

**SEAN ROBINSON:** When you see that a student has an understanding of what they're doing which is very different from what's real, you try to find something in what they're doing that is just very counter to what their understanding is. Really point it out. You have to elicit it. Make them understand that, hey, look, this thing over here, you can see that that's true. And if that's true, then your understanding can't possibly be true.

That gets them into the mental state that neuropsychologists call cognitive dissonance. And that is a point where students are very ripe for learning. You elicit the cognitive dissonance and then help them resolve it.

Those sort of teaching moments are things that really stick with the student for quite some time. So for us, in the course of the semester, we try to elicit many of these moments of cognitive dissonance early in the semester, and really try to get them through these important lessons of eliminating the very common misunderstandings that many people come into the class having.