

Developing a Growth Mindset among High School Students

The National Center on Scaling Up Effective Schools (NCSU) spent the 2011-12 school year

conducting intensive case studies of four Fort Worth, Texas high schools to understand what differentiates higher performing from lower performing schools. We found that high schools can address gaps in student achievement, especially with traditionally underserved student populations, by developing policies and practices that help students take ownership and responsibility for their own learning. In collaboration with a district innovation design team, we identified four practices that can increase student ownership and responsibility in schools: help students to develop growth mindsets, adopt problem solving skills, improve their goal setting abilities, and improve their ability to monitor progress towards those goals. This brief describes growth mindsets and outlines practices that teachers and schools can use to develop students' growth mindsets.

Why Growth Mindsets?

After determining that higher value-added high schools increased student ownership and responsibility for their own learning (SOAR), we examined what school practices would increase SOAR. We drew from research conducted by Carol Dweck of Stanford University who found that when confronted with challenges, students typically adopt either a growth or a fixed mindset.

Briefly stated, students with growth mindsets believe that intelligence can be developed and increased over time; mistakes are inevitable and are a valuable part of learning; effort and hard work are necessary for success; constructive criticism and feedback allow for improvement, and resilience is important when facing challenges. In contrast, individuals with fixed mindsets believe that intelligence is an in-born, static trait; attempting challenging tasks and failing makes one seem unintelligent, and if one is intelligent academic accomplishments will come naturally without needing to exert much effort. At first glance, the components of growth

A student with a fixed mindset will

Conflate their performance on one task with their perceived innate ability

- *I got a C on my paper because I'm a C student.*
- *I can't do poorly; I'm an AP student!*

Believe that intelligence is fixed and cannot be improved.

- *I don't know how to do these types of problems.*
- *I'm not a math person.*

See challenges as signs of failure.

- *This was really hard; I must be bad at it.*
- *I like doing things that I can do perfectly, without any mistakes.*

A student with a growth mindset will

Acknowledge how hard work, or lack of hard work, impacts outcomes.

- *I worked very hard on this assignment and see my effort reflected in my grade.*
- *I didn't put very much time or effort into studying, which is why I got a D.*


Consistently identify areas where they can improve.




- *I'm happy with my grade, but I can see where I could have done better and will work to improve in those areas next time.*
- *I guess I didn't really understand these problems; I'll go to tutoring so I can do better on the next assignment.*

See challenges as informative and motivating.


- *I like my work best when it makes me think hard.*
- *That team was really good. We lost, but I learned a couple of new moves!*


¹ For a broad overview and promising practices of student ownership and responsibility, see the NCSU practitioner brief "Developing Student Ownership and Responsibility in High Schools."

mindset may simply seem like best practices for teaching. However, the key characteristic of a growth mindset is the belief that with consistent effort one can increase their intellectual capacity and tackle new challenges. 

Fixed mindsets can limit the academic accomplishments and willingness of both low and high achieving students to take responsibility for their learning. Helping students develop a growth mindset encourages students to embrace SOAR habits such as believing that they can take on challenging academic tasks successfully, come to class prepared, complete assignments in a timely manner, and seek additional help when they are struggling.   

How Schools Help Students Adopt Growth Mindsets

We realize that students do not adopt growth or fixed mindsets on their own. Rather, students' mindsets can be developed by promoting a school wide culture and 

specific teacher practices. To create a culture of growth mindsets teachers can encourage and praise student effort rather than student performance; teach students about the importance of “exercising” their brains; promote and provide challenge and focus on continuous student growth rather than final grades. Students and adults can apply growth mindset practices to academic and extracurricular endeavors alike. 

In order to be most effective, practices that encourage growth mindsets should be integrated with current district and school-wide programs and initiatives. Moreover, these practices must be sustained over time to change students' long-term beliefs and habits. Promoting growth mindsets stands to provide long term benefits for students as well as the teachers, administrators, schools, and districts who work to cultivate a growth mindset culture.

To promote students' growth mindsets, teachers and schools can:

- Explicitly teach students the distinction between growth mindsets and fixed mindsets.
- Identify and help students self-monitor when they exhibit fixed or growth mindsets.
- Teach students about basic brain science focusing on how connections in the brain are changed and strengthened through repetition and practice.
- Praise students' effort and improvement, especially when they undertake difficult tasks, rather than praising students' intelligence - “you're smart” - or a particular grade.
- Emphasize that fast learning is not always the deepest and best learning, but rather learning often takes time and great effort.
- Build ways for students to learn from and correct mistakes into the classroom and recognize students' perseverance and improvement.
- Give students work that challenges them. If students earn a high score without much effort, suggest that the work may be too easy and provide more challenging work from which they can continue to grow and improve.
- Portray effort as necessary for everyone, even skilled students. Provide examples of successful individuals who used their effort and determination to reach their goals rather than simply relying on their innate ability.
- Demonstrate the extent to which students' skills and knowledge have increased over time placing emphasis on students' abilities to develop and improve as they learn.

Adapted from Dweck, C. (2007). *Mindset: The New Psychology of Success* (Reprint). Ballantine Books.