

# Fostering A Growth Mindset

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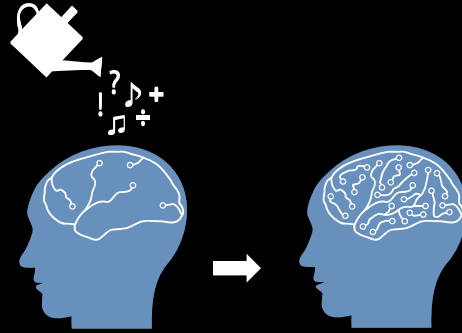
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Mathematics Leadership Summit 2016

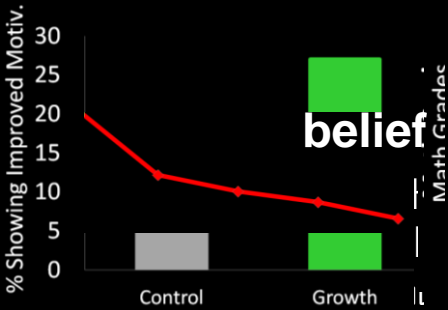




fixed mindset



growth mindset



exercise. And when you stop exercising, the muscles shrink and you get weaker. That's why people say "Use it or lose it!"

Inside the cortex of the brain are billions of tiny nerve cells, called

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**FIXED MINDSET**



**GROWTH MINDSET**

*do I look smart?*

*effort is for the incapable*

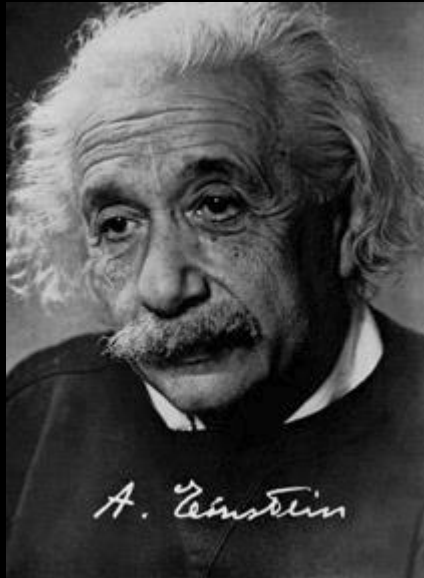
*I'm no longer interested*

*how can I learn?*

*effort makes me smarter*

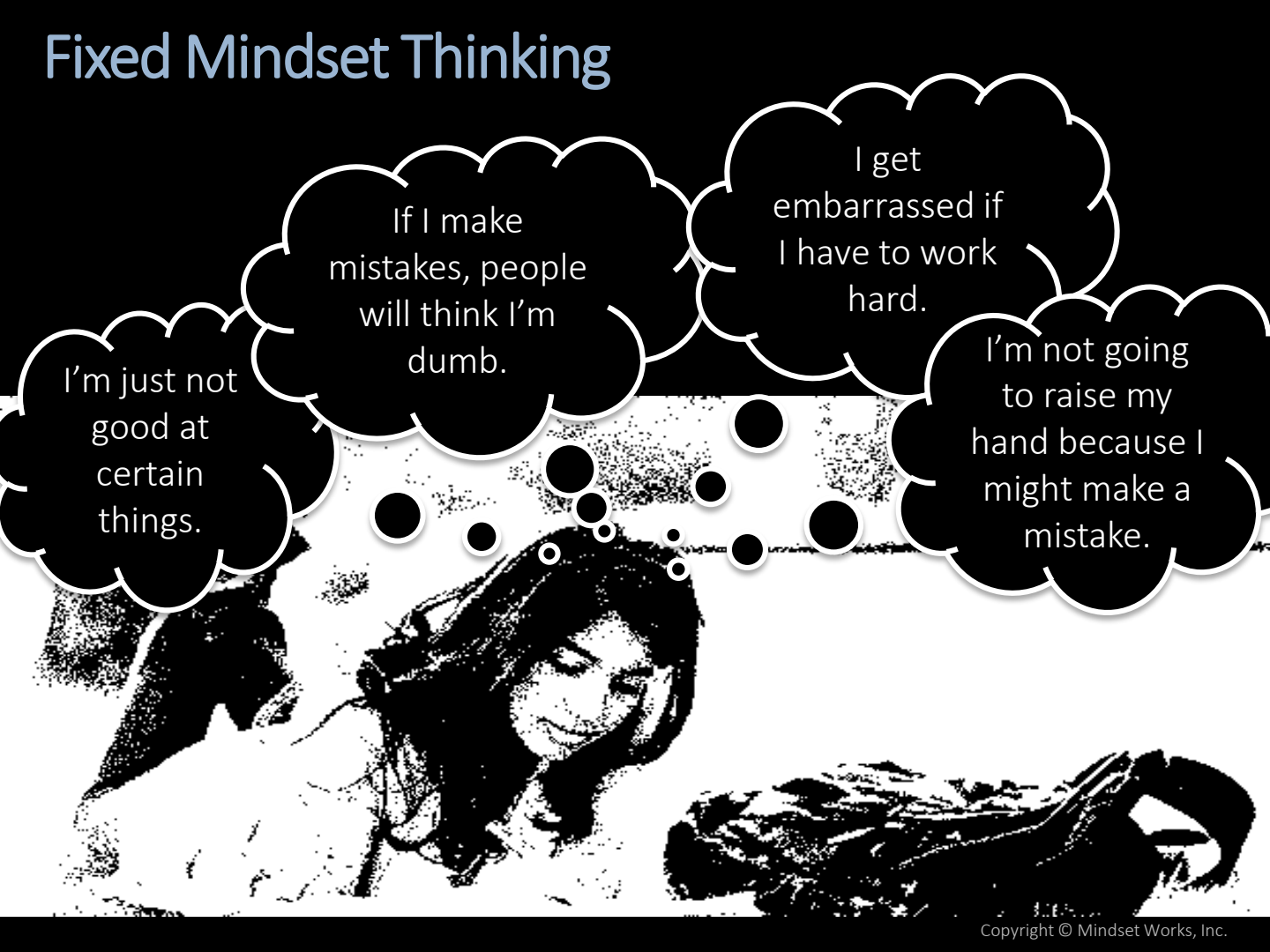
*I will persevere*

# Example Growth Mindset in Action



*“It’s not that I’m so smart,  
it’s just that I stay with the problem longer.”*

# Fixed Mindset Thinking



I'm just not good at certain things.

If I make mistakes, people will think I'm dumb.

I get embarrassed if I have to work hard.

I'm not going to raise my hand because I might make a mistake.

# Growth Mindset Thinking

I can learn new things if I work hard, get help, and don't give up.

I want to learn new things, even if I'm not perfect at the beginning.

I worked hard for that; I'm proud of it!

Bummer, that hurts. But what can I learn from this?

In your own words,  
what does growth mindset mean?

# Student Response to Challenge



Elsie took an honors class and it was harder than she thought.

Abilities are fixed



I'm in way over my head. I'm incapable. I don't belong in here.

*Or*

This was not my fault, "name" shouldn't have put me in here.

*Or*

There's no point in learning this anyway.

Abilities are malleable



Where am I going wrong?

What do other kids know that I don't yet?

What can I learn from my peers and how do I use what I learned to improve?

# How do you feel

## When you make mistakes?

When I make mistakes I feel embarrassed - elisten

When I make mistakes I feel embarrassed because you do know what your doing

When I make mistakes it makes me feel dumb

When I make mistakes I feel embarrassed

When I make mistakes I feel angry

When I make a mistake it makes me feel like I did a bad thing

When I make a mistake I get ~~so~~ nervous.

When I make a ~~mistake~~ mistake I get mad!!!!!!!!!!!!!!

When I make a mistake its ok because next time ill try harder.

I feel ~~like~~ like I want to get that mistake

I feel like I want to go hide in my room!!!!!!!!!!

that I didn't study enough I feel ~~embarrassed~~

When I make a mistake I feel like I ~~feel~~

I feel good and learn from mistake

I feel really embarrassed sometimes when I make a mistake I feel ~~scared~~ scared

When I make a mistake I feel mad and upset and dumb

when I make a mistake I feel ~~embarrassed~~ I feel embarrassed

I that next I will try harder

# Fixed Mindset – What Triggers It?

# Trigger #1: Stepping Out Of Your Comfort Zone

Fixed Mindset

- Look smart at all costs

Growth Mindset

- Take on the challenge to learn

# Trigger #2: High Effort

Fixed Mindset

- It should come naturally

Growth Mindset

- Hard work is key to improve

# Trigger #3: Set Backs

Fixed Mindset

- I'm incapable or ashamed  
(or: It wasn't me)  
(hide mistakes and deficiencies)

Growth Mindset

- I can learn from this & overcome  
(confront mistakes and deficiencies)

# Trigger #4: Transitions

Fixed Mindset

- I must look smart  
(hide deficiencies)

Growth Mindset

- Others can help me learn  
(this group is focused on improvement)

**Relationships**

**Sports**

**College**

When has a fixed mindset about yourself held you back? What effect did it have on you?

**Child-rearing**

**Music**

**Math**

**Arts**

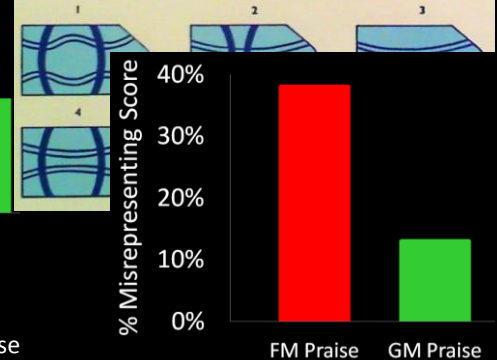
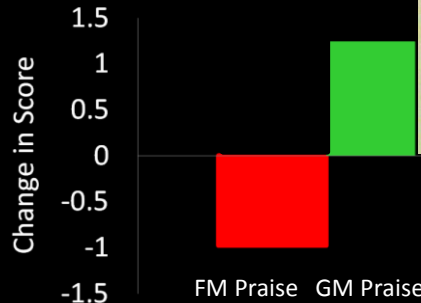
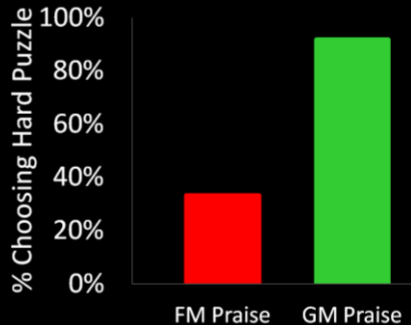
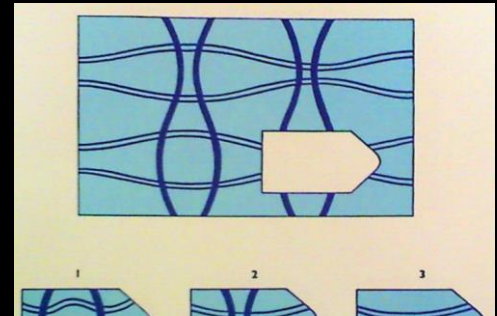
**Technology**



# How Mindsets Can Form

**“You must be smart at this”**

**“You must have tried really hard”**



**“If we win because we are a winner  
then when we lose  
it must make us a loser.”**

**- Josh Waitzkin**

Mueller, C. M. & Dweck, C. S. (1998). Intelligence praise can undermine motivation and performance. *Journal of Personality and Social Psychology*, 75, 33-52.

General Encouragement

Growth Mindset Messages

- *If at first you don't succeed, try again!*
- *This might be a tough problem, but we know you can do it!*
- *Set your goals high, and don't stop until you get there!*



Not encouraging statements...

...opportunities to grow.

*“He’s a natural”*  
*“She’s so smart”*  
*“I’m just not a numbers pers*  
*“He’s a born leader”*  
*“She really struggles in this*  
*(and maybe can’t achieve)”*  
*“He’s such a talented speak*

#### Growth Mindset Feedback

*As students begin to work on their learning objectives, growth minded language guides and motivates them to ensure that they remain persistent, resilient, and focused on the process of learning. It is important to give learners feedback about their progress and their results so they can specifically see their growth.*

*Use these language frames when interacting with your students in the following situations.*

#### When they struggle despite strong effort

- OK, so you didn't do as well as you wanted to. Let's look at this as an opportunity to learn.
- What did you do to prepare for this? Is there anything you could do to prepare differently next time?
- You are not there/here yet.
- When you think you can't do it, remind yourself that you can't do it yet.
- I expect you to make some mistakes. It is the kinds of mistakes that you make along the way that tell me how to support you.
- Mistakes are welcome here!
- You might be struggling, but you are making progress. I can see your growth (in these places).
- Look at how much progress you made on this. Do you remember how much more challenging this was (yesterday/last week/last year).
- Of course it's tough—school is here to makes our brains stronger!
- If it were easy you wouldn't be learning anything!
- You can do it – it's tough, but you can; let's break it down into steps.
- Let's stop here and return tomorrow with a fresher brain.
- I admire your persistence and I appreciate your hard work. It will pay off.

#### When they struggle and need help with strategies

- Let's think about how to improve (the accuracy of) this section/paragraph/sentence/word choice/logic/description/problem/calculation.
- Let me add new information to help you solve this...
- Here are some strategies to figure this out.
- Describe your process for completing this task.
- Let's do one together, out loud.
- Let's practice (skill) so we can move it from our short-term to our long-term memory.
- Just try – we can always fix mistakes once I see where you are getting held up.
- Let me explain in another way with different words.
- What parts were difficult for you? Let's look at them.
- Let's ask ----- for advice—s/he may be able to explain/suggest some ideas/recommend some strategies.
- Let's write a plan for practicing and/or learning.
- If you make \_\_\_\_\_ changes, we can reassess your score. Let's discuss a plan for you.

# What does smart mean?

# Fostering Growth Mindsets

# Powerful Drivers of a Growth Mindset

- 1 I understand that abilities XYZ can be developed.
- 2 I know effective ways to develop those abilities.
- 3 I belong in this learning community.

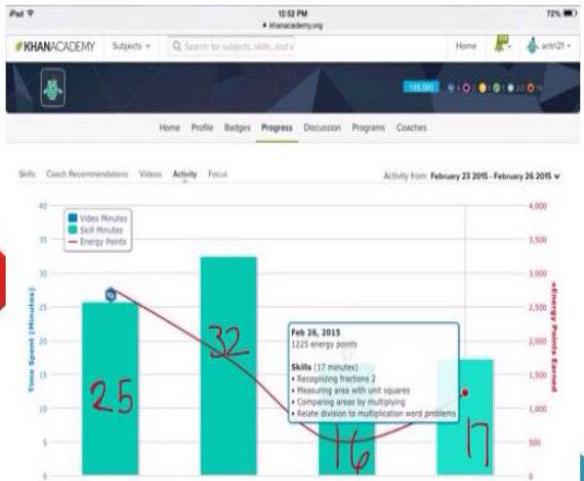
# NEURON NEST





EXPLAIN YOUR PLAN FOR COMPLETING 80 MINUTES THIS WEEK:

I don't care about the minutes anymore. I just do it for enjoyment and so it can help my neurons connect. And I did a many minutes as I could each day.



How many minutes is

and add them up.

Grade

Post

# Math

	Pretest	Mid-test	Post test
4.1 Base Ten	40%	84%	91%
4.2 word form standard form expanded form	49%	97%	94%
4.3 Rounding	0%	57%	72%
4.4 estimating addition subtraction	14%	65%	88%

We are free to  
make mistakes  
while learning.

*Welcome  
to  
Ms. Espino's  
class!*



"hope isn't  
a strategy,

but it is  
an awfully  
good tactic."

-Seth Godin

# Hope: Alternate ways to respond

Not Yet...

What's Next?

That's my  
favorite wrong  
answer.

Explain how  
you got "good  
at" that.

No, but thank  
you for playing.

How could it be  
EVEN better?

# Clarity

- Growth Mindset is NOT:
  - Encouraging one another
  - Seeing effort as good
  - Challenging oneself
  - Persevering, never giving up
  - Learning from mistakes
- Growth Mindset is: understanding we can develop our abilities



But What About...  
Students Who Won't Work Hard?

*Teach only  
behaviors &  
strategies*



*Mindset  
doesn't  
change*



*No impact  
on results*

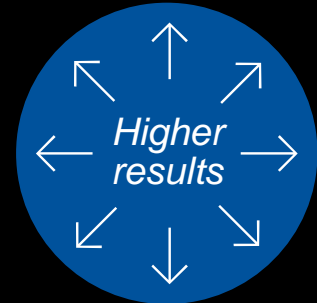
*Teach that  
the **brain or  
abilities are  
developed**  
(& behaviors/  
strategies)*



*Mindset  
changes*



*Higher  
results*





# Game

Everyone needs one partner.

Face each other with one person having his/her back to a wall.

# Effective Effort Rubric

a) Assess, give feedback on, & recognize effort

Mindset Works® EducatorKit - Module 2 Toolkit

## Effective Effort Rubric

This rubric assesses the learning process—the effective effort that a learner applies.

	Fixed	Mixed	Growth
<b>Taking on Challenges</b>	This learner will not take on challenges on his/her own. Challenges are to be avoided.	This learner might take on challenges when s/he has some previous experience with success in a related challenge.	This learner looks forward to the next challenge and has long range plans for new challenges.
<b>Learning from Mistakes</b>	The learner sees mistakes as failures, as proof that the task is beyond their reach. They may hide mistakes or lie about them.	The learner may see mistakes as failures, but lacks strategies to apply what they learned from the mistakes in order to succeed.	The learner sees mistakes as setbacks, something to be overcome. Learner reflects about what s/he learned and applies that learning when revisiting the task.
<b>Accepting Feedback and criticism</b>	The learner feels threatened by feedback and may avoid it all together. Criticism and constructive feedback are seen as a reason to quit.	The learner may be motivated feedback if it is not overly critical or threatening. Who is giving the feedback, the level of difficulty of the task, or their personal feelings might all be factors in his/her motivation.	The learner invites and is motivated by feedback and criticism. S/he applies new strategies as a result of feedback. The learner thinks of feedback as being a supportive element in the learning process.
<b>Practice and Applying Strategies</b>	The learner does not practice and may exert a great deal of effort avoiding practice.  The learner does not have any strategies for accomplishing the learning goals or tasks or might apply ineffective strategies.	The learner practices, but a major setback can derail him/her, causing the learner to quit. Learner is more willing to practice things s/he is already considered "good at."  The learner is open to being given a strategy to meet a challenge. They rarely apply their own strategies unless it is something they are already "good at."	The learner enjoys the process of practicing and sees it as part of the process of getting good at something. Learner may create his/her own practice or study plans.  The learner fluidly uses many strategies, thinks of some of his/her own strategies, and asks others about their strategies.
<b>Perseverance (focus on task)</b>	The learner has little to no stamina for learning goals and tasks. The learner gives up at the first sign of struggle.	The learner may persevere with prompting and support. Unless the learner is provided strategies for overcoming obstacles, s/he will stop or give up.	The learner "sticks to it" and has stamina for the task(s). This learner keeps working confidently until the task is complete.
<b>Asking Questions</b>	The learner does not ask questions or does not know which questions to ask, but can usually say they don't "get it" if prompted.	The learner might ask questions about a portion of the task that they feel they can do. If s/he perceives it to be out of their ability, s/he probably won't ask questions.	The learner asks specific questions, asks questions about their own thinking, and challenges the text, the task, and the teacher.
<b>Taking Risks</b>	The learner does not take risks, turns in blank work or copied work, if anything at all. The learner is not engaged in the process/task.	The learner will take risks if the task is already fairly familiar to him/her. If not, the learner will resort to copying or turning in partially completed work.	The learner begins tasks confidently, risks making errors, and openly shares the work s/he produces.

Mindset Works® EducatorKit

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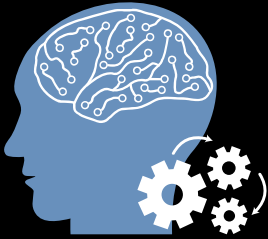
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*You have to want to  
do the work*

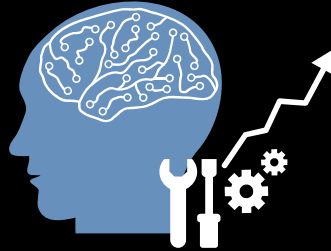
*"Life isn't about finding yourself.  
Life is about creating yourself."*

*You have to believe  
you are worth it.*

# Experience Change



**how does my  
brain change?**



**how do I grow?**



**what am I saying  
& doing?**

# But What About...

## Performance vs. Learning

# Learning Zone vs. Performance Zone

Goal:  
Improve and learn



Photo credit: Fernando Messimo

Goal:  
Perform



Photo credit: Derek Key

## Reflection



If there are “points” on the line every  
time I write on paper and walk in the  
door, that is not a learning  
classroom.  
**No Points for Practice.**  
It’s a performance classroom.  
Every day.

# Target the Learning Zone

*The path to **highest performance** is **highest improvement***

***Traditional grading practices** discourage students who most need to improve.*

***Highest improvement** is achieved in the **Learning Zone***

***Growth mindset practices** help students stay in the **Learning Zone**.*



# MindsetMaker™

## Grading For Growth

by Lisa S. Blackwell

<http://bit.ly/1qSzLoJ>

Mindset Works Professional Development: Assessment Practices

### Grading for Growth in a High-Stakes World



By Lisa Blackwell, Ph.D. Vice President, Mindset Works

Last month, I wrote about creating a risk-tolerant classroom environment as a way to empower students to seek challenge and risk mistakes—core principles of a growth mindset. But how can a classroom be risk-tolerant when there are tests and grades at every turn?

Recently, I gave a workshop in an elementary school district full of creative and dedicated educators. These teachers thought their kids were wonderful, and they wanted nothing more than to simply nurture their enthusiasm, creativity, and growth. But the students (and their parents) were full of anxiety about grades and state tests.

It's no easier for the teachers. Assessment and grading are among the most complex and controversial areas of teaching, because they're expected to do so many different things: motivate students to do their work; measure progress towards learning goals; identify and promote talent and merit; and hold schools and, increasingly, individual teachers, accountable. Many educators are struggling with these competing priorities, and wonder how they can foster a growth mindset at the same time.

I certainly don't have all the answers! But my colleagues and I have learned some valuable lessons from our research and work with students and teachers.

#### *Tips on grading for a growth mindset*

In the world of the fixed-mindset student, grades measure how smart you are or how much potential you have in the subject at hand. The growth mindset alternative is to view grades as formative feedback that tells you how well you have met learning goals, and whether you need to work harder or change your strategy. But few kids can do so on their own in a context where everyone else—even parents and teachers—are treating grades as an end in themselves, with significant consequences attached to them. They need our help to create a context where assessment is informative and motivating, not judgmental and scary.

Did you ever wonder why students will persist in playing video games for hours “dying” multiple times before

# Reflection

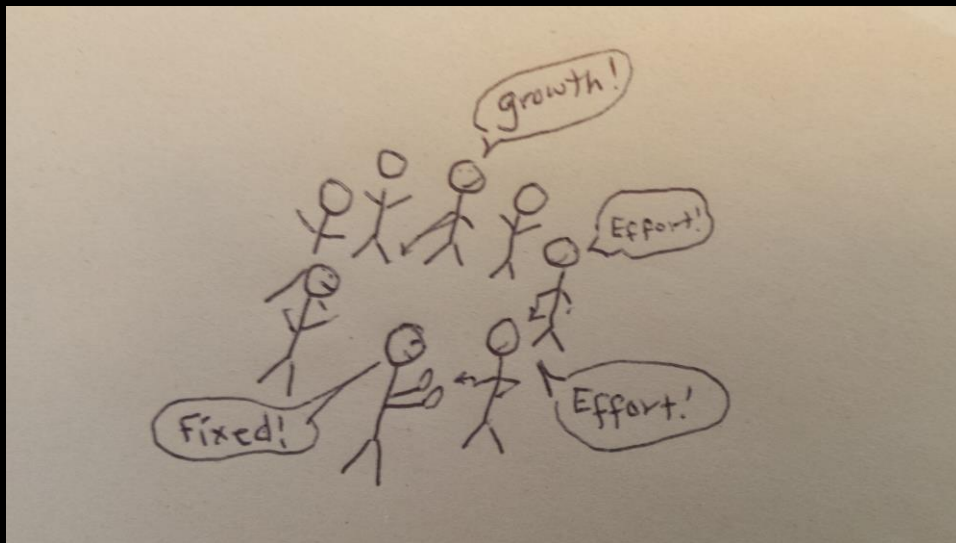
Where do you see opportunities to adopt some assessment or grading practices that are described in the article, “Grading for Growth”?

What challenges do you foresee?

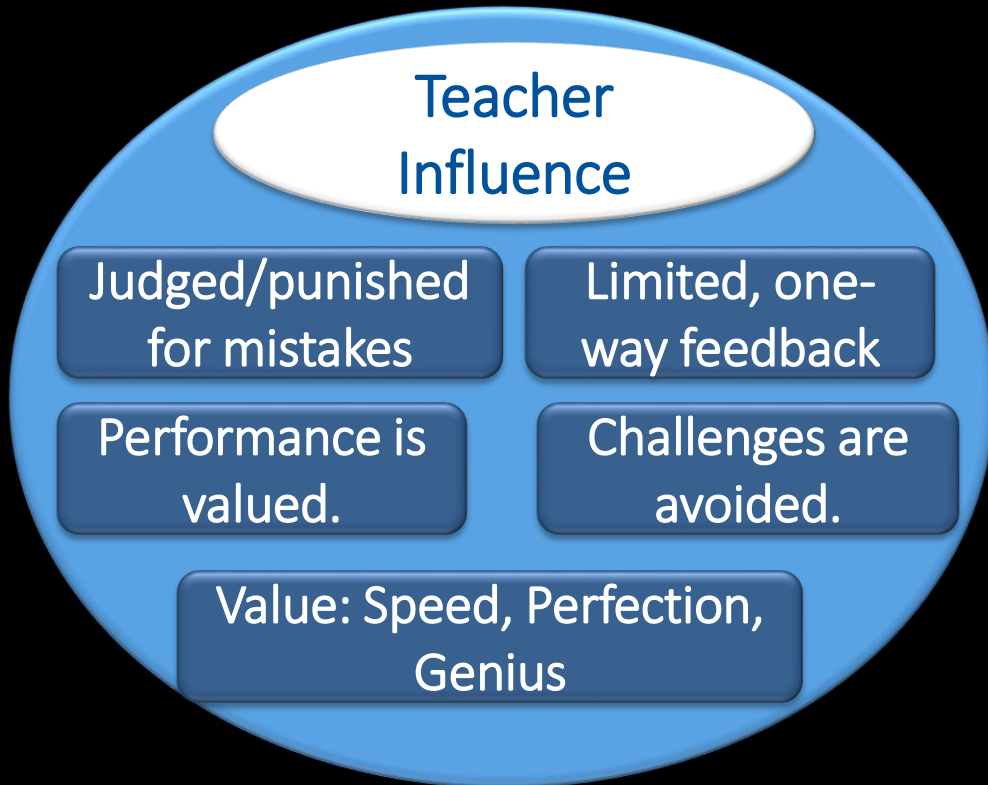
But What Does...  
A Growth Mindset Classroom Look Like?

# Game

## Growth Fixed Effort



# Fixed Mindset Context



# Growth Mindset Context

Teacher  
Influence

Safe to take  
risks

Feedback goes  
two ways

Process is  
valued.

Challenges are  
exciting.

Value: growth,  
learning, mistakes

# Growth Mindset Observational Protocol

Mindset Works® Leaders' Toolkit

## Growth Mindset Classrooms

*Growth Minded classrooms are places where all students have an opportunity to grow their intelligence, improve, and learn with effective effort. Below are elements of a Growth Minded classroom. Use this tool to dialogue with teachers and colleagues about practices at your school, providing feedback to one another and looking for opportunities for improvement.*

- I. Growth Minded Framing:** The teacher presents tasks and assessments in a manner that communicates that with time and practice, all students are capable of meeting rigorous standards and high expectations. Teachers frame tasks as challenging practice that will help students learn. There is a sense that learning is about stretching and growing and that if things are too easy, then students' time has been wasted. Lessons and tasks are presented with a focus on process and growth rather than compliance and error-free performance. Objectives, expectations, and assessment measures are well communicated and transparent so that students understand what they are expected to learn.
- II. Growth Minded Feedback:** Feedback to students is targeted to praise effort, process, and persistence rather than intelligence. Teachers give specific feedback about what students are doing correctly, and informational feedback about how they can overcome failure. Growth minded feedback has a focus on behaviors and choices that students can control, rather than on innate talents or skills that leave students feeling powerless.
- III. Growth Minded Learning Strategies:** Students are continuously reminded to use appropriate learning strategies to tackle new and challenging material. When students encounter failure, teachers encourage them to change course and try new strategies, thus framing the task as something that is within the students' power to control. When teachers equip students with a variety of learning strategies, they are more likely to try new approaches when the work becomes challenging, and this is demonstrated in the classroom through student perseverance.
- IV. Growth Minded Assessment:** Assessment practices are assessment for learning more often than assessment of learning. There are multiple occasions during each lesson when the teacher is checking for understanding and providing specific feedback to students so that they can improve. Students have multiple opportunities to show mastery of what they have learned. Students may also have

# Discussion

How could you put the resource – the Growth Mindset Observational Protocol – into place in your position?

What will you do with this?



# Key Takeaways

- A growth mindset, deeply pursued, leads to higher growth, performance, and impact
- The belief (the understanding that we can improve) is necessary for the behaviors to change
- 3 ways to foster growth mindsets are:
  - Learn that abilities can change
  - Learn about how to improve
  - Foster a learning community

Want more?



@Brainology

**WHAT INSIGHTS ARE YOU TAKING  
AND WHAT WILL YOU DO  
ABOUT IT?**

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# THANK YOU!



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