

# Polling (clickers) and Remote Teaching

Kathryn Dimiduk

James McCormick Family Teaching Excellence Institute

# Advantages of Using Polling

- Easy engagement with the class
  - Every student answers the question
  - Provides nearly instant feedback for professor
  - Makes class feel more interactive
  - Students may feel a little less like “solo learners”
- Enhances learning
  - Students pause to digest a chunk of content
  - Questions bubble up
  - Increases longer term retention of material
- Re-engages student attention – they want to know the answer

# Implementation During Remote Teaching

## Synchronous students

- Use reef polling with student cellphones
- Free for students for the rest of the semester (good time to try this)
- Software from CTI, no base station needed

## Asynchronous students (receive same learning value)

- Students see question in recording, pause recording
- Students answer question in a Canvas quiz
- Resume watching recording

# Demonstration

- Have you used iclicker before?
- A) no
- B) Yes, as a student
- C) I am teaching with iclicker and/or iclicker reef now
- D) I have taught with iclicker and/or iclicker reef in the past
- E) Yes, as tech support for iclicker and iclicker reef

# 1. TYPES OF CLICKER QUESTIONS

Clicker questions can serve many purposes – below are some common uses:

- 1) Quiz on the reading assigned in preparation for the class
- 2) Test recall of lecture point
- 3) Do a calculation or choose next step in a complex calculation
- 4) Survey students to determine background or opinions
- 5) **Elicit/reveal pre-existing thinking**
- 6) **Test conceptual understanding**
- 7) **Apply ideas in new context/explore implications**
- 8) **Predict results of lecture demo, experiment, or simulation, video, etc.**
- 9) **Draw on knowledge from everyday life**
- 10) **Relate different representations (graphical, mathematical, ...)**

While each mode can be useful in the right circumstances, those in **bold** above are the uses that we have seen the largest direct impact on learning and the uses that students report they find of most value. Not surprisingly, these reflect the deepest mastery of a subject and hence have been shown to be the most challenging for students to learn. We recommend that the majority of questions fall into these bolded categories.

# Simulating Small Group Discussions in Class

- For live recordings in zoom
  - Show question
  - Put students in breakout rooms to discuss
  - Pull students back from breakout rooms
  - Report room results via iclicker reef
  - Results
    - Show to class and you discuss further
    - Discuss next class after asynchronous students have voted
- Asynchronous students
  - Establish discussion partners, establish communication mode
  - Discuss
  - Report via canvas “quiz”

# Setting Up Iclicker Reef

- Download software from [cornell.box.com/iclickers](http://cornell.box.com/iclickers)
  - (iclicker 7.22 for mac and windows using Canvas)
- Instructions included the download
  - Ignore physical base steps
  - Mobile tab in settings, enable reef
- Questions
  - Technical or set up - email [acadtech@cornell.edu](mailto:acadtech@cornell.edu)
  - Teaching – email Kathy, klc78

Questions?