

### Objectives

To set the stage for the fact that students will need to do certain kinds of tasks out of class, leaving in-class time for more interactive engagement. To do this in a way that doesn't feel coercive, telling students to engage in active learning because they should "eat their vegetables" (i.e, engage in active learning because it's good for them) but rather demonstrates his respect for his students and builds a positive rapport. This represents a departure from simply *telling* students why they should engage in active learning.

### Activities

Start with two questions, and write student responses on the board:

1. How do you plan on studying for a class like this?
2. What skills do you want to prepare you for your ideal job?

Then he asks:

1. Is there any overlap between these two lists?
2. What do you need to do to learn the skills you want to learn?

Another version of these types of questions comes from Gary Smith:

1. Thinking of what you want to get out of your college education, and this course, which of the following is most important to you? Acquiring information (facts, principles, concepts), learning how to use information and knowledge in new situations, or developing lifelong learning skills
2. All three of these goals are clearly important. Which of these three goals do you think you can make headway on outside of class, by doing your own reading and studying?
3. Which of these do you think would be best achieved in class working with your classmates and me?

That launches him into making the pitch for a different kind of class, one that is focused on active learning and collaboration and directly hits the skills they need for the future. He compliments them on their study skills list, and says: "You are now really good at finding out facts, memorizing terminology and the like. For that reason, I am going to let you do all that out of class (through pre-reading and pre-reading quizzes). You are going to do really well on those pre-reading assignments since you are already good at this kind of learning. That will leave us enough time to really practice the skills you need for your future jobs in class, and by practicing that in class you will be prepared to do well on the exam even though the exam questions are going to be different than you expect for a large lecture hall class like this. We are going to practice enough that if you are engaged in the out of class work and on the exam, you will do well. But you have to prepare yourself to work harder than you expected to when you walked in the door. My past students say it was more work each week than they expected, but they wouldn't have it any other way because they are actually learning something valuable."

### Author

Scott Freeman, Biology, University of Washington, as recalled by Sarah Wise, University of Colorado Boulder.

Also Gary Smith, University of New Mexico, in "First Day Questions"

### Materials & Resources

"First Day Questions," National Teaching and Learning Forum, 17(5), September 2008.

### Classroom Context

Large introductory science course

### Time Requirement

10 minutes

### About this Project

This is one of a set of materials compiled for instructors to draw upon in order to frame non-traditional modes of classroom teaching for their students. Our hope is that these materials can help reduce any student resistance to such techniques.

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Other materials available online at [www.colorado.edu/sei/fac-resou](http://www.colorado.edu/sei/fac-resou)

## Effectiveness

The author indicates that his classroom environment and student evaluations changed dramatically by having this discussion. Jon Gaffney (The Physics Teacher, Vol. 53, March 2015) notes that this activity is likely to be beneficial because it acknowledges students' need to feel in control of their own learning, thus not threatening their sense of autonomy. This generates a more relaxed classroom atmosphere.