Intelligence is considered the capacity to learn from experience using metacognitive processes to enhance learning and the ability to adapt to the surrounding environment. (Sternberg, 2005). Metacognitive in this case means the ability to think about thinking. It is a completely cognitive function requiring pre-frontal cortex activity. In addition, according to Sternberg, the ability to adapt to one’s surroundings indicates intelligence. If you compare the ability of an 8th grader without trauma to think about thinking and to adapt to his surroundings with the ability of an 8th grader with trauma, it is likely that the 8th grader with trauma would come up lacking.

Our brain development cannot skip stages. If a child does not get sufficient opportunity for attachment in the early years, development in the hippocampus and pre-frontal cortex can be stalled. Therefore, an 8th grader with a trauma history may have the metacognitive ability of a 5th grader because that is where his brain development is.

Children with trauma histories can improve their metacognitive skills by improving their executive function skills. Executive Functions are a set of processes that all have to do with managing oneself and one’s resources in order to achieve a goal. It is an umbrella term for the neurologically-based skills involving mental control and self-regulation. Executive functions are the skills required to conspire together to create metacognition, skills including auditory processing, memory, planning, language processing, logic and reasoning, visual processing, and comprehension. Where metacognitive skills are accessed in the prefrontal cortex, most of the executive functions are accessed in the hippocampus. Many children with developmental trauma as a result of delayed or atypical hippocampus development, have only sporadic access to their executive functions. Some children with DT may have excellent memory but still not be able to find anything the minute they
take their eyes off it. Some children have impaired language development and struggle to understand the meaning of your spoken words. Children with auditory processing delays take a long time to make meaning of your spoken word and often to construct a response. These children can be accused of not listening. They may be listening, but without essential executive functions, they cannot do anything with the information they are listening to.

Executive Functions are needed to –

- Plan
- Organize
- Set goals
- Follow multi-step directions
- Pay attention
- Adapt to a situation
- Self-regulate
- Maintain relationships
- Multi-task
- Comprehend
- Memorize
- Retell a story in sequence

Basically, these skills are needed to assist children in everything we ask them to do in school.

Students need memory to follow two-step directions and to retain new content. They need planning to organize their learning material and to plan their approach to a task. They need attention to focus on a task and to persevere through a task. They need logic and reasoning to know what to ask about what they do not understand.

In elementary school, model how you want your children to come into the room and unpack. Show them and tell them. Let them practice. This is also an excellent opportunity for data collection. While they are practicing, you will quickly see who needs reteaching and repetition.

In middle school, teach students how to maintain an organized locker. Show them when you tell them. Have locker clean out weekly in the beginning of the year. Help them learn to keep papers and books organized.

In high school, the children who forget to do homework, struggle to keep track of assignments, and lose things need explicit instruction. We have heard high school teachers say “Well, she should know how to do it. This is high school.” The reply, “In a perfect world, you are correct.” However, one size fits one. Our brains all develop at their own rate. Children with trauma have events that impeded their brain development. They are not the same as those without trauma. They can only use the parts of the brain that have developed. Reach them where they are. Back up as far as you need to find where they are functioning, and start from there. This instruction will benefit children without trauma as well.

There is an assessment for executive function called the BRIEF – Behavior Rating Inventory of Executive Function. In some states and in some districts, parent permission is required to administer the BRIEF. Check with your district’s Student Services Director, Special Education Director, or someone who might know.

Consider the following strategies for Improving Executive Function that can be employed at home and at school –

- Take a step-by-step approach to work.
- Rely on visual organizational aids and graphic organizers. Not all graphic organizers are created equal. Teach and model the use of graphic organizers and note which ones work for your child.
- Use tools like time organizers, computers, or watches with alarms.
- Make schedules and look at them several times a day. Some children prefer a daily view, others a
weekly view or a month-at-a-glance. Some like apps on their phone and others prefer a paper version.

- Ask for both written and oral instructions whenever possible.

Plan for transition times and shifts in activities. Solve puzzles and riddles. Solve the puzzle or riddle with the child and model the steps of your thinking.

To improve time management:

- Create checklists and estimate how long each task will take.
- Break long assignments into chunks and assign time frames for completing each one.
- Set a timer.
- Use calendars to keep track of long-term assignments, due dates, chores, and activities.
- Write the due date on the top of each assignment to better manage space and keep things from getting lost.
- Have separate work areas with complete sets of supplies for different activities. Organize the work space.
- Minimize clutter.
- Schedule a weekly time to clean and organize the work space.

To improve work habits:

- Make a checklist for getting through assignments. For example, a student’s checklist could include such items as: get out pencil and paper; put name on paper; put due date on paper; read directions; etc.
- Teach children to use and organize papers and folders in Google Drive. Many schools are using a Google platform, and few are teaching the children how to use it. Naming files and saving them to a folder is not an automatic understanding, especially for children with trauma.
- Meet with a teacher or supervisor on a regular basis to review work and troubleshoot problems.

Explicit teaching of executive function skills will assist in the development of metacognition. When children increase their access to their executive functions, they can become more aware of their learning needs. As they grow, they may begin to demonstrate the ability to advocate for their needs. When children can’t communicate what they don’t understand, they experience frustration. Many children with developmental trauma have very low frustration tolerance. When they feel frustrated they often shut down or demonstrate aggressive behaviors. Teaching and developing executive function skills is a far more effective response to frustration behaviors than behavior modification plans or reward/consequence systems. Behavior modification plans deal with the symptoms, not the underlying cause. Teach all of your children executive function skills and they will improve their academic performance and reduce their frustration behaviors.

MELISSA SADIN, EdD

Dr. Sadin has served as a special education teacher and a building administrator. She is currently working as a director of special education, as well as serving as Program Director for ATN’s Creating Trauma-Sensitive Schools Program. Dr. Sadin has been vice-president of her local School Board, is on the Board of Directors of the Attachment & Trauma Network. She has conducted research on the perceptions of teachers working to create trauma-informed classrooms. Dr. Sadin is a published author and has produced numerous webinars on children with attachment trauma in schools. Currently, Dr. Sadin works as an education consultant and developmental trauma expert providing professional development to school districts, municipal service providers and parents. As an adoptive mother, Dr. Sadin provides first hand expertise in her work with adoptive parents at conferences and in other formal and informal settings. Her first book, Teachers’ Guide to Trauma has recently been released.