# **Ask Meaningful Questions**



The key to keeping students engaged and involved is asking the right questions. Student response technology can provide the tools for interactive lectures, but utilizing the system to its full potential takes more than "yes," "no" and fact recall questions.

Asking meaningful questions that permit students to employ critical thinking or reveal interesting results will encourage interaction, collaboration and communication. Seeing instant feedback will allow instructors to understand and address the needs of students in real-time.

### **Basic Recall Questions**

Ask students to recall facts or concepts.

- Used to assess student understanding of material.
- Conduct pre- and post-testing to gauge lecture effectiveness.
- Ensure students have an understanding before moving on to next topic.

#### Conceptual Understanding

Asks students to not only recall definitions but understand concepts associated with definitions.

- Base incorrect answers on common misconceptions to spark rich discussion.
- Learn what students do NOT understand about concepts or content.
- Responses that are split among answer choices allow for further conversation.
- Promotes long-term understanding versus short-term memorization.
- "Which of the following is NOT an example or characteristic of concept X?"
- "Which of the following statements best explains the concepts of X?"

#### **Application Questions**

Asks students to apply knowledge and understanding of concepts to a particular situation or context.

- Predict ways students will misapply a concept and integrate into answer choices.
- If significant number answer incorrectly, ask for an explanation of reasoning.
- Particularly useful when discussing case studies, allow for argument of choices.
- "What would your response to a situation be if you had the role of X?"

#### - Procedural Questions

Asks students to apply knowledge of a procedure or technique to a problem or situation.

- Focus on the outcome of the procedure or the procedure itself.
- Reveal parts of the procedure that students do not understand.
- "In this scenario, what step or steps would you take next?"



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# Treatment of fibromyalgia with gabapentin will most likely result in the following effect:



Six days ago, a 2-year old boy had a temperature of 40.0°C (104.0°F). No specific cause was found. His fever has persisted and he now has injected conjunctivae, strawberry tongue, dry fissured lips, erythema and desquamation of his hands and feet, and bilateral cervical adenopathy. Which of the following is the most likely complication of this condition?



## The instructor's effectiveness in teaching today's lesson was:



### **Prediction Questions**

Asks students to predict the result of an experiment or procedure.

- Committing to a prediction beforehand allows students to be invested in answers.
- The larger the percentage of error, the more the students will want to hear the explanation.
- Creates a "time for telling" in which students are ready and interested to learn.
- Helps students make sense of a concept, allows instructors to see if the concept is understood.
- "How will adding X affect the outcome of the situation?"

### **Critical Thinking Questions**

Asks students to analyze relationships among multiple concepts or make evaluations based on particular criteria.

- Think critically about complex questions and suggested answer choices.
- Follow-up results with discussion regarding reasoning behind answer choices.
- Re-vote after discussion has taken place to see if answers have changed.
- Construct follow-up questions on-the-fly, focus on why answers were chosen.

#### One-Best Answer Questions

Asks students to answer multiple-choice questions that do not have a single correct answer. Calls for critical thinking versus recalling facts.

- Think critically about the best answer among several defensible ones.
- Allows for discussion of choices among students, engaging versus assessing.
- Ask a question, allow students to suggest their own answers and vote for the best one.
- Often applied in medical scenarios, asking for the best treatment of a patient.

### Presentation Assessment Questions

Ask students to evaluate presentations, projects or events. Provides valuable feedback, especially when planning for future events.

- Offer multiple levels of quality or satisfaction in several categories.
- Create questions based on pre-determined, pertinent objectives.
- Keep surveys short and sweet, provide a mid-point for ranking.
- Balance different question types within survey, define necessary terms.



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## What could be done to improve this online course?



#### - Open-Ended Questions

Ask students to answer open-ended, free response questions. For use with ResponseWare and ResponseCard NXT devices.

- Elicit multiple responses, for use if unsure how students will respond.
- For use if there is a large amount of possible responses, supports brainstorming.

#### What is your personal view of workers?



#### In the previously discussed scenario, there was "no reasonable" justification for kettling.





### Perspective Questions

Ask students questions designed to surface perspectives versus assess knowledge of subject. Help to get to know students and base direction of presentation or lecture on results.

- Gather useful information about students, tailor lecture to student answers.
- Learn where students stand on sensitive topics, do not rely on assumptions.
- Anonymous polling works best with perspective questions, collect honest answers.
- Collect student demographic information, opinions and personal experiences.
- Make topics relatable, opens up discussions when similar experiences are shared.

#### **Confidence Level Questions**

Ask students to clarify level of confidence along with answer choices.

- Including confidence level will assess student knowledge and discern students "guessing."
- Ask students to assess confidence when completing a task, "How confident would you be X?"
- Ask students confidence level at beginning to identify needs or material that needs covered.

#### Monitoring Questions

Asks students to gauge lecture or course progress so instructors can monitor effectiveness of current teaching methods.

- Create a benchmark for instructors to compare student progress.
- See what methods are working or what strategies are being implemented.

#### Definitions and Examples Taken from the Following Sources:

(2009). 2009 Health care for America survey. Retrieved from http://www.aflcio.org/issues/healthcare/survey/index\_survey.cfm Bruff, D. (2009). Teaching with classroom response systems: Creating active learning environments. San Francisco: Jossey-Bass. Case, S. M., & Swanson, D. B. Constructing written test questions for the basic and clinical sciences (3rd ed.). Retrieved from http://www.scribd.com/doc/11557944/Constructing-Written-Test-Questions-For-the-Basic-and-Clinical-Sciences



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