

Questioning Strategies to Engage Students

Asking students challenging and thought-provoking questions encourages students to tap their existing mental models and build upon previous knowledge. Faculty can ask key questions to get students to see the relevance of a topic. In turn, it is hoped that students will then ask follow-up questions, engaging in dialogue while critically analyzing viewpoints shared. Therefore, by encouraging students to ask questions faculty provide opportunities for students to become actively engaged in the learning process while also developing valuable metacognitive skills that will benefit them the rest of their lives.

This article shares tips for designing and asking effective questions, during the beginning, middle and end of class, as well as asking questions outside of class.

Tips for Designing and Asking Effective Questions

In his book, *The Craft of Teaching*, Kenneth E. Eble (1988) shows the essential connection between “the art of asking questions” with meaningful class discussions (p. 88-89). Eble suggests “three cardinal principles” when forming questions:

1. **“Ask real questions even though they may seem off-hand, simple, or imprecise.”** Avoid using stock questions that fail to match course content and worst of all, your teaching style. Instead, form questions that are related to course content, current and ongoing discussions, and ones that are interesting to your students. Finding students’ interests can be achieved through an early course survey and more intimate classroom discussions.
2. **“Be ingeniously responsive to the students’ answers and questions.”** Class conversations, as Eble suggests, should be accepting of all points of view, whether or not the answer is correct, “vague, wandering, irritating, or whatever” (1988, p. 89). In other words, everyone should feel comfortable answering questions without fear of ridicule, non-acceptance, or laughter. This is especially important when asking questions in a classroom of diverse learners. Some students not educated in western cultures may not be comfortable answering questions—they learned by listening to more autocratic instructors and did not ask questions because doing so questioned the authority of the instructor. Other students could have learning disabilities or are fearful of speaking in class. It is important, then, to create a learning environment in which you welcome and encourage questions. Model your expectations at the beginning of the semester and provide examples of ways you expect questions to be asked and answered. “Never deliberately ignore a question or demean the questioner” (Eble, 1988, p. 89). If class time is coming to an end and you feel students have questions yet to ask, have them write the questions on a note card that they submit before leaving class. You can address these questions at the beginning of the next class period or comment directly on the card which you can return to the student.

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3. **“Try to achieve a rhythm in a series of questions so that the group arrives at moments of larger understanding.”** Prepare a series of questions that begin with less complicated content that eventually leads to more complex content. Present questions with just enough information to encourage students to think deeply and form a meaningful answer. Instead of expecting one person to answer the question, ask students to pair up and discuss the question and prepare a shared answer—this allows them to talk about and share their collective knowledge with the class.

Avoid using language that is ambiguous or not yet relevant to course content. Do not assume students know the “terminology du jour.” Asking vague questions by virtue of ambiguous or out-of-context language may elicit vague answers. Therefore, “questions should be definite and unmistakable” (Eble, 1988, p. 90, citing Fitch).

The following tips and techniques have been compiled from of a number of sources (see references) that provide ways to prepare and deliver effective questions in the classroom. Although this list is not exhaustive, the points provide a range of ways to integrate questions in the classroom. The list begins with preparing questions and ends with ways questions can be used outside the classroom.

Get acquainted with your students so you can customize questions that challenge them to think more critically about course content to help them learn.

Preparing Questions

First and foremost, design course goals and learning objectives to help students achieve what you want them to learn. Once course goals and objectives have been developed you can begin to prepare complementary and effective questions.

Get acquainted with your students so you can customize questions that challenge them to think more critically about course content to help them learn. This does not mean that you must scrap the foundations, key concepts and content that drives your course. It means, however, that you can meet your students along the way—to challenge the knowledge they bring to the classroom and to present content through questions that is useful and relevant to them.

Questions to Ask Students at the Beginning of Class

- Arrive in the classroom early to help students who have questions about previous lectures, readings and exam preparation.
- Begin the semester—the very first class, by asking students the type of questions you plan to ask throughout the semester. This will set the stage for the class, and help students form more complete impressions and establish expectations
- Begin the class with a key question. Assume that students who come to your class are interested in being there. “Hook” students with a question based on what they know (through readings and course content, by virtue

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of their academic level—freshmen versus seniors, or by their major). This key question can be the foundation upon which they can “hang” further concepts (facts and content). The key question can be projected on the screen as students enter the room or asked as soon as the class begins. Here are a few key question examples:

- “How will the proposed economic stimulus package affect you as a college student?”
- “Why should we be concerned about melting arctic ice?”
- “How will your successful completion of this class prepare you to enter the work force?”

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- Ask provocative questions to energize students into saying something. Keep the topic relevant to the course and be prepared for discussions that could begin to get divergent. Know when to draw the line on discussions that veer from the question or when students dominate the discussion at the expense of others. Bain (2004) provides examples of provocative questions:
 - “Why did some societies get in boats and go bother other people while others stayed at home and tended to their own affairs?”
 - “Why are human beings occasionally willing to leave home and hearth and march off into the wilderness, desert, or jungle and kill each other in large numbers?”
 - “Why are some people poor and other people rich?”
 - “How does your brain work?”
 - “What is the chemistry of life?”
 - “Can people improve their basic intelligence?”
- Tell stories about your life, your friends, and other people that provide meaning to the topic of the day. Stories can provide the springboard some students might need to ask questions. For example, as an instructor in a University Experience class, you could tell the story of your first experiences away at college and some of your struggles with study and time management skills. Personal stories might compel students to ask questions about study skills, time management and taking exams.

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Questions to Ask Students During Class

- Teach with the notion that students are naturally curious and have them “develop an intrinsic interest that guides their quest for knowledge, and an intrinsic interest . . . that can diminish in the face of extrinsic rewards and punishments that appear to manipulate their focus” (Bain, 2004, pp. 46-47). In other words, provide content in such a way that students can see how it can be used in their professions and the relevance of course content to job-related skills. Provide meaningful comments on graded papers and exams—show them the “why” so they can learn “how” to improve.

- Be aware of how you present questions—do you ask questions in a friendly or authoritative manner? What is the purpose of asking questions? Do you want your students to learn from the question or are you asking the question “just because”?
- Avoid “schooling” where “bulimic learners” (Bain, 2004, p. 40, citing Nelson) memorize facts and short-ranged information to later purge, “making room for the next feeding” (Bain, 2004, p. 41). This “force fed” competitive-type of schooling reduces students to be mere receptors of information to compete for grades and have little interest in learning something new.
- Incorporate relevant vocabulary when responding to a student’s question. For example, when a student asks why her computer is not operating as fast as it had been, you can tell her that she might need more RAM. The student can then ask, “What is RAM?” a question she would not have asked except in this context (the idea for this example was improvised from Bain, 2004, p. 104).
- Ask students to bring one or two questions to class based on textbook readings or content covered in the previous class. Provide some sample questions to help students write meaningful questions. These questions can then be submitted (a good way to take attendance) and randomly addressed at the beginning of the class period or used to develop exam questions.
- Avoid answering your own question by giving students a few seconds to form a good answer. If the first answer is not what you had expected, do not discount the effort the student has made. Instead, ask the student if they could re-phrase their answer or to elaborate a bit more. If they are still having some difficulty, ask another student to help form the correct answer. Ask questions that students can think for themselves (McComas & Abraham, 2004).
- Engage other students by having them answer the question of one of their peers. It has been shown that students can learn from other students if given the opportunity to do so.

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Questions to Ask Students at the End of Class

- End the class by asking the students:
 - “What questions do you still have about today’s topic?”
 - “If you were to ask one last question, what would it be?”
 - “What was the muddiest point today?”
 - “What was the most meaningful point we covered today?”

Ask end-of –class questions to help students synthesize the information and draw conclusions. Their responses to one last question and muddiest point can be submitted for your review—you

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can address student issues at the beginning of the next class period or review to clarify content.

- Make notes about how students responded to questions asked during the class as well as the type of questions students asked of you. These notes can help you prepare for and modify subsequent classes (Gross Davis, 1993 citing Kasulis).

Questions to Ask Students Outside the Classroom

- Questions do not have to be limited to the classroom setting. You can ask specific questions related to textbook readings, homework and study. Meyers and Jones (1993) suggest that questions should “fit into prospective classroom activities, model theories and approaches used in academic disciplines and professional careers, extend meaning to materials read or discussed previously, promote a critical analysis of the materials, and make the students think about how the text applies to their personal experiences” (p. 128). Here is an example of such questioning:

“Please take particular note of pages 13-14 of Kaisha’s article in which he comments on decision-making in Japanese business. Recall our discussion of decision-making in the American auto industry last week. What comparisons and contrasts can you draw between the two approaches to decision making? We will be using these two approaches in a simulated decision-making exercise Thursday” (Meyers and Jones, 1993, p. 129).

Other questions related to reading assignments can follow these examples:

- What [material from] the chapter do you think we should review?
- What item in the chapter surprised you?
- What topic in the chapter can you apply to your own experience? (Meyers and Jones, 1993, p. 130 citing Gaede).

Finally, use online discussion boards to pose questions that can help extend course content asynchronously. Online discussion boards give students extra time to form their answers and can benefit those students who are less inclined to join in on face-to-face class discussions.

Summary

Using questions in the classroom can help students engage with course content, the instructor, and other students. Good instructor-generated questions can also guide students in developing better answers and help them to form questions of their own.

References

Bain, K. (2004). *What the best college teachers do*. Cambridge, MA: Harvard University Press.

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Meyers, C., & Jones, T. B. (1993). *Promoting active learning: Strategies for the college classroom*. San Francisco, CA: Jossey-Bass.

McComas, W. F., & Abraham, L. (2004). *Asking more effective questions*.
http://cet.usc.edu/resources/teaching_learning/docs/Asking_Better_Questions.pdf

Selected Resource

University of Illinois at Urbana-Champaign (2006). *Levels and types of questions*. Center for Teaching Excellence Web site:
http://leusd.les.schoolfusion.us/modules/groups/homepagefiles/cms/568549/File/Files%202009/Levels_and_Types_of_Questions.pdf?sessionid=705e0ac7c99bc4b2f09f4852baecc112