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A two-day lesson plan designed for a topic in psychology.

Correlated to the National Standards for High School Psychology Curricula

Standard Area: Thinking

After concluding this unit, students understand:

1. Basic elements comprising thought
 - 1.1 Define cognitive processes involved in understanding information.
 - Bottom up processing
 - Top down processing

Lesson Objective:

The purpose of this two day lesson is to help students understand the two approaches of processing: top down and bottom up. Effectiveness of the lesson will be assessed with a summative quiz on approaches to cognitive processing.

Day One:

Students will be introduced to cognitive processing through a PowerPoint based lecture that will outline the major aspects of the two major approaches to cognitive processing.

A. Introduction to content

1. Top down processing
 - a. Starting with the big idea and breaking it down into its smaller parts to better understand the big idea
 - i. Examples
 1. The organization of a chapter in a text book with sub sections
 2. Writing a five paragraph essay
 3. Diagnosing a breakdown in a car engine
 4. Solving a maze by looking at it from above
2. Bottom up processing
 - a. Starting with the smaller parts and working toward a big idea or conclusion
 - i. Examples
 1. Using phonetics to sound out a word
 2. Blue's Clues
 3. Construction the picture of a puzzle by looking at the puzzle pieces
 4. Learning the way through an unlighted maze from the inside with a flashlight

B. Student practice

- a. Students will work with a partner to compose an example of each type of processing.
- b. Students will share their examples with the class.

C. Homework

- a. Students will develop one additional example of each type of processing and write a summary of their examples to hand in at the beginning of class tomorrow as a formative assignment to see how well they are learning the content

Day Two:

- A. Introduction to demonstration: "Picture This"
 - a. Students will work in groups of four or five
 - b. Each group will receive a 500 piece picture jigsaw puzzle without the picture on the top of the box.
 - c. Students will select piece of the jigsaw puzzle, examine them, and pass the puzzle pieces around one at a time.
 - d. After five minutes each member of the group will draw a picture that they believe generally represent the jigsaw puzzles' picture. When they are done drawing the picture the puzzle box tops are revealed and the students are asked to identify which box top goes with their puzzle. Surprisingly, students are usually able to draw a generalized picture that is detailed enough to recognize the picture when the box tops are put on display in the front of the room.
- B. Discussion
 - a. Students will reconvene in large group and discuss
 - i. What elements of the demonstration show bottom up processing?
 - ii. What elements of the demonstration show top down processing?
- C. Reflection
 - a. Students will write a reflection paper summarizing their experience and provide an estimation of their understanding of bottom up and top down processing by rating it on a scale of 1-10
- D. Assessment
 - a. Students will take a ten question summative multiple choice quiz and a 4 question short answer quiz on examples of top down and bottom up processing to determine if they understand the concepts.
 - i. Remediation: students that score below 70 percent will look up the answers to the questions they missed and write down way their new answer is correct. After completing the remediation students will complete the alternate form of the quiz.
 - ii. Correlation between student self assessments and quiz scores will be examined and feedback will be given to the students on the accuracy of their self estimates based on their quiz scores.
- E. Closure
 - a. Shout outs: Give me four describing words for top down processing and they will be recorded on the white board. Give me four describing words for bottom up processing and they will be recorded on the white board.