Classroom Response Systems (CRS) ("Clickers")
A classroom response system (CRS), sometimes called a personal response system (PRS), student response system (SRS), or audience response system (ARS) is a set of hardware and software that facilitates teaching activities such as the following.

A teacher poses a multiple-choice question to his or her students via computer projector. Each student submits an answer to the question using a handheld transmitter (a “clicker”) that beams a radio-frequency signal to a receiver attached to the teacher’s computer. Software on the teacher’s computer collects the students’ answers and produces a bar chart showing how many students chose each of the answer choices. The teacher makes “on the fly” instructional choices in response to the bar chart by, for example, leading students in a discussion of the merits of each answer choice or asking students to discuss the question in small groups.
Types of Questions
Many instructors see multiple-choice questions as limited to testing students’ recall of facts. However, multiple-choice clicker questions can actually serve many other purposes in the class, including assessing students’ higher-order thinking skills. Since clicker questions can be used not only to assess students but to engage them, some very effective clicker questions are quite different than multiple-choice questions that might appear on exams.

- Recall Questions
- Application Questions
- Critical Thinking Questions
- Student Perspective Questions
- Confidence Level Questions
- Monitoring Questions
TEACHING WITH CLICKERS

Types of Activities
Teaching with a CRS can take a number of directions. Teachers will want to match activities to course content, time constraints, learning objectives, and their own teaching styles. Some possibilities for CRS activities include the following, listed more or less in order of increasing levels of student engagement.

- Attendance
- Summative Assessment
- Formative Assessment
- Discussion Warm-Up
- Peer Instruction
Why use a “Clicker”?

A teacher can use a CRS to...

- ...Maintain students’ attention during a lecture.
- ...Promote active student engagement during a lecture.
- ...Promote discussion and collaboration among students during class with group exercises that require students to discuss and come to a consensus.
- ...Encourage participation from each and every student in a class.
- ...Create a safe space for shy and unsure students to participate in class.
- ...Check for student understanding during class.
- ...Teach in a way that adapts to the immediate learning needs of his or her students.
- ...Take attendance and to rapidly grade in-class quizzes, provided that each transmitter is assigned to a unique student over the length of a course.
- ...Add a little drama to class.
Challenges in Using a “Clicker”

While a Clicker can facilitate a variety of student-active teaching activities, a teacher using a CRS should be aware of the following challenges.

- technical problems can arise
- Getting started with a CRS takes some time
- writing effective multiple-choice questions can be challenging
- Using a CRS in class takes up class time
- knowing that students have misconceptions does not necessarily reveal what those misconceptions are
- leading class-wide discussions can be challenging for instructors used to just lecturing
CRS at UCC

LOGISTICS

As of summer 2011, UCC have adopted clickers and have selected Turning Technologies as their provider. Here are the most important keywords:

- Transmitters ("Clickers")
- Receivers
- Software

INFORMATION

The Learning and Information Resources Center (LIRC) will support faculty using Turning Point. Each Academic year students will have their own clicker to allow any faculty member teaching these students to use them in the classroom. Contact Dr. Legier Rojas ext. 2302 for more information.
BORROWING CRS

If you are a UCC instructor interested in borrowing a CRS for a single class in order to see one in action in the context of your own teaching or to determine if you’re interested in using a CRS on a more regular basis, you can do so. The LIRC has Turning Point brand CRS with 100 transmitters and 3 receivers you can use for your teaching activities.

Contact Mr. Roberto López ext. 2313 for more information.