Grade 6
Assignment Bundle

Name: _____   Class: _____

<u>Noticing Mistakes Boosts Learning</u>
Children who pay closer attention to mistakes improve skills more quickly, study shows

By Alison Pearce Stevens
2017

In this informational text Alison Pearce Stevens discusses a study by psychologist Hans Schroder about what happens when we make mistakes. While making a mistake might feel like a negative experience, noticing these mistakes could be the key to learning. As you read, take notes on how growth mindset and fixed mindset impact children when they make mistakes.

[1]   Mistakes get a bad rap. People often brush them aside by saying, "I'll do better next time." But students who pay close attention to their mistakes actually do learn a task faster than kids who ignore them. Focusing on what went wrong helps us learn, a new study shows.

Hans Schroder is a psychologist at Michigan State University in East Lansing. He and his team wanted to know how people's brains respond to mistakes. People can ignore a mistake by simply pretending it never happened. Or they can mull it over.[1] They can try to figure out what went wrong and where. Schroder suspected that which response people chose might strongly affect how well they learned.

To find out, the team recruited 123 children, all six to eight years old. This is an important time in a child's life. It is when most kids are beginning school. How well they do in school can be related to their mindset about learning and intelligence.

A mindset is a particular attitude about a situation. Students who have a "fixed" mindset tend to believe that they are born with a certain level of intelligence. They don't believe it can ever change. Students with a "growth" mindset, however, think they can get smarter through hard work. Scientists have shown that this mindset can affect how well students learn.

[5]   To figure out whether each child had a fixed or a growth mindset, Schroder asked the recruits a series of questions. He then put a special cap on each child's head. That cap held 64 small sensors called *electrodes*. The cap held these against the child's scalp and recorded electrical signals as they sparked between the child's brain cells. This let Schroder spy on patterns of activity inside each child's brain.

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1. to think deeply about something

While wearing the cap, children played a computer game. In it, they rounded up animals that had escaped from a zoo. Players had to press the space bar when they saw one of the escaped critters. But the game came with a twist. Three orangutans were also helping round up the animals. When players saw the orangutans, they were *not* supposed to press the space bar. The children could make two kinds of mistakes — either responding when they shouldn't or not responding when they should. As they played, the electrodes recorded their brain's activity.

When Schroder examined the data, he found a clear pattern. Small regions of the brain responded in the children who had a fixed mindset. Each response lasted just 150 milliseconds. The brains of children with a growth mindset showed much more activity. What's more, a larger network of areas responded. And those areas did so for longer periods — up to 500 milliseconds. This shows that these brains were paying attention to mistakes, Schroder says.

Children with growth mindsets were also better at bouncing back after their mistakes. "They were more likely to get the next trial right," Schroder says. "It was almost as if the children with growth mindsets were willing to engage with their mistakes in order to correct them." In contrast, "those with fixed mindsets wanted to ignore their mistakes," he says.

His team's results appear in the April issue of *Developmental Cognitive Neuroscience*.

[10] "This research demonstrates one way that a growth mindset helps you learn more," says Allison Master. She is a psychologist at the University of Washington in Seattle. She was not involved with the study. "When you face your mistakes and are ready to learn from them," she says. "Then you can get better over time. But if you run away from your mistakes and try to ignore them, you'll never improve."

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which of the following describes the central idea of the text?
    A. Accepting and learning from your mistakes helps you improve when you try again.
    B. Students have been taught to avoid mistakes rather than accept them.
    C. Making mistakes shows that you're someone who's not afraid to take risks.
    D. People with fixed mindset don't learn from their mistakes because they don't make them often.

2. PART B: Which detail from the text best supports the answer to Part A?
    A. "Mistakes get a bad rap. People often brush them aside by saying, 'I'll do better next time.'" (Paragraph 1)
    B. "It is when most kids are beginning school. How well they do in school can be related to their mindset about learning and intelligence." (Paragraph 3)
    C. "Students who have a 'fixed' mindset tend to believe that they are born with a certain level of intelligence. They don't believe it can ever change." (Paragraph 4)
    D. "Children with growth mindsets were also better at bouncing back after their mistakes. 'They were more likely to get the next trial right'" (Paragraph 8)

3. Which statement describes the author's main purpose in the text?
    A. to encourage readers to make as many mistakes as they can
    B. to show how adults hurt students' intelligence by discouraging mistakes
    C. to provide evidence for how mistakes can help you learn
    D. to help readers determine if they have a growth mindset or fixed mindset

4. Which statement describes the relationship between fixed mindset and growth mindset?
    A. Fixed mindset and growth mindset describes how our brains solve challenging problems.
    B. Fixed mindset and growth mindset show how a person views their own intelligence.
    C. Fixed mindset shows that someone has learned as much as they can while growth mindset shows they have more to learn.
    D. Fixed mindset is the reluctance to learn any more while growth mindset is a person's desire to improve themselves.

5.   How does the author's discussion of Schroder's study contribute to the development of ideas about how children react to mistakes?

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Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. In the text, the author discusses how children who pay attention to their mistakes are more likely to learn from them. Describe a time when you made a mistake and what you learned from that mistake.

2. In the text, the author discusses how accepting your mistakes can help you learn from them. How do you think accepting mistakes contributes to a person's overall success?

Name: _____   Class: _____

The Crow and the Pitcher
By Aesop
620-560 BCE

Aesop was a storyteller who lived in ancient Greece between 620 and 560 BCE. This story is part of his collection of tales known as "Aesop's Fables," which did not survive in writing but were passed down by people retelling them. They have deeply influenced children's literature and modern storytelling culture. As you read, take notes on the conflict the crow faces and how he solves his problem. Think about the lesson the author is trying to teach the reader.

[1]   In a spell of dry weather, when the Birds could find very little to drink, a thirsty Crow found a pitcher[1] with a little water in it. But the pitcher was high and had a narrow neck,[2] and no matter how he tried, the Crow could not reach the water. The poor thing felt as if he must die of thirst.

Then an idea came to him. Picking up some small pebbles, he dropped them into the pitcher one by one. With each pebble the water rose a little higher until at last it was near enough so he could drink.

"The Crow and the Pitcher" by Milo Winter is in the public domain.

"The Crow and the Pitcher" by Aesop is in the public domain.

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1.   a container used to hold and pour liquids
2.   The "neck" refers to a thin part of an object.

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: What does the word "spell" mean as it is used in paragraph 1?
   A. a saying with magical powers
   B. a type of weather
   C. a period of time
   D. a land needing water

2. PART B: Which phrase from paragraph 1 provides the best support for your answer to Part A?
   A. "a thirsty crow"
   B. "when the birds could find very little"
   C. "a little water in it"
   D. "found a pitcher"

3. What does the information in paragraph 2 reveal about the crow?
   A. He is not able to solve a problem.
   B. He is resourceful and clever.
   C. He is extremely strong.
   D. He knows when to ask for help.

4. How does paragraph 2 contribute to the story's resolution?
   A. After not being able to find anything to drink, the crow decides to ask for help.
   B. After having lots of water, the crow now can't find any.
   C. After struggling to get the water from the pitcher, the crow finds a solution.
   D. After not being able to get water from the pitcher, the crow decides to look in a new place.

5. Explain the theme or lesson of the story. Use evidence from the story to support your answer.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. Why was the crow successful in solving the problem he faced? What traits did he have helped him to succeed? Cite evidence from the text and your own experiences in your answer.

2. How could you apply the crow's actions and attitude in your own life? Cite evidence from the text and your own experiences in your answer.

3. In the context of this story, do you think it is more important to be clever or to remain positive in a difficult situation? Cite evidence from the text and your own experiences in your answer.

4. If the crow had not been successful in using the stones to get the water from the pitcher, what action do you think he would have taken next? Cite evidence from the text and your own experiences in your answer.

Selecting Books for Your Child: Finding 'Just Right' Books

By: Kathleen Rogers

How can parents help their children find books that are not "too hard" and not "too easy" but instead are "just right"? Here's some advice.

Five finger rule

1. Choose a book that you think you will enjoy.
2. Read the second page.
3. Hold up a finger for each word you are not sure of, or do not know.
4. If there are five or more words you did not know, you should choose an easier book.
5. Still think it may not be too difficult? Use the five finger rule on two more pages.

Choose a book that is a good fit for you!

Read two or three pages and ask yourself these questions:

Will it be an easy, fun book to read?

- Do I understand what I am reading?
- Do I know almost every word?
- When I read it aloud, can I read it smoothly?
- Do I think the topic will interest me?

If most of your answers were "yes", this will be an easy book to read independently by yourself.

Will this book be too hard for me?

- Are there five or more words on a page that I don't know, or am unsure of?
- Is this book confusing and hard to understand by myself?
- When I read it aloud, does it sound choppy and slow?

If most of your answers were "yes," this book is too hard. You should wait awhile before you read this book. Give the book another try later, or ask an adult to read the book to you.

Tips on reading with your child

- When they can't read the word, say…
- Can you sound it out?
- Fingertap it.
- Can you think of the word or movement that helps you remember that vowel sound?
- What is the first and last sound? What word would make sense?
- Does it have a pattern that you have seen in other words? (ex-an, ack)
- How does the word begin?
- You said_____. Does that make sense?
- What word would make sense that would start with these sounds?
- Put your finger under the word as you say it.

When they want to read a book that is too hard, say…

- Let's read it together.
- This is a book you will enjoy more if you save it until you are older — or later in the year.
- [Be honest!] When people read books that are too hard for them, they often skip important parts. You will have more fun with this book if you wait until you can read it easily.

Rogers, K. (2008). Selecting Books for Your Child: Finding 'Just Right' Books. Retrieved November 7, 2008, from www.readingtogether.org.

HERE'S THE IMPACT OF
READING 20
MINUTES PER DAY!

A student who reads	A student who reads	A student who reads
20:00	**5:00**	**1:00**
minutes per day	minutes per day	minute per day
will be exposed to **1.8 MILLION** words per year and scores in **90th PERCENTILE** on standardized tests	will be exposed to **282,000** words per year and scores in **50th PERCENTILE** on standardized tests	will be exposed to **8,000** words per year and scores in **10th PERCENTILE** on standardized tests

SCHOLASTIC

Home Reading Log

Student Information

Student Name		Grade Level	
School Name		Teacher	

Log

Date	Title	Author	Time Spent	Number of Pages Read

Understanding Ratio Concepts

➤ **Complete each problem about ratio relationships.**

1 Ms. Omar runs the school tennis club. She has a bin of tennis balls and rackets. For every 5 tennis balls in the bin, there are 3 tennis rackets. Draw a model to show the ratio of tennis balls to tennis rackets.

Write the following ratios.

tennis balls to tennis rackets _____

tennis balls to total pieces of tennis equipment _____

2 Christian has a collection of 18 shark teeth. He identified them as 6 tiger shark teeth, 8 sand shark teeth, and the rest as bull shark teeth.

What does the ratio 6 : 8 represent in this situation?

What does the ratio 4 : 18 represent in this situation? Explain your reasoning. Include a model in your explanation.

3 How are part-to-part ratios different from part-to-whole ratios?

i-Ready

Using Equivalent Ratios

➤ **Solve each problem.**

1 Josie is training for a race. The ratio of the number of minutes she runs to the number of miles she runs is 24 to 3. She plans to run 10 miles. How many minutes will it take her?

2 A chef planning for a large banquet thinks that 2 out of every 5 dinner guests will order his soup appetizer. He expects 800 guests at the banquet. Use equivalent ratios to estimate how many cups of soup he should prepare.

3 Fred is making a fruit salad. The ratio of cups of peaches to cups of cherries is 2 to 3. How many cups of peaches will Fred need to make 60 cups of fruit salad?

4 A community garden center hosts a plant giveaway every spring to help community members start their gardens. Last year, the giveaway supported 50 families by giving away 150 plants. Based on this ratio, how many plants will the center give away this year in order to support 65 families?

5 The first week of January, there are 49 dogs and 28 cats in an animal shelter. Throughout the month, the ratio of dogs to cats remains the same. The last week of January, there are 20 cats in the shelter. How many dogs are there?

6 A wedding planner uses 72 ivy stems for 18 centerpieces. When she arrives at the venue, she realizes she will only need 16 centerpieces. How many ivy stems should she use so that the ratio of ivy stems to centerpieces stays the same?

i-Ready

4	2

4	6

3	9

3	12

10	2

12	9

Understanding Rate Concepts

1 It takes Maya 30 minutes to solve 5 logic puzzles, and it takes Amy 28 minutes to solve 4 logic puzzles. Use models to show the rate at which each student solves the puzzles, in minutes per puzzle.

If Maya and Amy had the same number of puzzles to solve, who would finish first? Explain.

2 A garden hose supplies 36 gallons of water in 3 minutes. Use a table of equivalent ratios to show the garden hose's water flow in *gallons per minute* and *minutes per gallon*.

How many gallons of water does the hose supply in 10 minutes? Explain.

Understanding Rate Concepts *continued*

3 Max travels to see his brother's family by car. He drives 216 miles in 4 hours. What is his rate in miles per hour? Use a double number line to show your work.

Suppose he makes two stops of 10 minutes each during his journey. Will he be able to reach the town in 4 hours if he keeps the speed the same?

Using Unit Rates to Find Equivalent Ratios

➤ **Solve each problem. Show your work.**

1 Rachel mows 5 lawns in 8 hours. At this rate, how many lawns can she mow in 40 hours?

2 A contractor charges $1,200 for 100 square feet of roofing installed. At this rate, how much does it cost to have 1,100 square feet installed?

3 It takes Jill 2 hours to run 14.5 miles. At this rate, how far could she run in 3 hours?

4 Bobby catches 8 passes in 3 football games. At this rate, how many passes does he catch in 15 games?

5 Five boxes of crackers cost $9. At this rate, how much do 20 boxes cost?

6 It takes a jet 2 hours to fly 1,100 miles. At this rate, how far does it fly in 8 hours?

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Using Unit Rates to Find Equivalent Ratios *continued*

7 It takes Dan 32 minutes to complete 2 pages of math homework. At this rate, how many pages does he complete in 200 minutes?

8 Kendra gets a paycheck of $300 after 5 days of work. At this rate, how much does she get paid for working 24 days?

9 Tim installs 50 square feet of his floor in 45 minutes. At this rate, how long does it take him to install 495 square feet?

10 Taylin buys 5 ounces of tea leaves for $2.35. At this rate, how much money does she need to buy 12 ounces of tea leaves?

11 In problem 10, how would your work be different if you were asked how many ounces of tea leaves Taylin could buy with $10?

Using Unit Rates to Compare Ratios

➤ **Solve each problem. Show your work.**

1 Shawn sells 36 vehicles in 4 weeks. Brett sells 56 vehicles in 7 weeks. Who sells more vehicles per week?

2 The table shows the gas mileage of two vehicles. Which vehicle travels more miles per gallon?

Car	Miles	Gallons
Pickup Truck	120	8
Minivan	180	10

3 Joe and Chris each have a lawn mowing business. Joe charges $40 to mow 2 acres. Chris charges $30 to mow 1.2 acres. Who charges more per acre?

4 The table shows the time it took two athletes to run different races. Who ran faster?

Athlete	Seconds	Meters
Ellen	28	200
Lindsay	60	400

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Using Unit Rates to Compare Ratios *continued*

5 Branden and Pete each play running back. Branden carries the ball 75 times for 550 yards, and Pete has 42 carries for 380 yards. Who runs farther per carry?

6 The table shows the price of two cereal brands and the number of ounces per box. Which is the better price per ounce?

Cereal	Ounces	Price
Brand A	18	$2.50
Brand B	24	$3.50

7 Describe two different ways you could change the values in the table so that the answer to problem 6 is different.

Using Unit Rates to Convert Measurements

➤ **Solve each problem. Show your work.**

1 Susan has a 12-inch board for constructing a wooden chair. The directions say to use a board that is 29 centimeters long. Is her board long enough to cut? (1 inch = 2.54 centimeters)

2 Kevin uses 84 fluid ounces of water to make an all-purpose cleaner. The directions call for 4 fluid ounces of concentrated soap for every 3 cups of water. How many fluid ounces of soap should he use? (1 cup = 8 fl oz)

3 Shannon test-drives a car in Germany and drives 95 kilometers per hour. What is her speed in miles per hour? (1 kilometer ≈ 0.62 mile)

4 Keith works 8 hours per day for 5 days per week. Melba works 2,250 minutes each week. Who spends more time at work?

Using Unit Rates to Convert Measurements *continued*

5 Jason runs 440 yards in 75 seconds. At this rate, how many minutes does it take him to run a mile? (1 mile = 1,760 yards)

6 Boxes of granola are on sale at a price of 2 for $4.50. There are 12 ounces of granola in each box. What is the unit price in dollars per pound?

7 Sam is delivering two refrigerators that each weigh 105 kilograms. There is an elevator with a weight limit of 1,000 pounds. Can he take both refrigerators on the elevator in one trip? (1 kilogram $\approx$ 2.2 pounds)

8 For every 140 feet that Kelly rides on her bicycle, the wheels turn 20 times. About how many times do the wheels turn in 5 miles? (1 mile = 5,280 feet)

i-Ready

Use Ratio and Rate Vocabulary

RECORDING SHEET

➤ **Harper is buying fabric to make pillows. At the store, 3 yards of flannel fabric costs \$12.60, and 5 feet of fleece fabric costs \$8.75. Which is the better buy?**

I know the units need to be the same to compare the prices.

First, I _____ the length of the flannel fabric to feet.

The _____ of feet to yards is 3 feet : 1 yard.

The _____ is 3 feet per yard. The _____ is 3.

I _____ the number of yards by the unit rate.

The result is _____ .

The flannel fabric has a length of _____ feet.

Now, I can find the unit cost of each fabric in _____

per _____ .

I _____ to find a(n) _____ .

Word Bank

convert

divide

dollars

equivalent ratio

foot

less

more

multiply

per

rate

ratio

unit rate

Number Bank

1

1.40

1.75

3

5

8.75

9

12.60

Flannel

Price ($)	12.60	
Length (ft)		1

Fleece

Price ($)	8.75	
Length (ft)		1

The flannel fabric costs $_____ per foot. The fleece fabric costs

$_____ per foot.

The flannel fabric costs _____ per foot, so it is the better buy.

6.RP Games at Recess

Task

The students in Mr. Hill's class played games at recess.

> 6 boys played soccer
> 4 girls played soccer
> 2 boys jumped rope
> 8 girls jumped rope

Afterward, Mr. Hill asked the students to compare the boys and girls playing different games.

Mika said,

"Four more girls jumped rope than played soccer."

Chaska said,

"For every girl that played soccer, two girls jumped rope."

Mr. Hill said, "Mika compared the girls by looking at the difference and Chaska compared the girls using a ratio."

a. Compare the number of boys who played soccer and jumped rope using the difference. Write your answer as a sentence as Mika did.

b. Compare the number of boys who played soccer and jumped rope using a ratio. Write your answer as a sentence as Chaska did.

c. Compare the number of girls who played soccer to the number of boys who played soccer using a ratio. Write your answer as a sentence as Chaska did.

6.RP The Escalator, Assessment Variation

Task

Ty took the escalator to the second floor. The escalator is 12 meters long, and he rode the escalator for 30 seconds. Which statements are true? Select all that apply.

a. He traveled 2 meters every 5 seconds.

b. Every 10 seconds he traveled 4 meters.

c. He traveled 2.5 meters per second.

d. He traveled 0.4 meters per second.

e. Every 25 seconds, he traveled 7 meters.

6.RP Ticket Booth

Task

A school carnival ticket booth posts the following sign:

TICKET BOOTH

1 Ticket For $.50
12 Tickets For $5.00
25 Tickets For $10.00
50 Tickets For $25.00
120 Tickets For $50.00

HAVE FUN!

a. Which amount of tickets offers the best deal? Explain.

b. How would you suggest the students running the ticket booth modify the list of prices?

6.RP Riding at a Constant Speed, Assessment Variation

Task

Lin rode a bike 20 miles in 150 minutes. If she rode at a constant speed,

a. How far did she ride in 15 minutes?

b. How long did it take her to ride 6 miles?

c. How fast did she ride in miles per hour?

d. What was her pace in minutes per mile?