THE TEACHING TOOLBOX: TEACHING BASICS FOR NEW GTAS

PLAN Workshop
Friday, August 9, 2013
10am-1pm
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INTRODUCTIONS
LEARNING OUTCOMES

- Discuss the implications of 21st Century Learners in the classroom (understand how to work with students in higher education)

- Describe a process for structuring your class based on Backwards Design and Fundamental and Powerful Concepts (time management, structuring)

- Identify ways to assess student learning in your class (grading)

- Explore activities, assignments, and strategies to promote active learning (time management, tips)

- Develop a list of next steps and “to dos” to prepare for the year (practical advice)
STUDENTS
"The young people of today think of nothing but themselves. They have no reverence for parents or old age. They are impatient of all restraint. They talk as if they alone knew everything and what passes for wisdom with us is foolishness with them. As for girls, they are forward, immodest and unwomanly in speech, behaviour and dress."

-- Attributed to Socrates by Plato

"I see no hope for the future of our people if they are dependent on frivolous youth of today, for certainly all youth are reckless beyond words... When I was young, we were taught to be discreet and respectful of elders, but the present youth are exceedingly wise [disrespectful] and impatient of restraint"

-- Hesiod, 8th Century BC
Also Called:

- Generation NeXt
- GenerationMe
- Millennials
- Gen Y
- The Next Great Generation

Defined as:

- Those born after 1980
Model Traits

- Reduced Self-efficacy
- Incivility and Caring Issues
- Consumer Orientation
  - Instant Gratification
  - Negotiation
- Entertainment Orientation
  - Entitlement
  - Self-Interested
- Diversity
- Techno-literate
WHICH IS TRUE?

So what?
Learning Happens Everywhere . . .
All The Time


Picture: http://en.flossmanuals.net/acts-acts/ch015-theкосateachersdreammachine
http://thecrispianadvantage.com/2011/03/20/complexity-
the-new-normal-leading-to-the-essence/brain/plasticity/

http://www.flickr.com/photos/genista/
OOPS!

STRUCTURING YOUR CLASS
BACKWARDS DESIGN

- Plan with the end in mind

- Avoids the “twin sins”: activity-focused planning and coverage-focused planning

- Process: iterative and unpredictable
Fundamental & Powerful Concepts

- explain or help us think about a huge body of questions, problems, information, and situations.

- are attached to a course theme

- are to be contrasted with individual bits of information, or with less general concepts.

- reflect the primary and essential thinking trait(s) you want students to achieve at the end of an assignment/course.
FUNDAMENTAL & POWERFUL CONCEPTS

- 6 months from now . . .
- 12 months from now . . .
- 2 years from now . . .
- 5 years from now . . .

- What do you want students to remember about your course?
Examples
- English: Unreliable narrator
- Finance: Conditions of uncertainty
- Public Health: Health equity
- Sociology: Ethnocentrism
- Social Work: Evidence-based practice
SEE-I

S: State it
E: Elaborate
E: Exemplify
I: Illustrate
WHY USE SEE-I?

- Using a SEE-I prompt requires you to **clarify** your thinking about an idea, concept or problem

- Communicating about your ideas or thinking using the SEE-I can be a tool for checking the **accuracy** of your thinking
SEE-I EXAMPLE: LEGAL SYSTEM

State: The legal system of the U.S. is rigid, but nimble because it adapts to societal change.

Elaborate: Societal positions influence the law through the people it serves.

Exemplification: Sociological change brought about a major shift in the law as it relates to education, moving from segregated schools to integrated ones.

Illustration/Metaphor: We like to think of the dictionary as fixed and set, and therefore permanent. Yet it changes with society in a real ways—words enter the dictionary all the time, such as “unfriend” and “carbon footprint.”
WHEN TO USE A SEE-I

- Use it as a starting point for discussion
  - “I’ll make a statement, and I want to someone to elaborate”
- Use it between students or groups during a discussion.
- During silence to help understanding
  - SEE-I can also be used as a catalyst.
    - Provide an elaboration of a concept and ask students to provide examples. Connect it to other concepts and have them start the process over again.
  - “Who has an example of…?”

State one of your F&P concepts in 1 sentence:

Elaborate that definition:

“In other words…”

Exemplify the concept:

“For example…”

Illustrate with an image, metaphor or simile

“It’s like…”
ASSESSING STUDENT LEARNING

Create
Evaluate
Analyze
Apply
Understand
Remember
Assessing Student Learning

**Summative**
- “Assessment of learning”
- Occurs after instruction
- Measures level of success or proficiency achieved
- Generally results in grade

**Formative**
- “Assessment for learning”
- Occurs during instruction
- Gathers feedback to guide improvement
- Generally low-stakes
Grading is not the Most Important Function

- Focus on the learning outcome
- Testing as opportunity to understand students’ intellectual progress
- Decide what to assess
- Aim for validity and reliability
- Use a variety of testing formats
- Types of tests
- Create good questions – Bloom’s Taxonomy
Assessing Student Learning

- Prepare new exams each time you teach a course
- Ask students to submit test questions
- Be cautious about using item banks from textbook publishers or found online
- Make your tests cumulative
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CATS
CLASSROOM ASSESSMENT TECHNIQUES

CATS

Classroom Assessment is an approach designed to help teachers find out what students are learning in the classroom and how well they are learning it.
3 STEP PROCESS

- Planning
  - Start small
- Implementing
  - Prepare students
  - Be clear
  - Read
- Responding
  - “Close the feedback loop”
  - Talk to students, inform them of adjustments
TIME MANAGEMENT & ACTIVE LEARNING STRATEGIES
BRAINSTORMING

When you hear the term ACTIVE LEARNING what thoughts or ideas come to mind?
TEACHING EXAMPLE #1

http://www.youtube.com/watch?v=EQKcxnFUMxk
TEACHING EXAMPLE #2

http://www.youtube.com/watch?v=pPhCmvpPorU
THINK-PAIR-SHARE

What are the specific ways that each instructor attempted to engage with their students?

What worked and what didn’t?
While instructors are lecturing, students are not attending to what is being said 40% of the time.

In the first 10 minutes of lecture, students retain 70% of the information; in the last 10 minutes, just 20%.

Students lose their initial interest, and attention levels continue to drop, as the lecture proceeds.

-Meyers & Jones, 1993
WHAT IS ACTIVE LEARNING?

- The opportunity for students to take a more interactive relationship with the subject matter of a course

- Encouraging students to generate rather than simply receive knowledge

- Teachers as facilitators rather than “dictators” of student learning: guide on the side, not sage on the stage!
BENEFITS OF ACTIVE LEARNING

- It is an exceptionally effective teaching technique:
  - Students learn more material*
  - Retain information longer*
  - Enjoy their classes more*

- It saves time:
  - Students learn in the classroom—with the help of the instructor and other students—rather than on their own

*Compared with traditional lecturing
ACTIVE LEARNING: FOOD FOR THOUGHT...

Confucius said:
What I hear, I forget.
What I see, I remember.
What I do, I understand.
ACTIVE LEARNING EXAMPLES

- Lectures
- Discussion
- Groups
- Activities and assignments
- Case Studies
- Simulations
- Writing
- Technologies
- CATs
- Relatable examples
- Getting to know students
LEARNING ENVIRONMENTS

- Large classes
- Middle-sized classes
- Small classes
- Laboratory classes
- Experiential learning
- Online
TOOLS & STRATEGIES
TECHNOLOGIES

Inquiry
- Theory Building
- Data-access & data bases
- Data collection
- Data analysis

Communication
- Document preparation
- Communication w/others
- Active Learning
- Collaborative tools

Construction
- Design and Robotics
- Control systems
- Content delivery
- Organization & time management

Expression
- Drawing, painting, recording
- Animation, hypermedia, interactivity
QUESTIONS TO CONSIDER

- What are the outcomes you are hoping to achieve?
- In what part of the process would utilizing technology help you? How and why?
- What technologies are you prepared to use? What technologies are your students prepared to use?
- How much time and support do you have?
- How is it going? What do I need to do differently?
INQUIRY TECHNOLOGIES

- **Theory Building**
  - Tabletop, Logo, Stella, Mathematica, ThinkerTools, ChemViz

- **Data access**
  - Ebsco, ERIC, Itunes, government data bases

- **Data collection**
  - Micro-observatory, micro-computers, online surveys

- **Data analysis**
  - Excel, SPSS, Statistics Workshop, problem-solving programs

- **Search Engines**
  - Google, Yahoo, Bing
COMMUNICATION TECHNOLOGIES

- **Document preparation**
  - Microsoft Word, Keynote, Adobe Acrobat, In-Design

- **Communication with others**
  - Email, listservs, text-messaging, Skype, Google Plus Hangout, On-Air

- **Collaborative Tools**
  - Google Docs (Drive), wikis, LMS

- **Personal and Professional Development**
  - Social media: Linked-in, Twitter, Ning
CONSTRUCTION TECHNOLOGIES

- Control systems – using computers to affect the physical world
- Robotics
- Organization & Time Management
  - Grading, financial management, record-keeping
EXPRESSION TECHNOLOGIES

- Drawing and Painting Programs
- Music making and accompaniment
- Interactive video and hypermedia
- Animation
STRATEGIES: USE WHAT WE KNOW

- 21st Century Learners’ traits
- College Student Development Theory
- Instructional Technology
- Backwards Design
- Fundamental & Powerful Concepts
- Bloom’s Taxonomy
- Summative & Formative Feedback
- CATs
- Active Learning
- Brain-Based Learning
“TO DOS” AND NEXT STEPS
Your First Week of Class
Before the First Day

How to Prepare

• Obtain and review/alter/develop your syllabus
• Course Design
  • Big Goals → Unit Goals → Weekly Goals
  → Class Goals
• Personalize Blackboard
THE FIRST DAY

Ethos

Characteristics of Good Teachers
THE FIRST DAY

Syllabus
  What to Include (http://louisville.edu/delphi/resources/syllabus)

Policies

Review

Don’t Forget! (What do they call you? How to communicate? Willingness to meet?)

Collect Student Information
  Name, contact information, prior experience w/course material, major, interests & hobbies

Other Administrative Tasks (Roster, Pre-requisites)
THE FIRST DAY

Ice Breakers

Mini-Lesson

Big Questions
What’s it like to think like a ___________?
What does a ___________ really do?
How will these classes in _________ be different in college compared to high school?
Reading or Lab to set the tone
The Second Day

The Class Plan

Classroom Assessment Techniques (CATs)

Planning for the Long-Term

Keeping Up
REFERENCES & RESOURCES

- Syllabus Guidelines: [http://louisville.edu/delphi/resources/syllabus](http://louisville.edu/delphi/resources/syllabus)
- Blackboard Information: [http://louisville.edu/delphi/blackboard](http://louisville.edu/delphi/blackboard)
- The Honolulu Community College Teaching Tips Website for the First Day (including links to icebreakers. The rest of the site is a great resource as well!): [http://www2.honolulu.hawaii.edu/facdev/guidebk/teachtip/teachtip.htm#firstday](http://www2.honolulu.hawaii.edu/facdev/guidebk/teachtip/teachtip.htm#firstday)
- GTA Blackboard
- GTA Handbook
- Bibliography
- CATs
- Bloom's Taxonomy
- PLAN
- GTA Website
- Social Media
QUESTIONS??

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