

Executive Functioning: Why It is Important in Everything Your Child Does

Executive functioning is a skill that we all use every day. It influences how we organize and act on information. It is our ability to draw upon past experiences and recall information to plan, prioritize, begin and complete a task or project. It is the “air traffic controller” of the brain, keeping track of all the information that we are bombarded with and enabling us to create a plan for the safe arrival (completion) of all that is going on in our lives.

Executive functioning is constantly improving as we grow up. Not everyone develops at the same rate. Some people will develop great abilities by their teens, while others are still maturing as they graduate from high school. Our executive functioning peaks between ages 20-29. As we age, the process gradually declines.

Acquiring language very significantly affects the ability to think, remember, reason and control actions. Therefore, it is very important to begin building vocabulary at an early age as well as building executive function skills.

Skills that are affected by executive functioning, and that therefore also impact our ability to learn, can include:

1. **Impulse control:** the ability to stop and think before acting.
2. **Emotional control:** the ability to manage feelings by focusing on the end result or goal instead of struggling to complete a task/goal if a person becomes upset in the process.
3. **Flexibility:** the ability to roll with the punches and to create or accept a new approach. It is difficult to see the other person’s point of view, and therefore causes frustration if there is a change in the routine or plans.
4. **Working memory:** the ability to hold information in the mind and to use that information to complete a task. Multi-step activities are more difficult especially if the information is given verbally. It is harder to learn from past mistakes because you don’t retain the information. This also affects reading comprehension and listening with meaningful attention to another person.
5. **Planning and prioritizing:** the ability to follow steps to reach a goal and recognize the importance of the steps. It is difficult to know how to begin a task, how to break it down into parts, and to recognize the main idea. Therefore, the child feels overwhelmed and does nothing. He needs others to be his frontal lobe to plan for him.

It is very difficult to assess whether a child has poor executive functioning or something else contributing to certain behaviors. For example, if he has difficulty copying a complex design, is it poor executive functioning skills like planning and organization or is it poor motor control? Is not beginning a task a planning and prioritizing problem, or has he learned that if he just doesn’t start someone else will do the task for him? Or is not completing a task an executive functioning issue or just a peer that is distracting, not understanding the expectation, or not having the necessary skill to perform the task?

In order to determine if executive functioning might be involved, you need to develop a hypothesis, put a plan in place with supports if it is a lack of a particular skill, follow the plan faithfully and see if there is a difference in outcomes. Target only one specific area with a measurable behavioral goal. For example, the child will ask for help when given a task that is frustrating or too difficult.

Attempting to do a formal assessment for executive functioning skills is very difficult. There is much debate about how accurately formal test can reflect the true situation. A test by itself should probably not be used to define specific deficits but should be accompanied with observations and behavior checklist.

Executive functioning skills develop from external to internal control. Parents provide barriers, protection, and removal of temptations from sight such as breakables or food from an infant, but as the child develops the necessary skills, these restraints are faded or removed.

Children with poor executive functioning skills can be supported by intervening in the environment or at the level of the person.

The environment might be modified by removing dangerous items, not allowing a child access to the street unsupervised, limiting interaction with peers that usually result in behavioral issues, or using only simple, short demands. You change the physical or social environment, the nature of the task, or the ways cues/prompts are provided in an effort to alleviate the effects of poor executive skills and to improve the ability to use the skills a child does possess. You may have to provide shorter steps, more visual cues/prompts, clarify steps to be taken, or offer choices. If a child is inflexible and can't control impulses, then a smaller, quieter setting with fewer kids may be necessary.

The other support that you can offer is at the child's level in an effort to develop the child's own executive skills by teaching the skills or motivating the use of the skills. You do not want any adult support to replace the child's need to use his skills.

This is not to say an adult does not have a role. For example, when a child is told "go clean your room" they may refuse to go, go and begin to clean but get distracted, or say they will do it later and then never do it. It may not be clear to the child how to start and what all is involved in "cleaning the room". Initially, the parent needs to become the external frontal lobe for the child. Provide a plan with specific directions. For example, "let's start now." "Put your trucks in this box." "Put your dirty clothes in the hamper." etc. This should be supplemented with visual supports such as a checklist or pictures of the steps.

The parent will have to guide the child through the process. After repeated practice, a visual alone can take the place of the parent giving directions. The child is referred to the list. The

next step is to simply ask, “What do you need to do?” The adult can then be faded totally from the routine.

However, to develop the skills necessary for life we need to teach a child and motivate him to use the skills. Begin to develop routines and skills that he will be able to use independently such as cleaning up his room, getting ready for school, and doing chores.

As an adult, you can provide support, cues, or supervision for the child. You can rehearse scenarios, provide visuals and monitor changes that may be necessary for success. Afterwards, an adult can provide positive reinforcement (great job!, special book, music, high five) and work through with the child if anything needs to change to work better. You can offer choices. Model aloud how you think through situations.

It is important that a child learn to generalize a skill across environments in order to survive in the world. The skill can not be successful in just one setting.

The good news is that there are strategies to develop those skills that make up executive functioning. Regardless of which skill you are trying to improve, be sure to link why a routine is important so you help a child become a problem solver. Let the child help build the routine, pick rewards (that will be faded in time), and troubleshoot problems in the routine. Do not just give him all the answers. Demonstrate your thinking out loud so he can understand and learn the process.

For **impulse control**, give the child a visual sign to stop when he begins to make a poor choice. This can be sign language or a picture symbol. Stop an undesired behavior as soon as you can. Then offer choices. If this happens frequently, remind him of choices he has made in the past to solve this problem. Ask leading questions to help him recall the solution he has implemented instead of just telling him what to do. You want to build the ability to recall the information.

If he tends to grab the first thing without thinking about whether that is what he really wants, then simply say, “Look First” to encourage him to look at all choices before reaching for the first thing he sees.

If **emotional control** is a problem, then teach him to stop and think. Ask:
What do you(the child) want to happen?
How can you make this happen? (You may have to guide him to some answers.)
Will you get what you want with this behavior?
What are you going to do?

Classrooms will often use the strategy of:

What are you doing?

What should you be doing?

What are you going to do now?

If the child is really upset, then break the task into smaller steps so he can feel successful at completing part of the task before moving on.

Talk with the child so he recognizes what he is feeling when upset, what does it look like and sound like? Create a short list of two or three things he can do when he feels that way.

For **flexibility**:

Play "What's This?". Take an ordinary object and come up with as many uses for it as you can. For example, a funnel could be a party hat or a trumpet.

Make up new rules for a game you play. For example, for Chutes and Ladders go up the chutes and down the ladders.

Find new solutions for things you do every day. How else can you walk back to the car? How else can you put the sandwich together?

Add a delay into a routine. For example, you can not eat until everyone sits down.

For **working memory**:

Always be sure that hearing difficulties are not interfering with understanding what is being said. Words may be stored incorrectly if they are not heard correctly. For example, cap may sound like map.

Teach visualization skills. For example, if he needs to set the table for 5, he should draw what that will look like. Eventually, he can stop drawing but in the beginning it will help him visualize what the words mean.

Make *visuals* available to support your child's understanding of expectations, to help organize material, and to help recall information. This can be checklist, schedules, pictures, manipulatives, graphs, word walls, etc. Children with Down syndrome are visual learners and need the information presented in that way to help understand and organize the information.

Have the child teach you to do a task.

Use a magazine article and circle all the "a's" or the word "the".

Play cards like Crazy Eights, Uno, and Go Fish.

When giving directions or information, use numbers. "We need 5 things at the store." "We have 3 things to do."

Connect emotions to information. For example, if you climbed the pyramids what do you think you would feel like when you got to the top?

Sorting task, beginning with one or two items or colors so the child can be successful.

Memory games like concentration or what objects were on the tray (he sees the items, then you cover them and see how many he can recall). Remember use only a number that allow the child to be successful.

Learning songs such as counting or days of the week. They are easy to find on youtube with a google search.

For **Planning and prioritizing**:

When you first work on this, from the child's perspective, at the very beginning of the task the end should be insight. The child can help decide where the break should be before continuing with the next step.

Create a visual with pictures or words depicting the steps necessary to complete a task or chores. The child can check off or remove what he completes.

Ask him what he needs to do first. Then create a visual. Don't always tell him or he will not learn to think for himself. He will expect you to tell him everything and independence will not develop. Allow flexibility if at all possible in the order so that the child develops confidence in being able to plan. The most important skill is not that the task be completed in a concrete order every time, but that the child think about what has to happen and creates a plan. If capable, he can create his own "list" before he starts. Begin with small steps and build on success. This may take more time at first, but you will have a more independent and confident child as a result. Practice new task when everyone is calm and rested.

For example, if you want him to help set the table, ask "What will you need?" Accept just about any answer. (Plates, spoon, knife, fork, napkin). "What would you like to get first?" Make a list. (Have him draw, or pick from pictures, or write...spelling and words don't really count. He can probably tell you what he is thinking from his "note".)

If he thinks of the placemat last, that is fine. He can pick up each place setting and put it down again after the placemat goes on the table. That is better than reminding him at the beginning. If that frustrates him, make it into a game. "I'll bet you will be done with two of those before I finish peeling these potatoes!" That will probably relieve some of the anxiety of having remembered the placemats last.

To simplify the task and create success you can also build the expectation over time. At first, maybe he is responsible only for the knife and fork in the correct place.

If it is a routine that you do often, he can select from a group of pictures or words the order of the events. For example, at bedtime, he can arrange the following in any order. Brush teeth, wash face, change clothes, put dirty clothes in hamper. Again, if he wants to put the dirty clothes away before changing clothes and he would be running through the house naked, then take that one off and make it an option only when in his bedroom before reading, singing, or whatever your routine is.

Putting together puzzles also requires planning.

Other suggestions to help with executive functioning would be to provide support to help the child when he becomes stuck. Give some clues. Help him recall what he has done in the past.

Also, use incentives to encourage him to use skills that are difficult for him. You will be able to decrease incentives as the skills become more routine and easier.

Break task into smaller steps with breaks.

Praise the child when he is successful.

Executive functioning will improve with time and practice. Help the child practice in his weakest areas so he can advance in so many other areas in life.

Resources:

<https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/executive-functioning-issues/understanding-executive-functioning-issues>

<https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/executive-functioning-issues/5-common-myths-about-executive-functioning-issues?view=slideview> (tools to improve)

Executive Skills in Children and Adolescents by Peg Dawson and Richard Guare

