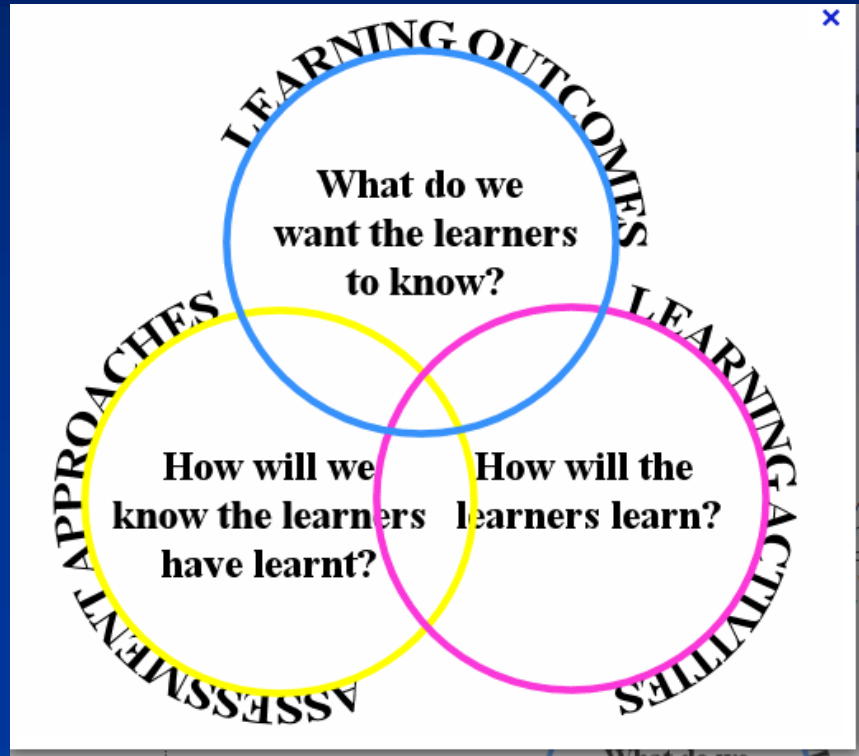


Constructive Alignment



Judith Ableser Ph.D

Center for Excellence in Teaching and Learning

Oakland University

ableser@oakland.edu

Agenda

Welcome and Introductions

Questions to Ponder

Learning Outcomes

Teaching and Learning-Knowing and Learning

Constructive Alignment

Learning Outcomes + Objectives

Writing Learning Outcomes

Activity #1 & #2

Learning Outcomes for specific sessions

Activity #3

Learning Techniques

Authentic Assignments and Activities

Activity #4 & #5

Authentic assessment and Rubrics

Next Steps

Wrap-Up

Questions to Ponder

Select a course you are teaching:

- What is it that you want your students to “know” by the end of the semester?
- How did you determine what it is that you want them to “know” by the end of the semester?
- How do you know if they “know” what you want them to “know”?



Discuss


In small groups discuss those “questions to ponder”

Feedback to full group



Learning Outcomes

Participants will be able to:

- Explain the difference between “teaching” and “learning” and why our focus needs to shift from “what we teach” to “what our students’ learn”
 - Define and apply concepts of constructive alignment, objectives, learning outcomes, higher level learning, authentic assignments and assessments, rubrics/marking schemes to their own course design/development
 - Create Learning Outcomes for Course and Lessons
 - Create assignments/activities that match learning outcomes
 - Apply the “flow” of “constructive alignment” to course syllabi, lessons and assignments
- 

Teaching vs. Learning

- Teaching= Input
- Learning= Output

- Our goal as professors should be to ensure that students **learn.**



What do we want our students to “know” and “learn”

- **KNOWLEDGE**-content
 - Low level- factual information, terminology, definitions, etc.
 - High level critical thinking- comprehension, application, synthesis, analysis, evaluation
(Bloom’s Taxonomy, 1956)
- **SKILLS**
- **PROFESSIONAL DISPOSITIONS**




How do we know if they “know” what we want them to “know”

- We assess what they “know”
- But in reality we cannot assess what a student “knows” as “knowing” is an internal process—cannot “see” knowledge
- Therefore, we must assess and measure an “observable behavior” such as an “outcome” or “demonstrated evidence of knowledge”



Constructive Alignment

- Deliberately and intentionally match “what we want our students to “know” (learning outcomes) + teaching/activities + assessing those specific learning outcomes (Biggs & Tang, 2011)
 - Coherence between assessment, teaching strategies and intended learning outcomes in an educational program. ([McMahon & Thakore 2006](#))
 - Clarity, specificity
- 

Constructive Alignment



The Intended Learning Outcomes of the Curriculum

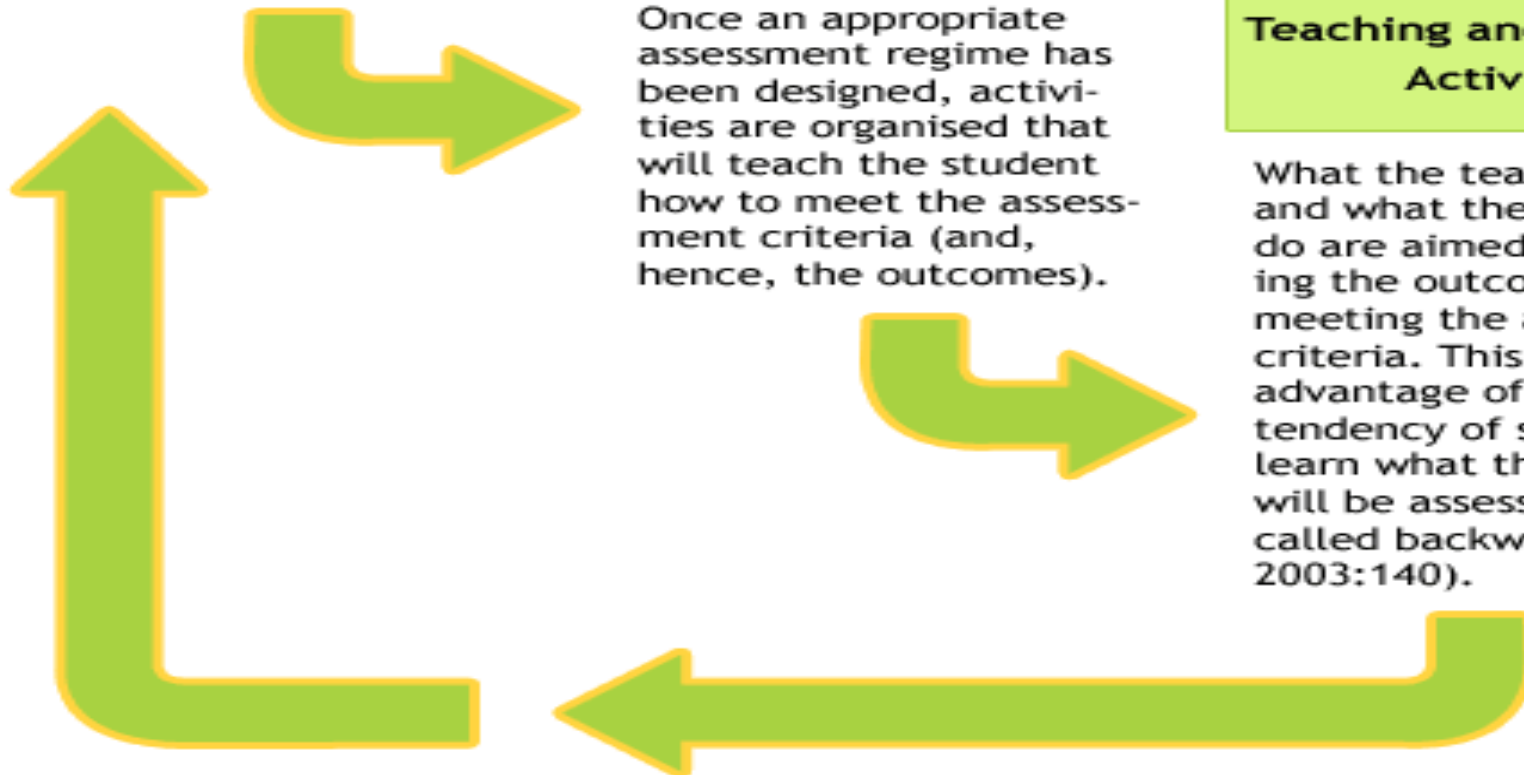
The outcomes are formulated first. From these the assessment criteria are developed.

The Assessment Regime

Once an appropriate assessment regime has been designed, activities are organised that will teach the student how to meet the assessment criteria (and, hence, the outcomes).

Teaching and Learning Activities

What the teacher does and what the students do are aimed at achieving the outcomes by meeting the assessment criteria. This takes advantage of the known tendency of students to learn what they think will be assessed - and is called backwash (Biggs 2003:140).



Constructive Alignment

Rationale

- What drives the curriculum
- Professional standards, scope and sequence of program

Objectives

- Curriculum content
- Input- intended

Learning Outcomes

- Demonstrated evidence of what students learn
- Observable, measurable, outcomes

Implementation

- Tasks that instructor and students do
- Instruction, lessons, readings, assignments, activities that are linked directly to objectives/outcomes

Assessment

- Ways in which you measure the learning outcomes through assignments and activities
- Observable, measurable, outcomes

Objectives


- Focus of course design in 1970's and 80's
- Input
- Intended
- Statement of Intent
- Discrete units of knowledge or skills
- Course Objectives focus on what is being taught

Learning Outcomes

- Focus of course design since 1990's
- Output
- Actual
- Demonstrated evidence of performance
- Wider range of knowledge and skills
- Focus on application and higher level learning



When writing Learning Outcomes

- Observable Behaviors (cannot observe “knowing”)
 - Measurable
 - Knowledge, skills and professional behaviors/dispositions
 - Relevant, meaningful, purposeful
 - Demonstrated Evidence of Behavior
 - THE STUDENT WILL BE ABLE TO.....
 - (TSWBAT.....)
- 

Examples

Poor- SWBAT learn/know about

Good- SWBAT....list

outline

define

debate

demonstrate

explain



Activity #1- Rationale

- Select a current course that you are teaching
- Rationale- what guides your decision on what you are going to cover and have your students learn in your course?
 - Professional standards
 - State standards
 - Gen. Ed. Learning Outcomes
 - Scope and sequence
 - Text book




Activity #2- Learning Outcomes for Course

- Write 3-6 Learning Outcomes for your current course
- SWBAT
- Observable, measureable



Learning Outcomes for Specific Lesson

- Very helpful to have Learning Outcomes (L.O.) for each “lesson” that you teach (both face-to-face or online)
 - Keeps you focused and on-task to ensure you cover what you want to cover
 - Review at end of session to see if covered what you wanted to cover
 - Provides clarity for students- helps students know what your expectations are in class
 - Helps students study by using Learning Outcomes as guide
- 

Activity #3- Learning Outcomes for Specific Session

- Select lesson for this week or next week
- Write 3-5 Learning Outcomes that you want to use
- Observable, measurable



Share

- Share and discuss



Learning Techniques

- Instruction- direct instruction
- Mini-lectures
- Readings
- Authentic Assignments and Activities
- Assignments



Authentic Assessments

- Authentic Assessments directly measure students' performance through “real life tasks” or “situations” that resemble “real life situations” (Wiggins, 1989)
- Often used synonymously with “alternative assessments” or “performance assessments”
- Examples include demonstrations, debates, field work, simulations, problem solving



Authentic Assignments

- Serves as “method of learning”
- Direct way to assess if learning has been mastered
- Empowers student to become responsible for their own learning-ownership
- active engagement in learning



Examples

- case studies
- research
- simulations
- posters, presentations
- debates
- lab work
- problem- based learning



Comparing Authentic Assessment to Traditional Assessments

Authentic Assessments

- Portfolios, demonstrations, field work, case studies, assignments, lab reports
- Students take an active role in process
- Qualitative
- Interpretive
- Focuses on process and product
- High level thinking
- Use of rubric/criterion levels for evaluation
- Part of teaching and learning process
- Shows mastery and learning performance
- Generally extends over time

Traditional Assessments

- Multiple choice tests, true-false, fill in the blanks
- External- teacher driven
- Quantitative
- Objective
- End product
- Standardized or norm referenced
- Isolated facts
- Low level content
- Generally occurs in “one sitting”

Activity #4- Activity for lesson

- Select a learning activity within a specific lesson that you can use to ensure that a specific Learning Outcome is met
- Note- activities can meet/address more than one learning outcome



Share

- Discuss and Share



Activity #5- Assignment for Course

- Select an assignment/activity that will address a specific learning outcome(s) for your entire course



Discuss

- Discuss and share



Using Activities/assignments to Access Learning

- By aligning your activities/assignments to your learning outcomes- assessment becomes very easy
- Once you assess your activities, you can be confident that the students have “learned” what it is that you wanted them to “learn”



Putting it all together

- Activity # 6
- Fink's Worksheet for Designing a Course



Ways to Assess Activities/Assignments

- By creating rubrics and marking schemes you have objective, clear measurements



Rubrics

- Marking Schemes
- Criterion for evaluation
- Range of formats but all include
 - What you want you student to demonstrate
 - Criterion for evaluation
 - Levels of expectations



Categories	level 1 below standard	level 2 minimal standard	level 3 standard	level 4 above standard
Knowl./Understanding -understanding concepts -performing algorithms	The student: -demonstrates limited understanding of concepts -performs only simple algorithms accurately by hand and by using technology	-demonstrates some understanding of concepts -performs algorithms with inconsistent accuracy by hand, mentally, and by using technology	-demonstrates considerable understanding of concepts -performs algorithms accurately by hand, mentally, and by using technology	-demonstrates thorough understanding of concepts -selects the most efficient algorithm and performs it accurately by hand, mentally, and by using technology
Thinking/Inquiry/Problem Solving -reasoning -applying the steps of an inquiry/problem solving process (e.g. formulating questions; selecting strategies, resources, technology, and tools; representing in mathematical form; interpreting information and forming conclusions; reflecting on reasonableness of results)	The student: -follows simple mathematical arguments -applies the steps of an inquiry/problem-solving process with limited effectiveness	-follows arguments of moderate complexity and makes simple arguments -applies the steps of an inquiry/problem-solving process with moderate effectiveness	-follows arguments of considerable complexity, judges the validity of arguments, and makes arguments of some complexity -applies the steps of an inquiry/problem-solving process with considerable effectiveness	-follows complex arguments, judges the validity of arguments, and makes complex arguments -applies the steps of an inquiry/problem-solving process with a high degree of effectiveness and poses extending questions
Communication -communicating reasoning orally, in writing, and graphically -using mathematical language, symbols, visuals, and conventions	The student: -communicates with limited clarity and limited justification of reasoning -infrequently uses mathematical language, symbols, visuals, and conventions correctly	-communicates with some clarity and some justification of reasoning -uses mathematical language, symbols, visuals, and conventions correctly some of the time	-communicates with considerable clarity and considerable justification for reasoning -uses mathematical language, symbols, visuals, and conventions correctly most of the time	-communicates concisely with a high degree of clarity and full justification of reasoning -routinely uses mathematical language, symbols, visuals, and conventions correctly and effectively
Application -applying concepts and procedures relating to familiar and unfamiliar settings	The student -applies concepts and procedures to solve simple problems relating to familiar settings	-applies concepts and procedures to solve problems of some complexity relating to familiar settings	-applies concepts and procedures to solve complex problems relating to familiar settings; recognizes major mathematical concepts and procedures relating to applications in unfamiliar	-applies concepts and procedures to solve complex problems relating to familiar and unfamiliar settings

RUBRIC- ASSIGNMENT #1- CASE STUDY

NAME: _____

Excel. Good Fair N.I. Comments

Introduction (2)

Clear introduction

Describe method of who/what/when observed/interviewed

Description of Individual- using examples, work samples, etc. (8)

General, history, physical, language, cognitive, academic, social, behavioral, emotional, strengths, interests, needs, life skills, transitions, career, independence, family, community, other

Describe using examples each of the above developmental and ecological areas.

Compare to Normal Development (8) (may be integrated with description)

Describe normal development for that age (physical, cognitive, language, social, emotional, etc) and compare to your individual

Cite data using scholarly research (on developmental norms including Piaget, Erikson, developmental statistics etc)

Compare to Disability (8) (may be integrated with description)

Compare your individual with what research says on others with that disability

Cite data in each of the developmental/ecological areas

Discussion (12) As a Separate Section- Critical area in Graduate level writing

Address themes/issues from description and comparisons above using

Research and academic sources to explore and analyze key issues

Make recommendations supported by research

List/Description of Agencies/Resources (4)- list and describe

Reflection (3)

What did you learn

How did this add to your knowledge, skills, attitudes

Style (5)

Complete, on-time, 15-20+ pages

APA, grammar, spelling, Academic References

Comments:

Next Steps

In our next workshop “Authentic Assignments and Rubrics” on

we will be focusing directly on creating assignments and activities with rubrics/marking schemes to directly assess them and our learning outcomes



Discussion and Feedback

- Comments
- Questions



Applying this to your own Course

- How can you apply this to your own course?
- Can you develop “learning outcomes”?
- Can you include some “authentic assessments”?
- Can you develop rubrics/marking schemes to assess the assignment and the learning outcomes?



Lets' revisit our Learning Outcomes for today

- Are you able to:
 - Explain the difference between “teaching” and “learning” and why our focus needs to shift from “what we teach” to “what our students’ learn”
 - Define and apply concepts of constructive alignment, objectives, learning outcomes, higher level learning, authentic assignments and assessments, rubrics/marking schemes to their own course design/development
 - Create Learning Outcomes for Course and Lessons
 - Create assignments/activities that match learning outcomes
 - Apply the “flow” of “constructive alignment” to course syllabi, lessons and assignments



Next Session...continuation

- “Authentic Assignments, Assessments, and Rubrics”



References

- Ableser, J. (2007) "Life beyond multiple choice tests: Alternative and Authentic Assessment" in *Teaching, Learning, Assessing: Guide for Effective Teaching at College and University* Niagara Falls, N.Y.: Mosaic Press
- Biggs, J and Tang C. (2011): *Teaching for Quality Learning at University*, (McGraw-Hill and Open University Press, Maidenhead)
- Biggs, J (2003): *Aligning Teaching and Assessment to Curriculum Objectives*, (Imaginative Curriculum Project, LTSN Generic Centre) Brooks, J. and Brooks, M. (1993). *In Search of Understanding: The Case for Constructivist Classrooms*, ASCD)
- Bloom, B., Englehart, M., Furst, E., Hill, W., & Krathwohl, D. (1956) *Taxonomy of Educational Objectives*. New York, N.Y.: David McKay.
- McMahon & Thakore (2006) *Using Bigg's Model of Constructive Alignment in Curriculum Design*. Open Educational Resources of UCD Teaching and Learning, University College Dublin
- Smith, K (2007) ed. *Teaching, Learning, Assessing: Guide for Effective Teaching at College and University* Niagara Falls, N.Y.: Mosaic Press
- Wiggins, G. (1989) "A true test: Toward a more authentic and equitable assessment" *Phi Delta Kappan*. May 1989, 703-713