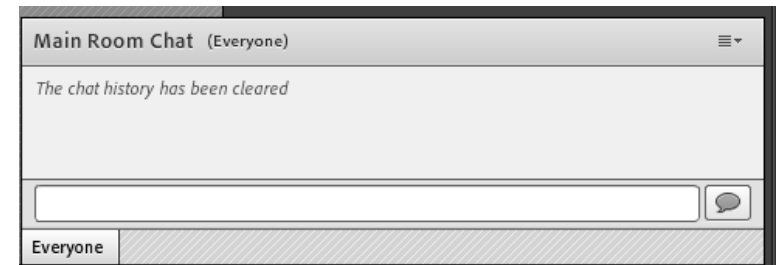
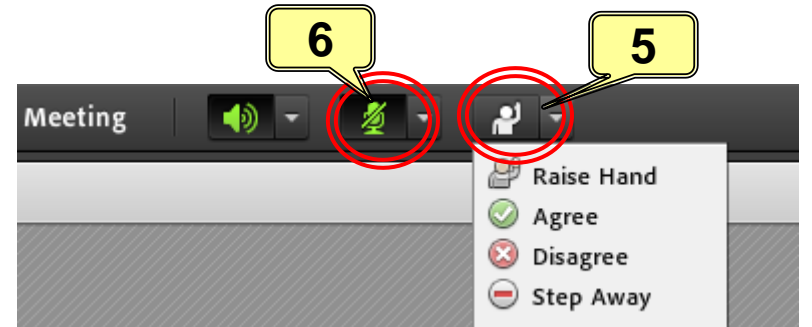
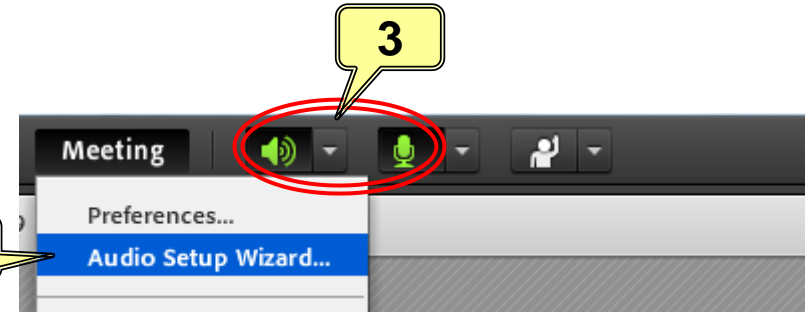


Welcome! As you enter...

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 4: Pedagogies of Engagement Part I

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Today's Agenda

- Welcome and learning objectives ~ 10 minutes
- Review of readings ~ 15 minutes
- Planning ways to incorporate research and evidence-based practice into your courses~ 35 minutes
- Breakout Sessions (20 mins)
- Summary
- Next Week's Homework

Rules of Engagement

Create your own bubble of solitude:

- Close your office door
- Use a “do not disturb” sign
- Turn off e-mail
- Silence or forward phone
- Avoid any other potential distractions
- Occasionally check to see whether or not you are muted; review the Chat box to see if there is anything relevant

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

Poll Question

- Did you read the pre-work assignment?
 - I meant to but...
 - Skimmed the material
 - Read it closely

Poll Question

With regard to the amount of reading assigned for this session:

- I could have read a lot more
- I could have read a little more
- the amount was just right
- the amount was too much
- the amount was way too much

Poll Question

- Did you enter an idea on the IdeaScale website site?
 - I meant to but...
 - I entered an idea
 - I entered an idea and voted on at least one other idea
 - I entered an idea and commented on at least one other idea
 - I entered an idea, voted on an idea and entered a comment on an idea

Instructor Challenges

- Keep the students engaged in the class activities
- Why? – Benefits:
 - Engaged students retain more
 - Engaged students obtain a deeper understanding of the material
 - Improves critical thinking
 - Fosters community
 - Promotes a positive classroom environment
 - Advances more effective/efficient teaching
 - Provides teacher satisfaction

Summary of Homework

- Pedagogies of Engagement: Making class sessions more interactive
- Pre-work
 - Watch the video “Rethinking the way college students are taught”
<http://americanradioworks.publicradio.org/features/tomorrow-college/lectures/rethinking-teaching.html>
 - Read and be prepared to discuss the following article
 - Idea Paper #53 – Active Learning Strategies in Face-to-Face Courses

Breakout Sessions

- Unmute your mics when you arrive
- Post a chat message along with your group number if you have technical problems
- Some groups will be asked to report out
- Scott and Joe will drop in to each group
- Roles for today
 - Scribe (#3)
 - Reporter (#2)
 - Manager (#1)

Breakout Activity 1

- Focus: Reflecting on today's readings(~10 minutes)
- Group breakout to discuss one or more of the following topics as they relate to the readings
 - Key ideas and insights
 - Rationale for using pedagogies of engagement
 - Applications
 - Questions

Report Outs

- All Discussion (~10 minutes)

Discuss Ideas Generated in the Think Pair Share Assignment

- Look at specific ideas other than your own and mention why this TPS could be effective
- Open Discussion (~10 minutes)

Effective Strategies

- Many strategies exist
- First readings explored but a few
- Strategies should be research-based
- Barriers will need to be overcome

Breakout Activity 2

Identify active learning activities you have used to help students

- Activity
- Level of cost
 - Class time
 - Instructor prep time
- Level of benefit (high, medium, low)

Report Outs

The Active Learning Continuum



Strong Evidence Base – Cooperative Learning & Challenge-Based Learning

Pedagogy in the Classroom, 2005 & 2008

Methods Used in “All” or “Most”	All faculty 2005	All faculty 2008	Asst Prof 2008
Cooperative learning	48%	59%	66%
Group projects	33%	36%	61%
Grading on a curve	19%	17%	14%
Extensive lecturing	55%	46%	43%

*The American College Teacher. National Norms for the 2004-2005 and 2007-2008 HERI Faculty Survey, www.heri.ucla.edu/index.php

Pedagogy in the Classroom, 2011

Methods Used in “All” or “Most”	STEM women	STEM men	All other women	All other men
Cooperative learning	60%	41%	72%	53%
Group projects	36%	27%	38%	29%
Grading on a curve	17%	31%	10%	16%
Student inquiry	43%	33%	54%	47%
Extensive lecturing	50%	70%	29%	44%

*Undergraduate Teaching Faculty. National Norms for the 2010-2011 HERI Faculty Survey, www.heri.ucla.edu/index.php

Using the Educational Research for Your Classroom and Classroom of Others

- Focus: Framing the research so it is credible
- Individually write & reflect on these questions
 - Is the research presented in the readings convincing/credible to faculty members?
 - What might be some criticisms about using active learning from traditional faculty members?
 - How might you overcome faculty resistance to using them?
- Share Group Activity
- Share with everyone

Things to think about

Summary

- Research shows that active learning can have tangible benefits
- Teacher must make initial investment to develop exercises

Midterm Survey

- Consistent and early feedback from students can be used to adapt the course during the current term. This is *formative assessment*.
- You will be asked to complete an online anonymous survey later this week.
 - Name 1-2 things we should CONTINUE to do in the VCP
 - Describe 1-2 things we should START doing
 - Identify 1-2 things we should STOP doing

Next Week: Session 5

- Flipped Classroom and Peer Instruction
 - Look for an e-mail tomorrow
 - Share your experiences with a Flipped Classroom
 - Read assigned articles and watch videos about Peer Instruction
 - Simon et. al. 2010. Experience Report: Peer Instruction in Introductory Computing. *Proceedings of SIGCSE Symposium*.
 - Crouch & Mazur. Peer Instruction: Ten years of experience and results. *American Journal of Physics*. 69 (9), September 2001.
- Post homework to the portal **by noon on Monday Nov. 25**, and be prepared to discuss