Designing Questions

To challenge your class to address a topic at a high level of abstraction, use questions that are developmental in nature and that recognize various levels of thinking. These kinds of questions will promote critical thinking and help students to work together. Do not use this model of question development only in a linear fashion, progressing from lower order questions/thinking, through the sequence, to higher order questions/thinking. A discussion might begin with questions of evaluation (to elicit student opinions and ideas) and then shift to alternate levels of questioning, depending on what issues and ideas emerge from the students' discussion. You may find it useful to have a repertoire of prepared questions utilizing the following 5 different levels of thinking.

1. **Knowledge**, identification and recall. Does the student know the information?
   Sample questions: What events lead up to...?
   What happened...?
   Identify...
   Define...
   List...

2. **Understanding** and comprehension. Does the student understand?
   Sample questions: What does it say/mean...?
   Contrast...
   How do you know...?
   What makes up...?

3. **Application.** Can the student use previously learned information in a new situation?
   Sample questions: Demonstrate how this could work in an industry setting?
   Where else might this apply?
   What rules apply in solving this problem?
   Show how to solve...
   Construct...
   Use...

4. **Analysis and Synthesis.** Can the student take the idea or issue apart and put it back together or see it in new ways? Can the student analyze all the facts available and offer multiple solutions or interpretations?
   Sample questions: What caused this scenario to fail?
   Why does failure occur in this scenario and not another?
   How is "X" different than "Y"?
   What are the parts of this idea/issue?
   How are these parts interrelated or dependent on each other?
   Offer an analysis. Would this scenario work in another context?

5. **Evaluation.** Can the student assess, form opinions, set up appropriate standards to evaluate the issue?
   Sample questions: Which method or procedure is better?
   Can you evaluate this scenario in terms of....?
   Which approach would you choose? Why?
   Judge (or select, rate, etc.) the following: ...

Adapted from Bloom, B. S. (editor), 1984, *Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain.* Longman, New York.

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