The Crossword Puzzle as Threshold to Higher-Order Thinking

One of the most difficult tasks we encounter with students is moving them beyond a mere accumulation of factual material in class. Often our transmission of lower-order thinking skills (remembering and understanding) is somewhat akin to the proverbial giving of a fish to the hungry individual. Increasingly in the 21st century, we are recognizing the need to teach our students **how to fish**; that is, how can we best teach the skills for higher-order thinking.

One effective threshold to the top level on Bloom's revised pyramid of learning, **creating**, is the crossword puzzle, and perhaps the first major goal it can achieve is helping students to become adept at a major skill in creating, **perception shifting**, or learning to look at a given issue or problem from multiple perspectives.

Suppose you provide your students with a crossword puzzle grid where 1 Across is four letters with a clue of "First place." Since 2012 is an Olympic year, one student in the class is bound to call out, "GOLD."

Without having 1, 2, 3, and 4 Down, it's difficult to know if GOLD is correct, but let's say you pronounce that answer wrong and help the students by asking to think in terms of biology. Both "CELL" and "WOMB" are excellent suggestions, but we doubt you'll get them for a while. Why? Your students will have trouble shifting gear from one field of perception to another. Psychology has a principle often referred to as "the primacy of the first," which states that once our mind settles on something, changing that thought is difficult.

You could provide your students with the fish, "CELL" and "WOMB," or you could further illustrate the problem by offering the lens of still another field such as religion and watch them stumble to come up with "EDEN."

Or you could teach them how to fish by explaining what perception shift is and why it's difficult. You could extend that teaching moment by having students become **cruciverbalists** (solvers/constructors of crossword puzzles) and create some more of the crossword puzzle, thereby moving them up Bloom's Revised Pyramid.

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