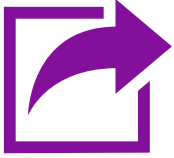




# CRITICAL THINKING

Asking questions

# Asking questions



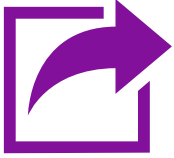
## Strategies to share with students

Suggested ideas and practices educators can share with students to support awareness of the topic and development of the skill. Strategies can be adopted/adapted as needed.

- Open-ended versus close-ended questions.** Consider whether your questions have one specific answer, such as 'yes' or 'no'. Open-ended questions can often lead to more discussion.
- Journalistic questioning.** Generate a list of questions related to a topic or problem. Begin with the subheadings who, what, where, when, why, and how. Record all your ideas that connect each of these questions to your topic or problem.
- Asking Questions before, during, and after.** Practice asking yourself, writing, or recording the questions you have before, during, and after you read something. You can also use this strategy before going to class or ahead of studying.
  - *Before:* What is the topic and what do you know about it? What do you think you will learn about? What questions do you already have about the topic?
  - *During:* What new things have you learned AND how do they connect to what you knew before? What questions do you still have?
  - *After:* What should you do with the knowledge that you have gained and how will you remember this information? How does your current knowledge connect to other areas of inquiry?



# Asking questions



## Strategies to share with students

Suggested ideas and practices educators can share with students to support awareness of the topic and development of the skill. Strategies can be adopted/adapted as needed.

- ☑ **Brainstorming questions.** Make a list of different questions you have about a topic (e.g., after reading course content for the week). Bring your list of questions to the class and be prepared to ask those questions.
- ☑ **Consider Bloom's Taxonomy.** Read a summary of Bloom's taxonomy of skills. When applying this taxonomy to questioning, the lower-order questions involve asking questions that require recall. Higher-order skills prompt more critical thinking by pushing you to think about connections across different topics, asking why certain things happen, what you think might happen, and so-on. It is useful to learn how questions can be framed because this might prepare you in advance for assignments or exams by helping you predict questions you might see. Being able to ask higher order questions also helps you be more creative and focused on problem-solving, which would be helpful in a research-based environment.



# Asking questions



## Tips for course design and delivery

Ways educators can bring awareness of the topic and incorporate development of the skill into post-secondary course design and delivery.

- ✓ **Create a welcoming environment for risk-taking.** It is important that students feel safe asking questions so that they are not afraid that they will be ridiculed. Identify classroom guidelines focused on respect and build the learning community gradually so that students increasingly become more comfortable with asking questions.
- ✓ **Give students opportunities to ask questions in different settings and formats.** Be mindful that some students will not feel comfortable asking questions in a large group, regardless of the class environment. This could be due to the number of people in the room or the power imbalance between instructor and student – a student may be concerned with how they are perceived by the instructor. It is important to provide a variety of opportunities for students to share their questions not only when the instructor is present, but with also in a peers-only context. This could involve small groups or digital formats like an electronic form submission or chat feature.
- ✓ **Model how to ask effective questions.** If asking questions is a skill you want to focus on in your course, you need to make sure that you spend time pointing out examples of asking effective questions. Indicate different aspects of your own questioning skills when you are teaching. Illustrate that you also do not know everything and that you have questions yourself! This acknowledgement can help your students recognize that everyone has questions and that questions are a favourable part of learning.



# Asking questions



## Tips for course design and delivery

Ways educators can bring awareness of the topic and incorporate development of the skill into post-secondary course design and delivery.

- Be strategic about your questioning.** Pre-plan some of your questioning and be mindful of how it connects to Bloom's taxonomy. Lower order questions might focus on question stems such as "How would you describe...?" or "What is...?", while higher-order questions might be framed by asking "What is the relationship between...?" or "How would you test for...?". Plan questions at different levels and share Bloom's taxonomy with students. If students are aware of these different levels of questioning, you can have them ask different types of questions throughout the course using various activities.



# Asking questions



## Activities to do with students

Downloadable activities with suggested guidelines that educators can do with students. Activities can be adopted/adapted as needed.

## Activity: Brainstorming Questions

### Overview

In this brainstorming task, students work independently or collaboratively to think about and provide any of their questions related to the week's topics. Reflecting on course readings and content ahead of time can help create interest and better prepare students for learning.

Review the [Educator Activity Guide](#) before getting started with this activity.

### Time

- Under 20 minutes
- 20 minutes to 1 hour
- More than 1 hour
- Over several classes

### Modality

- In person
- Online synchronous
- Online asynchronous

### Format

- Individual
- In pairs
- Small groups
- Large groups
- Whole class

### Resources

- Module notes
- Paper
- Pen/pencil
- Laptop/tablet



# Asking questions

## Instructions

1. Before introducing a new topic in your course, give the class a relevant word, title, or phrase (related to the topic) that they will be learning about.
2. As a whole class or in small groups, ask students to ideate questions about the provided word, title, or phrase. To help form their questions, students should consider:
  - Information they already know about this topic
  - Personal interests in the topic
  - Things that seem to stand out about this topic
  - Ways in which the topic connects with previous learning
3. Ask students to submit their questions so that the instructor can create a master list of questions that can be shared with students.
4. Debrief the activity by focusing on some of the questions that were shared to nourish curiosity and build initial engagement in the new topic.
  - Explain how this approach of listing questions about a new topic can be used to help clarify points of confusion early in the learning process and establish important relationships between ideas, which sets the context for new learning.
  - You may also ask students how this activity can be useful in the future for their learning.

## Variation(s)

- When teaching about the new topic, engage students by selecting and then discussing some of the submitted questions.
- The submitted questions can be reviewed as a class at the end of the topic as a knowledge check. Students can gauge their learning and understanding of the topic by answering the master list of questions created before the introduction of the new topic.



# Asking questions



## Activities to do with students

Downloadable activities with suggested guidelines that educators can do with students. Activities can be adopted/adapted as needed.

## Activity: Discussion Board Prompts

### Overview

This activity describes the use of a discussion board as a place where students can pose questions and consider prompts about course-related matters, approaching assignments, the coming week's material, etc. This discussion board is intended to support students in their learning.

Review the [Educator Activity Guide](#) before getting started with this activity.

### Time

- Under 20 minutes
- 20 minutes to 1 hour
- More than 1 hour
- Over several classes

### Modality

- In person
- Online synchronous
- Online asynchronous

### Format

- Individual
- In pairs
- Small groups
- Large groups
- Whole class

### Resources

- Module notes
- Paper
- Pen/pencil
- Laptop/tablet





# Asking questions

## Instructions

1. Set up an online discussion board for students to communicate with their peers and instructor(s).
2. Post instructions on the discussion board. The instructions should explain how questions have different purposes (e.g., seeking clarity, expressing curiosity) and in different forms (close-ended questions have one specific answer like yes/no and open-ended questions have multiple possible answers).
3. Create weekly discussion board prompts where students engage with course materials by asking questions. You can guide students through this process with these categories of prompts:
  - Main ideas
  - Knowledge gaps
  - Personal connections
  - Difficult concepts
  - Future interests
4. At one point or several points during the course, ask students to reflect on and share how the process of generating ongoing course questions shaped their learning.
5. *Optional*: Encourage students to respond to their peer's questions on the discussion board or give feedback.

## Variation(s)

- Instructors can ask students to pitch potential test/exam questions (without answers), which could be included on the assessment. The pool of questions can also be shared with students as a study aid in preparation for the test/exam.



# Asking questions



## Activities to do with students

Downloadable activities with suggested guidelines that educators can do with students. Activities can be adopted/adapted as needed.

## Activity: Guided Reciprocal Peer Questioning

### Overview

This activity uses question stems to guide students to ask questions related to their lecture content or readings. These questions can then be used to initiate small and large peer discussions and support student learning.

Review the [Educator Activity Guide](#) before getting started with this activity.

### Time

- Under 20 minutes
- 20 minutes to 1 hour
- More than 1 hour
- Over several classes

### Modality

- In person
- Online synchronous
- Online asynchronous

### Format

- Individual
- In pairs
- Small groups
- Large groups
- Whole class

### Resources

- Module notes
- Paper
- Pen/pencil
- Laptop/tablet



# Asking questions

## Instructions

1. Conduct a brief lesson on a topic related to course content.
2. Provide a set of higher-order, open-ended question stems and ask students to use these stems to generate questions about the content. Examples of possible question stems are:
  - What is the main idea of \_\_\_\_? What if \_\_\_\_?
  - How does \_\_\_\_ affect \_\_\_\_? What is a new example of \_\_\_\_? Explain why \_\_\_\_ .
  - What conclusions can I draw about \_\_\_\_?
  - What is the difference between \_\_\_\_ and \_\_\_\_? How would I use \_\_\_\_ to \_\_\_\_?
  - What are the strengths and weaknesses of \_\_\_\_? What is the best \_\_\_\_ and why?
3. Instruct students to work individually and generate their own questions based on the lesson topic, using different question stems. Encourage students to explore different question stems and test as many stems as possible. Be sure tell students that they do not need to know the answers to the questions they are posing.
4. Assign students to small groups and explain that they are going to share questions with each other. Tell the groups to have each group member take a turn to share a question with their peers and to then engage their peers in a meaningful discussion.
5. *Optional:* Extend the activity by posing some of the questions to the larger class as catalysts for discussion.

## Variation(s)

- This activity is best used for narrow topics but can be stretched to bigger picture concepts with more guided question stems (e.g., analyzing points of view, making analogies, reversing situations, hypothetical thinking).

