Clicker Question Resources

Resources:

- Will Thalheimer’s extensive Questioning Strategies for Audience Response Systems: How to Use Questions to maximize Learning, Engagement and Satisfaction
- Distilled list of 39 question types and methods

- Derek Bruff's Class Response Systems "Clickers" webpage
  - Types of Questions
    - Recall Questions - used to recall facts, concepts or techniques
    - Conceptual Understanding Questions - used to go beyond recall and assess students' understanding of important concepts
    - Application Questions * - used to apply knowledge and understanding to particular situations and contexts
    - Critical Thinking Questions * - used to analyze relationships among multiple concepts or make evaluations based on particular criteria (operate at the higher levels of Bloom's Taxonomy)
    - Student Perspective Questions * - used to share opinions, experiences, or demographic information (do not have correct answers, but by surfacing the various perspectives of students in a class, they can help both instructors and students better understand those perspectives. They can often generate rich discussion, particularly questions about ethical, legal, or moral issues. They can also help students connect their personal experiences to more abstract course content.)
    - Confidence Level Questions - following the asking of a content question, used to rate confidence of the previous response (high, medium, or low) (Can enhance the usefulness of information on student learning provided by the first question)
    - Monitoring Questions - used to provide instructors with information about how their students are approaching the learning process in their courses (these questions can be used to the gauge the status of a project, understanding of policies, etc.)
    - Classroom Experiments - used to collect data from students for research purposes

- Clickers in the Classroom: Pedagogical Best Practices
  - Good clicker questions:
    - Are generally not calculations or numerically-based
    - Have good distractors (more than one viable option)
    - Target common misconceptions and preconceptions
    - Ask students to apply rather than recite
    - Result in 50% or less correct for initial vote
    - Should generally not be drawn from publisher’s test bank (unless they are written specifically for response systems)

- What about outside the classroom? This paper, Talk through the Hand: Using Audience Response Keypads to Augment the Facilitation of Small Group Dialogue discuss issues and strategies on using clickers to enhance small group dialogue.
  - Demographic Questions - used to convey some piece of “objective” information about participants. Demographic questions lead participants to understand the diversity of participants’ backgrounds.
    - examples - How long have you been with the company? What is your annual household income?
  - Fact Questions - used to answer a question that has an “objective” answer that can be definitively known with little dispute. Fact questions lead participants to understand the diversity of participants’ knowledge.
    - examples - What percentage of our company’s employees leaves each year? What percentage of the nation are persons of color?
  - Experience Questions - used to share whether or how frequently participants may have had specific experiences. Experience questions lead the group to understand the diversity of participants’ experiences.
    - examples - How frequently do you witness behavior from coworkers that run counter to our values of cooperation? How long has it been since you witnessed behavior that you thought was a result of racial prejudice?
  - Perspective/Opinion Questions - used to assess participant’s situation or condition. Perspective questions direct the group’s attention to the diversity of participants’ worldviews.
    - examples - How would you assess the level of morale in the company among administrative clerks? How far do you think the nation is from racial equality?

- Pre- and Post- Retrospective Question Resources
  - Using the Retrospective Post-then-Pre Design
  - Designing a Retrospective Post-then-Pre Question
  - When to Use the Retrospective Post-then-Pre Design
  - Analysis of Retrospective Post-then-Pre Data