

Benefits of Growth Mindset

Desire for learning

Students with a growth mindset understand that learning is *how* you grow your intelligence. They care more about learning than about *looking* smart. This means that growth mindset students:

- Raise their hands more
- Ask more questions
- Seek out challenges that allow them to learn something new

Motivation

Fixed mindset students believe that if you are smart, you shouldn't have to try. Growth mindset students understand that effort is how you *become* smart. Growth mindset students:

- Study more
- Put in the extra effort required to succeed
- Value learning the right way over the easy way

Resilience

When fixed mindset students encounter a challenge or setback, they give up. They conclude that they must not be smart at that thing. Growth mindset students view challenges and setbacks as opportunities — they have identified an area for growth. They respond to setbacks by:

- Spending more time on difficult schoolwork
- Trying new strategies
- Seeking help from other students or the teacher

Higher Achievement

Given that growth mindset students value learning, effort, and challenge, it is not surprising that they do better in school. When students are taught a growth mindset, they:

- Earn higher grades

Checklist of Growth Mindset Teaching Practices

(adapted from Sun, 2015)

Avoid Sorting Students

Sorting students into ability groupings (high performers together, and low performers together) can reinforce a fixed mindset and signal to students that you have different expectations of students based on their past performance.. Instead, try to:

- ☐ Used mixed ability grouping
- ☐ Emphasize high expectations for all students
- ☐ Avoid use of “person labels” such as “smart,” or being a “math person”
- ☐ Acknowledge different students publicly for excellence (much easier when focus is on learning strategies and process rather than summative performance)

Set Growth Mindset Norm

Teaching students about the malleability of the brain helps them understand the scientific evidence for why it is true that we can all grow our abilities. It is especially important to:

- ☐ Teach students that our brains gets stronger when we're challenged
- ☐ Emphasize the goal of learning above (but not necessarily to the exclusion of) specific outcomes
- ☐ Create environments where Intellectual struggle is embraced
- ☐ Create opportunities to celebrate and publicly introspect about mistakes

Feedback & Assessment

Opportunities to receive performance feedback are an essential part of improving our abilities and reinforcing a growth mindset. Try to Incorporate these strategies:

- ☐ Provide praise that focuses on the process rather than correctness or speed
- ☐ Ensure praise for trying hard (effort praise) is authentic and warranted. If the student didn't try hard, they may conclude their success is due to innate ability
- ☐ When students are struggling, affirm high standards and provide reassurance that you believe in their ability to succeed
- ☐ Provide descriptive feedback that focuses students on improvement opportunities
- ☐ Structure assignments so that revisions are allowed (or required) (e.g., 1st draft of essay is not graded)
- ☐ Encourage help-seeking and collaboration, but not as a shortcut around struggle

See There's No Limit: Mathematics Teaching for a Growth Mindset Summary for a summary of the research used to create this checklist.

References

Sun, K.L. (2015). *There's no limit: Mathematics teaching for a growth mindset* (Unpublished doctoral dissertation). Stanford University, Stanford, CA.

Feedback for Growth Strategies

Praise

Praising the process helps students link their hard work, effective practice, and good strategies to their success, and to see that learning is a process. If you help students understand that their actions lead to success, they'll be more resilient when they encounter setbacks or failure. By contrast, praising ability sends the message that "natural talent" is what leads to success. When a student encounters a setback later, they are more likely to give up because they may come to believe that a setback is a sign of low ability. Keep in mind that praise is most effective when it is authentic and used in moderation.

Try to say:	Try NOT to say:
Good job! I can see how hard you worked on that.	Good job! You must be smart at this!
I know you've been using the new study strategies we discussed and your improvement shows they're really working for you.	See, you <i>are</i> good at English. You got an A on your last test.
I like the way you tried all kinds of strategies on that math problem until you finally got it.	You got it! I told you that you were smart.
It looks like trying a new strategy really paid off.	See, I told you there was hidden talent in you.
I love the way you stayed at your desk, you kept your concentration, and you kept on working. That's great!	You are such a good student!

Encouragement and Normalizing Struggle

When students are working on something challenging, they need to understand why hard work matters; that we learn best when we're stretching ourselves and that mistakes are normal when we're learning new things. These phrases give students a mechanism for understanding *how* people become intelligent.

Try to say:	Try not to say:
Some of these problems are hard so remember, when you have to think harder, it makes you smarter!	Some of these problems are hard. Just do your best (can signal low expectations for success).

Feedback for Growth Strategies

You've made some mistakes, but when you think hard and learn from them, you are actually growing your brain.	You've made a lot of mistakes on this (lack of scaffolding to seeing mistakes as helpful).
Nobody starts out an expert. You become an expert by learning from your mistakes. Tell yourself... "I'm not good at this YET"	Just try harder next time (can signal low expectations for success).

Critical Feedback

Providing wise critical feedback helps students trust your motives, feel more confident in their capacity to improve, and understand what specific steps they can take to improve.

Try to say:	Try to not to say:
This sentence does not support your thesis because...	This paragraph is not organized well (low specificity).
I see you subtracted X from both sides correctly, but then you forgot to...	That's not the right answer (no guidance on why).
I'm giving you this feedback on your assignment because I have high expectations, and I know that you can reach them (building trust in your motives).	You didn't get the goal of this assignment at all (criticism without any guidance on how to improve).
Great, you've mastered _____ skill. Now you can start working on _____ skill (concrete next steps for improvement).	You've got a basic understanding of _____, but that's not enough to pass this class (global criticism of ability).
You can always come see me if you have questions or need help (providing support when needed).	You may not good at chemistry, but you're a great writer (unrelated praise to buffer criticism of ability).
Can you explain how you got this answer? If their answer is correct, draw attention to their process that got them there. If it's not correct, help them see where they went wrong (clarify processes).	That's right. OR That's wrong (no focus on why they are right or wrong).

For more free resources and suggestions, visit the Mindset Kit at www.mindsetkit.org

Growth / Fixed Mindset Continuum Activity

Time: (20 - 60 min)

Purpose - To help participants understand we all have both fixed and growth mindsets about different abilities/traits/skills. This activity can help people explore their own beliefs and hear from others about why they believe what they do.

Materials - Wide masking tape

Facilitation Tips - This activity can be done in a shorter amount of time by shortening the list or by not having the discussion after each round. Be prepared to encounter and discuss the confusion many people have between genetic predisposition and the malleability of traits. Help participants understand that the two are not mutually exclusive. If/when it comes up, you can give examples like the swimmer Michael Phelps, who is well known for having the ideal body for swimming (there was a short segment during the Olympics explaining his "perfect proportions"), but that another swimmer, Katie Ledecky, who is breaking many records actually is noted for not having the "ideal body." Her success is due to being incredibly passionate about the sport and relentless in learning how to improve. Obviously, Michael Phelps has body mechanics in his favor, but genetics alone is not what determines success.

NOTE: This activity is framed for use with teachers, but it could also be used with students.

Steps:

1. **Set up** (2 min) - Make a line with the masking tape on floor that is long enough to allow participants to all stand comfortably along the line at the same time. You can either explain verbally or put a sign on one end with "Not at all malleable" and on the other, "Very malleable," and in the middle "Somewhat malleable." Typically, "Not at all malleable" would be on the left when facing the line.
2. **Introduce the activity** (2 min) - Ask participants to gather in front of the line and explain that you will be asking them a series of questions. After each one, they are to place themselves along the continuum based on their answer. Explain that there are no right or wrong answers; the goal is to explore your own beliefs and to see how others think about these traits/abilities. Emphasize that there should be no commenting about other's position unless invited to do so.
3. **Begin rounds** (2-6 min Per round depending on how much time you allow for discussion and how many rounds you do).
 - o Ask participants, "How malleable do you think _____ is?" (alternate framing: "Do you think _____ is something that can be improved?")
 - Begin with a practice round or two using things that might be fun/silly. For example, height or hair color - your natural hair color can't be changed, but you can change it with dye.

- Pick as many of the items that you have time for from the list below, or add your own. The items in bold are ones that tend to evoke the widest range of responses.
 - **Creativity**
 - **Artistic ability (i.e. drawing or painting)**
 - **Math**
 - **Singing**
 - **Intelligence**
 - **Grammar / writing**
 - **Sports/athleticism (often people think of this as very malleable which can provide a good contrast)**
 - **Extraversion/shyness**
 - **Ability to control impulsivity (or to stay focused)**
 - **Empathy - ability to think about others' feelings**
 - **Ability to pay attention and stay focused**
 - **Rebelliousness**
 - **Emotionality (ability to regulate/manage ones emotions)**
- After each question, you can ask a few participants - maybe one on either end, and one in the middle of the line - to talk about why they placed themselves there. Be sure to ask different people to share each time.
- After each person shares, ask if anyone would like to change their position after hearing their explanations.

4. **Debrief and reflect (10 min)** - Have participants sit or stand in a circle and ask them:
- Were there any ah-ha moments or surprises for you?
 - What worked about this activity? What didn't?
 - Do you think you would use this activity with your students? Why or why not?

Writing Your Growth Mindset Story

Sharing a personal story with students about how having a growth mindset helped you accomplish something challenging can be a powerful way to model what having a growth mindset means. It's important to make sure the story emphasizes all the key elements of what having a growth mindset involves like working hard, trying new strategies, seeking help, and learning from mistakes. This activity is intended to help you identify and refine a story from your own life that you could share with your students. Take a few minutes now to recall a time when you were struggling to overcome a challenge or when you decided to learn something new that was hard for you. **Respond to the prompts below:**

Describe the challenge you were facing or the new skill/knowledge you wanted to learn.

Why did you want to take on this challenge? What motivated you?

Did you have any moments of feeling discouraged? Did you have a negative voice telling you to give up at any point? If so, what helped you persevere?

Did you make any mistakes along the way? What did you learn as a result?

What strategies were most helpful? How did you figure out what strategies to use?

Where there others who helped you or cheered you on? What did they do? How did it help?

Did your success help others in any way? How?



Mistakes Reflection Activity

Instructions:

Think about a mistake you made in the last couple weeks, preferably one that is not too emotionally charged. It could be anything – a mistake you made while learning something new, maybe you misunderstood the instructions for a task at work and did it incorrectly, or maybe a social faux pas where you said something you wish you hadn't, or you snapped at someone and regretted it later.

STEP 1

Respond to the prompts in the boxes below. NOTE: This is only for you - you will not have to share this with anyone unless you want to.

What happened?

What were the consequences?-

Did you have the opportunity to correct the mistake? If so, how did it go and how did it make you feel?

Mistakes Reflection Activity

STEP 2

In this column, write what you remember saying to yourself about the mistake. Think about what you said both immediately afterwards and later on. Try to be as honest as possible and give as many phrases as you can recall or that you might say in a similar situation.	Is there a way you would like to reframe any of your self-talk to be more tolerant of your mistake and to reflect a growth mindset? Use this column to reframe relevant statements.

