

## Creating cognitive dissonance

**What it is:** Pushing students to adopt (even if only temporarily) other views or positions in order to shake their confidence in their pre-existing or intuitive ideas.

**Why it might be worth trying:** These strategies may push students to go reach beyond what David Perkins calls a "makes-sense" epistemology in which the student stops at first explanation that makes sense and *seems* to explain a problem.

### Examples:

- Ask students to argue from the position of the person (in class or among the readings) with whom he or she most strongly disagrees.
- Play Peter Elbow's "believing and doubting game." Through writing or small group tasks, ask students to first identify the strengths in an argument they encounter in class or in the reading; then ask students to identify weaknesses in that same argument.
- Explicitly acknowledge and address students' intuitive ideas. See this potential math assignment, taken from John Bean's *Engaging Ideas*:

In class yesterday, 80 percent of you agreed with this statement: "The maximum speed of a sailboat occurs when the boat is sailing in the same direction as the wind." However, that intuitive answer is wrong. How so? Using what you have been learning in vector algebra, explain why sailboats can sail faster when the wind blows sideways to their direction of travel rather than from directly behind them. Make your explanation clear enough for the general public to understand. You can use diagrams if that helps. (27).

### Resources

Bean, J.C. (1996). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. San Francisco: Jossey-Bass.