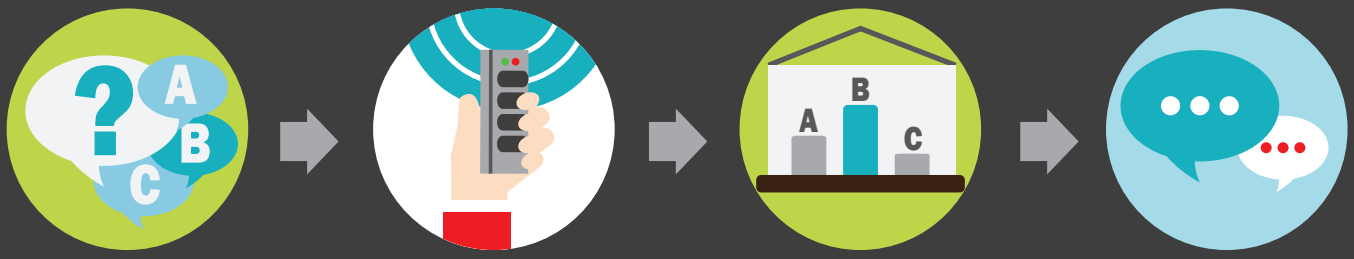
CLASSROOM RESPONSE SYSTEMS

Increase student engagement, get instant feedback on student learning and stimulate peer discussion. Classroom Response Systems (CRS) are technological tools that allow students to submit responses to instructor questions in class through a handheld or mobile device. Clickers are the most common CRS, but there are others with richer features like text and graphical input from students.



POSE A QUESTION TO THE CLASS

STUDENTS RESPOND WITH AN ELECTRONIC

INSTRUCTOR SEES STUDENT INPUT

STUDENTS CAN BE SHOWN RESULTS TO PROMOTE DISCUSSION & ACTIVITY

EVIDENCE OF STUDENT LEARNING GAINS

Studies show that use of CRS can improve learning by:

- increasing opportunities for instructors and students to get prompt feedback on how well important concepts are being understood
- facilitating increased interaction between instructors and students
- encouraging active learning through discussion and peer instruction

Contact **Arts ISIT** for a demonstration or assistance! **arts.helpdesk@ubc.ca.** Learn more about Classroom Response Systems on our website at **http://isit.arts.ubc.ca/crs/**

WHAT CAN YOU DO WITH CRS?

- Record Attendance
- Quizzes
- Discussion Prompt
- Determine the Distribution of Student Views
- Collect and Show Student Input (Numbers, Text, Graphics)
- Gauge In-Class Learning
- Contingent or Agile Teaching
- Peer Instruction

ADVICE ON HOW TO USE CRS QUESTIONS IN YOUR CLASS

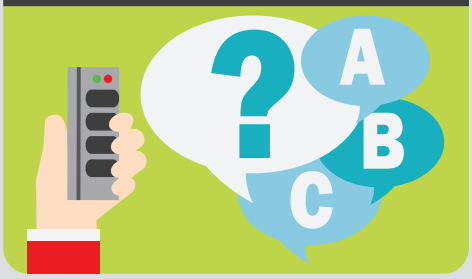
- **Use the CRS continually in a guided Socratic teaching style.**
  Break class sessions up into 10 minute sections, ending each with a set of questions and discussion. This will help focus student attention and provides an opportunity to check understanding before moving to the next topic.

- **Design questions around key concepts or common problem areas.**
  This will help focus attention in class on the most important concepts and areas where students commonly struggle.

- **Use peer instruction and CRS questions together.**
  First ask a question for students to answer individually. Then, have students discuss their answers in small groups before having them answer the question again as individuals. Peer discussion will often move more students to the correct response and the act of explaining their answers helps to reinforce learning. The instructor can then present the material differently if students are still missing the question.

CRS TOOLS AND THEIR FUNCTIONALITY

CLICKERS



Clickers are wireless handheld devices that students rent or buy and then bring to class to answer multiple choice questions that the instructor displays on a PowerPoint presentation. The instructor can choose to show or not show the results.

LEARNING CATALYTICS

Learning Catalytics is a web-based classroom response system that allows for a wide range of question and response types such as numerical, algebraic, text (words, sentences, or paragraphs), graphical or multiple-choice. The lessons can also be taken or reviewed outside of class and instructors can comment back to individual students.

PULSEPRESS

PulsePress is a good alternative for CRS activities that use text responses instead of multiple choice questions. It provides a UBC-built real-time, Twitter-like system for student's to post responses to in class questions.

CHALLENGES

Learning Curve: Time required to learn the system and student satisfaction tied to a smooth process.

Coverage: Although integrating CRS activities can improve learning outcomes, it takes class time and there can be trad-offs with content coverage. Adopting a blended approach with online materials used to support the classroom activities can help offset some of the coverage problem.

Time for Preparation: Writing good questions, reorganizing class activities, getting the technical training.

Student Attitude: Use of CRS is a new method of learning for students who do not have experience with it and students may respond negatively simply because the rules of learning have changed. Explain to students up front why you're doing this.