

## Imaginary Boundaries

Helping learners become reflective, competent pediatricians is an enormous and daunting task. As learners progress across the medical education continuum, they increasingly become more responsible for their own growth and development as professionals. Over the past few years, there has been a strong movement toward the concepts and principles of growth mindset and coaching for continuous professional development.

The definition of mindset is a mental attitude that determines how you will interpret and respond to situations. Carol Dweck, the leading expert in this area, describes core principles related to mindset as one's belief about ability and how this belief ultimately affects decisions related to learning. She describes a person with a "fixed mindset" as one who believes that intelligence is a fixed trait. If someone has a fixed mindset it's not enough just to succeed. It's not enough just to look smart or talented. It's about being perfect right now. For people with a growth mindset it's not about immediate perfection. It's about learning something over time—confronting a challenge and making progress. People with a growth mindset thrive when they're stretching themselves.

Mindset definition: A mental attitude that determines how you will interpret and respond to situations.

Mindset (from the work of Carol Dweck):

- Belief about ability
- Affects decisions related to learning
- Fixed mindset – intelligence is a fixed trait
- Growth mindset – intelligence can be trained; the brain is a "growth organ."

When asked "When do you feel smart?" people with the growth mindset said: "When it's really hard, and I try really hard, and I can do something I couldn't do before." "When I work on something a long time and I start to figure it out"

For people with a growth mindset it's not about immediate perfection. It's about learning something over time—confronting a challenge and making progress. People with a growth mindset thrive when they're stretching themselves.

When asked "When do you feel smart?" People with the fixed mindset said: "It's when I don't make any mistakes." "When I finish something fast and it's perfect." "When something is easy for me but other people can't do it."

It's about being perfect right now. In the fixed mindset it's not enough just to succeed. It's not enough just to look smart or talented. You have to be pretty much flawless. And you have to be flawless right away. When do people with a fixed mindset thrive? When things are safely within their grasp. If things get too challenging when they're not feeling smart or talented they lose interest.

People were asked about intelligence and how much they thought it was due to effort and how much they thought it was about ability.

Intelligence= \_\_\_\_\_% effort \_\_\_\_\_% ability

- Those with a fixed mindset stated that intelligence was at least 60% ability
- Those with a growth mindset stated that intelligences was at least 60% effort

## Example exercises to promote growth mindset

One effective method to promote growth mindset is to teach about growth mindset and discuss examples when we are more fixed and more growth oriented in our mindsets.

Self-assessment tools

- Growth mindset - <https://mindsetonline.com/testyourmindset/step1.php>
- Grit <https://angeladuckworth.com/grit-scale/>

Mindset and grit discussion tips and exercises

- <https://www.wcupa.edu/admin/provost/studentSuccess/documents/mindsetDiscussionTips.pdf>
- <https://www.sac.edu/StudentServices/Counseling/TeacherEd/SiteAssets/Pages/Workshop-Powerpoints-and-Materials/Growth%20Mindset%20Packet.pdf> (also contains the Grit self-assessment)

### Failure as a process toward growth

- Creating a CV of Failures (this is most effective when a senior leader does this and shares his or her CV of Failures)
- Experiencing Failure - The marshmallow challenge.  
[https://www.ted.com/talks/tom\\_wujec\\_build\\_a\\_tower/transcript?language=en](https://www.ted.com/talks/tom_wujec_build_a_tower/transcript?language=en) (TED talk) and instructions: [https://docs.wixstatic.com/ugd/ca1bfa\\_a40d1ceb06444cfabeda5d9f0eab6ebf.pdf](https://docs.wixstatic.com/ugd/ca1bfa_a40d1ceb06444cfabeda5d9f0eab6ebf.pdf)
- Normalizing Failure
  - Leaders share their failure stories (exercise is not as helpful among peers as there is often not enough psychological safety and trust built in the learning environment)
  - The Failure Toss - <http://oncourseworkshop.com/life-long-learning/failure-toss/>
  - Movies associated with successful failures
    - Apollo 13
- Teaching about mistakes
  - My favorite mistake exercise: Discuss mistakes that moved your learning forward
  - Talk about why mistakes are important
  - Give work that encourages mistakes – for example, practice quizzes in which they do not know all the answers, encourage growth and that it is okay that we don't know it all.
  - Mistake game (intentionally do it wrong and encourage others to find the errors in thinking, management decisions or using communication role plays).

**Belonging interventions** (the goal of these exercises is to help students see everyday worries about belonging in medicine as normal at first and passing with time.

- Sense of Social and Academic Belonging self-assessment - [http://gregorywalton-stanford.weebly.com/uploads/4/9/4/4/494448111/belonging\\_belonginguncertainty.pdf](http://gregorywalton-stanford.weebly.com/uploads/4/9/4/4/494448111/belonging_belonginguncertainty.pdf)
- When using examples that are exemplar with learners - use counter-stereotypical exemplars, for example when talking about surgeons, the stereotypical example is a male surgeon and thus for a stereotypical exemplar identify women who hold these roles and give specific examples. The same holds true for using pictures in presentations.

- Social belonging exercise – These exercises are meant to decrease the sense that someone “does not belong” also called “belonging uncertainty”
  - Participants read stories from older students who conveyed that social adversity is normal and passes with time. Then participants wrote an essay and gave a speech on how their own experiences in college echoed the stories they had read to facilitate internalization of the intervention message. Walton GM, Cohen GL. A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*. 2011 Mar 18;331(6023):1447-51.
    - “Tell first-person stories from upper-year students that convey the students typically worry at first about whether they belong in college and with time come to feel at home. These stories are very carefully written. They should: (1) dispel the perception that only I or people like me worry about belonging at first in college; and (2) represent trajectories of growth—show how students can come to feel and actually belong in college with time. They should not reify stereotypes, for instance by conveying that only people in the minority do not belong. Instead, they should contradict stereotypes, for instance by showing how people in the majority group too have these worries. And they should not introduce a fixed mindset about intelligence.
    - Give people the opportunity to advocate for the intervention message—to describe how this process of change has been or could be true for them. This “saying-is-believing” exercise can help people internalize the intervention message.
    - Avoid the potential stigma participants may feel if they are targeted for an intervention. Participants were told their essays and speeches would be used to help future students, so that they saw themselves as benefactors and not as beneficiaries.
    - Subtlety—participants were largely unaware of the intervention’s effect. The influence of the intervention occurring outside of conscious awareness aids in its efficacy.” <https://www2.ed.gov/programs/fitw/fitw-walton-study.doc>
- Show people that they matter
  - Know your learner’s name and be able to pronounce the names correctly
  - Acts of kindness to let the trainees know they are appreciated and valued
    - The 5 languages of appreciation in the workforce. Book and online learning module. <https://www.appreciationatwork.com/>
- Use exercises that promote finding connections between people and what they have in common.

### **Attribution (attitudes and beliefs) exercises**

- Use appreciative inquiry in talking with learners. Ask learners to talk about times they succeeded or when they overcame adversity. This allows them to see that they have accomplished a similar task in the past and they can do something similar in the future.
  - For example, for a student who struggles with test taking, have them focus on all the times they have passed a test. Have them describe what they did (the specific actions) that helped them be successful. This reframes the conversation from the fixed mindset of “I am just a bad test taker and unconsciously stated “I will never be good at this.” Help learners internalize that accomplishments are due to specific actions and not just luck.

*ELS 35. Imaginary Boundaries: Bringing the subconscious to the conscious. 2019 APPD Spring Meeting. New Orleans, LA. 3/29/19. Linessa Zuniga, Adam Wolfe, and Teri Turner ([tturner@bcm.edu](mailto:tturner@bcm.edu)). Baylor College of Medicine. Texas Children’s Hospital and Children’s Hospital of San Antonio.*

- It's not my fault exercise - Paglis LL. The "It's Not My Fault!" Exercise: Exploring The Causes and Consequences of Managers' Explanations for Poor Performance. Journal of Management Education. 2008 Oct;32(5):613-28.

### Affirmation interventions (self-affirmation theory)

- Letter of self-compassion. This exercise is described at the following website: <https://positivepsychologyprogram.com/positive-psychology-exercises/>
- Identify values and strengths.
  - Cohen, G. C., & Sherman, D. K. (2014). The Psychology of Change: Self-Affirmation and Social Psychological Intervention. Annual Review of Psychology, 65, 333-371. doi: 10.1146/annurev-psych-010213-115137
  - Values affirmation - "Many students, especially those who face negative stereotypes in school, may not feel that the attributes they value most in themselves—their sense of humor, their relationship with their family—make them valuable in the school setting. By thinking about and elaborating upon these qualities, students can "bring" these values into the school setting and thereby enhance their sense of belonging." <https://ed.stanford.edu/sites/default/files/manual/dweck-walton-cohen-2014.pdf>

### Exercises that promote Grit

- Rejection therapy game - <https://www.rejectiontherapy.com/>
- Share stories of "gritty" people
- Ask "what's the hard part" when learners are struggling and then follow this up with "what can you do to overcome the "hard part"
- Reframe setbacks - *"This situation isn't ideal, but I can resolve it quickly with minimal consequences."*

### Books related to the concepts in the workshop

- Dweck CS. Mindset: The new psychology of success. Random House, Inc.; 2007.
- Duckworth A, Duckworth A. Grit: The power of passion and perseverance. New York, NY: Scribner; 2016.
- Brown B. Dare to Lead: Brave Work. Tough Conversations. Whole Hearts. Random House; 2018.
- Stone D, Heen S. Thanks for the feedback: The science and art of receiving feedback well. Penguin; 2015.
- Lynn A, Lynn J. The Emotional Intelligence Activity Kit: 50 Easy and Effective Exercises for Building EQ. Amacom; 2015.