Engage and Motivate Students

Supporting a Growth Mindset

(Blue text is for our reference only)

Title: Supporting a Growth Mindset to Increase Student Engagement and Motivation

[include consent language and gating for 18 or older here]

Description:

You may have heard that a student isn't succeeding because they don't have a 'growth mindset.' Learn what that means and how you can use it to keep students motivated.

Learning Objectives:
Upon completion of this module, you will be able to:

- Explain how to effectively respond to a student to increase motivation
- Identify students displaying a fixed or growth mindset.
- Apply strategies by responding to students in a way that supports a growth mindset.

Tutor's Experience Level:
How would you describe your tutoring experience and skills?
Beginner tutor- 1 (no experience)
Expert tutor- 5

Scenario 1:
Before we get started, please answer the following questions to help assess your existing knowledge.

One of your students, a 5th grader named Juan, sometimes struggles to learn math particularly with understanding multi-step problems. When he doesn't get the answer correct the first time he often wants to quit. You are Juan's tutor and recently witnessed him get a problem correct after trying several strategies and making many attempts.
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[Predict - Open Response, asking them to predict what is the recommended tutor/coach response in this situation]

1. What exactly would you say to Juan to increase his motivation to complete his math work and increase his engagement to learn?

[Predict - MCQ]

2. Which of the following strategies below do you think would best support and increase Juan's motivation to complete his math work and improve engagement in learning?

I would say to the student:

A. "Juan, you got the problem correct. Good for you! I always knew you could do it."
B. "Juan, you usually struggle with multi-step problems. You did a great job getting the answer correct."
C. **"Juan, I like how you tried several different strategies and made many attempts. You did a great job maintaining effort!**"
D. "Juan, you are the smartest student I know! You got the problem correct when other students could not complete it.

[Explain- Open]

3. Why do you think the approach you selected in the previous question will best support and increase Juan's motivation to learn and his engagement to persevere in solving math problems?

[Explain- MCQ)

4. Which of the following statements aligns with the rationale you chose and explained in the previous two questions.

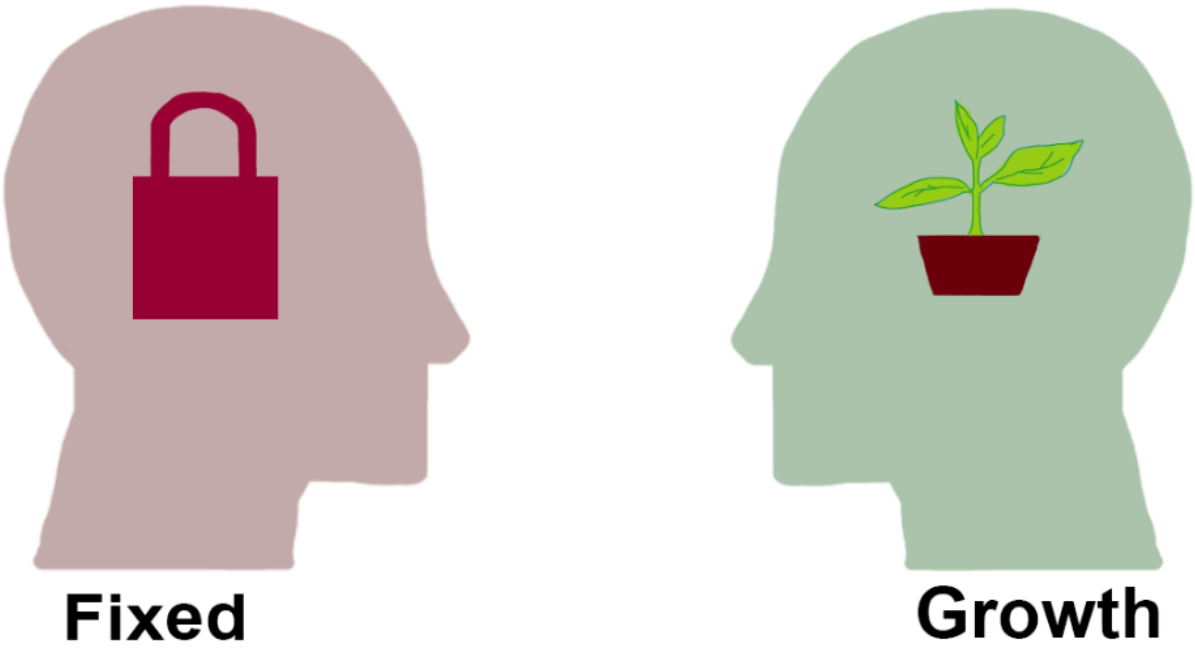
A. When you praise a student for getting a problem correct they feel a boost of self-confidence. This propels them to keep working and solving math problems.
B. When you compare a student's performance to other students and point out their achievements over others, you are making them recognize their talents. This increases student engagement and motivation.
C. When you praise a student for putting forth effort and persevering in solving math problems you are motivating students to work harder.
D. When you praise a student for putting forth effort, regardless of if they got the problem correct, you are allowing them to fail. Subsequently, students will not care if they got the problem correct or not.

[Observe] - (Give desired, recommended response, according to research with explanation)

Studies show students perform better and learn more when they are praised for putting in effort and not for merely getting the problems correct (Dweck, 2008). For this reason on (2), Option C is the most desired response or correct answer:

> "Juan, I like how you tried several different strategies and made many attempts. You did a great job maintaining effort!"

The above strategy provides consistent encouragement for putting forth effort regardless of if he got the problem correct. Praise is a powerful strategy to get students motivated to learn and fosters a *growth mindset*. Students with a growth mindset believe that they can learn more and become smarter if they work hard and persevere. However, when praise is focused only on getting the correct answer it contributes to a *fixed mindset. S*tudents displaying a fixed mindset believe their intelligence is static and cannot be improved upon by hard work and perseverance (Dweck, 2008).



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https://upload.wikimedia.org/wikipedia/commons/c/c7/Fixed_versus_growth_mindset.png

Commending students for putting forth effort is more effective than *praising for intelligence*, or simply getting the problem correct. When you *praise for intelligence* it gives students a short burst of pride but makes students fearful of getting answers wrong, less willing to work hard, and less confident in their learning. When you *praise for effort*, regardless of if students got the problem correct or not, you are reinforcing the process which fosters motivation, increases effort, and greater self-confidence (Dweck, 2008).

[Explain- Open]
5. In your own words, please explain why it is important to praise students for their effort and not for simply getting the problem correct, or praising for intelligence?

Expert tutors and research suggest instruction and language used with students can be altered to foster a growth mindset and change the way students perceive the learning process. Here are examples of how tutors can alter their language from a fixed mindset to a growth mindset:

Fixed Mindset Statements	Growth Mindset Statements
"It's OK if you're having trouble. Maybe algebra isn't one of your strengths."	"When you learn how to do a new kind of problem, it develops your math brain."

“Great effort. You tried as hard as you could.”	“The goal isn’t to get it right immediately. The goal is to improve your understanding step by step. What can you try next?”
“You may not be talented in math but you tried. Good for you.”	“That feeling you’re experiencing of algebra being hard is the feeling of your brain developing and improving.”

These examples stress the importance of embracing challenges and valuing the learning process. They also focus on *praising for effort*, a key ingredient in supporting a growth mindset (Dweck, 2008).

6. How much do you agree or disagree with the expert belief with the expert belief of supporting a growth mindset in students?

Strongly disagree-1
Somewhat disagree-2
No opinion-3
Somewhat agree-4
Strongly agree-5

7. Explain why you agree or disagree.

[Explain- Multiple Choice]
8. Below is a fixed mindset statement:

> “Yanni, your answer to the math problem is good enough. I know you don’t like math so I won’t challenge you. Let’s move onto another problem.”

Which of the following statements uses the recommended growth mindset strategy compared to the fixed mindset statement above:

a. “Yanni, I know math is hard for you. Let’s get through this so you pass the class. I want you to do well.”
b. “Yanni, your answer is almost correct. That is good enough for now. Let's move on so you don’t get overwhelmed.”
c. **“Yanni, I love how hard you are working on this math problem. Tell me how you got the answer and we can work it out together.”**
d. “Yanni, for a student who is not good at math you almost got the problem correct. Good for you!

Research Recommendation
Studies show that commending students for putting forth effort is more effective than praising for getting answers correct. When you praise students for their effort, regardless of if they got the problem correct or not, you are increasing their motivation to learn and fostering a growth mindset. Therefore, the correct answer to (8) is C:

> "Yanni, I love how hard you are working on this math problem. Tell me how you got the answer and we can work it out together."

Scenario 2:

One of your students, Imani, is naturally very strong at learning math and sometimes refers to herself as a "math person." She often gets problems correct without putting forth much effort and easily achieves her goals without trying very hard. She recently got all math problems correct on her homework without trying. Because she is completing her work quickly and with ease, she seems bored and unengaged.

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[Predict- Open Response]
9. What exactly would you say to Imani to increase her motivation to learn math and increase engagement?

[Predict- MCQ]
10. Which of the following strategies below do you think would best support and increase Imani's motivation to complete her math work and increase her motivation to learn?

I would say to the student:

A. "Imani, those problems must be too easy for you. Let's try some more challenging problems that can make you even stronger at math."
B. "Imani, you did such a great job. As a reward, you can have free time to play a game or work on other assignments. You deserve it!"
C. "Imani, you are naturally smart and get everything correct. You are very talented. Great job!"
D. "Imani, you are the smartest student I know. I wish all my students were as intelligent as you. You don't even have to work hard as you are a natural!"

[Explain-ORQ]
11. Why do you think the approach you selected will best support and increase Imani's motivation to learn and her engagement to persevere in solving math problems?

[Explain- MCQ]
12. Which of the following statements aligns with the rationale you chose and explained in the previous two questions?
A. Coaches need to praise students for working hard and putting effort into their work. However, if you encourage students when they get a problem incorrect they will not care if they got the problem correct or not.
B. Students get a boost of confidence when you tell them they are smarter or more skilled than their peers. This increases their motivation and engagement to learn.
C. When you praise a student for getting the problem correct, you are increasing their self-confidence. This encourages students to continue working on math problems.
D. When you encourage a student to work hard on math problems and praise them for putting forth effort you are motivating them to continue working hard.

Conclusion
Experts believe that the best approach is:

> "Imani, those problems must be too easy for you. Let's try some more challenging problems that can make you even stronger at math."

This approach supports a growth mindset by seeing hard work and effort as a path to mastery and success. Using feedback strategies that foster a growth mindset will increase motivation

and engagement.

Feedback

Indicate how much you agree or disagree with the following statements:

This module helped me identify a fixed or growth mindset in students.
Strongly disagree-1
Somewhat disagree-2
No opinion-3
Somewhat agree-4
Strongly agree-5

This module helped me respond to students in a way that supports a growth mindset.
Strongly disagree-1
Somewhat disagree-2
No opinion-3
Somewhat agree-4
Strongly agree-5

This module was valuable.
Strongly disagree-1
Somewhat disagree-2
No opinion-3
Somewhat agree-4
Strongly agree-5

I can apply what I learned from this module to my mentoring with students.
Strongly disagree-1
Somewhat disagree-2
No opinion-3
Somewhat agree-4
Strongly agree-5

Please provide any feedback or comments related to this training module.

For more information regarding how to support a growth mindset, check out the resources below:

Why Do Mindsets Matter?
What's My Mindset? Survey

References:

AJ Tutoring. (2022). How to Give Effective Praise. Retrieved from https://www.ajtutoring.com/blog/effective-praise/

Dweck, C. S. (2008). *Mindset: The new psychology of success.* Random House.