Why your mindset matters

By Meg Thacher, Cricket Media, adapted by Newsela staff on 07.20.18

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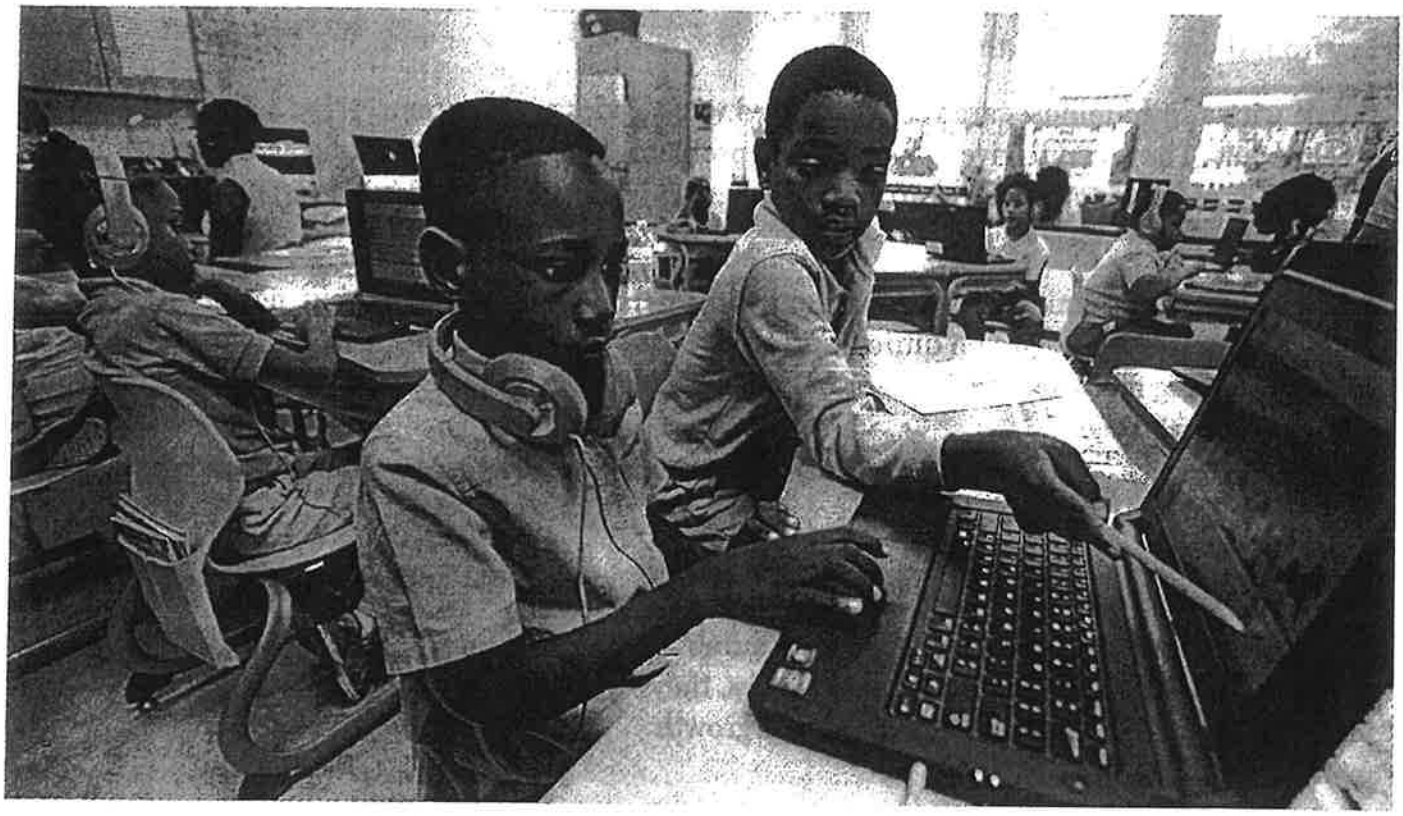


Image 1. In this photo from 2017, Herbert Robinson, left, and Israel McDonald, right, team up to solve a math problem at Turner Elementary School in southeast Washington. If students have a fixed mindset, they might be too embarrassed to ask for help. But it's when students cooperate that they help each other learn and grow. Photo by: Manuel Balce Ceneta/AP.

Imagine that two students, O and Aarti, are taking a really hard math test in September. O has a fixed mindset, which means he believes that a person's intelligence is fixed. According to O, you're either smart or dumb, and if you're smart, everything is easy for you. Aarti has a growth mindset, which means he believes that your intelligence can grow. Not everyone can become a genius or a star athlete, but they can improve the skills they have and develop new ones.

So which is right? It's Aarti, since, believe it or not, research shows that you really can get smarter by working hard, practicing and challenging yourself.

How The Brain Works

Your brain is made up of 86 billion cells called neurons. They're literally wired together by axons in a network that sends electrical and chemical signals. A single neuron in your brain can be connected to 10,000 other neurons. When you think, feel, move or use your senses, signals travel through this network.

Brain researchers have found that, when we learn, new connections form between neurons, old connections grow stronger and unused connections are destroyed. Learning is like exercise for your brain. The more you work it out, the stronger and smarter your network of neurons will become.

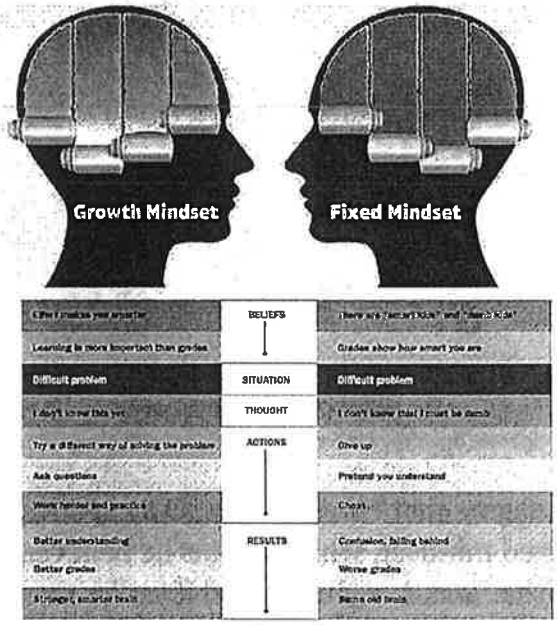
How Mindset Works

Your mindset can affect your performance at school, in sports and the arts, and even how you act and feel. Dr. Carol Dweck is a psychology professor at Stanford University who studies how the mind works. She has discovered that people with a fixed mindset tackle problems in a different way from those with a growth mindset.

People with a fixed mindset are very concerned with grades and how smart they look compared to other people. They tend to give up on difficult problems. When they make mistakes, they think it means they're not smart. They're afraid of challenges because, if they don't do well, they might look dumb.

People with a growth mindset, on the other hand, are concerned with learning, not grades. They jump right in and work hard on difficult problems. They learn from mistakes by trying different problem-solving methods or asking for help. They like challenges because they want to stretch and improve their abilities.

For Example, Look At Babies



Babies are the best example of the growth mindset. In only two years, they learn to walk, talk and feed themselves. They don't worry about looking dumb while they learn, and when they make mistakes, they just try again. Many successful people have a growth mindset, too.

Dweck and her team discovered that middle school students with a growth mindset do better in math, while those with a fixed mindset do worse. Kids with both mindsets do fine in elementary school, but middle school math is much harder. So while the growth-mindset kids embrace the challenge and work harder, the fixed-mindset kids may just give up, making their grades suffer.

But Dweck's team discovered something even more important than that.

Changing Your Mind(set)

The team taught those middle schoolers about mindset and how the brain works. They talked about the dangers of labeling people as dumb or smart. They discovered that, with some work, kids can choose to have a growth mindset and do better in school. Everyone has some of each type of mindset — they're like voices in your head. The trick is to recognize your fixed mindset voice and your growth mindset voice.

When you hear your fixed mindset voice telling you you're dumb, or that you'll look stupid if you ask for help, or that learning a new skill is hard, talk back to it. You're not dumb, you just haven't learned how to do it yet. Asking for help isn't stupid—it's smart. And learning a new skill is hard, but won't it be worth it?

Meg Thacher teaches astronomy, physics and writing at Smith College in western Massachusetts. Because she's a grown-up, her brain weighs more than yours but has fewer neural connections.