

Mindsets Toward Learning

"When you try very hard to do something, by the time you can do it it is easy to do, so effort is maybe a kind of prayer." - Diane Arbus

Overview Beliefs about intelligence impact both motivation and learning. One empirically effective pedagogical strategy is to encourage students to adopt a growth mindset - the belief that our intelligence, abilities, and talents can be improved over time - over a fixed mindset that views intelligence as static and unchangeable.

Two Views of Intelligence

Fixed Mindset

One's belief - often implicit in one's consciousness and not expressly articulated - that their intelligence, talents, and abilities are fixed and stable: there's just not much we can do through our efforts to improve our intelligence, talents, or abilities within a particular domain.

"You, know, I'm just not good at math - what's the point in paying attention?"

"Athletics just aren't my strong suit - I'll never be able to throw the ball well."

"Everyone says I'm a great writer, so why ask for feedback on my next paper?"

Growth Mindset

One's belief - often implicit in one's consciousness and not expressly articulated - that their intelligence, talents, and abilities are quite malleable, and can be improved through persistence, effort, and seeking feedback from experts.

VS.

"[Task X] has often been a challenge for me, but I know if I keep working hard, develop good strategies, and ask experienced experts for help, I can definitely learn how to do this."

"[Task X] came pretty naturally at first, but in order to get to the next level I'll really need to keep working at this."

Our implicit theories of intelligence determine our "mindsets" toward learning

Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.

SELF BELIEF and MOTIVATION

Our mindsets toward intelligence impact the motivation and effort we put into learning.



Beliefs about Intelligence

Our implicit theory of intelligence - whether fixed or growth oriented - defines our mindset toward learning.

Motivation

Whether one believes one's efforts will be productive (growth mindset) or fruitless (fixed mindset) will impact one's motivation to perform a task.

Learning

Thus, students with a growth mindset should demonstrate greater self-efficacy and increased learning compared to students who adopt a fixed mindset toward intelligence.

Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, 41(10), 1040.

"Intelligence is malleable. It can be improved."

Great! So how do we improve intelligence? The first step is to convince our students that intelligence can be improved."

YOU CAN GROW YOUR BRAIN: Fostering a Growth Mindset

Explicitly addressing students' mindsets toward intelligence - while encouraging a **focus on process over product and effort over results - is an effective pedagogical strategy for facilitating a growth mindset toward learning.**

Willingham, D. (2013). *Why Don't Students Like School? A Cognitive Scientist Answers Questions about How the Brain Works and What it Means for the Classroom*. San Francisco: Jossey-Bass.

PUTTING IT INTO PRACTICE

Classroom Strategies for Fostering a Growth Mindset in Learners

1 Incorporate Discussions of Mindset and Intelligence into Instruction

How can I explicitly remind learners within the course of instruction that they are capable of improvement and that their skills are not fixed?

2 Prioritize Process Over Product

How can I focus my instruction and the individual feedback I give learners on the process of research rather than the end result?

3 Build Students' Confidence: Praise Effort, Not Ability

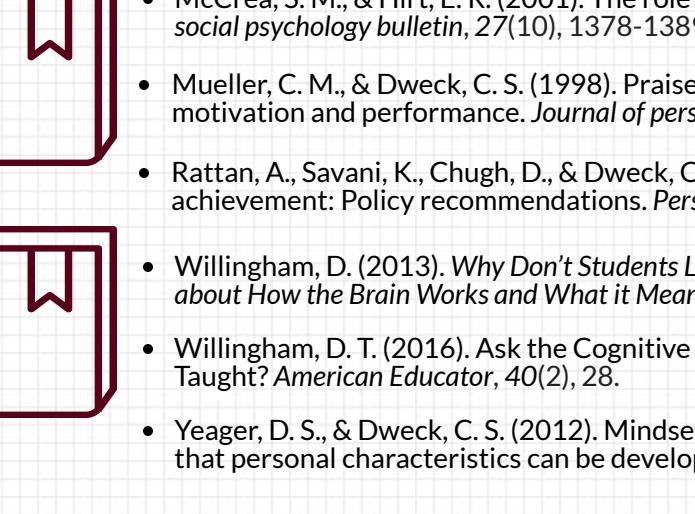
How can I praise the effort, persistence, and process of learners rather than their 'inherent' talents and abilities?

4 Treat 'Setbacks' as a Natural Part of the Learning Process

'Setbacks' are inevitable, but students with a fixed mindset may not view them that way. How can we model that setbacks are not failures, but a normal part of learning new skills?

Willingham, D. (2013). *Why Don't Students Like School? A Cognitive Scientist Answers Questions about How the Brain Works and What it Means for the Classroom*. San Francisco: Jossey-Bass.

Want to Test Your Own Mindset?



<https://mindsetonline.com/testyourmindset/step1.php>

"Think about your hero. Do you think of this person as someone with extraordinary abilities who achieved with little effort? Now go find the truth. Find out the tremendous effort that went into their accomplishment - and admire them more."

- Carol Dweck

REFERENCES & FURTHER READING

- Arbus, D. (2003). *Revelations*. New York: Random House.
- Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78(1), 246-263.
- Brown, P., Roediger III, H. L., & McDaniel, M. A. (2014). *Make it Stick: The Science of Successful Learning*. Cambridge, MA: Belknap Harvard.

- Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences*, 113(31), 8664-8668.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, 41(10), 1040.
- Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.

- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House Incorporated.
- Dweck, C. S. (2007). The perils and promises of praise. *ASCD*, 65(2), 34-39.
- Dweck, C. S. (2010). Even geniuses work hard. *Educational Leadership*, 68(1), 16-20.
- Folk, A. L. (2016). Academic Reference and Instruction Librarians and Dweck's Theories of Intelligence. *College & Research Libraries*, 77(3), 302-313.

- Hochanadel, A., & Finomore, D. (2015). Fixed and growth mindset in education and how grit helps students persist in the face of adversity. *Journal of International Education Research*, 11(1), 47.

- Willingham, D. (2013). *Why Don't Students Like School? A Cognitive Scientist Answers Questions about How the Brain Works and What it Means for the Classroom*. San Francisco: Jossey-Bass.
- Willingham, D. T. (2016). Ask the Cognitive Scientist: "Grit" Is Trendy, but Can It Be Taught? *American Educator*, 40(2), 28.
- Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational psychologist*, 47(4), 302-314.

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