

# Mindset a Key Factor in Student Success

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Having a [growth mindset](#) may help buffer students from low-income families from the effects of poverty on academic achievement, researchers found in a first-of-its kind, large-scale study of 168,000 10th grade students in Chile.

But poor students in the study were also less likely to have a growth mindset than their higher-income peers, researchers found.

Students with a growth mindset believe that skill and academic strength can be developed through effort and practice, said Stanford University researcher Susana Claro, who co-wrote the study with Stanford professors David Paunesku and [Carol Dweck](#).

That's contrasted with students with a fixed mindset, who believe their intelligence and skill sets are unchangeable, like eye color. Dweck's previous research has found that interventions that help students develop more of [a growth mindset can have positive effects on their academic achievement](#).

This new study expands on those findings, showing for the first time that they hold true in a national sample, and exploring how academic mindsets interact with family income to affect student achievement.

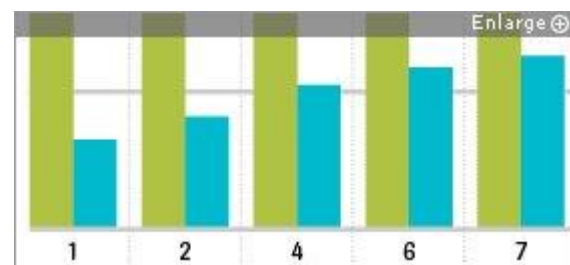
While students from low-income households typically score lower on standardized tests, researchers found that poorer Chilean students with higher levels of growth mindset had similar average test scores to their fixed-mindset peers from higher-income families.

"Strikingly, students from low-income families (the lowest 10 percent) who had a growth mindset showed comparable test scores with fixed-mindset students whose families earned 13 times more (80th percentile)," says the study, published this month in the Proceedings of the National Academy of Sciences.

Researchers used test scores and student survey responses from an entire class of students enrolled in public schools in Chile during the 2012 academic year to reach their conclusions. They measured mindsets by asking students to agree or disagree with two statements: "You can learn new things, but you can't change a person's intelligence," and, "Intelligence is something

## Relationship between Mindset and Poverty

While research has found that a growth mindset may offset the effects of poverty, data from a large-scale study in Chile suggests that poor students are more likely to have a fixed mindset.



that cannot be changed very much." Claro, who is Chilean, worked with the country's ministry of education to include the questions on an existing student survey, Paunesku said.

The results are the first to show on such a large scale that the relationship between mindset and achievement "is comparably strong" with that between family income and achievement, the authors wrote.

## Effects on Achievement

Researchers also found that a growth mindset was a greater predictor of success for poor students than it was for their higher-income peers. But students from the lowest-income households were also twice as likely to have a fixed mindsets than their wealthiest peers. The findings suggest that the systemic problems that poor student's face, like a lack of a quiet place to study or adequate nutrition, may be compounded by psychological factors, Paunesku said.

"By virtue of their economic deprivation, [low-income students] can't get a lot of things that we know are important to learning," he said. "Having a fixed mindset makes it even harder for them to overcome these barriers. ... If you have a fixed mindset, you're more likely to interpret a setback or something that's hard as a sign that you can't do it."

Critics of schools that emphasize concepts like growth mindset, grit, and persistence argue that such work can [fail to take into account systemic factors that contribute to poor achievement](#). Some label this a "bootstraps mentality."

"To be clear, we are not suggesting that structural factors, like income inequality or disparities in school quality, are less important than psychological factors," the authors wrote. And growth-mindset interventions are not a replacement for systemic efforts, they added.

But, as schools address systemic issues, they should also be mindful that a student's difficult life circumstances can affect the way they approach learning, struggle, and failure in the classroom, Paunesku said.

"Mindset is an important part of how socioeconomic disparities get replicated from generation to generations. ... Structural barriers get in the way of people being able to succeed, and they reinforce mindsets that tell [students] they can't succeed."

Rather than seeing growth-mindset interventions as a standalone strategy, some schools have worked in recent years to pair them with efforts to improve school climate and provide support for students' nonacademic needs. Educators seeking to nurture growth mindset in the classroom should also address the importance of developing new strategies to tackle difficult problems, rather than emphasizing sheer effort, Paunesku said.

But isn't it possible that "doing well in school leads to a growth mindset rather than the other way around?" Claro and her co-researchers asked. To try to answer this, they controlled their results using other survey questions. They found that the relationship between a growth mindset and achievement remained significant even when controlling for factors like students' perceptions of their own academic skills.