



David S. Yeager

Growth Mindset in Teachers (2022)

Teacher mindset helps explain where a growth-mindset intervention does and doesn't work



Principle

Growth Mindset training can nudge up average math grades for high school freshmen, but supportive growth mindset math teachers matter too.

Quote

“Successfully teaching a growth mindset to students lifted math grades overall, but this was not enough for all students to reap the benefits of a growth-mindset intervention. Supportive classroom contexts also mattered.”

So What - Application

If a growth mindset needs support, we can learn what it looks like to support a growth mindset.

Growth mindset is the idea that our brains can grow if we practice and use them in challenges like a muscle, so we could give children more opportunities to practice. But it's not just effort. It's also trying new strategies, accepting failure as a normal part of learning, and asking for help.

We could offer alternative strategies for specific challenges, accept failure as a normal part of learning and make failure a no-big-deal part of learning, and pay attention and respond to requests for help.

The Research Story

A team of 16 researchers from 11 universities led by David Yeager used existing data from a year long study of 9th graders to find out if having a growth mindset alone makes a difference in grades, or if a mindset belief has to be supported by the environment to create change.

In the original study they randomly assigned students into a control group or a mindset group to learn about growth mindset. The intervention was two 30-minute online activities.

They took data from 8,775 students, 223 math teachers. and 9,167 records (some kids had more than one math teacher).

To measure math teachers' mindsets they asked them to rate two questions: “People have a certain amount of intelligence and they really can't do much to change it” and “Being a top math student requires a special talent that just can't be taught.”

They found that students in the mindset group, regardless of their math-teacher mindsets, ended up with personal growth mindsets. The question now is, can they use those growth mindsets in a classroom where the teacher does or doesn't have a growth mindset? Students' math grades in the mindset group improved over the control group only when their math teacher also had a growth mindset.

The intervention altered the students mindset beliefs, but their math grades did not improve unless they had a growth-affording classroom.

Mindset students with a growth mindset teacher improved grades on average .11 even with students who couldn't raise their grade because they were already getting As. If you took just the bottom 3/4 of the class, grades went up by .14. They also included all students including those who didn't speak English, visual or physical impairments, attention problems, those with computer malfunctions, and more.

The student's mindset does matter. Students who had a fixed mindset before the intervention and had the support of a growth mindset teacher, had a higher effect on their math grades (0.16).

Yeager, D. S., Carroll, J. M., Buontempo, J., Cimpian, A., Woody, S., Crosnoe, R., Muller, C., Murray, J., Mhatre, P., Kersting, N., Hulleman, C., Kudym, M., Murphy, M., Duckworth, A. L., Walton, G. M., & Dweck, C. S. (2022). Teacher Mindsets Help Explain Where a Growth-Mindset Intervention Does and Doesn't Work. *Psychological Science*, 33(1), 18–32. <https://doi.org/10.1177/09567976211028984>



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