



Motivating Students Through Mindset

Presented by Erin Cross
March 17, 2012

*Today's Objectives

By the end of this session, you will

- * understand how a growth mindset impacts student achievement.
- * learn strategies to help students develop a growth mindset towards mathematics.

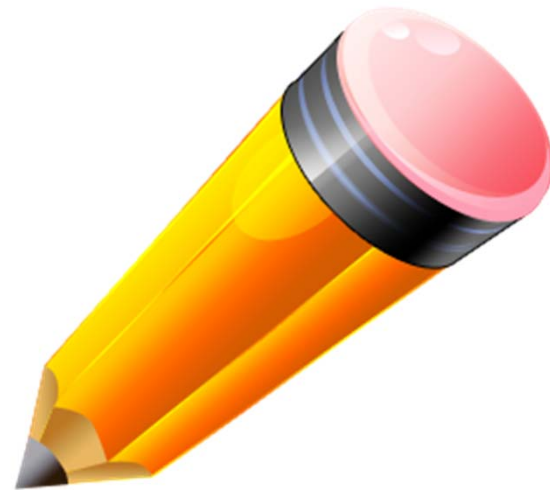
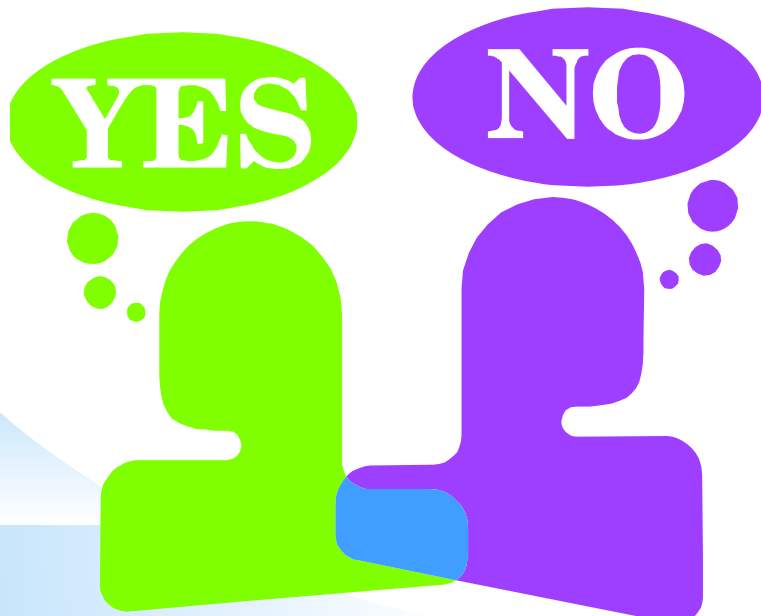
*What are Mindsets?

*beliefs people hold about their most basic qualities and abilities



*Mindset Survey

Privately circle your level of agreement with the 8 statements.



*Your Mindset Profile Number

1. For questions with **ODD** numbers (1,3,5,7), write the number of your answer in the right column.
2. For questions with **EVEN** numbers (2,4,6,8), use the table below to fill in the gray boxes in the right column.

If you chose this answer:	Then write <u>this</u> number in the gray box on the right (Profile Number).
Disagree A Lot (1)	6
Disagree (2)	5
Disagree A Little (3)	4
Agree A Little (4)	3
Agree (5)	2
Agree A Lot (6)	1

3. Now, **add** up all your profile numbers and write the total in the last box.

If your profile number falls into this range:	Then your MAP (Mindset Assessment Profile) group is:	People in this MAP group usually believe the following things:
8-12	F5	You strongly believe that your intelligence is fixed—it doesn't change much. If you can't perform perfectly you would rather not do something. You think smart kids don't have to work hard.
13-16	F4	
17-20	F3	You lean toward thinking that your intelligence doesn't change much. You prefer not to make mistakes if you can help it and you also don't really like to put in a lot of work. You may think that learning should be easy.
21-24	F2	
25-28	F1	You haven't really decided for sure whether you can change your intelligence. You care about your grades and you also want to learn, but you don't really want to have to work too hard for it.
29-32	G1	
33-36	G2	You believe that your intelligence is something that you can increase. You care about learning and you're willing to work hard. You do want to do well, but you think it's more important to learn than to always score well.
37-40	G3	
41-44	G4	You really feel sure that you can increase your intelligence by learning and you like a challenge. You believe that the best way to learn is to work hard, and you don't mind making mistakes while you do it.
45-48	G5	

Source: Brainology Curriculum Guide

*Why does this matter?

- *Research has shown that students who hold a Growth Mindset perform better than those with a Fixed Mindset, especially under conditions of challenge.

(Blackwell, Trzesniewski, & Dweck, 2007)

- *However, these mindsets themselves are learned, and they can be changed. Adult feedback can influence students' mindset and performance in powerful ways.

(Mueller & Dweck, 1998)

- *When students are taught that the brain develops and gets smarter with effort and learning, they become motivated in school and perform better.

(Blackwell, Trzesniewski, & Dweck, 2007; Good, Aronson, & Inzlicht, 2003)

* Why is Mindset important in teaching math?

“I’m just no good at math!”



*Research on Praise

Set of 10 problems from an IQ test:

Half praised for talent:

“That’s a really good score.
You must be smart at this.”

Half praised for effort:

“That’s a really good score.
You must have worked really
hard.”

Initially, groups performed
equally, but...



* After the Praise...

Praised for Ability

- * Rejected a new, more challenging task
- * When they weren't able to solve the problems, they said it wasn't fun anymore
- * Performance plummeted, even with easier problems

Praised for Effort

- * 90% wanted the new, more challenging task
- * Stated that the hardest problems were the most fun, even when they couldn't solve them.
- * Showed better and better performance

Fixed Mindset

Intelligence
is static

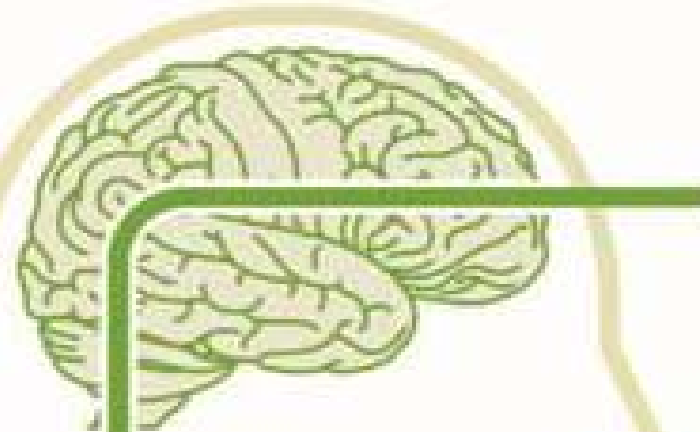


Leads to a desire
to look smart
and therefore a
tendency to...

...avoid
challenges

Growth Mindset

Intelligence can
be developed



Leads to a desire
to learn and
therefore a
tendency to...

...embrace
challenges

Fixed Mindset
Intelligence
is static

Growth Mindset
Intelligence can
be developed

...give up
easily



...persist in the
face of setbacks



Obstacles

Fixed Mindset

Intelligence
is static

Growth Mindset

Intelligence can
be developed



...see effort as
fruitless or worse



...see effort as
the path to master

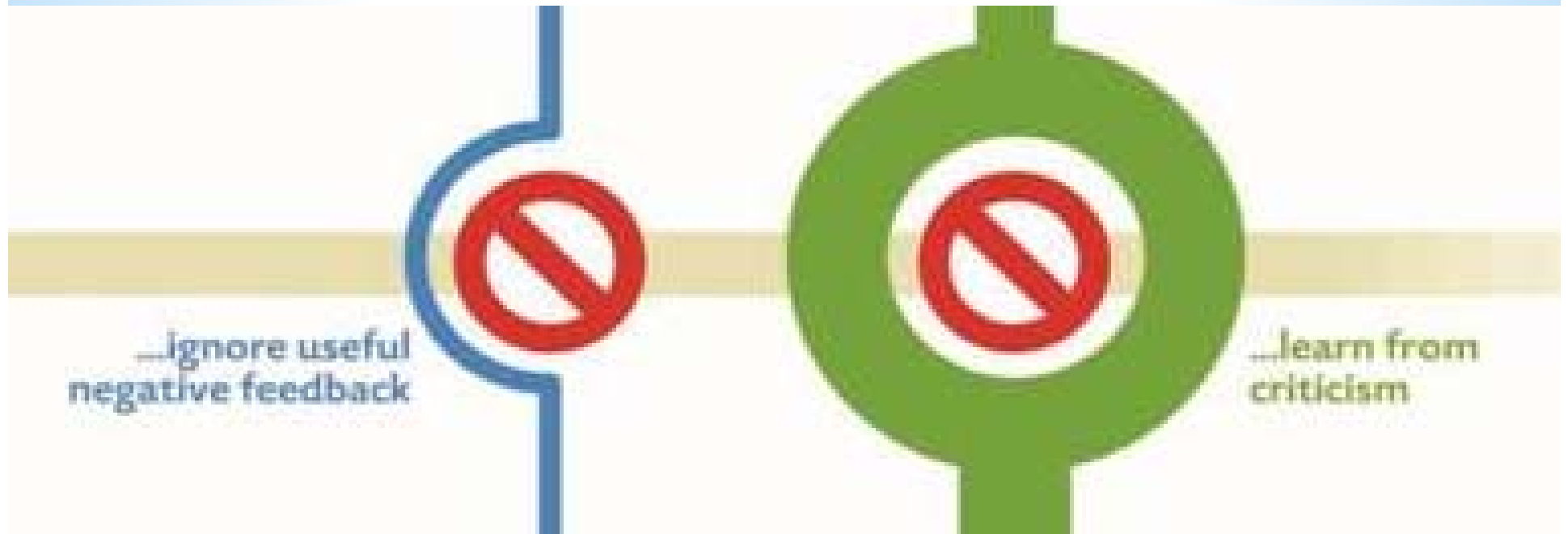
Effort

Fixed Mindset

Intelligence
is static

Growth Mindset

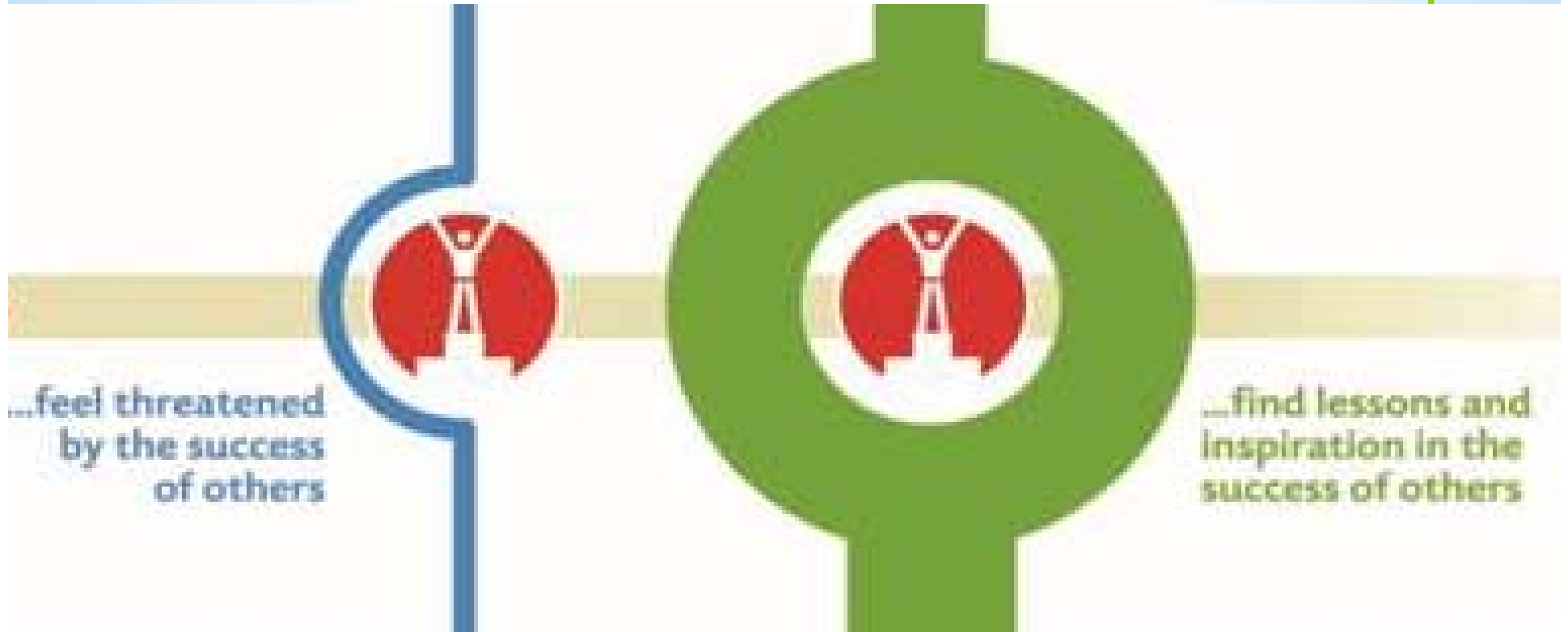
Intelligence can
be developed



Criticism

Fixed Mindset
Intelligence
is static

Growth Mindset
Intelligence can
be developed



Success of Others

* As a result...

Those with a Fixed Mindset may plateau early and achieve less than their full potential.

Those with a Growth Mindset reach ever-higher levels of achievement.

* Compare and Contrast

* Use the graphic organizer to compare and contrast growth and fixed mindsets, using your own words

Fixed Mindset	Growth Mindset

* Discuss with an Elbow Partner



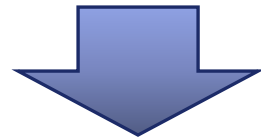
- * Discuss an experience where you have seen growth and/or fixed mindsets in action.

*Fixed and Growth Mindsets in Action

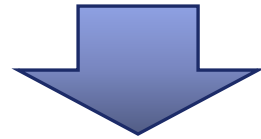


* Adolescence

Learning becomes more challenging



Students are heavily evaluating themselves -
often with a fixed mindset



Motivation plummets



Grades plummet

Source: Mindset by Carol Dweck

* Mindsets are Learned and Can be Changed

Research Group

- * study skills
- * brain and growth mindset
- * how to apply growth mindset to schoolwork

Control Group

- * study skills



Source: Mindset by Carol Dweck

* Some anecdotes

* **Jimmy:**

“You mean I don’t have to be dumb?”

* **Jimmy’s teacher:**

“Jimmy, who never puts in extra effort and often doesn’t turn in his work, actually stayed up late working to finish an assignment early so I could review it and give him a chance to revise it. He earned a B+ on the assignment.”

* More Teacher Comments

- * "M. was far below grade level. During the past weeks, she has voluntarily asked for extra help. She had been failing but earned an 84 on the most recent exam."
- * "Positive changes in motivation and behavior are noticeable in K. and J. They have begun to work hard on a consistent basis."

* Research Results

- * Students in the growth-mindset workshop showed a jump in their grades.
- * Students in the other workshop (study skills only) did not improve.

* So, What did the students learn?

Jigsaw Reading

- * Refer to the *student* news article, "You Can Grow Your Intelligence."
- * Choose who will read page 1, 2, 3, & 4
- * Highlight key ideas that you will share with your group.



* Jigsaw Reading, continued

Take turns sharing the key ideas of your assigned reading at your table.



*Mindsets are Learned and Can be Changed

In your envelope, you will find statements of praise.

Sort the statements into two categories:

Fixed Mindset Praise

or

Growth Mindset Praise



*Hidden Messages in Praise

Praise Statement	Hidden Message

*What would you tell Elizabeth?

1. / think you were the best.
2. You were robbed of a ribbon that was rightfully yours.
3. Gymnastics is not that important.
4. You have the ability and will certainly win next time.
5. You didn't deserve to win.



*Think-Write-Pair-Share

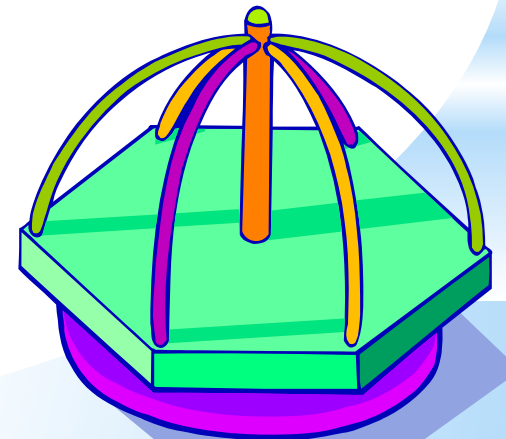
Record on the graphic organizer:

- *What praise statements do you typically make when students do well?
- *Which of these reflect *fixed mindset* thinking?
- *Think of a way you could change the statements to reflect a growth mindset.



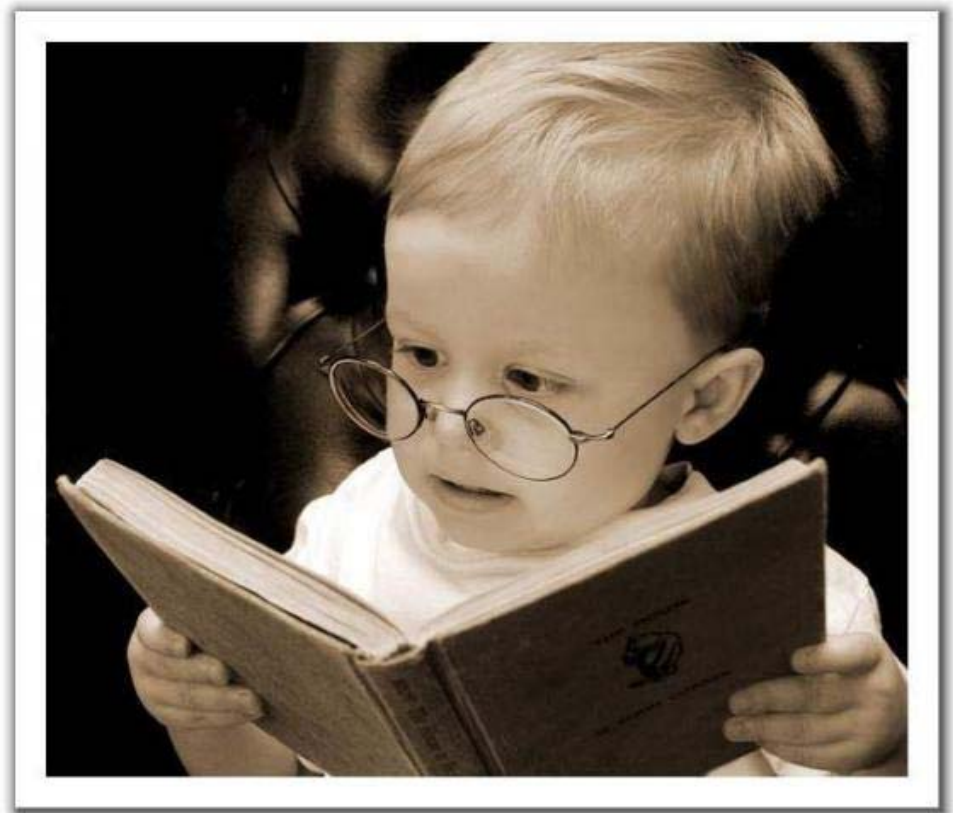
* Round Robin Reflection

- * What implications does mindset research have...
 - * For my teaching? / For me personally?
- * Write your ideas on the top of the page entitled "Round Robin Brainstorming."
- * Once think time is over, go around the table with each group member sharing one idea until time is called.

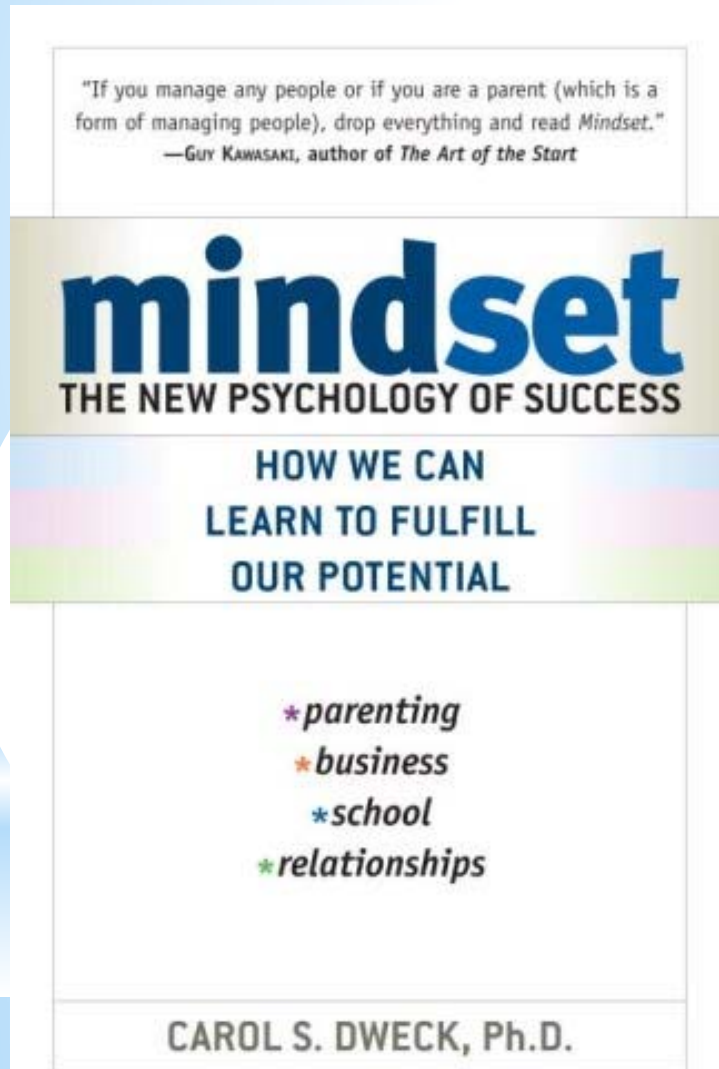


*Follow-Up Reading

“Even Geniuses Work Hard.”



* My Picks



* Chapter 3: The Truth about Ability and Accomplishment

* Chapter 7: Parents, Teachers, and Coaches: Where do Mindsets Come From?

* Chapter 8: Changing Mindsets