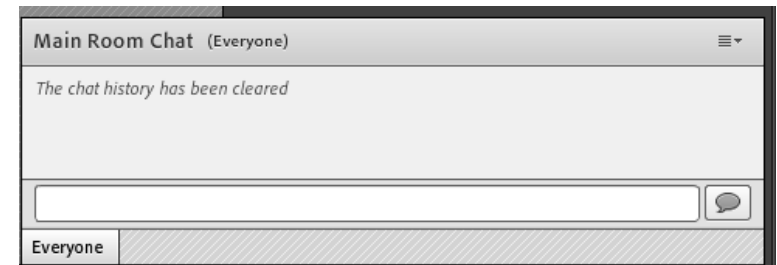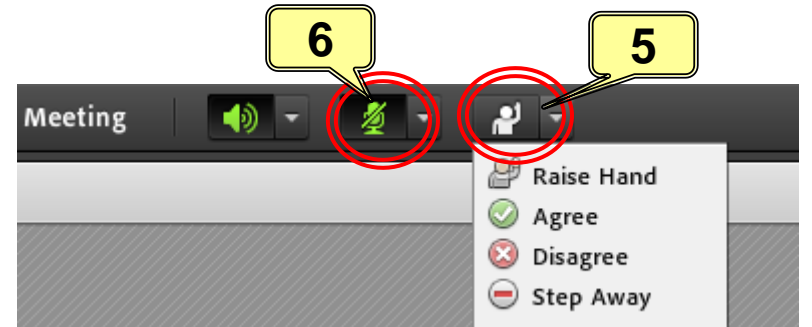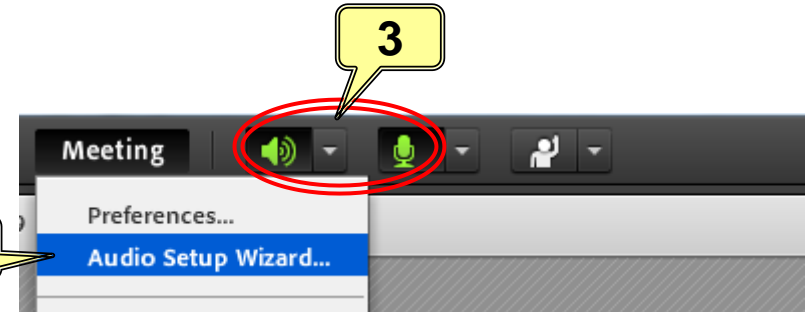# Welcome! As you enter…

1. Plug in your headset (if available).

2. Enable your speakers and mic

3. The top bar icons should be green).

4. Run the audio setup wizard (use "Meeting" menu on top left).

5. "Raise your hand" by clicking the icon to let the hosts know you are ready to test your mic.

6. After testing your mic, mute yourself by clicking the mic icon

7. Feel free to use the chat at any time!

Start Recording

Faculty Virtual Community of Practice
Computer Science & Computer Engineering

Session 7: Understanding and Influencing Student Motivation

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Today's Agenda

- Welcome and Poll Questions

- Peer Instruction

- Flipped Classroom

- Next Week's Homework

CSE VCP Review

- The goal is to introduce faculty to research-based instructional practices in order to make a few changes to their teaching this term and more systemic changes next term

- Session 1: Seven Principles of Learning

- Session 2: Learning Outcomes

- Session 3: Student's Prior Knowledge

- Session 4: Pedagogies of Engagement

- Session 5: Peer Instruction and Flipped Classroom

- Session 6: Classroom Presenter

- Session 7: Student Motivation

Poll Question #1

Did you read the assigned articles?

- I meant to but…
- Skimmed the material
- Read it closely

Poll Question #2

When are your final exams?

- This week
- Next week
- Already done for this semester!

Homework Review

- Design an activity for students to respond with a drawing of some sort

Exam Question Types

- Trace Code (draw your answer)

- Explain what this code does in one sentence using English that your grandmother would understand

- Write Code

- Excellent paper!
  - **"A closer look at tracing, explaining and code writing skills in the novice programmer"**
  - **Venables, Tan and Lister**
  - **ICER '09**

Student Motivation

- Mastery / Learning oriented
  - ask questions
  - willing to try new things
  - appears interested
  - "get out of their way"

- Performance oriented
  - plays it safe
  - wants to be the best
  - focuses on grades

- Work Avoidance oriented
  - do as little as possible

A Framework for Change

- Three levers work in cooperation:
  - Students must **value the goal**
  - Students must **expect it can be achieved**
  - Students must **perceive the environment** to be supportive

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Increasing Student Motivation*

- Choose knowledge and skills that are **worth learning**

- **Pitch the tasks** you set for your students just beyond their base capability but well within their reach

- Make the classroom a **safe place** to take the risks

- Encourage the building of a **community of learners**

- **Give the learners some choices** in what they do

- Be a good model of a **mastery-oriented learner**

- Accept the fact that **yours is not the only** or even the most important venue in which your students function

* Svinicki, M. D., (2005). *Student goal orientation, motivation, and learning.* (Idea Paper #41). Manhattan, KS, The IDEA Center.

Poll Question #3

Did you take a look at the CMU Teaching Excellence website?

- Sorry, did not have time
- Briefly
- Quite a bit actually

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CMU Website

- Review the CMU Teaching Excellence website: www.cmu.edu/teaching/solveproblem/step1-problem
  - recommended strategies for specific issues

- Did you discover any good ideas?
  - Students lack interest or motivation
  - Students don't keep up with reading
  - Student background knowledge varies widely
  - Students complain the exams are too hard

Breakout Session

- Unmute your mics when you arrive

- Post a chat message along with your group number if you have technical problems

- Roles for today
  - Scribe (#3)
  - Reporter (#2)
  - Manager (#1)

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Breakout Activity # 1

- Discuss ONE of the questions and record as many specific actions as you can within 7 minutes.
  - What do you do to foster a community of learners?
  - What can you do to make material relevant? Help students value the activity?

Report Outs

Breakout Activity # 2

- Discuss ONE of the questions and record as many specific actions as you can within 7 minutes.
  - What can you do to create a supportive and safe place to take risks?
  - What can you do to help students expect the goals can be achieved?

Report Outs

Next Semester

- The full group will not be available at Tuesday at 3:00

- Small group monthly meetings

- Virtual office hours with the leaders (by appt)

- Smaller groups allow more discussion

- We propose monthly meetings to check in with each other and identify the agenda

- Look for an e-mail with several Doodle polls

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Email Survey Results

- Discipline
  - Computer Science (14 of 18)
  - Computer Engineering (4 of 18)

- Courses
  - 14 CS faculty identified 10 courses
  - 4 CE faculty identified 3 courses

- Pedagogies
  - Almost everyone identified flipped classroom and/or clicker questions

Our Selected Groups

- And the winners are….

Summary

- Faculty can take specific actions to help students:
  - value the coursework
  - believe they can succeed
  - feel the environment is supportive

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Next Week: Session 8

- Managing Team Projects
  - Post homework to the portal **by noon on Monday Dec. 16**, and be prepared to discuss