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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 the 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 *There's no limit: Mathematics teaching for a growth mindset* (Unpublished doctoral dissertation).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.

Handout - Seven Common Growth Mindset Scenarios and Responses

As a mentor, you will encounter multiple situations where you can encourage and reinforce a growth mindset. But even if you understand the concepts of growth mindset, it may not always be clear what to say when confronted with a student who is struggling to persevere or who is shying away from challenges. This tip sheet illustrates some of the messages you can deliver about mindset in response to common situations you may face as a mentor.

Situation 1: Faced with a new learning challenge
 	
Underlying principles:
• Challenges are exciting, not just overwhelming.
• Effort is important: you'll get out of this what you put into it.
• Having a strategy is vital.
  ○ Divide the learning into pieces that can be taken as chunks and defining them
  ○ Set up opportunities for there to be small wins that lead to the completion of the larger learning goal
• It's OK to ask for help. A little struggle is a sign we are stretching and leaving our comfort zone. But after a while, it's OK to get help or hear new strategies.
	Some potential responses:
	
	• Let's identify a target for today that will get you closer to completing the learning challenge? After you complete the day's target, what might tomorrow's target be?
	• This is a great challenge! Your brain is going to get stronger as you work through the challenge.
	• Let's take one step at a time that way we can see where we might need to focus more attention and time.
	• This looks like pretty demanding stuff. What would a focused first try look like?
	• I am here to help you learn how to …
	• Let's come up with a strategy.
	• Describe this challenge in your own words. Share anything that might be really confusing.
	• This may be difficult now, but might be a lesson you remember for the rest of your life.
	• I have seen you learn challenging things in the past. For example, last _____ [week/month] I saw you…
	• This is challenging! What do you think are some strategies you could try?

Situation 2: Expressing high expectations *Underlying principles*: • The research is clear, setting high expectations tells kids the adults they care about believe in them • Unrealistically high expectations without support; however, are a different matter	**Some potential responses:** • Let's think through this to determine what you know and where you might need support. • Let's discuss some strategies for tackling this. • What do you already know about this? • When you learn this/do this/ succeed at this, you can be proud because it isn't easy.

	• This looks like one of those opportunities to stretch/to reach higher. • This is a challenge that could produce some great mistakes that will really help you learn.
Situation 3: Succeeding easily without effort *Underlying principle:* • Having it be too easy is counterproductive • Acknowledging the lack of challenge and determining the appropriate level of challenge is important	**Some potential responses:** • You finished that quickly. Let's find something a little more challenging. • That seems a little easy for you. How can you make it a stretch enough to build your brain? • I am sorry this was not challenging for you. Your skills didn't seem taxed. Is that true? • What can you do to make this [more meaningful, challenging, exciting]? • How can you add another level to this to challenge you even more? • Do you already know how to do this? Let's come up with something more challenging if you already know how to do what was presented.
Situation 4: Slow progress despite strong effort *Underlying principle:* • Effort is the key to success • Identify supports to help foster a sense of success and accomplishment • Analyze the strategies being used and see if they can be improved (see below)	**Some potential responses:** • I see that you tried that five times. I admire your persistence. It will pay off. • Let's review all of your attempts to determine the best course of action. • Remind yourself that you just can't do it "YET." Let's think through some next steps to take. • Let's walk through the problem/assignment/issue/task, perhaps you need a little more information or guidance to get to the next step. • If it were easy, you wouldn't be learning enough. • What progress did you make? What was different? • I expect you to make mistakes. Mistakes are the signals of opportunities for learning - what did you notice in the mistakes you made? Is there anything in the mistakes that will identify where you might need additional guidance or support? • Does it make sense to stop now and come back to it later? • Let's talk about how you've been approaching the problem/assignment/

	issue/task. Maybe one of your strategies could be improved.
Situation 5: Offering help with strategies when struggling *Underlying principle:* • When challenge because difficult and your mentee wants to give up, support him or her by identifying strategies that will support persistence and resilience	**Some potential responses:** • Okay, let's think about how to approach this differently? • Would you like to try _____ [different strategy]? • Let's try it together. Let's do it a few more times to get the synapses strong - get that learning into long-term memory. • What was difficult? Let's focus on the difficulties to see if we can figure it out. • Who else can you ask for help? • Let's put a plan together for the next ____ [days, weeks]. • Let's go through it together and find the mistakes. • What was your approach? Where do you think you might be struggling the most? • Let's de-stress, so your brain can relax and process better [square-breathing, changing the physical location in which the work was being done, etc.] • Does it make sense to stop now and come back to it later?
Situation 6: During progress *Underlying principle:* • As your mentee begins to make progress toward a goal or an important task, it's important to praise the process in order to build persistence	**Some potential responses:** • Show me how you arrived at your present conclusion? • Starting to come along nicely - your strategy is working! • It seems like the problem/task/concept is at a right level; you've been working on it for a while. Good job! • I see you are using your notes. What other strategies have you used or could you use to continue to make progress? • I can see a difference in now compared to _____ from last week/yesterday. What has changed? Talk me through what happened.
Situation 7: Succeeding with strong effort *Underlying principle:* • It is important to acknowledge the effort once a new challenge is overcome and complete	**Some potential responses:** • What was it like for you when you started work on _____? • Look how different it is for you to do that now. • Did all that hard work pay off?

• When mentees understand that they have strategies in their toolbox for tackling big challenges, they will be able to use specific tools for specific challenges	• What do you think contributed to you success in _____? • I saw you use a variety of techniques; way to go! • This had that one brilliant mistake. Let's talk about what you learned from that mistake. • Did you compromise on anything to get this done? • The next time you have a challenge this big, what can you use from this experience. • Congratulations for trying again and again to get this done. • How would you compare this to other accomplishments?

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Reframing for a Growth Mindset

How would you transform the statements below to promote a growth mindset?

NOTE: Keep in mind that it's natural to say neutral things like "you got it!" or "nice!" These phrases are neutral because they don't identify an action or a stable trait. Saying "good catch," on the other hand, would be considered process praise because the praise is linked to an action: catching. Saying "Nice! You're a natural," suggests their ability is a stable trait so this is not process praise.

Instead of...	**I would say...**	**Why would this be better?**
Good job! You must be smart at this!	Good job! You must have tried hard.	Praising ability implies that "natural talent" is what leads to success. When a student encounters a setback later, they will be more likely to give up because they believe a setback is a sign of inability. Praising the process implies that hard work is what leads to success.
Some of these problems are hard. Just do your best	Some of these problems are hard. Try them even if you think you'll get them wrong because mistakes are what help you learn. When you think hard on difficult problems, that's when you learn the most!	Just telling students to try hard doesn't help them understand **why** they should try hard. This reframe helps explain the mechanism - that being challenged and making mistakes is what will help them become more grow their ability.
This seems too hard for you. Maybe you should work on an easier problem.		
He's a natural at math.		

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Reframing for a Growth Mindset

Instead of...	I would say...	Why would this be better?
I'm so proud of you for getting an A!		
You are such a good writer.		
You don't know how to do fractions, do you?		
Please revise this.		
This isn't really your strongest subject, is it?		
You made a lot of mistakes on these problems.		