GROWTH MINDSET: DEFINITION, MEASUREMENT, AND STRATEGIES

Excerpted from Skills and Dispositions that Support Youth Success in School, Parts 1 & 2

WHAT IS GROWTH MINDSET?

A “growth mindset” is a general belief that one can improve oneself through effort, and has been identified as a critical success skill (Dweck, 2006). Individuals with a growth mindset in academics believe that intelligence is malleable while those with a fixed mindset believe that a person has a basic level of intelligence that cannot change in significant ways. Figure 1 illustrates some fundamental differences between individuals with fixed and growth mindsets:

FIGURE 1: ILLUSTRATES CAROL DWECK’S WORK ON FIXED AND GROWTH MINDSETS (KRAKOVSKY, 2007)
WHY GROWTH MINDSET MATTERS

Having a growth mindset can lead to success in many life domains. Research shows that young people with a growth mindset do better in school, in part because they are more likely to work toward self-betterment. In one longitudinal research study, students with a growth mindset in math at the beginning of 7th grade proceeded to perform better in math over the next two years than their peers with a fixed mindset, despite entering 7th grade with identical past achievement test results (Blackwell, Trzesniewski, & Dweck, 2007). One possible explanation is that students with a growth mindset embrace challenge because they believe increased effort will lead to increased success. Another is that students with growth mindsets work hard because they find enjoyment in learning irrespective of the outcome (Dweck, 2006, p. 48).

Can increasing Growth Mindset decrease the Achievement Gap? Improving students’ mindsets may prove to be an effective strategy for decreasing the achievement gap. Specifically, teaching a growth mindset can mitigate the effects of “stereotype threat” on youth of color, and can increase girls’ success in STEM subjects (Dweck, 2006). “Stereotype threat” impedes performance when a student is reminded of a demographic group with which he or she identifies, and about which there is a negative stereotype, when confronted with a performance task. Even a simple reminder, such as checking a demographic box before taking a test, can compromise that test’s results by activating stereotype threat (Appel & Kronberger, 2012; Steele & Aronson, 1995). This indicates the need for strategies that teach those students most affected by negative stereotypes that intelligence and ability are malleable. Research has shown that such strategies can increase students’ academic engagement and academic performance, and that the impacts are greater for members of stereotyped groups (Aronson, Fried, & Good, 2002). Of course, eliminating the experiences that lead to internalized oppression is as important as helping individual students overcome its effects.

MEASURING GROWTH MINDSET

Researchers have typically assessed growth mindset as it relates to academic achievement through survey items that probe respondents’ views about intelligence. The following questions come from Carol Dweck’s Implicit Theories of Intelligence Scale (Dweck, 2000):

- You have a certain amount of intelligence, and you can’t really do much to change it.
- Your intelligence is something about you that you can’t change very much.
- No matter who you are, you can significantly change your intelligence level.
- To be honest, you can’t really change how intelligent you are.
- You can always substantially change how intelligent you are.
- You can learn new things, but you can’t really change your basic intelligence.
- No matter how much intelligence you have, you can always change it quite a bit.
- You can change even your basic intelligence level considerably.¹

Individual responses to these questions determine whether an individual tends to think of intelligence as fixed or malleable. Those in the latter category are more likely to work hard in school, overcome setbacks, and persist in the face of challenge.

STRATEGIES FOR BUILDING GROWTH MINDSET

Creating and sustaining school and youth program environments that foster students’ growth mindset is an effective approach to building motivation and engagement, and bolstering academic success. To build growth mindsets in students, it is critical that teachers and youth program staff continuously model and reinforce the idea that every child can grow his or her abilities.

¹ Youth Development Executives of King County (YDEKC) has adapted this scale for use with young people. Our scale combines positively worded “I” statements about intelligence with items intended to measure related overlapping concepts (self-efficacy and mastery orientation).
Elements of “fixed” (i.e. not “growth”) mindsets are ingrained in society’s thinking, teaching and communication. Students in our schools are labeled and tracked from a very young age, and may come to think of themselves and their abilities in fixed terms early on. In addition, beliefs that undergird a fixed mindset are often intertwined with race, gender, class and other stereotypes. The mindsets of staff members in schools and youth programs affect how they view themselves, their students and their school communities. Mindsets also affect the messages that these adults pass on to the children they work with. To counter these tendencies, it is important that growth mindset initiatives intentionally address the attitudes of both adults and young people.

Growth mindset initiatives typically begin with the training of a school or organization’s staff. This work initiates a shift in mindset for the adults in the organization. A goal of training is to influence how staff interact and communicate with youth, both verbally and nonverbally. Growth mindset initiatives often provide tools that explicitly teach students the science of brain development, with an emphasis on the malleability of intelligence and ability. Ongoing training for both adults and students is helpful to develop automaticity of thought and action patterns in different contexts. Eventually, a look at school and program policies can be an important step for recognizing and shifting institutional norms to support a pervasive mindset shift.

Messages from adults that focus on intelligence, ability and/or talent imply that students either have these attributes or not, teaching and reinforcing a fixed mindset. Dweck points out that “young people can become dependent on praise, fearful of challenges, allergic to effort, and demoralized by critical feedback” (Dweck, 2008, p. 58). Growth mindset initiatives teach adults to encourage students for their effort, work, persistence or strategy. Doing so implicitly teaches a growth mindset by affirming that success comes from effort, not talent or natural ability. Adults also learn to frame challenges as progress toward mastery, not simply completion.

Explicitly training students (and adults) about growth mindset includes imparting the understanding that the brain can forge new connections and pathways, and that one can improve one’s intelligence by working on difficult tasks. Lessons on these topics have proven effective for students when taught by teachers, outside workshop facilitators and college-aged mentors (Good, Aronson, & Inzlicht, 2003). Studies of the “Brainology” intervention have shown promising results on both mindsets (beliefs) and student achievement (Romero, Paunesku, & Dweck, 2011). This aspect of growth mindset initiatives is critical to shifting mindsets for both youth and adults.

Finally, connecting to families and community members on the role of mindsets in success can integrate a growth mindset into the climate of a school and surrounding community. Tools and trainings are available to support this important work.

**Considerations**

Growth mindset work can enhance the larger picture of how to address the needs of all students in our schools and in youth programs. While growth mindset initiatives can show immediate results, it is likely they will need to be school- or program-wide and comprehensive in approach to sustain their effects over time (Donohoe, Topping, & Hannah, 2012). Furthermore, growth-oriented messages are most effective when they are consistent across settings. Young people may have growth mindsets in one area (e.g. sports), but these may not transfer automatically to another area (e.g. math). Other mutually reinforcing strategies focused on relationships and holistic health and well-being may help growth mindset initiatives to succeed, and support youth in accessing their benefits.

**Characteristics of Growth Mindset Initiatives**

- Teach the importance of providing encouragement rather than praise
- Train adults to explicitly teach youth about brain development
- Provide tools and lessons for staff development in classrooms or youth development programs
- Strengthen positive school climate and cultural responsiveness work
- Enhance the effectiveness of academic supports
- Provide consistency across settings
FOR MORE INFORMATION

- **Mindset Works** - [http://www.brainology.us/webnav/whatismindset.aspx](http://www.brainology.us/webnav/whatismindset.aspx)
  This website and the tools it provides are exclusively focused on Growth Mindset development. The Mindset Works® School Kit includes initial staff professional development, interactive programs for students, and tools for administrators, teachers and students to use on an ongoing basis to deepen the growth mindset in their schools.

- **Youth Worker Methods Training: Ask-Listen-Encourage** - [http://cypq.org/products_and_services/training/YWM](http://cypq.org/products_and_services/training/YWM)
  As part of the Weikart Center for Youth Program Quality “Youth Worker Methods” Series, this training focuses on practices to encourage rather than praise students. School’s Out Washington offers these trainings and can set up custom trainings for programs or schools.

- **Thrive Foundation for Youth** - [http://www.stepitup2thrive.org/mindset/group-lessons/](http://www.stepitup2thrive.org/mindset/group-lessons/)
  Step-It-Up-2-Thrive lessons on growth mindset mirror the successful approach of Dr. Carol Dweck’s team at Stanford University to shift youth to a growth mindset.

- **What Kids Can Do** - [http://whatkidscando.org/resources/spec_growthmindset.html](http://whatkidscando.org/resources/spec_growthmindset.html)
  This resource provides useful videos and materials to support the development of a growth mindset.

BIBLIOGRAPHY


