

Evaluating Distance Learning Outcomes

Conquering the Equivalency Monster

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Agenda

- Part One - Distance Learning Overview
- Part Two - Learning Outcomes and Institutional Quality
- Part Three - Developing Learning Outcomes
- Part Four - Assessing Learning Outcomes

Intended Workshop Learning Outcomes

The workshop participant (LEARNER) can
SLO 1: Define distance learning
SLO 2: List the characteristics of a good distance learning course
SLO 3: Describe the shift from the instruction to learning paradigm.
SLO 4: Define new outcomes-based learning and assessment terms.
SLO 5: Distinguish between program inputs, outputs, and outcomes.
SLO 6: Contrast direct and indirect measures of student learning.
SLO 7: Analyze action verbs appropriate for writing student learning outcomes.
SLO 8: Explain the basis for writing assessment plans at the program level.
SLO 9: List the characteristics of a good program unit assessment plan.

Part One

Defining Distance Learning

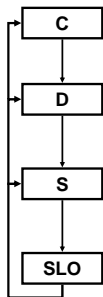
Distance education is defined, for the purposes of accreditation review, as a formal educational process in which the majority of the instruction occurs when the student and instructor are not in the same place.

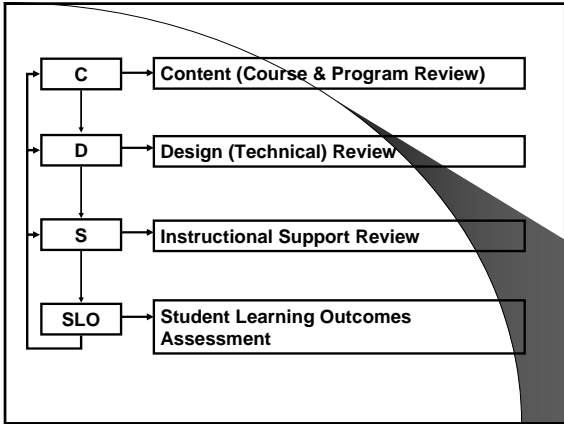
Commission on Colleges - 2001

Types of Distance Learning

- Totally Online (internet or web-based courses (c2c))
- Hybrid (combination of face-to-face (f2f) and c2c)
- Interactive Video/Audio-Video/Audio Conferencing (with/without web support)
- Video tape courses (College-By-Cassette)
- Instructional television (ITV) courses
Traditional correspondence courses

A Model for Assessing Student Learning Outcomes
to show equivalency and use of results for quality enhancement.





**Content Review
(Course and Program)**

To what extent does the DL course
(program) include equivalent content
and methodology?

**What You Are Asking?
Course Review**

- What are the Intended Educational Outcomes?
- Is the material presented appropriate for the course being taught?
- Is the course pedagogically sound?
- Are the activities and assignments appropriate?
- How are tests administered?
- How are grades determined?
- Does the faculty member possess the appropriate credentials?

Only The Method Changes...

Traditional Course
Syllabus
Course Objectives
Learning Outcomes
Course Outline
Lectures/Presentations
Classroom Discussions
Assignments
Classroom Exercises
Quizzes/Tests



Online Course
Syllabus
Course Objectives
Learning Outcomes
Course Outline
Lectures/Presentations
Classroom Discussions
Assignments
Classroom Exercises
Quizzes/Tests

Content Appropriateness

- Intended Student Learning Outcomes should be...
 - ✓ the same as face-2-face course (F2F)
 - ✓ clearly defined
 - ✓ known to students
 - ✓ measurable
- Distance course should cover the same content as traditional courses
- Validate with Content Peer Review
- Course Syllabus Review

Online Teaching Pedagogy

Good Practices

“A recent review . . . revealed that many online courses are poorly designed, pedagogically unsound, and amount to not much more than lecture notes or textbooks cut and pasted into a Website.” (Schweizer, page 9)

7 Crucial Components

- Faculty-Student Interaction
- Student-Student Interaction
- Interactive Learning
- Prompt Feedback
- Quality Use of Time
- Clear and Challenging Expectations
- Attention to Different Learning Styles

Lecture?

The lecture method has been described as where the information goes from the notes of the instructor to the notes of the student without passing through the mind of either.

Faculty to Student Interaction

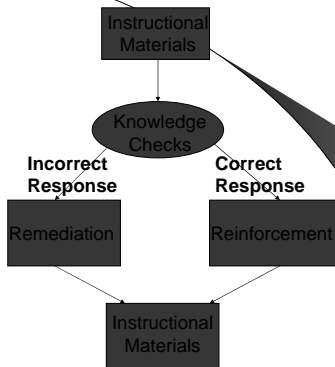
Traditional Learning

- Lecture Presentation
- Facilitate Discussion
- Answer Questions
- Provide Feedback

Distance Learning

- Electronic Lecture
- Discussion Rooms & Chat Rooms
- Answer Questions
- Provide Feedback

Interactive Modules



Student to Student Interaction

Traditional Learning

- Group Activities
- Student Presentations
- Collaborative Assignments
- Student Facilitated Discussion

Electronic Learning

- Group Activities
- Student Presentations
- Collaborative Assignments
- Student Facilitated Discussion

Interactive Learning

Traditional Learning

- Cognitive Hooks
- Team Projects
- Problem-Solving
- Critical Thinking
- Discussions

Distance Learning

- Cognitive Hooks
- Team Projects
- Problem-Solving
- Critical Thinking
- Discussions

Prompt Feedback

Traditional Learning

- Physical Office Hours
- Classroom Announcements
- Telephone Calls
- Face to Face Meeting
- Email
- Snail Mail

Distance Learning

- Virtual Office Hours
- Bulletin Board Announcements
- Chat Rooms
- White Boards
- Telephone Calls
- Face to Face Meeting
- Email
- Snail Mail

Quality Use of Time

Both Traditional and Distance Learning

- Well prepared and knowledgeable instructor
- Highly organized instructional component
- Providing an environment that facilitates remaining on task

Clear and Challenging Expectations

Traditional Learning

- Clearly defined objectives and outcomes which are communicated
- Assignments and evaluations that stretches the learner intellectually

Distance Learning

- Clearly defined objectives and outcomes which are communicated
- Assignments and evaluations that stretches the learner intellectually

Program Content

- Programs totally by distance learning
- Programs partial distance learning
- Identify the desired curricular and co-curricular program outcomes
- Develop a method of evaluating the program outcomes
- Use the same methods to evaluate distance learning programs
- Compare the results

Design (Technical) Review

Does the Technology Work?

What are we asking?

- Does every component of the course work the way that it should?
- Is the electronic classroom easy to use?
- Are the materials presented on the site attractive and intuitive.
- Does the site load quickly?
- Is the technology transparent?
- Who owns the site and content?
- Are there any violations of copyright?
- Is the site ADA compliant?

Essential Design Components

- Easy method of interaction with instructor
- Suitable Learning Tools
- A List of Course Participants
- Search Capability
- Tutorial on the use of the course site

Copyright Issues

- Fair Use
- The Digital Millennium Copyright Act
- The Compliance Officer

Ownership Issues

- College Owned
- Instructor/Developer Owned
- Joint Ownership
- Course Packs

Institutional Support Services Review

Do Distance Learning Students Have
Appropriate Access to Institutional
Services?

What are you asking?

- Do Distance Learning Students have appropriate access to college services?
- Do Distance Learning Students have access to appropriate technical support?
- Have DL students been properly oriented?
- Do DL Faculty have access to appropriate technical support?
- Have DLF been given training in online design and pedagogy?

What Student Services?

- Admissions and Records
- Advising and Counseling
- Financial Aid
- Registration
- Library Services
- Career Services
- Student Activities and Clubs
- Access to full-time departmental faculty
- Technical Support
- Tutoring and Instructional Support
- Other Student Services

What faculty services?

- Faculty Orientation
- Faculty Training
- Faculty Technical Support
- Faculty Instructional Design Support
- Faculty Compensation/Release Time for Course Development

Technology Support

1. Network Administrator
In Source or Out Source
2. Technical Support for the Student
7/24/365 Help Line
3. Technical Support for the Faculty
4. Instructional Designer

Student Evaluation of Support Services

- ▶ How effective was the orientation session in preparing you to take this class?
- ▶ Rate your level of comfort with the technology used in this course.
- ▶ Did you contact the Online Student Tech Support Center during your course?
- ▶ Which Support Service did you use during the course? (Advising, Registration, Library, etc.)
- ▶ Rate your level of satisfaction with Tech Support.

Concerns & Observations



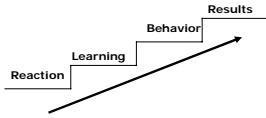
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Equivalent Student Learning Outcomes

Taming the
Equivalency Monster

Student Outcomes

- Level 1: **Reaction:** *"Are they satisfied?"*
- Level 2: **Learning** *"Did they learn it?"*
- Level 3: **Behavior** *"Is desired behavior observed and does it continue over time?"*
- Level 4: **Results** *"Did it make a worthwhile difference?"*



Source: Dr. James Lockwood, Essential Elements of Evaluation

What we are asking?

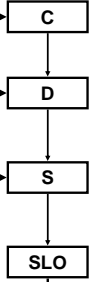
- How do you know that students taking distance learning course(s) and/or programs demonstrate equivalent learning outcomes as those taking the same course(s) and/or programs in the traditional formats?
- Are other outcome and output measures (retention, graduation rates, GPA's licensure exams, capstone course performance, etc.) for DL students equivalent to traditional-format students?

How do we know...

"How do we know that our (online) students are not only satisfied but achieve significant educational outcomes, and that our faculty are committed to the learning and changes represented by a different delivery mode?"

Assessing the Distance Learning Program at Anne Arundel Community College, by Mary Wells et al

“Traditional” Approaches



- Evaluate “inputs” and not “outcomes”.
- The “Same Same” Logic says “It’s the same course (text, instructor, content), therefore, the learning outcomes must be the same.”
- We evaluate levels of student satisfaction through surveys.
- We can evaluate C, D, and S, but haven’t figured out how to evaluate SLO in traditional courses so we don’t have anything to compare “equivalency” .

Equivalent to What? Establish a Benchmark

- Must define intended education outcomes for the traditional equivalent.
- Determine measurement tools and methods for traditional course.
- Document student learning outcomes for F2F students.
- Assess distance learning student outcomes with the same measurement tools and methods.
- Collect data and compare.
- Use results to improve instruction.

A paradigm shift is taking hold in American higher education. In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists to produce learning. This shift changes everything.
(Barr and Tagg, 1995)

INSTRUCTIONAL PARADIGM

- Criteria for Success**
- ❖ Inputs
 - ❖ Quality of entering students
 - ❖ Curriculum development, expansion
 - ❖ Quantity and quality of resources
 - ❖ Enrollment, revenue growth
 - ❖ Quality of faculty, instruction

LEARNING PARADIGM

- Criteria for Success**
- ❖ Learning and student success outcomes
 - ❖ Quality of exiting students
 - ❖ Learning technologies development, expansion
 - ❖ Quantity and quality of outcomes
 - ❖ Aggregate learning growth, efficiency
 - ❖ Quality of student learning

The Language of Learning Outcomes & Assessment

What is the curriculum?

The curriculum encompasses all educational programs, services and activities including student development, the library, financial and operational areas of the college involved in or supporting student learning.

The "expected outcome" of an educational process is learning.

Everything about the college is curriculum!

Definition

A student learning outcome identifies the measurable knowledge, skills, behaviors and/or attitudes of the learner as the result of engaging in a learning activity or program.

KSBA

Learning Outputs and Outcomes

Output - An indirect indicator of learning such as retention rate, graduation rate, enrollment data, graduate school entry rate, satisfaction rate, exam passage rate, etc.

Outcome - A directly measurable change in student learning and/or in the learner as the result of engaging in a learning activity or program.

Outcome Measures provide *direct* evidence of learning

- Capstone course results
- Common examinations
- Rubrics
- Student learning portfolios
- Final student projects
- Learning artifacts
- Juried results
- Check-off lists

• What do students (graduates/completers) know that they did not know before?

• What can they do that they could not do before?

Dugan 2002

Why can't I just use grades?

•Grading practices are not standard across faculty, courses, departments or levels

•Grades reflect many things other than course content and mastery

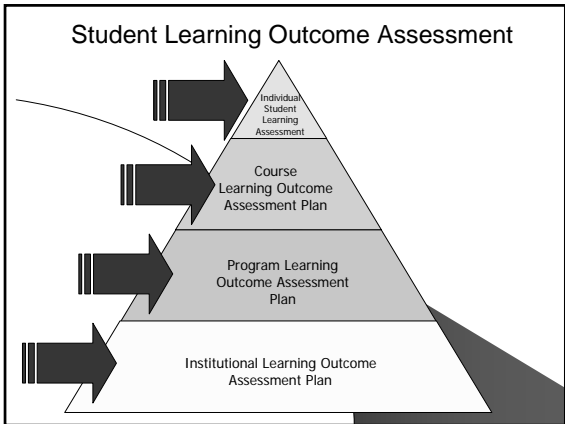
•Objectives/outcomes differ from course to course and instructor to instructor

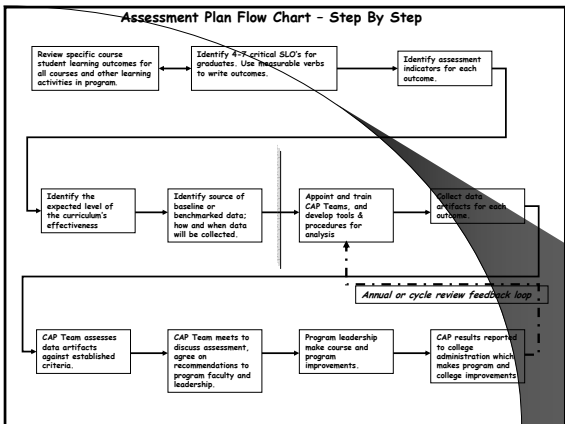
•Good assessment requires multiple ways of measuring learning

•Grades aren't even good output measures

Part Two

Developing & Writing Student Learning Outcomes





Review/redo specific course student learning outcomes for all courses in program.

Identify 4-7 holistic critical SLO's for graduates/completers. Use quality measurable verbs to write outcomes.

Step 1

Writing Student Learning Outcomes - Courses & Programs

Student Learning Outcome Assessment at the Course Level

- Good News! - You may already have this!
- Review course syllabi to ensure that learning outcomes are clearly and measurably stated.
- Rate the extent to which course learning outcomes assess the course content.
- Match course assessments closely to specific learning outcomes.
- Develop and use course SLO assessment rubric.
- Revise course syllabi as necessary.
- Link course SLO's to program SLO's.
- In some cases, may work backward from program SLO's to course SLO's.

Course Level Student Learning Outcome Assessment Rubric

Rating	Weak	Satisfactory	Strong
SLO statements are measurable.	1	2	3
SLO statements reflect appropriate levels of learning.	1	2	3
Assessment methods are appropriate to SLO's.	1	2	3
SLO assessment generates clear evidence of learning.	1	2	3
Instruction and learning activities are clearly related to SLO's.	1	2	3
Course SLO statements are linked to program learning outcomes.	1	2	3

Criteria	Novice	Skilled	Proficient
1. SLO statements are measurable	Measurable verbs are missing and/or do not explicitly state specific KSBA.	SLO's can be directly measured but evidence of intended KSBA is questionable.	SLO's can be directly measured with existing evidence of KSBA.
2. Focus on program learning outcome	SLO statements focus on indirect output measures and/or are not holistic.	SLO's focus on holistic program learning outcomes that to specific KSBA.	SLO's reflect specific program KSBA learning outcomes and are appropriate to Bloom's cognitive levels for program.
3. Quality of assessment evidence	Assessment evidence does not support SLO.	Assessment evidence supports SLO but is not sufficient in quality and/or quantity.	Assessment evidence supports SLO and is sufficient in both quality and quantity.
4. Analysis of assessment data	Insufficient evidence of analysis.	Analysis conducted but primarily descriptive, few conclusions.	In-depth analysis conducted and conclusions drawn and reported.
5. Documented use of results for improvement	Insufficient evidence of use of results for improved learning outcomes.	Some evidence of use of results for improved learning outcomes.	Clear evidence of use of results for improved learning outcomes.

SLO's = Student Learning Outcomes KSBA = Knowledge, Skills, Behaviors, Attitudes

Tips on Writing Course Learning Outcome Statements

- Describe the specific knowledge, skill, behaviors or attitudes expected of the learner at the end of the course.
- Begin with an action verb (Bloom's taxonomy verbs) that clearly describes the level of learning.
- Clearly state what the learner can "do or show" (knowledge, skill, behavior and/or attitude) as a result of (end of) a learning experience or activity.
- Think about "evidence" and "artifacts".

Program Level Learning Outcomes

Program level outcomes are not just an accumulation of course objectives or outcomes. Rather, they reflect a synthesis, or a holistic picture, of what is expected of students completing a defined program or course of study.

Part Three

Assessing Student Learning Outcomes

Identify assessment indicators for each outcome.

Identify the expected level of the curriculum's effectiveness

Identify source of baseline or benchmarked data; how and when data will be collected.

Step 2 Assessment

Direct Learning Outcome Measures

- Capstone courses/experiences
- Portfolio assessments (students and program)
- Standardized tests (Major Field Achievement Test, Critical Thinking Ability, Academic Profile, etc.)
- Licensure exams and certifications (PRAXIS, FAA Exam)
- Local common exams
- Written/oral comprehensive exams
- Juried reviews of projects, exhibitions, performances
- Assessment rubrics
- Blind-scored projects

Step 3

Data Collection & Analysis

Appoint and train CAP Teams, and develop procedures for analysis

Collect data artifacts for each outcome.

CAP Team assesses data artifacts against established criteria.

CAP Team meets to analyze assessment results, agree on recommendations to program faculty and leadership.

Data Collection and Analysis

- Don't forget the "shift". Teams are using sample student assessment data (artifacts) to assess the curriculum.
- Use what's available – create new data only when necessary.
- There are no perfect assessments.
- Use sampling...don't have to assess everything.
- Analysis is key process – use benchmarks, baselines, etc.



Step 4 – Use it!

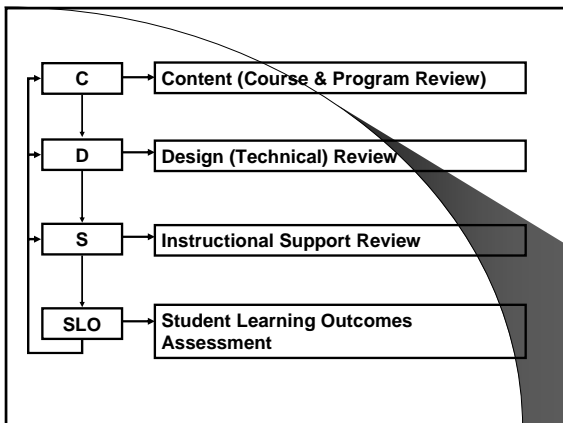
Program leadership make course and program improvements.

CAP results reported to college administration which makes program and college improvements

Assessment Characteristics

Adapted from Central College website: Assessment

- Small number of critical learning outcomes (5-7)
- Program outcomes are the product of input and discussion by entire department
- Manageable (don't try to assess everything and everybody, use sampling techniques)
- Use multiple measures of student learning
- Faculty use results in decision-making at the course and program level;
- Administrators use results in decision-making at the program and college level.





**Evaluation's most
important
purpose is not to prove,
but to improve.**

Contact Info

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