks.

Getting Stuck on Ideas

One common trait for children with autism is a tendency to become attached to a routine. This can lead to problems in a classroom setting, where it's important to shift gears between lessons and activities. While it might seem like stubbornness at first, children who cannot adapt to new circumstances likely have issues with "cognitive flexibility." Practicing rule changing games, such

as those outlined in our Intervention Guide can help children practice this skill.



Difficulty Seeing the Larger Picture

Many children on the autism spectrum have an eye for detail, but have problems piecing bits of information together to create a larger, cohesive thought. Children experiencing these difficulties may benefit from guidance from their support system to help them see the larger picture.

There is no such thing as a "classic case of autism" because the disorder occurs on a spectrum and can present itself with a wide variety of symptoms. Executive function challenges typically accompany autism, and it's important to identify these problems early. When a parent, guardian, or teacher recognizes a child's executive function difficulties at an early age, it is easier to diagnose those mental conditions that may affect their ability to learn and socialize. An earlier diagnosis can lead to earlier intervention.