

# Leadership Virtual Community of Practice (LVCP2)

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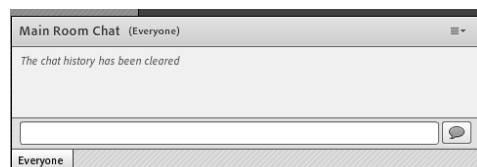
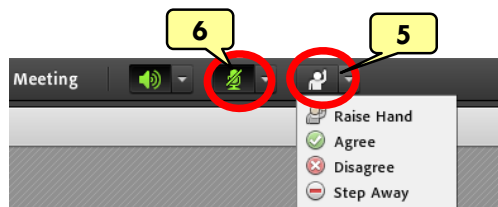
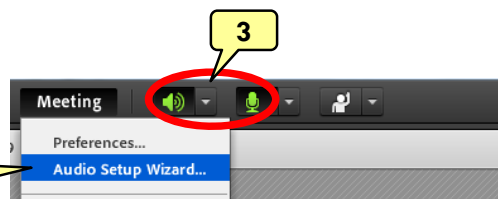
## Session 1: Introduction to the LVCP

August 26, 2013

### Welcome! As you enter the room, please...

- Plug in your headset (if available).
- Enable your speakers and mic (the icons on the top bar should be green).
- Run the audio setup wizard (see the “Meeting” menu on the left of the screen).
- “Raise your hand” by clicking the icon to let the hosts know you are ready to test your mic.
- After testing your mic, mute yourself by clicking the mic icon (to avoid background noise).

Feel free to use the chat at any time!



# Tentative Agenda

- Welcome, introductions, and navigating the technology ~ 15 minutes
- Overview of project (Russ) ~ 10 minutes
- Overview of plans for the nine sessions ~ 15 minutes
- Discussion of Session 1 materials including results of pre-survey ~ 15 minutes
- Wrap up and plans for Session 2 ~ 5 minutes

# LVCP2 Goals

- Effectively and efficiently manage time and expectations
- Prepare VCP leaders with examples, strategies and resources to:
  - Effectively facilitate their VCP
  - Foster a LVCP that learns, problem solves and provides support

# Introductions

- What attracted you to participate in the LVCP-2?
- What do you hope to get out of participating?



<http://www.asee.org/asee-vcp/communities/cycle2>

## Introduction to VCP Project

Russ Pimmel

# Project Goals

- ▶ Sustainable VCP model that enables faculty members to work as a community to
  - Share knowledge
  - Develop Instructional strategies
  - Implement and evaluate approaches
- ▶ Identify VCP best practices



# Expected Outcomes

- ▶ 2 Leadership VCPs and 10 Faculty VCPs
- ▶ A knowledgeable, skilled community of leaders
- ▶ Approximately 300 faculty members that have
  - Shared practices and gained a deeper understanding
  - implemented and evaluated approaches
  - Continued involvement with their VCP
- ▶ VCP knowledge base and best practices



# Five Premises

- ▶ Need for advancement in engineering education and effective methods of dissemination
- ▶ Current short-term, one-shot, face-to-face faculty workshops are inherently flawed and not scalable
- ▶ Learning communities and communities of practice offer an effective alternative
- ▶ Virtual approaches provide an effective economical, and scalable approach without geographical constraints.
- ▶ Engineering faculty members will participate in VCPs



## High-Risk-High-Payoff Experiment

- ▶ Really an experiment
  - High-risk-high-payoff experiment
- ▶ Crucial experiment
  - it will test a viable, scalable approach
    - Perhaps the only one



# LVCP2 Sessions Overview

- Session 1. 08/26/13 – Introduction to the LVCP
- Session 2. 09/09/13 – Creating a positive and inclusive learning environment
- Sessions 3, 4, & 5. 09/16/13, 09/23/13, & 09/30/13 – Pedagogies of Engagement
- Sessions 6 & 7. 10/07/13 & 10/14/13 – Student motivation
- Session 8. 10/21/13 – Using learning objectives & Bloom's taxonomy
- Session 9. 10/28/13 – Reflection on LVCP and identification of best practices for FVCPs
  
- \*\*\* Faculty VCPs begin October 28 ! \*\*\*

## Session 1: Learning Objectives

- Explain and apply LVCP design features in your VCP
- Describe key features of the *Rethinking and Redesigning*
  - ▣ Articulate an integrated approach to course design which aligns curriculum (or content or outcomes), assessment and instruction
- Summarize research on *How Learning Works* (HLW)
- Identify connections between effective, interactive learning strategies such as cooperative learning and desired outcomes of courses and programs

*“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.”*

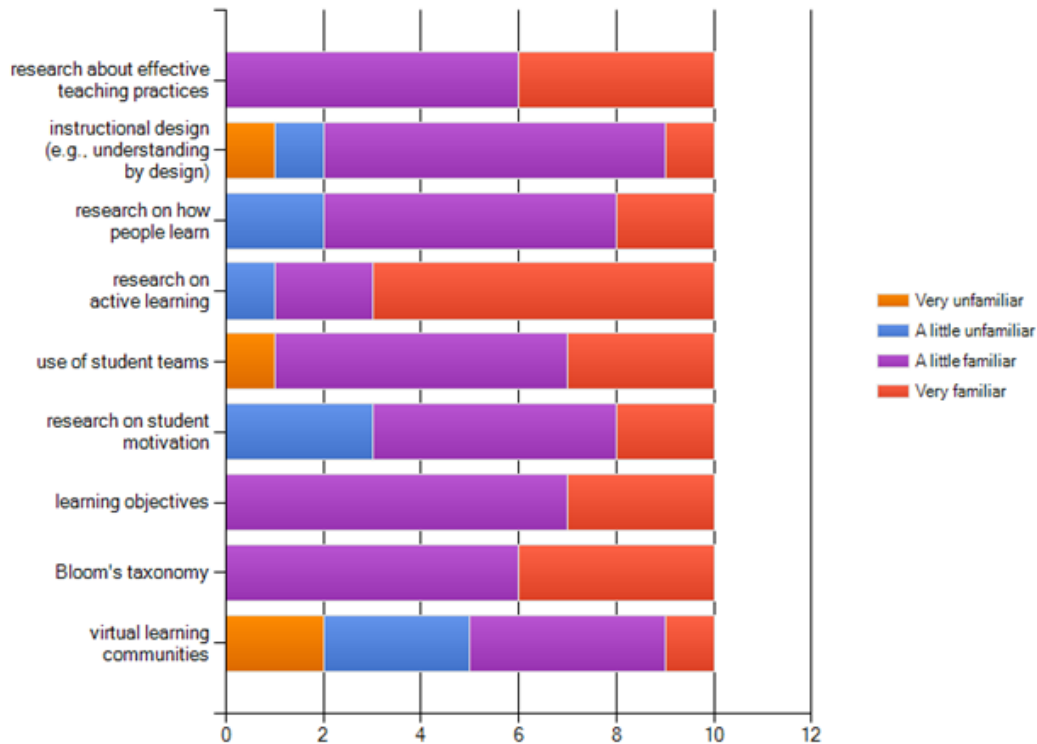
James Duderstadt, 1999  
Nuclear Engineering Professor, Dean, Provost &  
President of the University of Michigan



## What do you already know about course design?

- [Background Knowledge Survey]

## LVCP2: How familiar are you with the following topics?



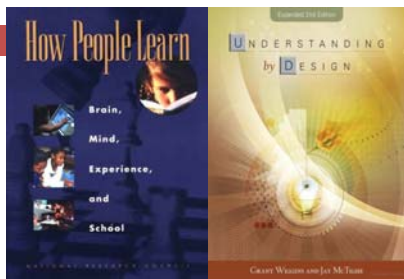
## Seven Principles for Good Practice

- Good practice in undergraduate education:
  - ▣ encourages contact between students and faculty,
  - ▣ develops reciprocity and cooperation among students,
  - ▣ encourages active learning,
  - ▣ gives prompt feedback,
  - ▣ emphasizes time on task,
  - ▣ communicates high expectations, and
  - ▣ respects diverse talents and ways of learning.

Chickering & Gamson, 1987. *Seven Principles for Good Practice in Undergraduate Education*.



# Course Design Foundations



Science of Learning (HPL)

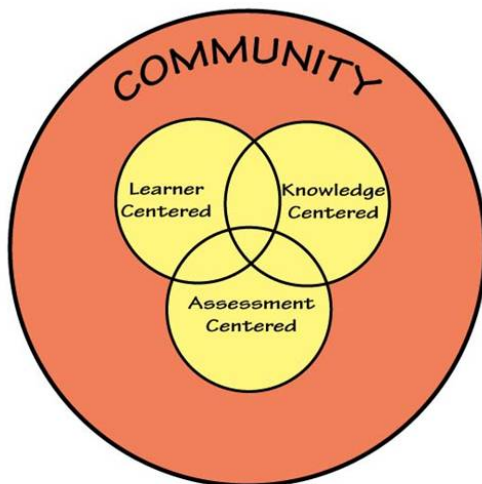
Science of Instruction (UbD)

		No	Yes
Yes	Good Theory/ Poor Practice	Good Theory & Good Practice	
No	Good Practice/ Poor Theory		

Bransford, Brown & Cocking. 1999. *How People Learn*. National Academy Press.  
Wiggins & McTighe, 2005. *Understanding by Design, 2ed.* ASCD.

## How People Learn (HPL)

HPL Framework



- Expertise implies (Ch. 2):
  - ▣ a set of cognitive and metacognitive skills
  - ▣ an organized body of knowledge that is deep and contextualized
  - ▣ an ability to notice patterns of information in a new situation
  - ▣ flexibility in retrieving and applying that knowledge to a new problem

Bransford, Brown & Cocking. 1999. *How people learn*. National Academy Press.

# Three Important Principles About Learning and Understanding

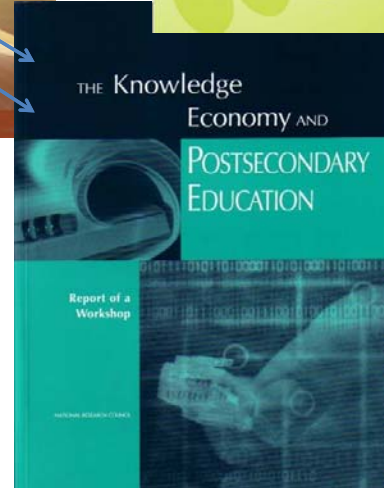
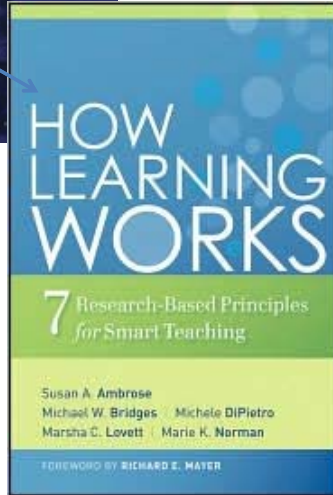
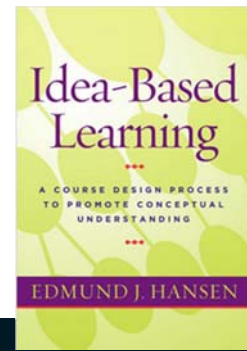
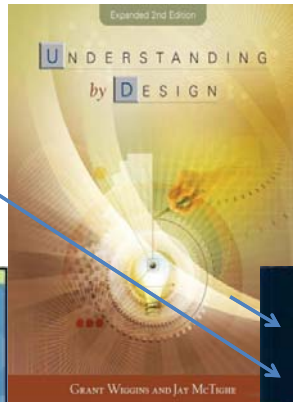
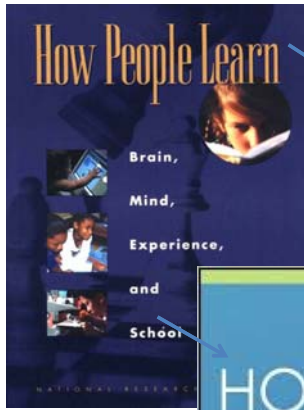
- **Students come to the classroom with preconceptions** about how the world works which include beliefs and prior knowledge acquired through various experiences.
- **To develop competence in an area of inquiry, students must:** (a) have a deep foundation of factual knowledge, (b) understand facts and 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](http://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.



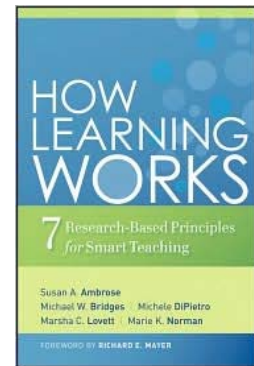
• [Bransford, Vye and Bateman – Creating High Quality Learning Environments](#)

## Seven Research-Based Principles for Smart Teaching

- Reflection and Discussion
  - ▣ From your reading of the HLW Introduction, which of the 7 research-based principles have you embraced and how?

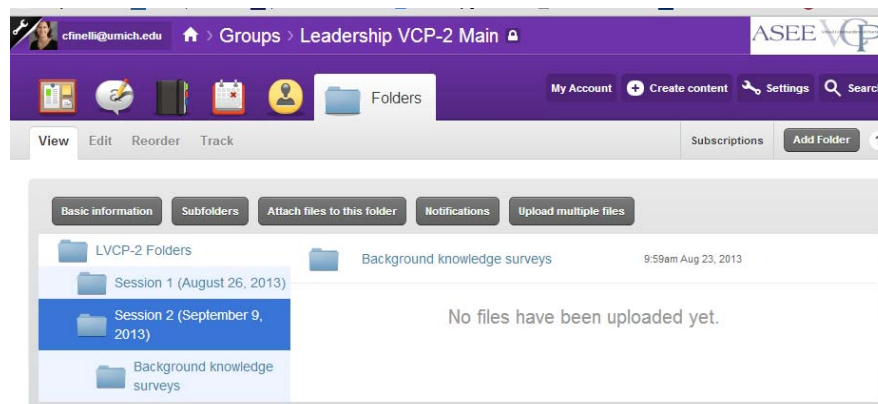
# Seven Research-Based Principles

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 what they have learned
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



## Session 2. 09/09/13

- Creating a positive & inclusive learning environment
- Pre-work
  - ▣ With your partner, create a diagnostic (background knowledge) survey for your VCP and post it to the portal ([aseevcp.asee.org](http://aseevcp.asee.org))



- ▣ Read and be prepared to discuss Chapter 6 of HLW: Why do student development and course climate matter for student learning?