

Dr. Cheryl Chase



Chasing a
Child's Potential

EXECUTIVE FUNCTIONING



Dr. Cheryl Chase holds a doctorate in clinical psychology from the University of Toledo and is licensed in the state of Ohio. In addition to her successful private practice, she is a college instructor, much sought-after speaker, author and a frequent guest on television news shows. Her down-to-earth and often humorous approach to learning makes her a favorite with educators, parents and children alike. Dr. Chase is an active member of the American Psychological Association, the International Dyslexia Association, and Children and Adults with ADD (CHADD). She has devoted her career to helping children reach their fullest potential.

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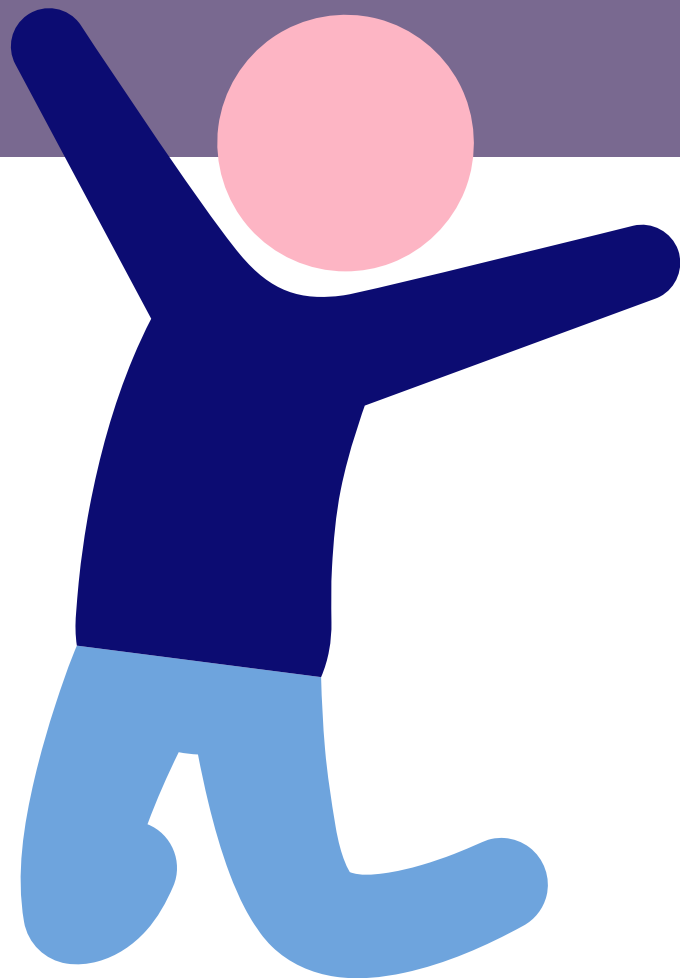


Executive Functioning

The term "executive functioning" is much more frequently used in both schools and pediatricians' offices than it was even five years ago. There's a lot of misunderstanding over what the executive functions are, and what they aren't, so I'm hoping to clear it up for you. First, there are a lot of different models of the executive functions, which can leave people really confused. The bottom line is they're not all that different, after all.

General Definition

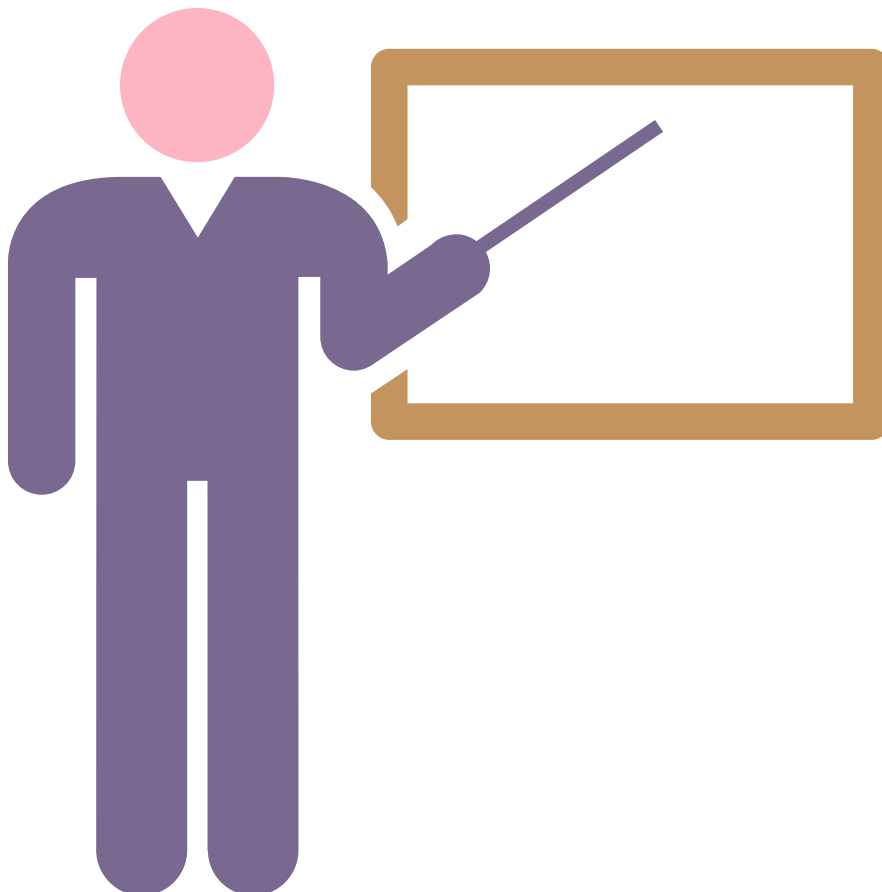
Each of the various models generally agrees that the executive functions are independent, private mental processes that, when done properly, allow for self-regulation. And, that proper executive functioning results in people being able to control their own behaviors, stay on task, persist and work toward a specific goal.



Five Executive Functions

The model I like to follow was put forth by Russ Barkley, PhD. In Dr. Barkley's model, there are five executive functions, as opposed to some models that have as many as 30. I think five is just a lot easier to manage. These five executive functions are:

- Inhibition
- Sensing to the Self
- Self Speech
- Emotion and Motivation to the Self
- Reconstitution or Play to the Self





Inhibition

The first executive function is “Inhibition.” Inhibition has three aspects. The first aspect is shutting off an ongoing behavior when that’s appropriate. In other words, behavior appropriate when outside — running, jumping, using loud voices — is not appropriate when you come inside and start working on a math worksheet. Inhibition shuts off that outside behavior as well as turns on the inside behavior, which is the second aspect of inhibition: turning on another set of behaviors, when that’s appropriate. So you come in from recess and have to do a worksheet, turning on the “do the worksheet” behaviors are also inhibition’s responsibility.



Inhibition (continued)

The third aspect of inhibition is to protect the other executive functions from interference. Imagine you are getting ready for a nice family dinner and your dining room table is covered with unopened mail and unfolded laundry. Inhibition clears the table off and keeps it clear until the family dinner is over. So as you can see, inhibition is very important when transitioning between activities and in keeping your mental space clear so the other executive functions have a space to work without interference.

Sensing to the Self

The next executive function is called “Sensing to the Self.” Sensing to the self is a form of working memory. Many people have heard the term “working memory” but they don’t entirely know what it means. The best description of working memory I’ve ever heard is it’s like your countertop when you’re baking.



Sensing to the Self (continued)

Imagine you are baking for the holidays and your kitchen counter is very small. You're not going to have enough space to work. When you put your mixer and flour on the counter, there's nowhere left for your eggs, your recipe, or the other ingredients....and it's a stressful mess. However, if you're cooking in a commercial kitchen with huge, stainless steel counters, you have plenty of room for all of your ingredients, recipe and mixer, and you can work efficiently and smoothly, without anxiety. You have plenty of space to manipulate everything you need. Working memory is your kitchen countertop.





Sensing to the Self (continued)

Sensing to the self, then, is nonverbal working memory. It involves holding in place complex behavioral sequences, such as how to play a tune on the piano or how to form a letter when you're writing. In fact, one of the areas that is most difficult for children with problems in this area is learning vicariously. In other words, maybe their teacher shows the class how to make a letter "A" on the board, but the child can't translate that into his or her own actions. Problems with sensing to the self are problems with nonverbal working memory – the child can't hold much in mind, or can't hold it long enough, to be effective.



Self-Speech

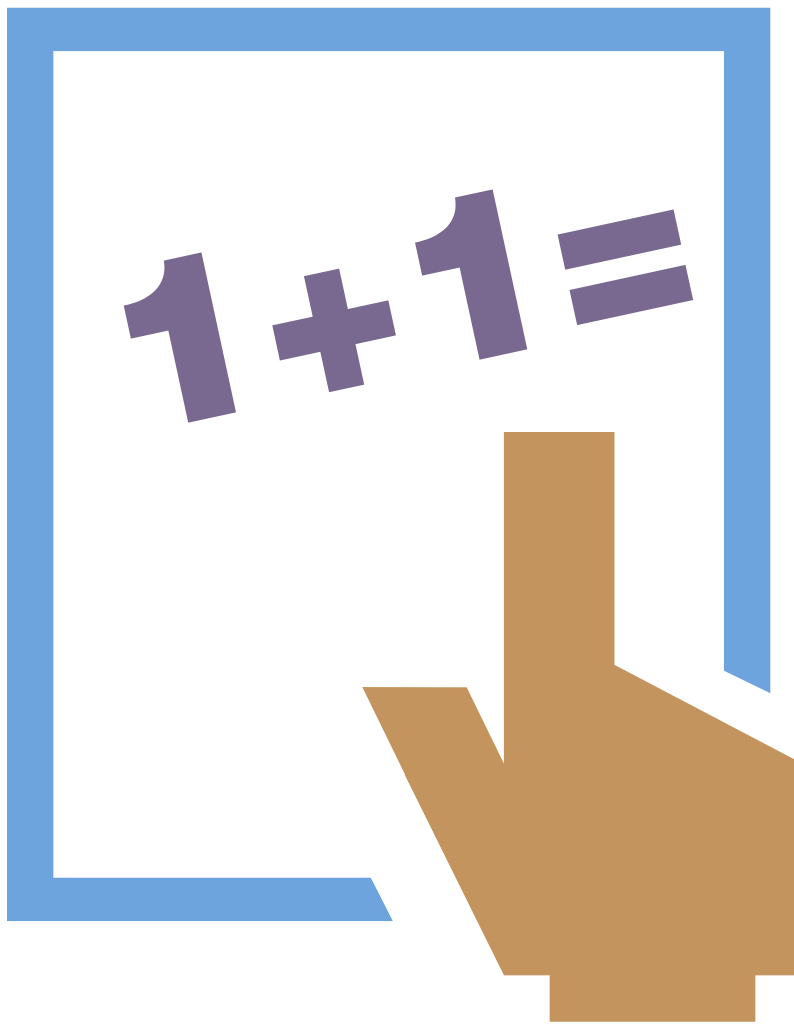
The next executive function is called "Self-Speech." This is working memory of the verbal kind. It is holding in mind words long enough to problem solve; long enough to think reflectively about what it is you're about to do; long enough to solve a math problem or even understand what you are reading. It is, to use the earlier analogy, having adequate mental countertop in both capacity and duration to talk to yourself and have it effectively direct what you are about to do.

Self-Speech (continued)

Self-speech is very important to reading comprehension. Researchers have found that even good adult readers, when reading to themselves, move the small muscles in their mouths, lips and tongues as they read.

Why?

Because we are actually talking to ourselves as we are reading. At its core, reading is oral language. If we cannot hold in mind what we are saying to ourselves for very long, sentences or paragraphs are just a bunch of individual words on a page. We cannot string them together, and therefore, their larger meaning as a group is lost.



Self-Speech (continued)

Other examples of self-speech include talking to yourself as you solve an algebra problem. Thinking things such as, “What is seven times six?” or “Change the nine to an eight since I’m borrowing.” Or when reading a menu and trying to decide what to order holding in mind some of the earlier items you found interesting so you can compare them to other items you see later on the menu. Just as sensing to the self is working memory of the nonverbal kind, self-speech is working memory of the verbal kind.

Emotion and Motivation to the Self

The next executive function is known as “Emotion and Motivation to the Self.” In other words, how you might answer the questions: “What gets you going? What fires you up? What gets you out of bed in the morning?” It also involves answers to other questions such as, “How do you cheer yourself up when having a bad day? How do you bring yourself back to being productive? When you're feeling overwhelmed like the world is closing in and there's no way you can keep up, how do you keep persevering?”





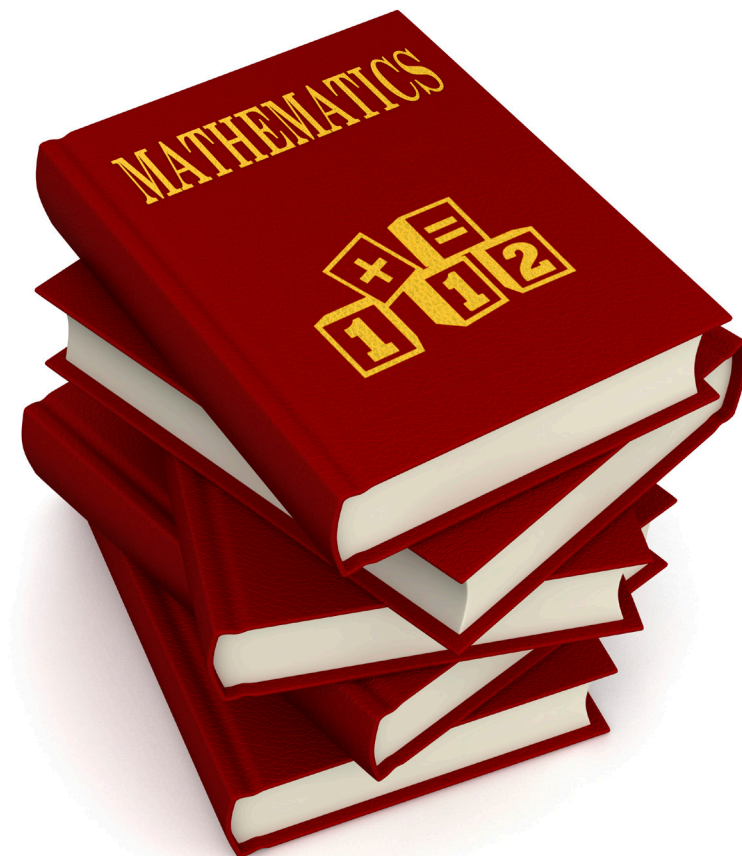
Emotion and Motivation to the Self (continued)

Now, how does this executive skill impact children at school? There are several ways. With respect to the workload, for example, how do they manage their frustration when they don't understand something? Or how do they keep working on a worksheet when they aren't sure they are doing it right? Or how do they listen in class when their mind is elsewhere?

Let's take a minute to stroll down memory lane. Do you remember high school? Do you remember the week of the homecoming dance? Do you remember how hard it was to stay focused and concentrate? What if the boy you liked asked you to the dance? How do you scale back your excitement enough to get through algebra? Or what if your best friend asked the girl you wanted to ask? How do you manage your emotions enough to get through biology? Managing our emotions, positive or negative, is a key executive function.

Reconstitution or Play to the Self

The fifth and final, executive function is known as “Reconstitution or Play to the Self.” What does that involve? It’s a complex name, but a really simple idea. The bottom line is, it’s like novel problem solving — coming up with new and diverse ways to solve a problem. In other words, “How do I get the job done if the tools I’m used to having around aren’t available? If I forget my math book, what do I do? Do I go in to school early? Do I call a friend to borrow his?”





Reconstitution or Play to the Self (continued)

The reason it is also called “Play to the Self” is because, in adulthood, this kind of problem solving is a form of play. It is kind of fun to come up with new and novel ways of solving problems. If you remember the old TV show MacGyver, the lead character could get himself out of the most difficult situations with a piece of chewing gum, a paper clip and an old match. That's the idea here with this executive function: taking old things and making them new, engaging in novel problem solving, thinking outside the proverbial box and finding new ways to address problems so that in the end, you get the job done.

Closing

So, as you can see, the five executive functions aren't too difficult to understand. There's Inhibition, Sensing to the Self, Self-Speech, Emotion and Motivation to the Self and Reconstitution or Play to the self. Those five executive functions are extremely important in helping us manage ourselves, our materials and our efforts as we pursue our goals and follow our dreams.

I'm sure you'll find this information helpful, as you're out there chasing a child's potential.



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