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A collaboration of Cornell University, the University of Rochester, and the Center for School Safety

Encouraging Growth Mindsets

by Kristen Elmore

Adolescence is a time of exploration and discovery, during which young people begin to explore their possible identities and define their own goals. As a result, youth may be particularly sensitive to signals as to whether or not these goals are possible for them. If progress towards a goal is stalled by a failure or setback, some adolescents may interpret this failure as signaling that the goal is not possible for them. Such conclusions may be quite problematic if the goal is to attain academic success or to avoid risky health decisions.

How can practitioners working with youth discourage these undermining conclusions? A large body of research now argues that encouraging adolescents to adopt a “growth mindset” can help youth keep working towards important goals, even in the face of setbacks.

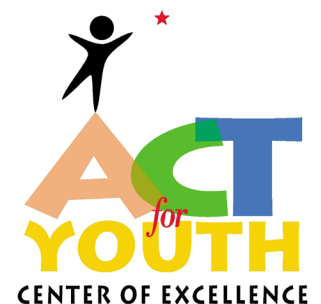


What are growth mindsets and how do they work?

Mindsets are beliefs about the nature of human traits (Molden & Dweck, 2006). More specifically, a growth mindset is the belief that traits are malleable and can be changed with effort. In contrast, a fixed mindset is the belief that traits are innate and unchangeable (Dweck, 2000, 2006). These mindsets apply to ability in any domain, including academic, artistic, social, emotional, and physical skills; a person may hold a growth mindset in one domain and a fixed mindset in another.

So how do these mindsets shape how people respond to challenges? Let's consider the example of an adolescent who has experienced an academic failure in math. Imagine that across her elementary school years, math

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was relatively easy for her and she felt that she was smart in math. But all that changed when she entered Algebra class—now math feels confusing and she’s received a failing grade on her first test. What does she do? Her response likely reflects her mindset about her math ability: is it fixed or malleable? The table below outlines response patterns associated with these two distinct mindsets (see Diener & Dweck, 1978; Dweck & Leggett, 1988; and Elliott & Dweck, 1988 for research linking mindsets and response patterns).

| Fixed Mindset | | Growth Mindset |
|---|--|--|
| I lack the ability to succeed in math, and there’s nothing I can do to change that. | What does this math failure mean? | I need a new strategy to perform better in math, but with effort I can change my ability. |
| Math just isn’t for me. | How do I feel about math? | Math is challenging, but I like a challenge. |
| Poor performance reflects on my ability , so I feel sad and ashamed. | How do I feel about myself? | Poor performance reflects on my strategies and effort , not me. |
| In math, I should seek out easier problems that will allow me to look smart. | In math class, what should I do about this failure? | In math, I should seek out challenging problems that will teach me something. |
| I should focus my energy on other domains (rather than math) where success could be possible for me. | In general, what should I do about this failure? | I should keep focusing on math because success in math is possible for me. |

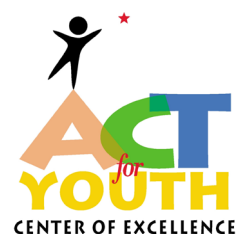
As these response patterns outline, a growth mindset is more likely to lead adolescents to interpret and respond to failure in ways that promote continued effort and optimism. These different responses matter over time, and youth who adopt a growth mindset experience better outcomes academically (Blackwell, Trzesniewski, & Dweck, 2007; Paunesku et al., 2015) and socially (Yeager, Trzesniewski, Tirri, Nokelainen, & Dweck, 2011; Yeager et al., 2014).

Promoting growth mindsets

In light of the benefits of a growth mindset, and the effort-undermining potential of a fixed mindset, how can parents, teachers, and youth service professionals encourage adolescents to view traits as malleable with effort?

The perils of feedback: How we (unwittingly) promote fixed mindsets

Typical interactions with youth offer numerous opportunities to encourage thoughts and behaviors that are compatible with growth mindsets. However, taking advantage of these opportunities may require that we sometimes ignore our first instincts



about how to interact with youth. Much of the feedback and encouragement that feels most normal in our society may actually be unhelpful for motivation.

We often try to boost or protect self-esteem in our interactions with youth—a goal that is quite reasonable, but carries a risk that we will inadvertently send messages that suggest that ability is fixed. For example, praising children’s smarts is unhelpful (Mueller & Dweck, 1998), and attempting to comfort them with comments such as “you’re just not a math person” is similarly undermining (Rattan, Good, & Dweck, 2012).

Strategies for promoting growth mindsets

Below are recommendations for incorporating growth mindset messages into one’s interactions with youth.

- 1. Focus praise and criticism on effort:** “**You must have worked hard at these problems.**” When a child performs very well or very poorly, it may feel appropriate to praise their ability—either to congratulate them or to persuade them that they really are good at the task and next time they’ll succeed. Yet, in either case, emphasizing the connection between effort and success (rather than ability) is likely to be more helpful. Rather than over-focusing on protecting and building self-esteem, an alternate focus on empowering youth to believe that *they control their outcomes through their effort* is energizing and motivating (Cimpain, Arce, Markman, & Dweck, 2007; Mueller & Dweck, 1998).
- 2. Focus on strategy quality and meaningful effort:** “**Can you think of another way to approach this problem?**” Targeting one’s praise and feedback on students’ effort rather than their ability is key to encouraging a growth mindset, but effort alone is often not enough to accomplish a goal. Continuously trying the same approach to a challenge may demonstrate tremendous effort, but not useful effort. Therefore, it is important to recognize and encourage thoughtful problem solving and varied strategies when providing feedback (Yeager & Dweck, 2012).
- 3. Emphasize mistakes as learning opportunities:** “**Since that turned out to be a dead end, can you think of another way to handle it?**” There is a temptation to avoid calling attention to mistakes because, of course, no one wants to embarrass adolescents. Yet, mistakes are a normal part of learning. Ignoring them or avoiding discussing them may inadvertently suggest that they are shameful or unchangeable. Instead, highlighting mistakes as useful opportunities to learn something new or devise a new strategy helps equip students to embrace challenges and anticipate (and cope with) setbacks.
- 4. Encourage difficult work:** “**You aced that really quickly. Maybe this is just too easy for you and it’s time to dig into something more challenging.**” Traditional grading that most youth encounter at school may inadvertently encourage the pursuit of easier tasks. If the goal is to demonstrate one’s ability and get a high grade, then easier tasks increase a student’s likelihood of success. Relatedly, praising students’ ability—or even their effort—when a

Mindsets Research

For more on mindsets research, read Kristen Elmore’s article in the *Research fACTs and Findings* series:

Mindsets and Motivation in Adolescence

www.actforyouth.net/resources/rf/rf_mindset_0316.pdf



task is too easy doesn't encourage the *growth* part of growth mindsets. It is not enough to believe that one can improve; tangible improvement will occur only if youth actually engage in challenging tasks that require them to stretch and grow. Thus, it's likely more helpful to recognize that something is too easy and usher young people onto a more challenging and worthwhile task.

- 5. Teach young people about mindsets and the brain.** Perhaps the most persuasive approach to encouraging a growth mindset is to teach youth about its scientific basis in brain plasticity—how new neural connections form in our brains when we learn new things. A number of activities and lessons have been designed to teach students to adopt a growth mindset by emphasizing the brain science behind this idea. They also offer strategies to help youth practice using a growth mindset with respect to effort and difficulty across domains. (See sidebar: Further Reading and Resources.)
- 6. Check your own mindsets.** To set an example for the youth we work with, it can be helpful to turn the lens on ourselves. Adults can assess their own mindsets and consider what can be done to promote a growth mindset within oneself. By understanding and working on our own mindsets, we can better mentor youth through the same process.

Conclusion

Adolescents who hold growth mindsets towards their academic and social traits experience benefits to their motivation, achievement, and health relative to those who hold fixed mindsets. Fortunately, those who work with youth have an opportunity to encourage more adolescents to adopt growth mindsets, even through simple interactions such as providing feedback or encouragement. Such efforts need to effectively target the relevant psychological processes in order to work, but if they do, they have the potential to make lasting impacts that build upon themselves over time (Paunesku et al., 2015; Yeager & Walton, 2011).

Growth mindsets are powerful, but they are not a panacea. As researchers studying mindsets have emphasized, simply thinking differently will never remove all barriers to success for youth facing structural disadvantages (Yeager & Walton, 2011). Instead, growth mindsets are most likely to benefit youth in combination with other supports for positive youth development. Growth mindsets are best understood as laying the groundwork for adolescents to optimally receive and utilize instruction and resources. Seeing oneself as capable of improving ability and outcomes through effort offers a more useful lens through which to approach goals—one that can help adolescents avoid misinterpreting mistakes and setbacks as a sign that something is wrong with them, and take better advantage of learning opportunities. ★

Further Reading and Resources

The **Mindset Kit** is an extensive inventory of materials for parents, teachers, and youth professionals offered for free by the Project for Education Research That Scales (PERTS). These resources include many specific lessons and activity ideas for use with children and adolescents to develop growth mindsets.

<https://www.mindsetkit.org>

Youth service professionals may find the PERTS “Mentors” section of the Mindset Kit especially useful.

<https://www.mindsetkit.org/growth-mindset-mentors>

What Kids Can Do offers a compilation of brief video resources along with a set of activity ideas for use with youth.

http://whatkidscando.org/resources/spec_growthmindset.html

Dr. Carol Dweck's **Mindset** website contains interactive materials for adults, including a test to determine your own mindset with respect to intelligence and four tips on how to change a fixed mindset.

<http://mindsetonline.com>

Edutopia maintains a collection of accessibly written articles, many of which outline strategies for mindset-focused instruction.

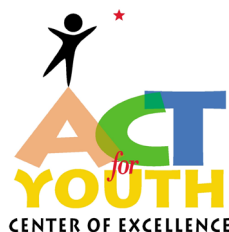
<http://www.edutopia.org/article/growth-mindset-resources>

Mindset Works offers the Brainology Program, an evidence-based mindset program designed for children and adolescents in school settings, for purchase.

www.mindsetworks.com

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