Matching Teaching Methods with Student Learning Outcomes

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Participant Learning Outcomes

By the end of this workshop, you will be able to select, adapt, and design teaching methods/learning experiences that, according to research, are among the most effective means to help students reach the learning outcomes for them. You will also be able to judge the selection, adaptation, and design of other faculty.

“…the residue of knowledge and the habits of mind students take away for college are likely to be determined less by which courses they take than by how well they are taught. Yet reports on the curriculum are bereft of any extended discussion of whether current teaching methods are well suited to the educational goals being pursued and, if they are not, how they might be improved.”

--Derek Bok, Our Underachieving Colleges, 2006, p. 49, “The Neglect of Pedagogy”
The Model of the “Perfect Fit” in Course (and Curriculum) Design

Appropriate Assessment of Students’ Performance on Outcomes (the measurement of progress to the ends)

Teaching Methods/Learning Experiences to Help Students Meet Outcomes (the means to the ends)

Student Learning Outcomes (the foundation, the ends)

What Are Good Learning Outcomes?

• Statements of what your students should be able to do by end of unit or course.
• “Performances” that you can observe and set standards for so you can assess them—active verbs
• Not internal states of mind: “know,” “learn,” “feel,” “understand,” “appreciate”

How do you help students achieve your outcomes?

Activities & Assignments (in-class; homework) = Their Learning Experiences
= Your Teaching Methods

Choose the best tools (means) for the job (ends).
Rule for Choosing a Tool

- Tool should give students practice in the performance(s) specified in one or more learning outcomes — practice as close as possible to how student performances will be assessed for a grade.

Types of “Tools”

- “Formats” = type of course
  E.g.: Lecture/Discussion, Lecture/Lab, Laboratory, Seminar, Discussion/Skill-activity
- “Major Methods”
  E.g.: Lecture, Interactive Lecture, Discussion, Case Method, PBL, Cooperative Learning, Simulation
- “Teaching Moves” (mini-methods)
  Ways you explain material, short in-class student activities and exercises, interactive lecture breaks

Formats – Who makes those decisions?

Teaching Moves vs. Major Methods

- Less More +

Time & Commitment Continuum
Matching “Tools” to Outcomes

- “Formats”
  See table “Group ratings for each combination of ‘teaching approach’ and ‘objective’ (outcome) are shown below”
- “Major Methods”
  See table “Which Methods for Which Outcomes?”
- “Teaching Moves”
  See “Teaching Moves for Six Learning Outcomes”

Interactive Lecture

- Lecture with “student-active” breaks = short student activities (2-10 minutes) every 12-20 minutes during lecture (“Active learning class”)
- Better for learning and retention, given short attention span for passive activities, class attendance, and your student ratings

Aims of Student-Active Breaks

- Students practice the performances in your learning outcomes.
- Students apply/use content you’ve been lecturing about, so they learn it better.
- You diagnose their understanding (classroom assessment).
Possible Student-Active Breaks

- Lecture note review, fill in, elaboration
- Above in pairs
- Periodic writing of most important point(s), with pair sharing
- Multiple choice question (conceptual)
- Problem to solve (indiv, pair, group)
- Quick case study (indiv, pair, group)
- Discuss open-ended question (pair, group)

- Worksheet/exercise (indiv, pair, group)
- Concept map, graphic organizer, matrix of lecture material (indiv, pair, group)
- Question for future test (indiv, pair, group)
- One-sentence (or longer) summary of lecture
- “Muddiest point”
- Reaction/reflection paragraph
- Discussion board posting (w/laptops)
**Teach in Multiple Media for:**

1. Different learning styles
2. Repetition in multi-modalities – most effective reinforcement
3. Higher student engagement
   - Visuals and models
   - Speech/sound and stories
   - Experience and examples
   - Written words

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**Make Students Do the Readings**

Hold them accountable for the readings when they are due with:

- **Homework handed in**
- **Daily quizzes**
- **In-class exercises and activities**
- **Oral presentations or recitation**

Grade on “good faith effort” 1/0, √/0, or √+/√/0.

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“…faculties have take the principle of academic freedom and stretched well beyond its original meaning to gain immunity from interference with how their courses should be taught...teaching methods have become the personal prerogative of the instructor rather than a subject appropriate for collective deliberation. The result is to shield from faculty review one of the most important ingredients in undergraduate education.

-- Bok, 2006, p. 49
CAUTION!

Bok’s argument raises critical questions.

• To what extent should a department, college, or institution influence the faculty’s choice of teaching methods to ensure that they use the most effective ones for their student learning outcomes?

• Some of best teaching methods for helping students acquire high-level thinking skills are known to lower student ratings of instructors. Students complain of insufficient structure, too much work and “self-teaching,” and undue grade anxiety. But college budgets are tight and retention is highly valued. How can we resolve the tension between student satisfaction and student learning?