

Tips for Teaching with Clickers

Using a Classroom Response System

Overview

Whether you are considering using clickers (a.k.a. polling the classroom response system) or have already decided to use them, these are some helpful tips on how to use the system effectively.

Benefits of Using Clickers

- Increase interaction and engagement during lecture
- Encourage students to be better prepared for class.
- Provides feedback for you and your students on learning and attitudes.
- Encourages interaction amongst students.
- Assess student learning.

Ways to Use Clickers

Active Participation

- Gain attention by highlighting a misconception or recalling prior knowledge.
- Start or focus discussions.
- Collect votes after debate.
- Ask to see if students can apply concept to new scenario.

Peer Instruction

- Ask a question -> encourage discussion with peers -> re-poll students.
- Use questions that encourage discussion and debate of the correct answer.

Opinion Surveys

- Solicit views on sensitive topics (Use anonymous mode).
- Solicit feedback on the course activities.

Student Information

- Collect anonymous demographic information
- Solicit opinions and attitudes.
- Probe pre-existing levels of understanding

Assessment

- Beginning of class: assess student preparation regarding readings or homework, or use as attendance.
- During class: assess understanding or misunderstanding of material in lecture.
- End of class: assess comprehension of lecture material.
- Offer practice test questions or low stake quizzes.

Practice Problems

- For math, physics and other subjects requiring computation, ask students to solve problems to answer questions
- Ask students to estimate and answer or predict and outcome based on real world examples and data.

In This Guide

Overview	Page 1
Benefits of Using Clickers	Page 1
Ways to Use Clickers	Page 1
Tips for Writing Good Questions	Page 2
Tips for Success.....	Page 2
Reading.....	Page 2
Interwrite PRS	Page 2
For More Information.....	Page 2

Related Guides

PRS Software and Clickers-Getting Started

PRS Software- Setting up Classes and Lessons

PRS Software- Using Interwrite Clickers in the Classroom

PRS Software- Using the PowerPoint Add-In

Quick Guide

Tips for Writing Good Questions

- Addresses a specific skill or learning goal.
- Minimize questions that test for facts.
- Identify student misconceptions that include them as answers.
- Ask questions that contain common errors or distinguish between related concepts.
- Include "I don't know" as a response to prevent guessing.
- Ask questions without a single correct answer to prompt debate.

Tips for Success

- Make time in class for clicker. You WILL have to rethink the structure of your lecture.
- Ask 2-3 questions per class.
- Be familiar with the technology before class.
- Have a backup plan in case the clickers don't work.
- Be clear about your reason for using clickers and let the students know if they will be graded.
- Emphasize credit for participation not on correct or incorrect answers to minimize anxiety
- If using for attendance, allow some missed classes to account for technology malfunction.
- Record your question, student responses, and if they were effective or not.

Interwrite PRS System

- ITS supports the Interwrite RF Personal Response System (PRS) software and hardware. Contact ITS to make sure the PRS receiver and software are in your classroom.
- IC bookstore sells the clickers for \$52 and buys them back for \$26. Order clickers as you would a text book.

Addition Reading

Clickers in the Large Classroom: Current Research and Best Practice Tips (2007)

Jane E. Caldwell. CBE Life Sci Educ 6(1): 9-20

<http://lifescied.org/cgi/reprint/6/1/9.pdf>

Clickers in the Classroom: An Active Learning Approach (2007)

Margie Martyn. Educause Quarterly 30(2)

<http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/ClickersintheClassroomAnActive/157458>

For More Information

A variety of support services are available from ITS if you would like additional help:

Computer training on a variety of topics is available to faculty, staff, and students at no charge through the Technology Learning Center (TLC). Check out the current TLC training schedule online at <https://www.ithaca.edu/its/workshops>

Online documentation and tutorials on IC-supported computing software and systems are available at <https://www.ithaca.edu/its/traindoc>

Frontline computing support is available through the ITS Helpdesk in 104 Job Hall; send e-mail to helpdesk@ithaca.edu or call 607-274-1000.

Backline consulting support is available in the Technology Learning Center, room 101 Friends Hall.

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