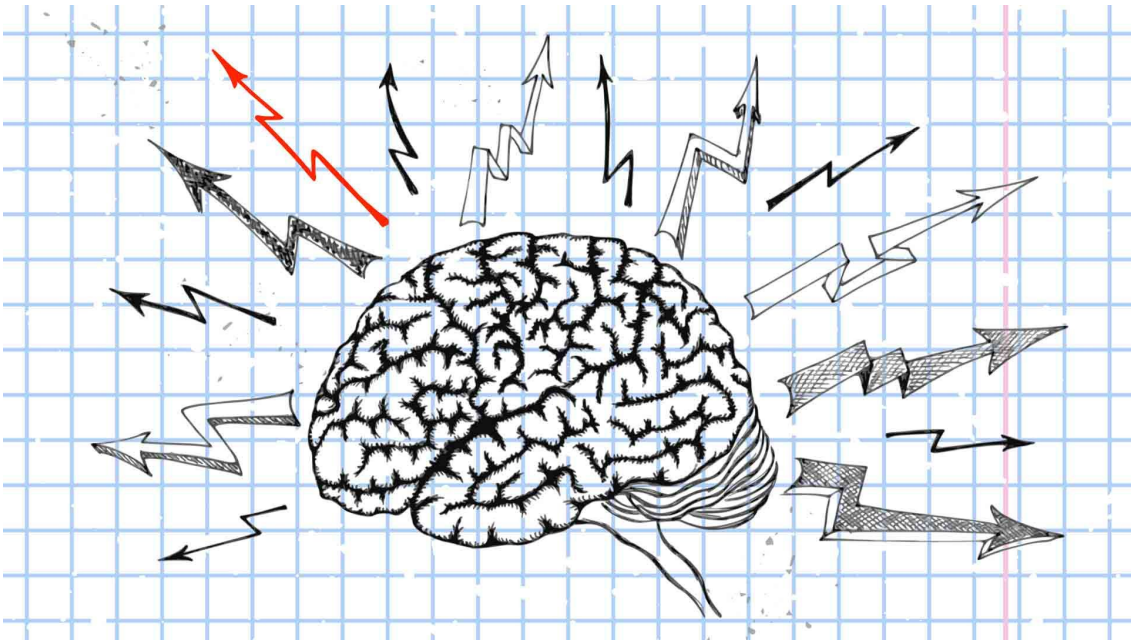
Beyond Working Hard: What Growth Mindset Teaches Us About Our Brains



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PRINT SHARE

Growth mindset has become a pervasive theme in education discussions in part because of convincing research by Stanford professor Carol Dweck and others that relatively low-impact interventions on how a student thinks about himself as a learner can have big impacts on learning. The growth mindset research is part of a growing understanding and acknowledgement that manynon-cognitive factors are important to academic learning.

While it's a positive sign that educators see value in the growth mindset research and believe they can implement it in their classrooms, the deceptively simple idea has led to some confusion and misperceptions about what a growth mindset really is and how teachers can support it in

the classroom. It's easy to lump growth mindset in with other education catchphrases, like "resiliency" or "having high expectations," but growth mindset actually has a much more concrete definition. As Eduardo Briceño wrote in a recent post for MindShift, "It is the belief that qualities can change and that we can develop our intelligence and abilities."

This simple idea can lead to big changes in learners, but it has been commonly misinterpreted to mean that if teachers praise students for working hard, they will develop a growth mindset. In many cases that isn't true and students will feel that praise is disingenuous. Briceño explains it this way: "Students often haven't learned that working hard involves thinking hard, which involves reflecting on and changing our strategies so we become more and more effective learners over time, and we need to guide them to come to understand this."

To foster growth mindsets in students, teachers can coach students to try different learning strategies that make the brain work smarter. Educator praise can be used to acknowledge specific strategies students have tried and can push students to reflect on themselves as learners. This process is more complex than it looks and ultimately should help lead students to become more independent thinkers.

Growth mindset is also not a panacea for low achievement or education inequality, although the fervor with which some districts have adopted the idea might lead one to believe that. Critics like Alfie Kohn point out that no individual attitude shift is going to overcome the very real structural inequalities that exist in schools. He worries that focusing on

mindsets will not only mask those bigger problems, but could undermine the imperative to provide compelling learning experiences that lead students to discover an innate love of learning.

Another common way of boiling down the mindset research is to tell students that "mistakes are good; we learn from mistakes." While that can be true, not all mistakes are worth pursuing. Some mistakes are just sloppy and others are made in such a high-stakes environment. Reflecting on these kinds of mistakes can improve performance next time, but they aren't necessarily the most fruitful kinds of mistakes.* Mistakes that lead to the most learning are the ones made when students are stretching outside their comfort zones to grasp an idea that's just out of reach. Or, when someone has an "aha" moment after doing something she thought was right but then realized was a mistake based on new information. Reflecting on these mistakes, and formulating a new plan of action based on them, is what makes them powerful.

PUTTING IT INTO PRACTICE

It's exciting that this research has been around long enough and has reached enough educators that many districts and schools are already trying to put the research into practice. Their successes and failures are important to share as educators work to figure out how to implement it.

Many schools quickly realized that growth mindsets are not only important to students, they are crucial for educators trying to make change. And helping educators to develop their own growth mindsets

hinges on positive working environments and trust at school. Educators have a hard time taking risks in their teaching practice if they believe the outcome must be perfect the first time. And yet, one of the most important ways to instill a growth mindset in students is to model the disposition as teachers, making it even more crucial that district and school leaders create a climate conducive to growth mindsets in adults.

Some high schools are weaving explicit instruction around growth mindset into workshops and classes for incoming freshmen. Educators hope that if students get the same messages about stretching to learn and improving based on those mistakes from day one of high school and from every subject-area teacher, that a growth mindset will become part of school culture.

Other schools focus on normalizing struggle in the classroom by honoring students who are honest about their difficulties and making thinking transparent to everyone. In this Teaching Channel video produced in partnership with PERTS, second-grade teacher Maricela Montoy-Wilson models for other educators what it looks like to praise specific strategies. She celebrates the public mistakes her students make in math and makes them feel proud of how their brains grow in those moments.

GROWTH MINDSET AND MATH

Approaching the world with a growth mindset can be very liberating. It gives educators and students freedom to try new approaches, reflect on the positives and negatives, and then try again. But somehow this

process is easier for students and teachers to believe in subjects like English or science. Even students who understand that their brain can grow and change with effort, and believe that to be true in some areas of their life, persist in a fixed mindset about math.

Many find math to be the most difficult and hated subject in school. In some ways that's not so surprising, since many math classes are set up to value speed over careful reasoning and often offer closed questions requiring one right answer. When a student struggles in that type of classroom structure, it becomes difficult to believe she can grow or change her abilities. The questions asked and skills valued are projecting the opposite message.

**This paragraph was modified to clarify the idea that people can learn from all mistakes, but some mistakes are more fruitful for learning.*