SCALE-UP CLASSROOMS, REVISITED
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SCALE-UP CLASSROOMS,
REVISITED

Intro – name, contact information
PROPOSED:

INTERACTIVE SESSION – 50 minutes
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NOW:
15 minutes

Adjusted plan
NOW:
15 minutes

PLAN / OVERVIEW:

why now? > why use AL?
> 2 challenges > 2 simple ideas

Plan for the next 14 minutes
Why talk about SCALE-UP classrooms NOW?

Two reasons – one “objective” and one “personal”
OBJECTIVE: There are very many good resources and method guides for active learning, but most had been developed before mobile, social, and BYOD became a part of today's campus landscape.
PERSONAL: UW-Madison School of Nursing, is the smallest college on UW-Madison campus, about 400 students (306 undergrads). Summer of 2014 will move to Signe Skott Cooper Hall: a 5-story, $53 million building. Still – there are buildings that are bigger, and more expensive - so what is special about Cooper Hall?
PERSONAL: UW-Madison School of Nursing, is the smallest college on UW-Madison campus, about 400 students (306 undergrads). Summer of 2014 will move to Signe Skott Cooper Hall: a 5-story, $53 million building. Still – there are buildings that are bigger, and more expensive - so what is special about Cooper Hall?
60 students
15 groups of 4
2 rooms

All spaces designed for active learning, and no traditional lecture hall in the building; a couple of tiered lecture halls each for 60 students - but actually designed for group work as rooms for 15 groups of 4.
32 students
4 groups of 8
2 rooms

Interactive spaces: a couple small seminar rooms, X-rooms, modeled after Steelcase LearnLab design.
Most importantly, two large ALCs, with 17 tables of 9 (153 students in each room), that can be merged into one room, with 34 group-work tables (306 students) – one of the largest spaces of this kind in the country.
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NOTE: Currently, we have two rooms with 4x9 tables, that can be merged into 1 room for 72 students; the teaching methods and strategies mentioned here are based on our experience with the prototype rooms.
ACTIVE LEARNING

When I joined School of Nursing 1.5 years the priority of our team became guiding and assisting faculty in the transition from lecture-based teaching to more active learning approaches.

So why invest so much in active learning? What is the return on this HUGE investment?
Let's take a look at two different approaches to learning
BLOOM TAXONOMY

Proposed in 1956

Let's take a look at two different approaches to learning
Most people think Bloom.
BLOOM TAXONOMY

Proposed in 1956
Reviewed in 2001

Bloom was updated - not very successfully - in 2001 - hierarchy still remained in place, despite lack of scientific evidence that it can be supported (and substantial evidence that it can't)
Making Thinking Visible, by Ron Ritchhart et al. has an informative chapter “Beyond Bloom.” A good resource.
The "laundry list" of Bloom's "action" verbs is still very useful for planning and writing learning outcomes – but now we know that the hierarchy doesn't work this way. RESOURCE: How2 at: https://teachinghow2s.com/resources/category/learning-theory
Instead, at SoN we use a simpler, but more productive approach, adapted from Richard Mayer’s Applying the Science of Learning and his later Multimedia Learning (Cambridge UP)
Three metaphors of learning...
This metaphor or mode of learning emphasizes repetition and is best summarized by the saying “practice makes perfect.” Based on behavioral science of the 50s. In the 90s it was updated by Anders Ericsson who introduced the concept of "deliberate practice" in 1993.
STILL VALID – in health sciences - things you can't learn from a book
Information transfer – “empty vessel” approach
THE LECTURE
Enlightenment concept of “tabula rasa” = “blank slate”
Assumptions: All vessels will fill the same way
Information transfer – is akin to cloning knowledge - and difficult to do
Construction of knowledge > like a puzzle
KNOWLEDGE
CONSTRUCTION

...only much more complex
> Chess example: Chase and Simon (1973) schemata and patterns
KNOWLEDGE CONSTRUCTION - Offers the Holy Grail of Teaching and Learning: transfer.
Behavioral > (tested by) Performance
Information Transfer > (tested by) Recall
Construction of Knowledge > (tested by) Transfer = ability to apply constructed knowledge to new, never before seen problems, and to come up with innovative solutions
KNOWLEDGE CONSTRUCTION
= ACTIVE LEARNING
= 2 BIG PROBLEMS

STEM Disciplines have developed valid ways of teaching in the ALCs - how about others?
TWO PROBLEMS: misconceptions and lack of good teaching techniques.
SEE: YouTube video – Harvard Graduates Explain Seasons
PROBLEM 1 – MISCONCEPTIONS

SEE: YouTube video – Harvard Graduates Explain Seasons
Two simple solutions

> SOCIAL READING

> GRAPHIC ORGANIZERS
Book club – original form of “social reading” For Richard Mayer, meaningful, active learning is a result of “learner’s cognitive activity [,] rather than [merely] behavioral activity during learning.” (Multimedia Learning, 21–22).
Great at preventing the formation of misconceptions
Misconceptions about ACTIVE learning.

John Hattie’s 1999 ”Influences on Student Learning” – based on thousands of studies, estimated standardized effect of reciprocal teaching at 0.85.
Easy to use – simple software everybody has!
inkling.com is a great example of “social reading” but is not yet fully developed, you cannot limit the group to your class – it includes all readers.
SOCIAL READING

- read & highlight key sections
- write questions for each section
- collect from group members
- vote on best questions
- hand off to other group

Example of using Acrobat Reader for “social reading” activities
Example of using Acrobat Reader for “social reading” activities

- SMALL GROUP
  (1 article / 3 students)

- MULTI GROUP
  (3 articles / 3 groups)

- WRITTEN ASSIGNMENT
  (3 students – 1 group)
IDEA 2 – Graphic Organizers – Problems with large boards – solution Steelcase verb boards.
some of many books on graphic organizers
Opur process: guide faculty through an annotated list of graphic organizers, and then help them find the spots in their course plan where these specific types of organizers may fit.
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CHALLENGE: How do you share what one group of students came up with, with the remaining 150 students? Combination of Verb boards, iPad (one for taking pictures of whiteboards, one connected to projector / group screens for the room), and Web Albums iPad app for immediately uploading the photos to a Google Picasa web album, shared by both iPads.
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Please contact if interested in more information.