

Questioning Techniques: Guidelines & Best Practices

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Why ask questions?

Asking and answering questions is a key ingredient in the learning process and in effective teaching. Using a variety of questions in the classroom can serve many different purposes—they can be used to:

- diagnose students' level of understanding
- help students retain material but putting into words otherwise unarticulated thoughts
- involve and engage students in their learning process, especially critical thinking and reflection
- test students' knowledge
- dispel misconceptions
- summarize and review key points and highlighting main themes, ideas and skills
- stimulate creativity
- modifying students' perception of the subject
- encourage students to become self-directed learners

(Adapted from Hyman, 2003; and Rasmussen, 1984; Di Risio, TATP, 2006.)

How can you encourage students' responses to your questions?

If students are interested and engaged in the course content, they should be asking questions. As TAs and CIs, we should welcome and encourage questions from our students. Hence, it is important to follow certain **basic rules around student questions**:

- **take questions seriously** – treat every inquiry as a genuine attempt at intellectual curiosity, probing and exploration
- **be positive and encouraging** – promote the idea that every student question is useful, important, and appreciated
- **draw all class members into the conversation** – whenever you field a question, repeat it to the entire class and answer to the entire class
- **avoid embarrassing students who have asked problematic questions** – avoid making the questioner feel foolish especially when a question reveals the individual student's lack of awareness or knowledge
- **create an atmosphere of inquiry by continuously eliciting questions** – if you get a question during a break, before or after class, or during your office hours, raise it with the whole class
- **be a good listener** – good questioning technique is as much about listening as it is about speaking

(Adapted from Boyle and Rothstein, 2008; Di Risio, TATP, 2006.)

How can you motivate students to ask questions?

You should **encourage your students to create their own questions about course content**. Ask students to:

- suggest and submit quiz, mid-term or exam questions

- get students to quiz each other on the tutorial/lesson/lecture content
- get students to write down one or two remaining questions at the end of tutorial
(Center for Teaching Excellence, Cornell University; Cashin, 1995)

Avoid the “Are there any questions?” Turn these reflective moments into opportunities for students to demonstrate their understanding as a check of their learning:

- “Now, I am sure you have some questions?”
- “That was complicated. What did I leave out?”
- “This is a difficult topic with lots of controversial issues. Which area do you think remains controversial?”

How should you respond to students’ questions?

Responding to student questions about content also requires some basic rules:

- **reinforce good questions and answers** – reinforce participation on a continuous basis and in a variety of direct and indirect ways by praising students for asking or answering a question
- **answer as pointedly and briefly as possible** – be straightforward in your answer and avoid providing all information that you know about the topic
- **answer questions immediately** – always provide a response to avoid discouraging students; however, you can ask other students to respond or postpone the question (if it is too divergent or complex) until after class
- **relate questions to the course content, even if they are tangential** – remind students of how a seemingly unrelated question does pertain to course content as every question is a learning opportunity
- **ask for comments or answers from other students** – you can redirect a question from one student to the entire class
- **avoid implicit discouragement** – especially if a question pertains to a topic already covered or diverges towards a tangential topic
- **be aware of your teaching presence** – be mindful of your tone of voice and non-verbal cues (e.g., facial expressions, nodding, gestures, etc.)
- **if absolutely necessary, tactfully correct wrong answers** – correct the answer, not the student: “I don’t believe that answer is correct” instead of “You are wrong”
- **look beyond the answer, to the thought process** – even if incorrect, unpack the student’s answer to identify correct and incorrect steps to dispel misconceptions
(Adapted from Boyle and Rothstein, 2008; Davis, 1993)

How can you manage student responses to your questions?

You can vary your response to a student’s answer in a variety of ways:

- **restate:** paraphrase or restate what the student said to reinforce the key points, ideas or concepts
- **ask for clarification:** “Could you be more specific about...”
- **invite the student to elaborate:** “We would like to hear more about...”

- **expand the student's contribution:** "That absolutely correct, and following up on what you said..."
- **acknowledge the student's contribution but ask for another perspective:** "You are right about....but what if we look at it from the perspective of...."
- **acknowledge the originality of a student's ideas:** "That's a great way of looking at it. I didn't think of that."
- **build on a student's response:** use student's response as a segue to another topic: "Great analysis of the concept. Would the same rules apply in this next case..."
- **don't be afraid to admit when you don't know the answer**

How can you incorporate the use of effective questions in a tutorial/class?

The design and delivery of effective questions need advance preparation. These are some key considerations and strategies that you should keep in mind when planning the development and delivery of questions in your classroom:

Prepare your questions in advance:

- decide the purpose of your question
- select the content of your question
- carefully choose the level of difficulty of the question ensuring that students have the necessary information and skills to answer it
- phrase the question carefully using vocabulary familiar to the students
- anticipate possible student responses
- write your main questions in advance

Prepare strategies for asking questions:

- think about different ways of using your questions
- strategize around inserting key questions into active learning activities such as:
 - debates
 - think-pair-share
 - small group discussions
 - low-risk writing activities such as one-minute papers
- decide whether you will be asking the question to individual students, pairs, groups or the whole class

Be aware of the time requirements/limitations:

- determine the timing of your questions: are the questions given ahead of class? during class? after class in preparation for the following class?
- ask one question at a time
- determine the order of your questions: are you going to move from simple to complex? from factual to controversial?
- be realistic about the time that students will require to think about a question and formulate an answer

Remain an agile questioner:

- don't stick solely to your list of prepared questions
- add questions that occur to you during class
- modify your list of questions as you go along, especially if the discussion (i.e., student responses) leads to important and relevant exploration of content
- act as though you are seeking knowledge and discussing a topic, not interrogating or simply evaluating knowledge
- be ready to rephrase or scaffold your questions if students have trouble understanding what you are asking
- use questions to change the tempo and/or direction of the discussion

Cultivate your question-asking style:

- think not only about *what* question you are asking but also *how* you are asking a question
- consider phrasing and word choice
- you can use questions to “cool down” or “heat up” a discussion
- you can identify questions to open or summarize a class

How can you design effective questions?

When designed and delivered properly, questions are a powerful tool. Formulating an effective question does not only mean creating a query that elicits a “correct answer” but rather creates a learning experience that invites authentic reflection and discussion. Students need to become critical thinkers, discover their voice, and be acknowledged for having a point of view that matters. Hence, designing questions that elicit higher-level thinking such as application, analysis, evaluation and creation, takes time and effort. Whenever you are formulating questions, keep in mind the key learning outcomes of your lesson and of the course. Pitch your questions at an appropriate level.

Effective questions are:

- **purposeful** – asked to achieve a specific purpose
- **clear** – students understand what they mean
- **brief** – stated in as few words as possible
- **natural** – stated simply, in conversational English
- **thought-provoking** – they stimulate thought and response
- **limited in scope** – only one or two points in chain of reasoning called for
- **adapted to the level of the class** – tailored to the kinds of students in the class
(Lewis, 2007.)

There are different typologies and classifications of questions based on various taxonomies of learning. They can be placed on a continuum from questions that are structured, teacher-centred, and geared towards lower cognitive abilities to questions that are open-ended, student-centred, and focused on higher-level cognitive learning. The chart below reveals various classifications of cognitive levels of learning.

summary	What themes have emerged from today's class?
comparative	Compare the traditionalist and revisionist interpretations of the origins of the Cold War?

(Adapted from Svinicki and McKeachie, 2011; Nilson, 2010; Davis, 1993; Biggs, 2006; Di Risio, TATP, 2006.)

How can you check the quality of your questions?

Once you have formulated your question, put it through the following filters:

- Does this question draw out and work with pre-existing understandings that students bring with them?
 - Does this question raise the visibility of the key concepts or skills the students are learning?
 - Will this question stimulate peer discussion?
 - Is it clear what the question is about?
- (Center for Teaching Excellence, Cornell University)