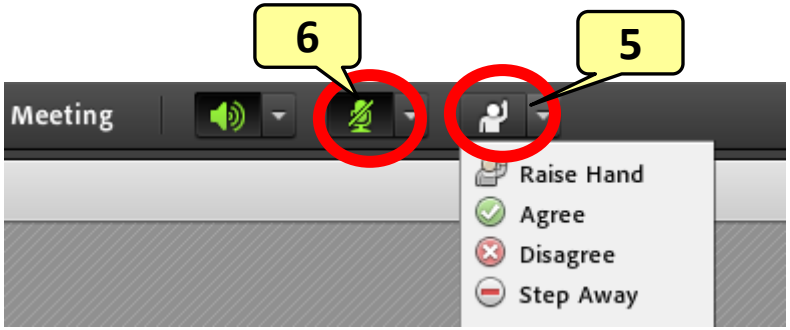
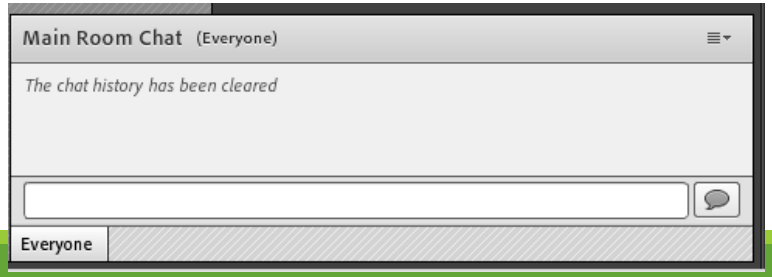
Welcome! As you enter…

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 Mechanical Engineering

Session 1: Introduction

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Julie Linsey
Georgia Tech
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Tentative Agenda

- Welcome
- Goals for the VCP, Objectives & Overview
- Suggested Rules of Engagement
- Familiarization with Adobe Connect (~15 minutes)
  - Polls
  - Hand raising
  - Breakout Sessions
- Presentation (15 mins)
- Group Breakouts (15 mins)
- Report out (~15 mins)
- Poll Question (2 min)

Goals for the VCP

- Increase your knowledge of research-based effective educational practices
- Provide scaffolding to help you integrate effective practices into your course
- Provide opportunities to gain ideas from other participants

Objectives for the Day

- Welcome everyone to our Virtual Community of Practice!
- Familiarize participants with the Adobe Connect technology

Overview of the VCP Sessions

- We may change these to better meet participants' needs

Week	Date	Topic
1	10/29/2013	Introduction to the FVCP
2	11/5/2013	Pedagogies of Engagement
3	11/12/2013	Course Objectives & Bloom's Taxonomy
4	11/19/2013	Creating a positive & inclusive learning environment
5	11/26/2013	Student motivation
6	12/3/2013	Evaluation & Available Resources (Concept Inventories, etc.)
7	12/10/2013	TBD based on participant needs
8	12/17/2013	Teams

Description of the Interface

- Attendees
- Chat Window
- Mute / unmute
  - Many headsets also have a mute built in
- Hand Raising / Set Status

Rules of Engagement

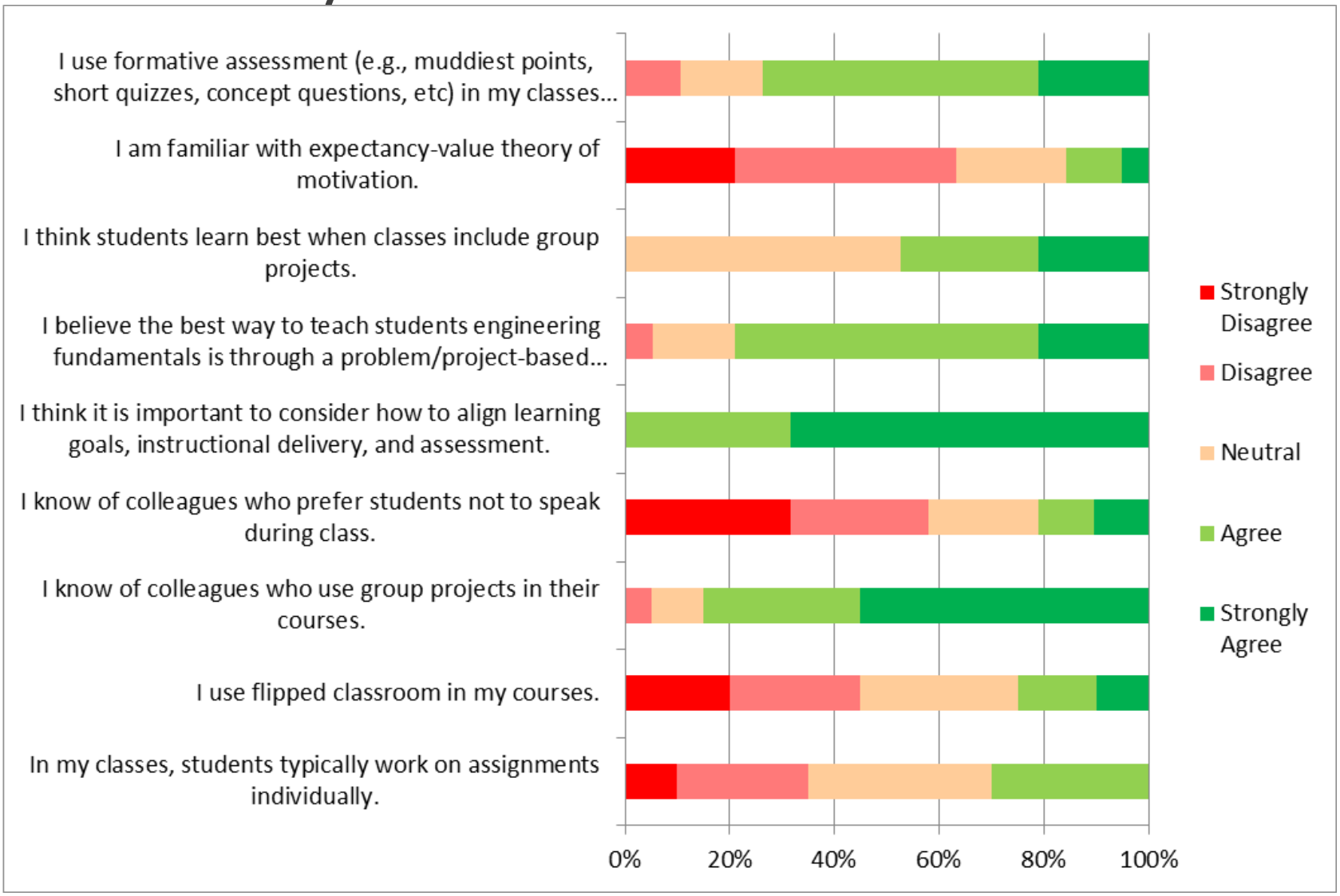
Create your own bubble of solitude:

- Close your office door
- Use a “do not disturb” sign
- Turn off e-mail
- Silence or forward phone
- Avoid any other potential distractions

Rules of Engagement

- Don’t be afraid to use the chat window to type comments in parallel when someone else is speaking
- Don’t hesitate to raise your hand
- Turn your mic to mute except when in breakouts or when you want to speak

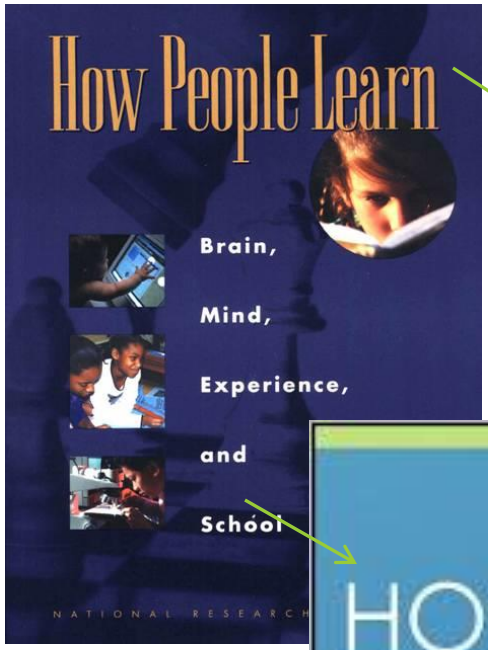
Survey Results

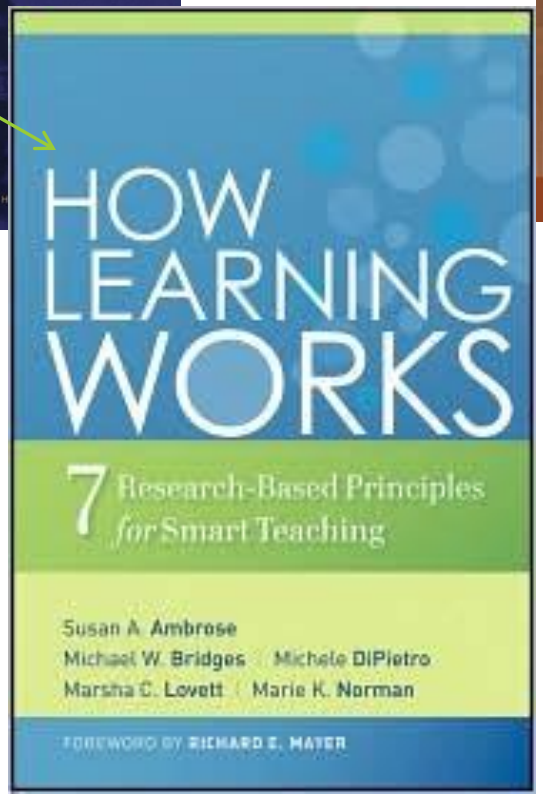


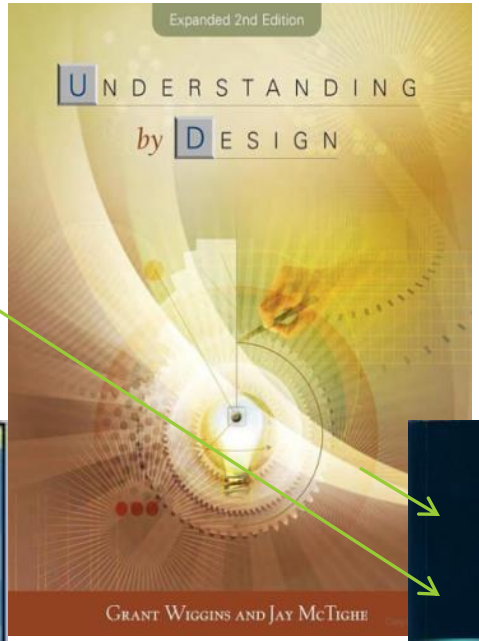
Polls

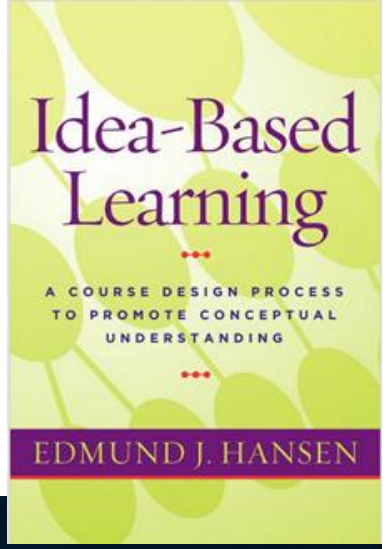
"It could well be that faculty members of the twenty-first century college or university will find it necessary to set aside their roles as teachers and instead become ***designers*** *of learning experiences, processes, and environments."*

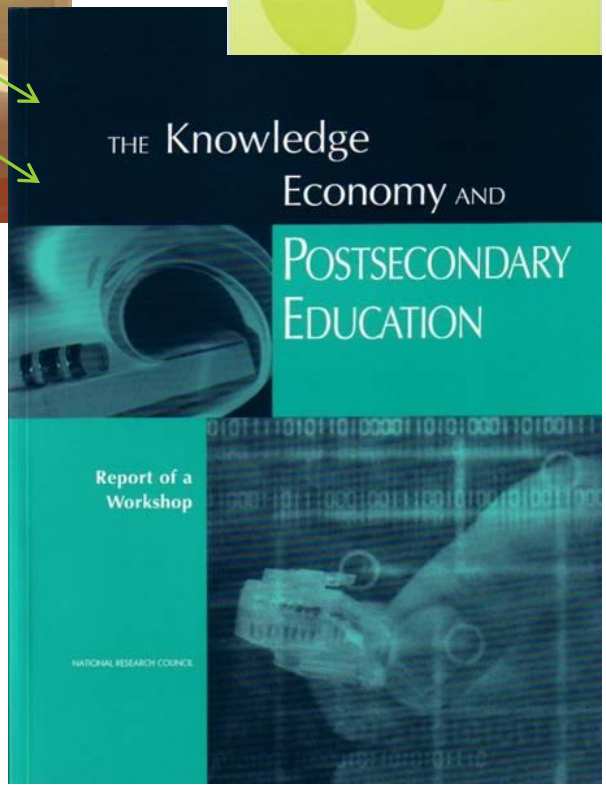
James Duderstadt, 1999
Nuclear Engineering Professor, Dean, Provost &
President of the University of Michigan











- Bransford, Vye and Bateman – Creating High Quality Learning Environments

Three Important Principles About Learning and Understanding

- **Students come to the classroom with preconceptions** about how the world works which include beliefs and prior knowledge acquired through various experiences.
- **To develop competence in an area of inquiry, students must**: (a) have a deep foundation of factual knowledge, (b) understand facts and ideas in the context of a conceptual framework, and (c) organize knowledge in ways that facilitate retrieval and application.
- A "**metacognitive" approach to instruction** can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them.

Pellegrino, 2006. *Rethinking and redesigning curriculum, instruction and assessment: What contemporary research and theory suggests*.
www.skillscommission.org/commissioned.htm

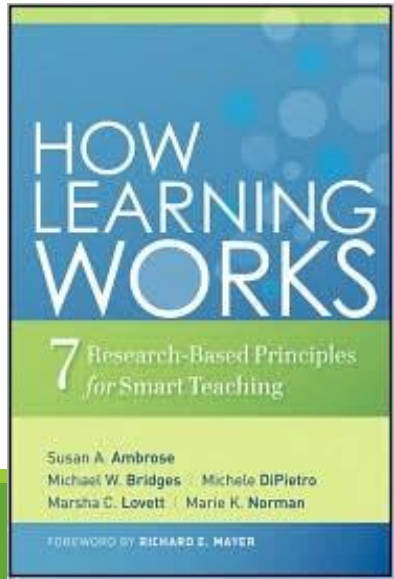
Understanding by Design

- Stage 1. Identify Desired Results
  - Enduring understanding (enduring outcomes)
  - Important to know and do
  - Worth being familiar with
- Stage 2. Determine Acceptable Evidence
- Stage 3. Plan Learning Experiences and Instruction
- Overall: Are the desired results, assessments, and learning activities ALIGNED?

Wiggins & McTighe, 1997, 2005. *Understanding by Design*. Alexandria, VA: ASCD.

Seven Research-Based Principles

1. Students' prior knowledge can help or hinder learning
2. How students organize knowledge influences how they learn and apply what they know
3. Students' motivation determines, directs, and sustains what they do to learn
4. To develop mastery, students must acquire component skills, practice integrating them, and know when to apply them
5. Goal-directed practice coupled with targeted feedback enhances the quality of students' learning
6. Students' current level of development interacts with the social, emotional, and intellectual climate of the course to impact learning
7. To become self-directed learners, students must learn to monitor & adjust their learning approach

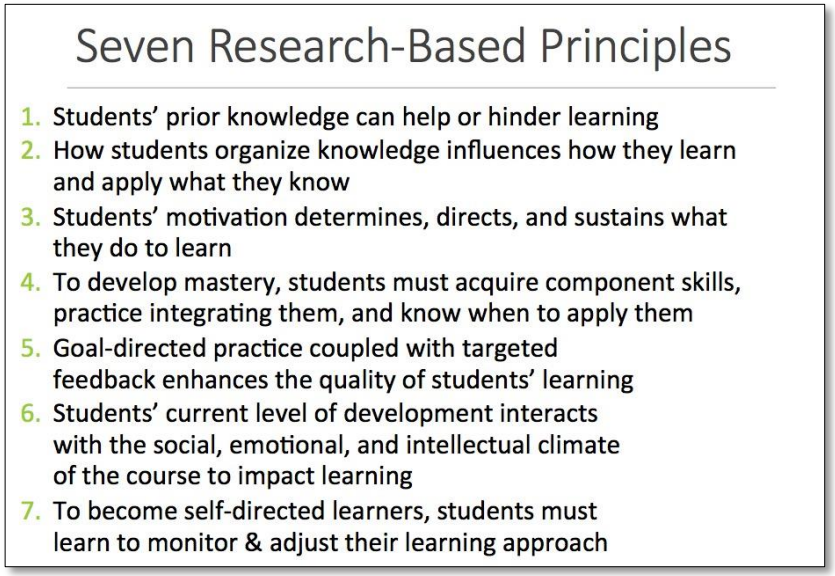


Group Activity: Breakout Session

In the graphic below are the Seven Research-Based Principles. Have each member of the breakout group choose the principle about which they are most cognizant in their instruction, along with examples of activities that they have effectively used to address that principle in practice.

Time: 15 minutes

Assigned scribe (1st person on list) and reporter (3rd)



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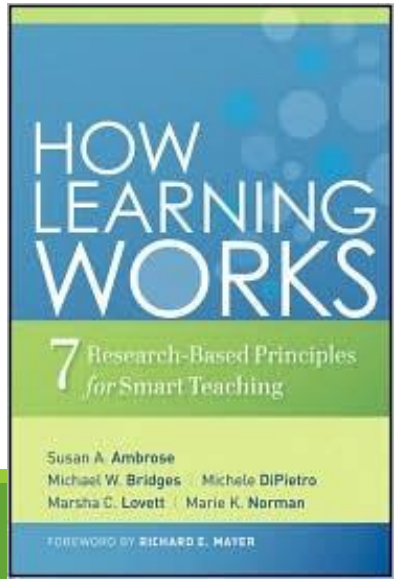

Assignment for Next Week

1. Read the following:

   (VCP Portal-*https://aseevcp.asee.org/?q=mechanical/ in folder Week 2: 11-5-2013*)
   - B. Mills, Idea Paper #53
   - Wieman Science article
   - Review "Recommendations for making active learning work" www1.umn.edu/ohr/teachlearn/tutorials/active/recommendations/index.html

1. Create two new activities for your class based on the readings. Post your activities to the Mechanical VCP Folder by 5:00 PM Sunday Nov. 3rd. : *Week 2: 11-5-2013*

- Additional Information (papers also in VCP portal folder)
  - Students controlling what they learn more increases learning *http://www.wired.com/business/2013/10/free-thinkers/all/*
  - Watch the video "Rethinking the way college students are taught" http://americanradioworks.publicradio.org/features/tomorrows-college/lectures/rethinking-teaching.html
  - Pedagogies of Engagement
  - Haak Science article