

Using Student Learning Outcomes to Enhance Student Learning and Course Development in the Humanities and Social Sciences

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"Teaching is leading students into a situation in which they can only escape by thinking"



BUILDING EDUCATION FOR THE 21ST CENTURY



This Workshop

- ❖ Introductions
- ❖ Student Learning Outcomes (SLO)
- ❖ Understanding by Design AKA Backwards Design?
- ❖ Three Cornerstones for Good Teaching



How long have you been teaching ?

- 1) 1-3 years
- 2) 3-5 years
- 3) 5-10 years
- 4) 10-20 years
- 5) >20 years



I did my graduate work primarily in:

- 1) Korea
- 2) The United States
- 3) Europe
- 4) Asia other than Korea
- 5) A combination of the above



The primary goal in my teaching is to?

1. Cover the material
2. Uncover new knowledge
3. Ensure student learning
4. Ensure student success



The biggest teaching challenge I face is ?

1. Motivating student
2. Covering the material
3. Developing assessments
4. Finding appropriate instructional material
5. Other



Activity One

Write a definition for what student learning outcomes mean to you?

Activity One

Definition for student learning outcomes

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Share Your Definition of Student Learning Outcomes with the Person(s) Side of You



Learning Outcomes

Learning outcomes are enduring understandings that students will take away from your course

Learning Outcomes (LO)

- ❖ LO answer the following guiding questions:
 - What will my students know?
 - What will my students understand?
 - What will my students be able to do?
 - What will my students be able to appreciate?
- ❖ LO are determined by the faculty

Learning Outcome Characteristics.

- ❖ The specified learning action by the student must be observable.
- ❖ The specified learning action by the student must be measurable.
- ❖ The specified learning action must be done by the students.

Remember

- Goals and outcomes are not the same thing
- ❖ Goals are the overarching guide and envisioned endpoint, often they are not readily measurable
 - Student are life-long learners
- ❖ Outcomes are things one can readily, and directly measureable
 - Students can describe __XX__
- ❖ Some goals and outcomes overlap



Course Goals and Students Learning Outcome (SLO)

- ❖ Goals are the overarching guide and envisioned endpoint, often they may not be readily measurable
 - Student are life-long learners
- ❖ Some goals and SLO overlap
- ❖ Student learning outcomes are things one can readily, and directly measureable
 - Students are able to _____
 - Students will _____
 - Students can _____



Learning Outcomes Characteristics

- ❖ They are stated from the student's perspective—i.e. the Student Will Be Able To [SWBAT] . . .
- ❖ They define and capture expected student learning in programs or courses.
- ❖ They are a framework within which faculty can think deeply about student learning, their course and academic programs.
- ❖ They are a tool for evidence based improvements

Characteristics of Good Student Learning Outcomes

- ❖ Are student-focused vs. content or professor-focused
- ❖ Are focused on learning vs. the learning activity
- ❖ Are meaningful to faculty and students
- ❖ Are general enough to capture important learning
- ❖ Are clear and specific enough to be measured
- ❖ Are embedded in course learning activities and assessments

Effective Learning Outcomes
NEED to **MAKE SENSE**

17

Activity Two

- ❖ Write several learning outcomes for one of your courses.

Activity Two

Write several student learning outcomes for one of your courses

1

2

Share Your Student Learning Outcomes with the Person(s) Side of You



Writing Clear Learning Outcomes

- ❖ Often learning outcomes, are unclear or represent elements of a curriculum rather than some action the participants will demonstrate.
- ❖ Two Examples:
 - Participants will understand the nine reasons for conducting a needs assessment.
 - Participants will develop an appreciation of cultural diversity in the workplace

Refined Learning Outcomes

- ❖ Original
 - Participants will understand the nine reasons for conducting a needs assessment.
- ❖ Refined
 - Participants will list nine reasons for conducting a needs assessment.
- ❖ Original
 - Participants will develop an appreciation of cultural diversity in the workplace
- ❖ Refined
 - Participants will summarize in writing their feelings about cultural diversity in the workplace

Examples

An Example - History

The guiding question: *What will our students be able to do?*

- Students will be able to distinguish among a variety of genres of primary and secondary historical texts (i.e. documents, monographs, letters, novels, film, political cartoons, essays, etc.) and use them appropriately in their academic work.

Clear and specific enough to be measured and embedded in the activities that the students already do?

- Clear and Specific?
 - YES, one can measure how well students critically assess sources.
- Embedded?
 - YES, majors in HIST 208 are required to prepare a research paper prospectus that includes a bibliography of identified primary and secondary sources.

23

General Education Outcomes Humanities

- ❖ Demonstrate familiarity and facility with fundamental terminology and concepts in a specific topical area in the humanities.
- ❖ Demonstrate understanding of the methods used by scholars in a specific field in the humanities.
- ❖ Demonstrate understanding of the creative processes and techniques used by practitioners in a specific field of the visual, literary, or performing arts.
- ❖ Demonstrate critical thinking in the evaluation of sources and arguments in scholarly works, or in the evaluation of approaches and technique in the visual, literary, or performing arts.
- ❖ Describe how language use is related to ways of thinking, cultural heritage, and cultural values.
- ❖ Conduct research on a topic in the humanities using a variety of sources and technologies.
- ❖ Demonstrate the ability to formulate a thesis related to a specific topic in the humanities and to support the thesis with evidence and argumentation.

Sample Outcomes Literature

- ❖ Demonstrate familiarity and facility with fundamental terminology and concepts in 18th century literature.
- ❖ Demonstrate understanding of the methods used by scholars in studying 18th century novels .
- ❖ Demonstrate critical thinking in the evaluation of sources and arguments in scholarly works focused on 18th century literature
- ❖ Describe how language use is related to ways of thinking, cultural heritage, and cultural values in 18th century literature .

Summary and Take Home

- ❖ Learning outcomes are measurable changes in student knowledge, skills and attitudes/appreciation (KSAs) as the result of a course of study e.g. learning
- ❖ They are determined by the faculty



Spencer Stops Talking Questions Comments ?

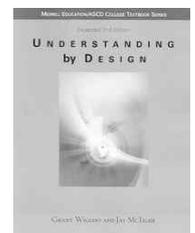


How do you design a course using learning outcomes?

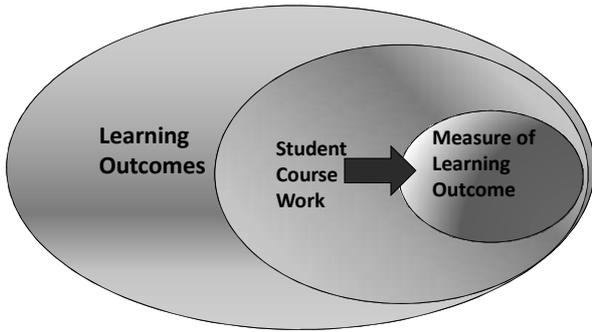


Reference

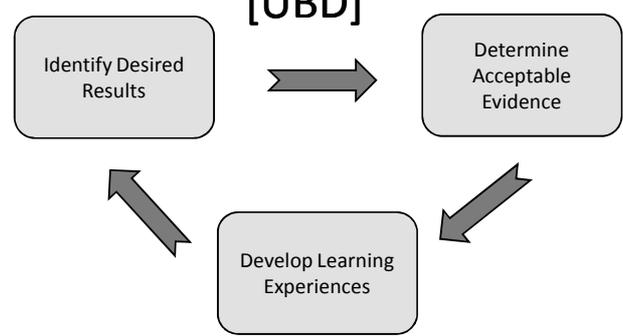
- ❖ Understanding by Design
 - AKA Backwards Design
 - Grant Wiggins and Jay McTighe
- ❖ <http://www.grantwiggins.org/ubd/ubd.lasso>
- ❖ The link below will allow you to access the book via the web.
- ❖ http://books.google.com/books?id=N2EfKlyUN4QC&dq=understanding+by+design&printsec=frontcover&source=bn&hl=en&ei=moM1SuOitOkAXw5LicCg&sa=X&oi=book_result&ct=result&resnum=4#PPA16,M1



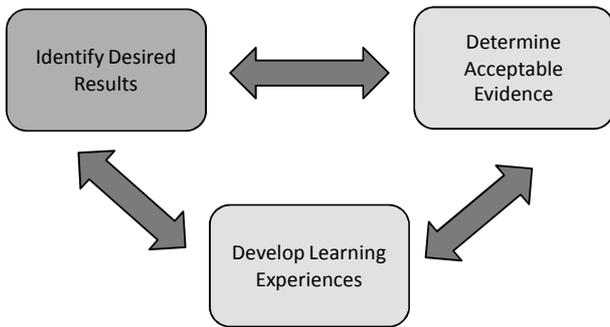
Course or Program Design



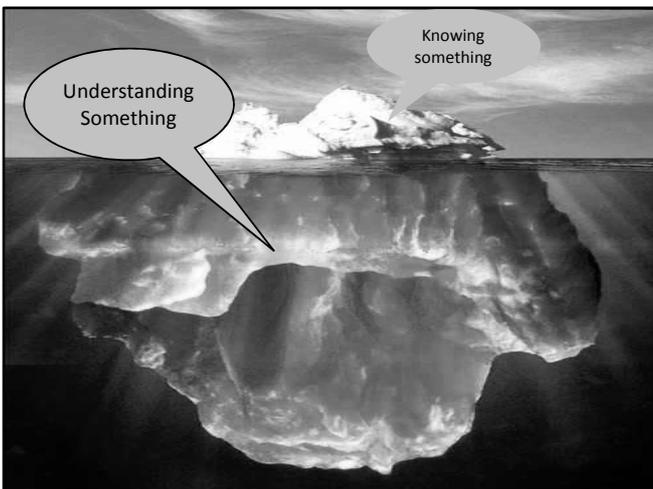
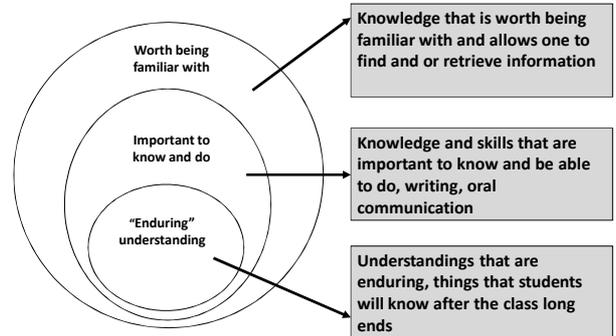
Understanding by Design [UBD]



Understanding by Design This is a reiterative process



Establish Priorities

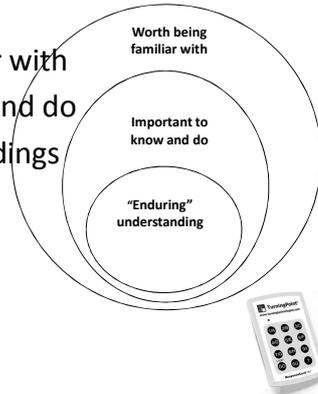


Does Knowing = Understanding ?

- ❖ Evidence of understanding is a greater challenge than evidence that the student knows a correct or valid answer
 - Understanding is inferred, not seen
 - It can only be inferred if we see evidence that the student knows *why* (it works) *so what?* (why it matters), *how* (to apply it) – not just knowing *that* specific inference
- ❖ Understanding requires higher order thinking and deeper understanding
- ❖ It goes beyond surface knowledge and memorization

My course primarily focuses on

1. Worth being familiar with
2. Important to know and do
3. Enduring understandings

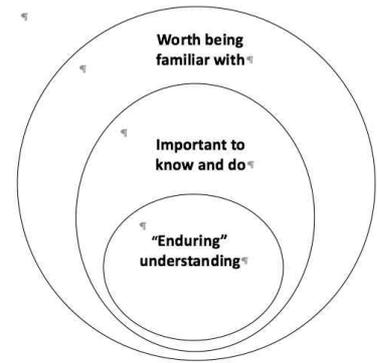


Activity Three

Activity Three

Using one of your courses write one or two items for each level.

- ¶
- ¶
- ¶
- ¶



Share Your Definition of Student Learning Outcomes with the Person(s) Side of You



Example

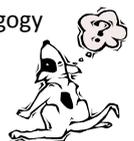
An Example

- ❖ Microbes and Society
 - non-majors general education course
- ❖ 1st year to – 4th year students
- ❖ Considerations
 - May be the only and last science/biology course they take
 - They will not be scientists/biologists
 - Science/microbiology will impact their lives
 - Some will be teachers and impact 1000s of students
 - What will they remember in 10 years about microbiology?



My Design Process

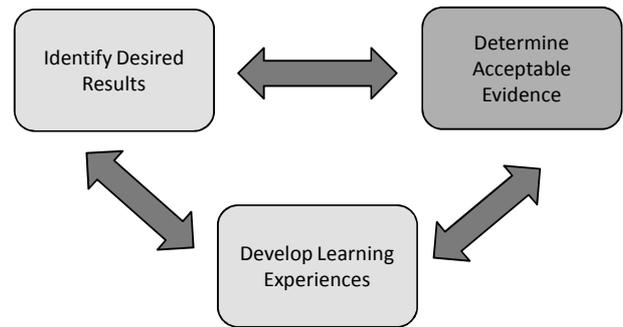
- ❖ Brainstormed with colleagues and students
- ❖ Drafted a list of course goals
- ❖ Converted goals to learning outcomes (LO)
- ❖ Decided on types of assessments I would use
- ❖ Decided on types of pedagogy I would use
- ❖ Continually asked,
 - “Do my goals, LO, assessments and pedagogy align?”
 - Is this transparent to students?
 - Will students be engaged?



Microbes and Society Course Goals/Objectives

1. To introduce students to the basic principles, concepts, theories, and language that constitutes the discipline of microbiology
2. To provide a framework for understanding how microbiology impacts life and society
3. To foster the ability to critically assess biological and microbiology information from books, the popular press, journals, and other sources
4. To understand that science is a part of everyday life
5. To see that science has cultural and social dimensions

Understanding by Design This is a reiterative process



Characteristics of Good Evidence?

- ❖ Course and discipline dependent
 - Speech course requires speaking
- ❖ Align with the goal or outcome
 - A writing goal requires writing
- ❖ Critical thinking requires appropriate materials
- ❖ Is meaningful to student and peers
- ❖ Is embedded in the course activities

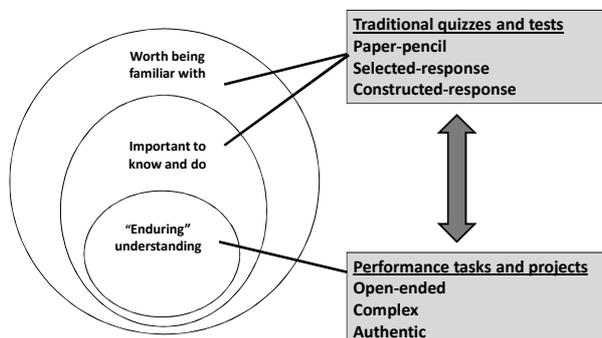


The assessments in my course are primarily?

1. Multiple choice exams
2. Essay exams
3. Mixed format exams
4. Papers
5. Projects
6. Presentations
7. Other



Assessment Alignments



Example

Microbes and Society

Students Learning Outcomes

1. Students will be able to describe the basic principles, concepts, theories, and language that constitutes the discipline of microbiology
2. Students will be able to demonstrate an understanding how microbiology impacts life and society
3. Students will be able to critically read biological and microbiology information from books, the popular press, journals, and other sources
4. Students will be able to describe how science is a part of everyday life
5. Students will be able to identify and appreciate the cultural and social dimensions of science

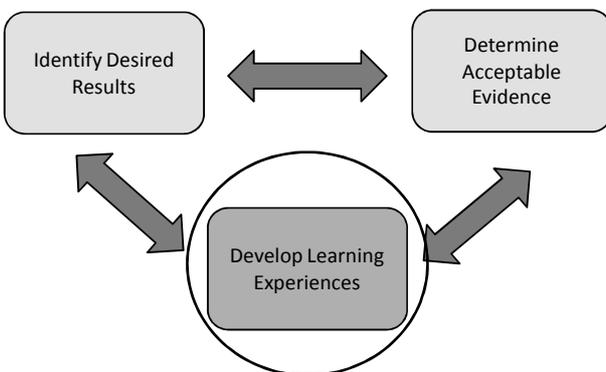
Microbe and Society

Assessments [...] refer to SLO

- ❖ Weekly online M/C quizzes on the readings [1]
- ❖ Writing (two short pieces, one on a museum visit) [1,2,4,5]
- ❖ Group project
 - In a social relevant aspect of microbiology, e.g. HIV-AIDS in and East Asian Country [2,3,4,5]
- ❖ Five 30-minute in class exams
 - Short answer and essay [1,2,4]
 - Read and write about a recent news article [3]

Understanding by Design

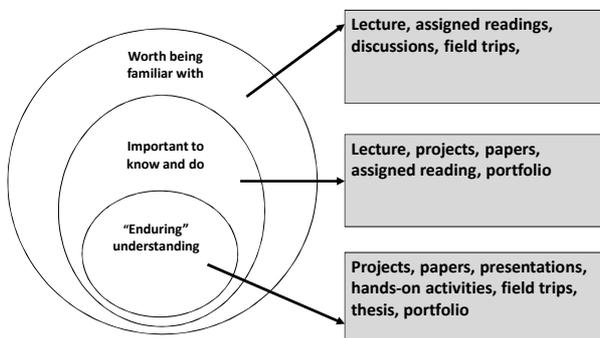
This is a reiterative process



Learning Experiences

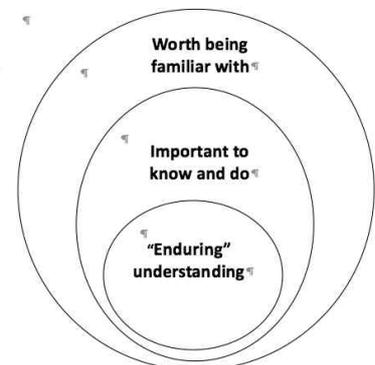
- ❖ Need to align with the course goals
 - The learning activities need to support the outcomes/goals
- ❖ Need to engage the student in active learning
 - Enduring understanding requires active and multiple engagements
- ❖ Need to align with the measures/assessment
 - Answers – How does this activity increase the performance of students on the assessment ?
- ❖ Need to be transparent
 - Student need to know what is expected on them and when

Learning Activities

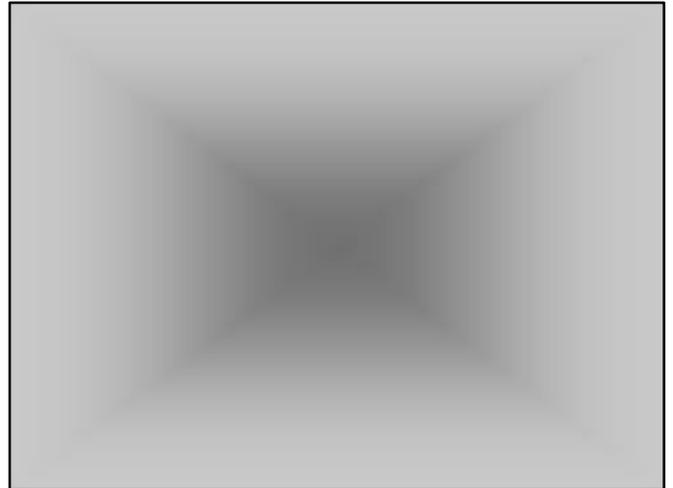


Activity Five

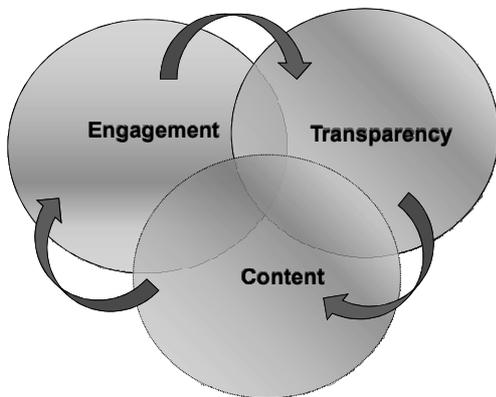
Activity Five
Develop a learning activity for each of the levels



Spencer Stops Talking Questions Comments ?



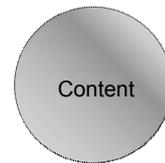
Three Cornerstones



Appropriate Course Content

What makes some content better for learning than other content?

- ❖ Relevant to students
- ❖ Engaging
- ❖ At the right level
- ❖ Visual
 - Graphic
 - Moving Images; You-tube, Google, etc



Be Transparent

- ❖ In everything you do in your class ask “do the students understand what is expected”
- ❖ Don't assume that just because you said it they heard or understand.



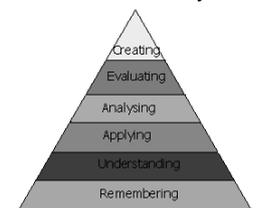
Engage Students

Engagement

Increased student engagement leads to increased student learning

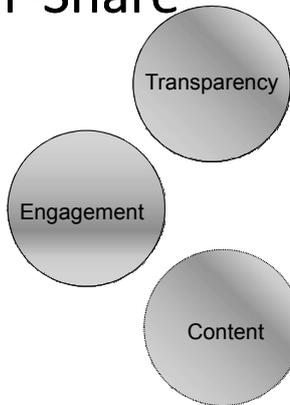


Bloom's Taxonomy

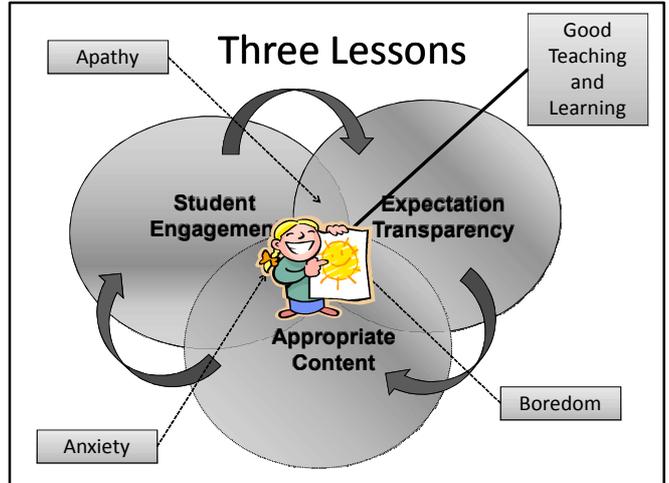


Think-Pair-Share

Choose one of the three cornerstones and write down an example of how you address it



Three Lessons



Of the three cornerstones the most important one is

1. Appropriate content
2. Transparency of expectations
3. Student engagement



Thank You

QUESTIONS/COMMENTS?



64

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<http://www.cte.umd.edu>

"Teaching is leading students into a situation in which they can only escape by thinking"

UMD Teaching Resource Guide Free Downloadable
<http://www.cte.umd.edu/TRG.pdf>

Nine Books on Teaching Worth Having in Your Own Teaching Library



Useful Teaching Resources

- "Teaching at its Best: A Research-Based Resource for College Instructors."** Linda Nilson
- "McKeachie's Teaching Tips, Strategies, Research, and Theory for College and University Teachers"** William McKeachie
- "Classroom Assessment Techniques: A Handbook for College Teachers"** Thomas A. Angelo and K. Patricia Cross
- "Effective Grading : A Tool for Learning and Assessment"** Barbara Walvoord, Virginia Anderson,
- "Understanding by Design"** Wiggins and McTighe
- "Introduction To Rubrics: An Assessment Tool To Save Grading Time, Convey Effective Feedback and Promote Student Learning"** Dannelle D. Stevens, Antonia J. Lev
- "How People Learn: Brain, Mind, Experience, and School: Expanded Edition (2000)** Nat. Acad. Press
- "The Art of Changing the Brain, Enriching the Practice of Teaching by Exploring the Biology of Learning"** James E. Zull (2002) Stylus Publishing
- "How Students Learn: History, Mathematics, and Science in the Classroom".** Committee on How People Learn (2001). National Research Council