Blending or Enhancing

Integrating Technology for Active Learning

Paige McDonald
Elizabeth (Elise) Ruckert
Jessica Gregg
Linda Cotton
Overview

• Welcome: Getting to know us & you (10 min)
• Introduction: Definitions & Examples (30 min)
• Show and Tell #1 (20 minutes)
• Break (10 minutes)
• Show & Tell #2 (20 minutes)
• Focus on you (15 min)
• Closing: Challenges and Unanswered questions (15 min)
Poll Everywhere

• Have you taught online?

• Have you tried to flip your classroom?

• Did you complete the prep-work for today’s session?
Session Objectives

1. Experience a “flipped” classroom session on teaching & technology.
2. Describe rationale for creating active-learning experiences in the classroom.
3. Explore two new teaching technologies to integrate into your enhanced or blended course design.
4. Create a learning experience for your course/students that applies the concepts learned today.
Method to Madness

Purposely created this presentation as a “flipped” experience:

- Materials in advance
- Homework before the workshop
- Application in the workshop
- Creation of new knowledge
Bloom’s taxonomy guides our design of learning objectives

- “Lower level” knowledge questions are incorporated as a foundation (i.e. prepwork)
- The predominant focus of the activities involve “higher level” application, analysis, and synthesis
Why make learning active?

1. Experience is a fundamental aspect of learning (Dewey, 1938)
   - Learner observes or experiences something
   - Compares the experience with prior knowledge
   - Makes meaning of that knowledge and experience for future purposeful action
Why make learning active?

2. Experience in combination with reflection is necessary to attain new knowledge, skills, and attitudes (Kolb, 1984)
Experiential Learning Cycle (Kolb, 1984)

1. Concrete Experience: engage in new experiences
2. Reflective Observation: observe and reflect on the experience
3. Abstract Conceptualization: theorize and interpret our experiences
4. Active Experimentation: use and apply experiences in daily life

The cycle is a continuous process where each stage leads to the next, facilitating a deeper understanding and application of learning.
Why make learning active?

3. “Brain-compatible” teaching supports the learning process (Jensen, 1994). The brain learns best with:

• enriched & challenging environments
• activities that encourage hearing, seeing, questioning, discussing, doing, and teaching
• multiple exposures to content
Why make learning active?

4. Learning is a social process that most individuals will utilize in future work situations (Bandura, 1986; Illeris, 2003; Garrison, Anderson, Archer, 2003)

• Engaging and collaborating with others
• Negotiating
• Creating new meaning
• Devising a “solution”
Incorporating Technology

• In health sciences, we are using technology to engage learners in active, realistic, and social learning environments

• Technology helps to support our learning objectives/outcomes by creating experiences for learning (classroom → clinic) and reflection
Teaching with Technology: Health Sciences Model
Health Science Technology Integration

Instructors have utilized technology to different extents within their courses.

- **Blended course:** integration of online and face-to-face (ftf) learning in which a portion of the ftf time is replaced by online learning activities

- **Enhanced course:** integration of online technology into a ftf course to support active learning in which there is no reduction in ftf time
“Flipped” Classroom

**Definition:** a course which adjusts ("flips") the pedagogical approach by placing lectures and readings online as homework, so active learning can occur in the classroom
Myths of the Flipped Classroom

1. Flipping your classroom means putting videos online.
2. Flipping your classroom needs to occur in every class session to be effective.
3. Flipping your classroom requires extensive technical knowledge (ex: narrating powerpoints, making online quizzes, etc.).
4. Students will not do out of class work to prepare for the flipped classroom.
5. Students will like having less lecture and more activity in the classroom.
Important Design Concepts for a Flipped Classroom Approach

• Start with 1 (maybe 2) learning objectives.
  • Starting “too big” will cause lengthy prep-work which will lose student interest/engagement.

• Students must be held accountable for prep-work completion.

• Prep-work must be integrated into class activities at “just the right” level.
  • Not full repetition but need to establish foundation

• Learning objectives should align with in-class activities and assessments.
Active Learning “Teasers”

Now we are going to share with you a few different strategies we have used to create active learning in the classroom.

Technology utilized will also be presented.

- Wikis, Google Maps
- Narrated Powerpoint, Camtasia, Lecture-Capture Software
- TedED, Wordle
- Blackboard Collaborate, Voicethread, and Discussion Boards
Collective Knowledge Generation

- **Pedagogical goal**: Deepen learning outside of class in preparation for an active live class; develop collaborative working skills with peers.

- **Requirements**: training/comfort with the tool being used, sense of safety in making public contributions both outside of class and in class.

- **Tools for Review**: Blackboard’s Wiki tool
Front-Loading Content - Narrated Presentations

- **Pedagogical goal:** Initial online introduction to and interaction with content with a view to integration with in-class active learning.

- **Requirements:** Visual representation of content (to the extent possible) and beginning application of new material.

- **Tools for Review:** Narrated Powerpoint, Camtasia, Lecture Capture Software (Echo 360).
Collaborative Inquiry

• **Pedagogical goal:** Build communities of inquiry to achieve higher levels of learning (analysis, synthesis, application, knowledge creation)

• **Requirements:** student/student and student/faculty interaction; sense of social cohesion/safety; familiarity with collaboration tools

• **Tools for Review:** Discussion boards, VoiceThread, Blackboard Collaborate
Voice Thread

Interplay of Clinical Pragmatism
Reflection

• **Pedagogical goal:** promote critical thinking, integrate information from multiple sources/experiences, apply for future life (personal, work, etc.)

• **Requirements:** student readiness, class culture (ie. open environment), instructor facilitation (ie. prompts)

• **Tools for Review:** TedED, Wordle
An **Advance Directive** is a legal document that is composed of two parts: 1) a **living will** (statement regarding patient’s desire for care in the event of impending death) and 2) a **healthcare power of attorney** (designated person to make decisions if the patient becomes unable). A **DNR** (Do Not Resuscitate) is an optional third component.
Next Steps

With your worksheet as a guide, choose a table based on the technology you would like to explore for your learning activity.

➤ Hint: this should align with your learning objective

Table Options:
- Frontloading content with narrated presentations
- Collaborative Inquiry
- Collective knowledge generation
- Reflection
Focus on You!

• You have 15 minutes of creative time to apply what you’ve learned to your class session.

• Feel free to work with another participant to brainstorm and refine your session.

• Raise your hand if you have any questions!
Group Discussion

1. Does anyone have an example that they would like to share with the group?

2. What challenges did you experience in completing your worksheet?

3. What challenges do you anticipate in executing your session?

4. What solutions/strategies can help you overcome these challenges/barriers?
Lessons Learned

• Be deliberate in how you introduce your “flipped” design. Avoid saying “This is new”. Focus on the pedagogy.

• Don’t overwhelm the students with many different types of technology.

• Allow “ramp up” time for students with new technology.

• Seek formative feedback throughout the course (not just at the end!).
Wrap Up

Questions?

Thoughts?

Thank you!
Reference List


