Adapting to Change: Finding Flexibility for Success!

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Let us imagine that one day, you wake up for a long day at work but your coffee machine suddenly malfunctions. That is a little annoying, but you decide to make a detour to buy a cup of coffee on the way to work. At work, you get a sudden email for urgent work to be completed in the middle of some other work. The work needs to be done soon, so you quickly change tasks to meet the demands of your workplace. What do these two situations have in common? Both instances require the use of what is known as cognitive flexibility.

What exactly is Cognitive Flexibility?

Cognitive flexibility is the skill used to adapt and adjust our behaviors to changes in the environment. In other words, it allows us to be more efficient when we work on tasks, and problem solve through any issues that might come up in our everyday lives. In addition, higher levels of cognitive flexibility are associated with better reading abilities, higher resilience to negative life events, and a better quality of life. It is easy to imagine why cognitive flexibility is important in our everyday lives and in academics. Life is unpredictable! In schools, children need to know that different math signs require different problem solving methods. In social settings, children need to navigate diverse relationships, and problems in these relationships may require different conflict resolution strategies depending on the situation and the people involved. A child may have to adjust their schedule and push their piano lesson back an hour due to heavy traffic. All of these situations and many others require a degree of flexibility to adapt and problem solve.

What is involved in Cognitive Flexibility?

Many areas of executive functioning, which are mental processes that help guide goal directed behaviors, are involved in cognitive flexibility. These executive functions include:

1. Attention: The ability to choose and concentrate on something in the environment.

2. Working Memory: The ability to hold information in mind while doing something with it.

3. Inhibition: The ability to stop or withhold a response.

Individuals with Attention-Deficit/Hyperactivity Disorder (ADHD) and/or Learning Disabilities may have difficulties with their executive functioning which may in turn impact their engagement in cognitive flexibility. Having a lagging skill within cognitive flexibility typically leads to rigid thinking. Rigidity in children may appear as black-and-white thinking, leading to difficulties in seeing nuance and the complexities in different situations. In academic settings, this may lead to a child continually attempting the same problem solving strategy over and over again despite it not working. In social situations, this may interfere with perspective taking and lead to a focus on justice, making it difficult for a child to maintain their friendships.

Understanding that a child is struggling with being flexible may help explain their behaviors and their difficulties in their academic, social, and daily functioning. However, much like there are multiple different mental processes associated with cognitive flexibility, there are also multiple potential explanations as to what may be behind the inflexibility. Although all difficulties with cognitive flexibility may behaviorally appear the same, understanding and identifying which aspects of cognitive flexibility a child may be struggling with may be useful in helping them improve their problem solving skills. These explanations include:

1. Failure to adjust a strategy to suit changes in the environment (e.g., A child doing a math worksheet may use the finger counting strategy to complete single digit addition, but may continue using finger counting for multi-digit addition which is less effective).

2. Continuing to use an ineffective strategy despite evidence suggesting that it is not working (e.g., A child may only use finger counting for all math problems including multiplication, despite it being very slow and potentially leading to incorrect answers).

3. Failure to see how multiple strategies can be used to solve a problem (e.g., A child may be taught a conflict resolution strategy when they have fought with a peer, but fail to recognize there are different ways to approach conflict resolution).

4. Failure to recognize multiple variables in a problem, and focusing on only one variable (e.g., A child may use a conflict resolution strategy that only addresses hurt feelings after a fight, but does not address the reason the fight happened).

Strategies to Help with Cognitive Flexibility

Children with cognitive flexibility difficulties will have to put more effort into how they approach problems, which can be tiring. In addition, children may become anxious or overwhelmed when they are encouraged to try different approaches or look at situations in ways they are not used to. Ensuring that children are getting adequate sleep, food, and exercise will help facilitate their learning and will allow children to better handle frustrations. In addition, the following strategies can provide additional support to help children become more flexible in their thinking. The strategies can be catered to what aspect of cognitive flexibility the child may be struggling with.

Prompts and Cues

Perhaps a child is having difficulties with recognizing or attending to important information. Ensuring that the child is made aware of what is important, and has their attention directed to it, can help facilitate more adaptive decision making. Typically, this is done through the use of external prompts and cues. Some examples include:

- Visual Cues (e.g., bolded words, large operation signs for math, checklist of reminders)

- Verbal Cues (e.g., "look at this", "listen to this", "have you considered…?")

Normalizing Change

We are all creatures of habits and routine, and that is not necessarily a bad thing. However, life is filled with road bumps we must adjust to. To help normalize change, you can try incorporating small changes in routine to teach children that change is okay and common. You can try changing up the route home from school, changing the seating at the family dinner table, or even modifying a rule from your favorite family board game (e.g., in Chess, how the knight and the bishop move are swapped).

Modeling

Perhaps a child is having a hard time understanding how to be flexible in a problem solving situation. In this situation, it may be helpful for them to see how a problem can be approached with flexibility in mind. Work through problems with the child, brainstorming alternative options; discuss potential scenarios to help them see the bigger picture. Thinking out loud is a great way for a child to see how other people may consider multiple different variables before committing to a strategy.

In conclusion, cognitive flexibility is important for adapting to changes in the environment and problem solving. Cognitive flexibility involves multiple important mental processes, and inflexibility may be due to multiple different reasons. Life can throw us many curveballs, so being flexible in our thinking is an important skill to have. Knowing what aspect of cognitive flexibility a child may be having difficulties with can be used to help improve their problem solving skills. Prompts and cues, normalizing change, and modeling are all important

ways to help children build this skill. See the following resources for more information on building flexibility in thinking.

Other Resources:

More Information

[Cognitive Flexibility in Kids](#)

[Cognitive Flexibility Skills Video](#)

[www.socialthinking.com](#)

Activities

[11 Activities for Flexible Thinking in Kids](#)

[Flexible Thinking and 7 Activities to Try](#)

Books for Kids:

A Little Spot of Flexible Thinking: A Story about Adapting to Change by Diane Alber

Adaptable Ninja: A Children's Book about Cognitive Flexibility and Set Shifting Skills <u>and</u>

Flexible Thinking Ninja: A Children's Book about Developing Executive Functioning and Flexible Thinking Skills both by Mary Nhin

My Day is Ruined!: A Story for Teaching Flexible Thinking by Bryan Smith