**Parents Can Teach Children the Foundation Skills for Learning**

**Fostering the Development of a Child’s Executive Functioning**

What are Executive Functions?

Completing most tasks requires the successful orchestration of several types of executive function skills. Among scientists who study these functions, three dimensions are frequently highlighted: **Working Memory**, **Inhibitory Control**, and **Cognitive or Mental Flexibility**. In most real-life situations, these three functions are not entirely distinct, but, rather, they work together to produce competent executive functioning. In practice, these skills support the process (i.e., the how) of learning -- focusing, remembering, planning -- that enable children to effectively and efficiently master the content (i.e., the what) of learning -- reading, writing, computation.

Working Memory is the capacity to hold and manipulate information in our heads over short periods of time. It provides a mental surface on which we can place important information so that it is ready to use in the course of our everyday lives. It enables us to remember a phone number long enough to dial it, to return to our place in a magazine article before a friend interrupted us, and to recall whether we had added the salt to what we were cooking before we had to help our child find a missing shoe. It enables children to remember and connect information from one paragraph to the next, to perform an arithmetic problem with several steps, to keep track of the moves and make a logical next step in a game of checkers, and to follow multiple-step instructions without reminders (“go to your cubbies, put away your storybooks, bring back your arithmetic books, and open them to page 30”). It also helps children with social interactions, such as planning and acting out a skit, taking turns in group activities, or easily rejoining a game after stepping away to get a drink of water.

Inhibitory Control is the skill we use to master and filter our thoughts and impulses so we can resist temptations, distractions, and habits and to pause and think before we act. It makes possible selective, focused, and sustained attention, prioritization, and action. This capacity keeps us from acting as completely impulsive creatures who do whatever comes into our minds. It is the skill we call on to push aside daydreams about what we would rather be doing so we can focus on important tasks. It is the skill we rely on to help us “bite our tongue” and say something nice, and to control our emotions at the same time, even when we are angry, rushed, or frustrated. Children rely on this skill to wait until they are called on when they know the answer, to be good at games like “Simon Says” and “Red Light/Green Light,” to stop themselves from yelling at or hitting a child who has inadvertently bumped into them, and to ignore distractions and stay on task in school.

Cognitive or Mental Flexibility is the capacity to nimbly switch gears and adjust to changed demands, priorities, or perspectives. It is what enables us to apply different rules in different settings. We might say one thing to a co-worker privately, but something quite different in the public context of a staff meeting. If a friend asks if we like her new haircut and we don’t, we are able to flexibly shift to the social convention that governs not hurting people’s feelings. Likewise, we teach our children about “outside voices” and “inside voices” and the different situations in which they should use each. As the author of *The Executive Brain,* Elkhonon Goldberg, notes, “The ability to stay on track is an asset, but being ‘dead in the track’ is not.” Stated differently, self-control and persistence are assets, rigidity is not. Cognitive flexibility enables us to catch mistakes and fix them, to revise ways of doing things in light of new information, to consider something from a fresh perspective, and to “think outside the box.” If the “church in two blocks” where we were told to turn right is actually a school, we adjust and turn anyway. If we are missing a recipe ingredient, we call a neighbor or make a substitution. Children deploy this skill to learn exceptions to rules of grammar, to approach a puzzle in different ways until they get it to work, or to try different strategies when they are working out a conflict with another child.

Age Four is a Critical Year:



Parents of PK Students Can Promote the Development of Executive Functioning

Promoting these skills require a different mindset so that families do what they already do, but in slightly different ways. For example, while young children are waiting they can play *Simon Says*, *Do the Opposite* and other games to promote Focus and Self Control. Or, after reading a book or viewing a movie you can ask them to talk about makes a good story, to promote Critical Thinking.

**Strategies that Promote Executive Functioning in Pre-kindergarten Children**

**Goal setting**

* Help your child to set and track attainable goals that are well-defined.
* Break goals down into smaller steps and talk about alternative approaches.

**Shifting/Thinking Flexibly**

* Expose your child to jokes, riddles and puns. These are enjoyable ways of learning to shift between different meanings.
* Teach your child to think flexibly when solving math problems by comparing their estimates with their answers or discussing a variety of approaches to a problem.

**Organizing Ideas**

* Work with your child to draw graphic organizers or webs to organize ideas for a large project.

**Organizing Materials**

* Work with your child to develop a system for organizing belongings and toys in tubs, drawers, and other standard locations.

**Prioritizing**

* Help your child list tasks and activities for the day and then prioritize based on a system (inside then outside, hard then easy, etc.)

[**Accessing Working Memory**](http://www.ncld.org/types-learning-disabilities/executive-function-disorders/how-to-help-child-with-weak-working-memory)

* Encourage your child to create his or her own silly sentences, acronyms or cartoons to remember information such as your phone number or address.
* Help your child to create songs, stories and acronyms to remember the steps involved in completing routine tasks.

**Self-monitoring/Self-Checking**

* Children need to learn to check over what they have created based on a standard. Help your child develop personalized checklists to monitor and correct his/her most common mistakes (making the bed, putting clothes away, etc.).

**The most essential foundation skill for success in kindergarten:**

Children need guidance and structure and consistency. They need to be placed in situations where they develop the **willpower** to delay immediate gratification (food, attention, etc.) and manage their impulses. An excellent book is *Willpower*, by Baumeister & Tierney, which teaches that, “whatever we seek as humans—from happiness to good health to financial security—we won’t reach our goals without first leaning to harness self-control.” Chapter Nine is titled, *Raising Strong Children: self-esteem versus self-control.*