



Wrong Answer Analysis

Victoriano Elementary School
Moreno Valley, California

Aimee Garcia, Teacher
Chuck Holland, Principal

School Facts

- K5 Elementary plus Head Start and Preschool
- 506 kids—46% H, 30% AA, & 17% C, 7% A
- In the suburbs of Moreno Valley, CA (175K)
- 18 teachers—avg. < than 7 YTE—28:1 STR
- Academic Performance Index
- The Turnaround

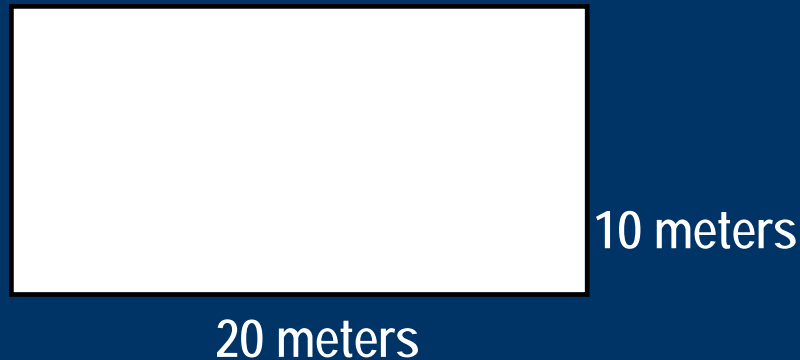
Wrong Answer Analysis—What It Is

- Metacognitive
- Time effective
- Versatile
- H.O.T.S.
- Problem solving with active engagement
- A powerful test-taking strategy

Wrong Answer Analysis—Why You Should Use It.

- Breathes life into the dull and ineffective usual manner of going over the answers
- Removes the ineffectiveness of worksheets
- Provides instant informal assessment and identifies specific academic deficiencies
- Allows for frontloading, review, and/or extension of strategies
- Improves problem solving abilities

A basketball court is shaped like a rectangle
20 meters long and 10 meters wide.



What is the perimeter in meters of the court?

A 30 meters

C 60 meters

B 50 meters

D 200 meters

“The Process”

- **Confirm**
- **Choose**
- **Create**
- **Change**
- **Challenge**

Confirm The Right Answer and Defend Your Choice.

- The correct answer is 'C' or 60 meters.
- Rationale: Perimeter is the total distance around the figure. In this case it is the sum of 2x the length (20 meters) and 2x the width (10 meters). So the perimeter is 60 meters.

Choose a Wrong Answer and Explain Why a Student Might Have Chosen It.

- Students may pick 'A', 30 meters, if they did not understand that perimeter is 2x the length and width. Students may have only added the two sides shown on the problem.
- $20 \text{ m.} + 10 \text{ m.} = 30 \text{ m.}$

Create a New “Wrong” Answer and Explain Why a Student Might Choose It.

- Students may have picked 40 meters if they did not fully understand perimeter and only took into account the 20 meters length, the 10 meters width and then saw the 10 meters on top which was part of the question.
- $20 \text{ m.} + 10 \text{ m.} + 10 \text{ m.} = 40 \text{ m.}$

Change Question Stem so a Wrong Answer Becomes Right.

- A basketball court is shaped like a rectangle 20 meters long and 10 meters wide. What is the area of the court?
- The correct answer would be 'D',
 $20 \text{ m.} \times 10 \text{ m.} = 200 \text{ m.}$

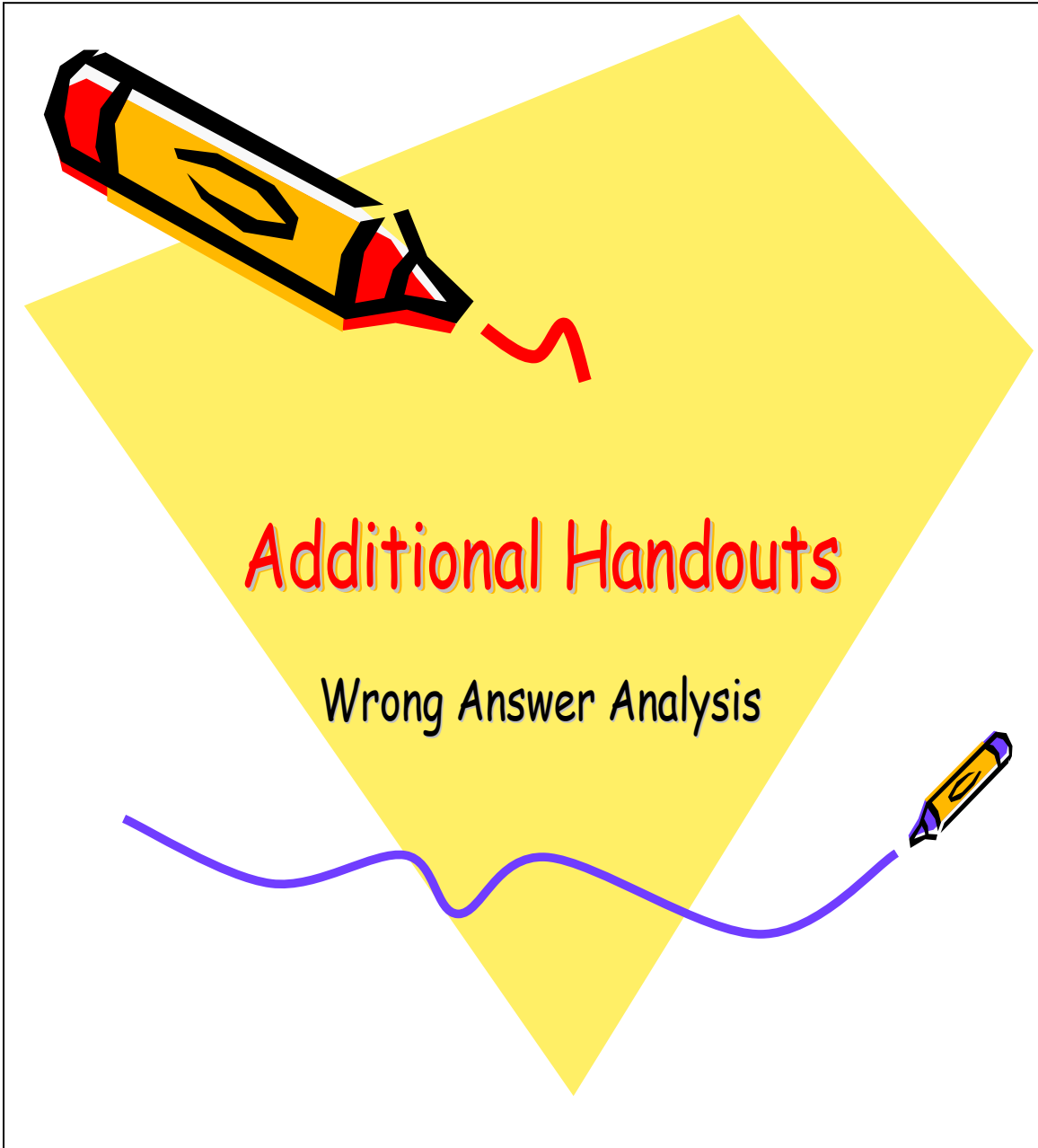
Challenge Students by Formulating a Problem That Changes Form/Extends Standard.

- Change the measurements and complete another problem.
- Have students find perimeter of a square when only one side is given.
- Find perimeter/area of another figure.



Summary Points

- Key Learning's—
 - Turns Worksheets into Interactive Learning Tools
 - Metacognitive Nature Improves HOTS
- Challenges Still Ahead—
 - Effective Implementation by All Teachers
 - Broader Implementation in Language Arts



Additional Handouts

Wrong Answer Analysis

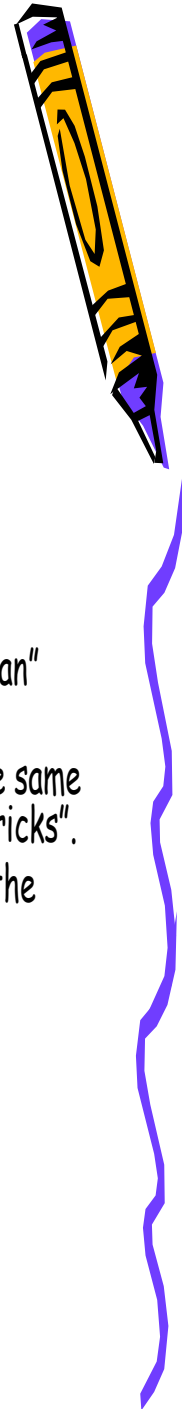
Materials Needed

- Individual dry erase boards
- Well written standards based multiple choice questions
- About 15 minutes per day



How To Get Started

- Start simple
 - Try 1 or 2 of the strategies while reviewing a test or using bellwork.
 - Try using dry erase or chalkboards for student responses. (Showerboard is inexpensive and available at local home improvement stores. They will cut it for you as well) Old "clean" socks work terrific as erasers. 😊
 - Remember that you do not have to use all 5 strategies at the same time; all the time. Consider them as items for your "bag of tricks".
 - Try to be consistent so that students become familiar with the process. This will save time and allow you to use more of the strategies more often.
 - If you have any questions please contact me agarcia2@valverde.edu.
 - Have fun with it!!! Enthusiasm is contagious. 😊



Wrong Answer Analysis Sample For Language Arts (using question 1)

Name _____

Fill in the bubble next to the root (base) word for each underlined word.

1 The root (base) of the word worthless is _____.

- (A) wor
- (B) less
- (C) wort
- (D) worth

3 The root (base) of the word returning is _____.

- (A) turn
- (B) re
- (C) ing
- (D) tune

2 The root (base) of the word disappear is _____.

- (F) dis
- (G) pear
- (H) sap
- (J) appear

4 The root (base) of the word reasonable is _____.

- (F) son
- (G) reason
- (H) able
- (J) reasoning



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1. **Confirm** correct answer is D because it is the base of the word.
 - a. It is the smallest portion of the word that still retains meaning on its own.
2. **Choose** a wrong answer and tell why it is wrong.
 - a. B is wrong because it is the suffix.
3. **Create** a new wrong answer and explain
 - a. One new wrong answer could be E. “ess”.
 - b. A student might choose this answer if they do not know the suffix “less”.
4. **Change** the question stem.
 - a. The question could be changed to: The suffix of the word worthless is _____.
 - b. The correct answer would then be B. “less”.
5. **Challenge** students to create a new question with a new word, the correct answers, and plausible distracters.
 - a. They could try to use a word that has a prefix, root, and suffix. There are many possibilities.

Wrong Answer Analysis Sample For Language Arts

Name _____

Choose the *best* topic sentence (main idea) for each paragraph.

1 _____ Teal blue, a dull blue-green, is seen on the wings of a bird called the “blue-winged teal.” Another shade of blue, aquamarine, gets its name from the color of sea water. Indigo was once made from a plant and is a deep violet blue. Navy, a very dark blue, is used for the U.S. Navy uniforms.

- Ⓐ Aquamarine is watery.
- Ⓑ Indigo is made from a plant and is a deep violet blue.
- Ⓒ There are many shades of blue.
- Ⓓ Indigo is a plant.

2 _____ They live in Australia. The mother kangaroo has a pouch on the front of her body in which to carry her baby. Males grow as large and as heavy as men. However, kangaroos can hop over objects six feet high and go as fast as forty miles per hour.

- Ⓔ Kangaroos can hop very fast.
- Ⓕ Male kangaroos grow very large.
- Ⓖ Kangaroos are very unusual animals.
- Ⓗ A mother “roo” carries her baby in a pouch.

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In this sample, you can see that this particular question does not lend itself to all of the strategies. The teacher will need to pick and choose from the strategies that are appropriate and useful to the question.

1. **Confirm** correct answer is C. It is what the paragraph is mainly about.
 - a. The paragraph is about the many shades of blue.
3. **Choose** a wrong answer and tell why it is wrong.
 - a. B is wrong because it is a detail, not the main idea.
4. **Create** a new wrong answer and explain.
 - a. Students might be able to add another detail from the story as a new wrong answer.
5. **Change** the question stem.
 - a. The question could be changed to: “What is a detail from the paragraph?” This may or may not lend itself to this strategy depending on the students.
6. **Challenge** students to create a new question with a new word, the correct answers, and plausible distracters.
 - a. This question does not lend itself to this part of the process because students would have to refer to a different paragraph and there is not enough information in the paragraph to afford another question.

