

Defining “Growth mindset” vs. “fixed mindset”¹ (Carol Dweck)

In a fixed mindset, people believe their basic qualities, like their intelligence or talent, are simply fixed traits. They spend their time documenting their intelligence or talent instead of developing them. They also believe that talent alone creates success—without effort. They’re wrong.

In a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work—brains and talent are just the starting point. This view creates a love of learning and a resilience that is essential for great accomplishment. Virtually all great people have had these qualities.

Excerpts from interview with Carol Dweck on her research about fixed mindset vs. growth mindset², by Gary Hopkins, Education World® Editor-in-Chief

Education World: Some students are mastery-oriented; they readily seek challenges and pour effort into them. Others are not. Have you been able to pinpoint in your research any direct associations between students' abilities or intelligence and the development of mastery-oriented qualities?

Carol Dweck: This is a really interesting question, and the answer is surprising. There is *no* relation between students' abilities or intelligence and the development of mastery-oriented qualities. Some of the very brightest students avoid challenges, dislike effort, and wilt in the face of difficulty. And some of the less bright students are real go-getters, thriving on challenge, persisting intensely when things get difficult, and accomplishing more than you expected. This is something that really intrigued me from the beginning. It shows that being mastery-oriented is about having the right mind-set. It is not about how smart you are. However, having the mastery-oriented mind-set will help students become more able over time. Students who are mastery-oriented think about learning, not about proving how smart they are. When they experience a setback, they focus on effort and strategies instead of worrying that they are incompetent.

EW: In your latest book, *Self-Theories: Their Role in Motivation, Personality, and Development*, you share the story of a conversation you overheard between two college students, Charles and Bob. Could you share that story with Education World's readers?

Dweck: Charles and Bob were two college students on a bus who were discussing their school experiences and their plans for the future (while I listened attentively). They both had struggled through an exceedingly difficult computer science course. One had to take it twice before he earned a decent grade. Yet they were seriously discussing whether to major in computer science! And for them the decision rested on whether they wanted to pursue something that required so much effort. The question of "ability" never entered into their discussion. Not once did either of them entertain the idea that he might not be good at computer science. For them, it was simply a matter of what they were willing to put into it.

¹ Edited from promotional materials for *Mindset* by Carol Dweck, <http://mindsetonline.com/whatisit/about/>

² Full interview at http://www.educationworld.com/a_issues/chat/chat010.shtml. Copyright © 2000, 2005, 2015 Education World

Charles and Bob were very different from how I had been at their age. Had I needed two attempts to master a course, I would not have aired this fact in public. Nor would I have remotely considered pursuing that course of study in the future. I greatly admired Charles and Bob for their mastery-oriented qualities, and had no doubt that if they went into computer science, they would do what it took to succeed.

EW: Learning goals were obviously more important to Charles and Bob than grades and test results (performance goals) were. Are Charles and Bob typical of most college students you meet? Or do more students seem to be performance goal-oriented? Is either of those groups of students better off?

Dweck: It's true that Charles and Bob were very learning-oriented and seemed not to be too concerned with their grade point averages. We find that many students value learning above grades. They tell us directly that it is more important to them to learn and be challenged than it is to earn the best grades. Many other students, however, tell us the reverse. They care far more about their grades than they do about learning anything or being challenged.

To my mind, it's the balance that counts -- keeping a balance between valuing learning and performance. Let's face it, grades often matter a lot, and many students who want to go on to top graduate and professional schools need good grades. Problems arise when students come to care so much about their performance that they sacrifice important learning opportunities and limit their intellectual growth.

Problems also arise when students equate their grades with their intelligence or their worth. This can be very damaging, for when they hit difficulty, they may quickly feel inadequate, become discouraged and lose their ability or their desire to perform well in that area.

For me the best mix is a combination of (a) valuing learning and challenge and (b) valuing grades but seeing them as merely an index of your current performance, not a sign of your intelligence or worth.

EW: Some students see intelligence as a fixed characteristic; it is a quality that people are born with and little can be done to change it. Others hold a more changeable view of intelligence; they think most anyone can learn new things and "stretch" their intelligence. Clearly, it seems that students with a changeable view of intelligence might fare better when faced with a learning challenge. But can anything be done to change those students who have a fixed view of their intelligence so that they might do better when facing a challenging learning task?

Dweck: You're right. Students who believe that intelligence is a potential that they can develop do fare better when faced with challenge. For example, they often blossom across a challenging school transition when their fellow students with the fixed view are busy doubting themselves and losing their edge.

We have found with students of all ages, from early grade school through college, that the changeable view can be taught. Students can be taught that their intellectual skills are things that can be cultivated -- through their hard work, reading, education, confronting of challenges, etc. When they are taught this, they seem naturally to become more eager for challenges, harder working, and more able to cope with obstacles. Researchers (for example, Joshua Aronson of the University of Texas) have even shown that college students' grade point averages go up when they are taught that intelligence can be developed.

It is interesting to me that these beliefs about intelligence seem to be fairly stable individual differences when left to themselves. But they also can be changed fairly readily when students

are confronted with the alternative view in an explicit and compelling way.

EW: Why is it that many students who succeed throughout their elementary school years suddenly seem to fall apart when they get to junior high or middle school?

Dweck: Many students look fine when things are easy and all is going well. But many students, even very bright ones, are not equipped to deal with challenges. When they hit more difficult work, as they often do when they get to junior high school or middle school, they begin to doubt their intelligence, they withdraw their effort, and their performance suffers. We have seen this happen to students who were top students in grade school -- they seem to lose their confidence, their liking for school, and their determination to do well.

Why is this? I have found through my research that these students hold a certain belief that undermines them at this crucial point. They believe that intelligence is a fixed trait -- that some people have it and others don't -- and that their intelligence is reflected in their performance. Basically, these are students who thought they were really smart in grade school, when they were doing well, but now they are frightened that they are not. They are scared that the difficulty they are experiencing means that they are in fact dumb. Furthermore, they are worried that if they try hard and still do poorly, they will really prove they're dumb. So instead of digging in and doing what it takes to succeed, they start withdrawing from school and devaluing academics. The students who blossom at this time are the ones who believe that intellectual skills are things they can develop. They see the more difficult schoolwork as a challenge to be mastered through hard work, and they are determined to do what it takes to meet these new challenges.

EW: In your research, have you seen a distinct correlation between a student's history of success and his or her ability to face future challenges?

Dweck: This is really fascinating. You might expect a correlation between a history of success and the ability to face challenges. You might think that students who had a history of success would be the ones who loved challenges and had the ability to face them constructively. After all, shouldn't past successes boost their confidence in their abilities and give them what it takes to confront difficulty?

But in fact, there is no relation between a history of success and seeking or coping with challenges. This is one of the great surprises in my research, and it goes to show that the ability to face challenges is not about your actual skills; it's about the mind-set you bring to a challenge. Some students, even some very successful ones, feel threatened by challenge, believe that mistakes mean you're not smart, and wilt when things become difficult. They stop enjoying the task, and they stop doing well on it. Other students, even many who have not done particularly well in an area, love challenge. They see it as an opportunity to learn, they view mistakes as valuable information, and they really rev up when things get difficult.

EW: In all your years of research, what findings have intrigued you the most?

Dweck: What has intrigued me most in my 30 years of research is the power of motivation. Motivation is often more important than your initial ability in determining whether you succeed in the long run. In fact [as I mentioned earlier], many creative geniuses were not born that way. They were often fairly ordinary people who became extraordinarily motivated. By motivation, I mean not only the desire to achieve but also the love of learning, the love of challenge, and the ability to thrive on obstacles. These are the greatest gifts we can give our students.

Swarthmore student responses in interviews (edited) about growing as a learner in introductory science courses — this is from a student who earned an A– in the course

INTERVIEWER: Do you know why it took a while [to get comfortable with the course]? You think about it differently even though it's only been a month since you finished the course.

RESPONDENT... I think having the entire course behind me, and not having to deal with a problem set that is due tomorrow, makes me think of the course as a whole instead of worrying about each individual thing.

.... We talked about during breakfast today, about how when we're actually doing the work we think it's impossible and we're never going to finish and we're never going to do well on the final. But then in hindsight, once we're all done with the final, we're like, "That wasn't actually too bad." And I think that's because we're not so narrowed in anymore and we can see how much we've learned throughout the entire semester rather than that particular day or that fifty-minute class. You know?

... So I try to like not think about my struggles throughout the course because I know at the end of the course I'll think about it differently. And I think my frustration with the course hindered me from seeing that early on whereas now I'm a lot more at ease.

INTERVIEWER: Are there ways in which you feel like you've grown as a learner in this course?

RESPONDENT: I guess aside from learning actual material, I learned how to deal with frustrations and see the big picture behind the course rather than getting bogged down by individual things.

INTERVIEWER: So sort of learning to deal with frustration and seeing some of the struggles as just ...a part of the process.

RESPONDENT: Yeah.