### **☆** ThinkCERCA<sup>™</sup>

# **Error Analysis**



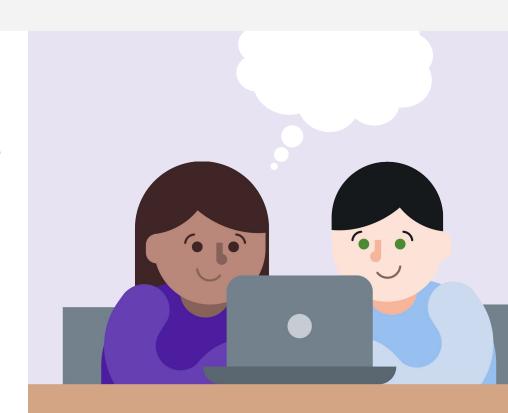
# **Why Analyze Errors**

Error analysis helps train students to identify the distractors in answer choices.



# **Why Analyze Errors**

- Requires that students reflect upon their work.
- Encourages students to go back to the text and review distractors' purpose.
- Allows students to engage in a productive struggle.
- Provides a structure for students to check their work when they are mid-assessment.



# **Error Analysis: Example**



Which of these statements best describes the main purpose of the slideshow? O A. to praise the voting system in the United States O B. to encourage students to vote in their next election O C. to show why the Electoral College should be disbanded O D. to explain how the Electoral College works

# **Error Analysis: Example**

I got this wrong because I did not understand what "best describes the main purpose" means. But I remember reading about how I should vote.



Which of these statements best describes the main purpose of the slideshow? O A. to praise the voting system in the United States ® O B. to encourage students to vote in their next election Your answer was incorrect. O C. to show why the Electoral College should be disbanded D. to explain how the Electoral College works This is the correct answer.

# **Reasons Why Students Make Errors**

- 1. Students may make an error because they **do not remember** learning the information.
- 2. Students may make an error because they **did not answer the actual question** being asked.
- 3. Students may may an error if they answer a question partially.
- **4.** Students may make an error if they **misread the question**.
- **5.** Students may make an error because they **calculated incorrectly**.
- 6. Students may make an error when their answer is disconnected from the question being asked.

#### What a Teacher Can Do



Students may make an error because they do not remember learning the information.

As a teacher, you can provide students with overviews or note summaries that capture all the content that is relevant. This can be provided explicitly with a graphic organizer, or through cloze notes.



Students may make an error because they did not answer the actual question being asked.

As a teacher, you can ensure that students are carefully reading questions. Suggest that students eliminate incorrect answers first so that they do not get distracted by them as they are trying to identify the correct answer.



Students may make an error if they answer a question partially.

As a teacher, you can provide students with overviews or note summaries. Make sure that students are reading all the potential answers before selecting one. Suggest that students pause and reflect.

#### What a Teacher Can Do



Students may make an error if they misread the question.

As a teacher, you can provide students with overviews or note summaries that capture all the content that is relevant. This can be provided explicitly with a graphic organizer, or through cloze notes.



Students may make an error because they calculated incorrectly.

As a teacher, you should make sure your students are double and triple checking their work. Encourage students to show their work, even when it is not required.



Students may make an error when their answer is disconnected from the question being asked.

As a teacher, teach students to read the question carefully and eliminating wrong answers before selecting correct answers.

# **How Students Can Do an Error Analysis**

**1.** Select a question you answered incorrectly.



## **How Students Can Do an Error Analysis**

- Select a question you answered incorrectly.
- Write or discuss: why was your answer incorrect?
  - a. Was it brand new information? Is it something you do not remember learning?
  - b. Was the answer connected to the question, but not answering the exact question asked?
  - c. Was your answer partially, though not completely, correct?
  - d. Did you misread the question?
  - e. Did you calculate an answer incorrectly (as in mathematics)?
  - f. Was your answer completely disconnected from the question being asked?



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  - e. Did you calculate an answer incorrectly (as in mathematics)?
  - f. Was your answer completely disconnected from the question being asked?
- Write down why the correct answer was correct.



# **Strategies for Scaffolding Error Analysis**



Encourage students to do an error analysis with a peer.
Working with a classmate can provide students with a new perspective.



Come up with codes for the most common errors in your class and have students mark their returned assessments with the code. Students may notice a pattern in their own responses that they can apply as they continue with the assessments.



Provide students with a graphic organizer to plan out their thinking for incorrect and correct answers.



Encourage students to eliminate answers first. If they can eliminate answers they are confident are incorrect, they have more opportunities to sidestep errors.