Assessing Program Level Student Learning Outcomes

Indiana University South Bend
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Today’s Plan

√ Some things you need to know about assessment

√ Getting started on a plan to assess student learning at the program level
Some helpful things to know about Assessment
Assessment is about student learning
You are probably already doing it
Evaluation  Assessment

Quizzes
Tests
Rubrics
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Evaluation

Quizzes

Tests

Rubrics

Assessment

Count toward final grade

Used to see if students understand
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Evaluation

- Quizzes: Count toward final grade
- Tests: Scored and returned
- Rubrics: Returned to students with grade

Assessment

- Used to see if students understand
- Scored, tabulated, returned & discussed; adjustments to syllabus
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The role the program assessment plays in regional accreditation has changed
INSTITUTIONAL RESPONSIBILITY

PROGRAM RESPONSIBILITY

1993

2003

2013
It’s a bumpy ride
Evolutionary Trajectories

05 06 07 08 09 10 11 12 13

Mature

Making Progress

Beginning
Evolutionary Trajectories

Mature

Making Progress

Beginning

05 06 07 08 09 10 11 12 13
Evolutionary Trajectories

Beginning
Making Progress
Mature

05 06 07 08 09 10 11 12 13
Evolutionary Trajectories

- Beginnings
- Making Progress
- Mature
Evolutionary Trajectories

Beginning

Making Progress

Mature

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Evolutionary Trajectories

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Mature
Making Progress
Beginning
The difference between assessing program effectiveness and assessing student learning
Course/Program Effectiveness

What the course / program will do or achieve

- enrollment
- completion / graduation
- satisfaction
- program: employment
Student Learning

What the student will

• Know
• Do

….at the end of the course or program
Direct Measures of Learning

- Capstone experience, Thesis
- Standardized tests
- Performance on national licensure certification or professional exams
- Locally developed tests
- Juried review of projects, recitals, exhibitions
- Evaluation of internships based upon program learning outcomes
Indirect Measures of Learning

- Alumni, employer, and student surveys (including satisfaction surveys)
- Exit interviews of graduates and focus groups graduate follow up studies
- Retention and transfer studies
- Length of time to degree
- ACT scores
- Graduation and transfer rates
- Job placement rates
How assessment works
How Assessment Works

Phase 1
- Learning event
- Learning event
- Learning event
- BASELINE

Phase 2
- New / Revised Learning event
- New / Revised Learning event
- New / Revised Learning event
- New / Revised Learning event

Phase 3
- New / Revised Learning event
- New / Revised Learning event
- New / Revised Learning event
- New / Revised Learning event

Compare Against:
- Baseline
- Benchmarks
- Standards
- Targets
- Past Performance

OUTCOME

Criteria
- Criteria
- Criteria
- Criteria

Criteria
- Criteria
- Criteria
- Criteria

Criteria
- Criteria
- Criteria
- Criteria
WEAVE is only a tool
Technological solutions should SUPPORT a program’s assessment efforts, not DRIVE those efforts.
Stop and Ask……

What are our learning outcomes?

When does it make sense to measure whether or not students are learning? ..and what they have learned?
Assessment is NOT
Every course
Every outcome
Every faculty member
Every student
Every semester
Technological solutions should add value to your assessment efforts, by systematizing, organizing and aggregating data. Your solution should not suck the life out of your assessment program.
Time
Energy
Motivation
Using Information

Entering Information
Using Information

Entering Information
Using Information

Entering Information
Assessing Program Student Learning Outcomes
1. Assessment starts with student learning outcomes
What do you want students to know, do, or achieve

√ At the end of the program
√ Extend and contextualize the Institutional Outcomes
√ Related to goals and outcomes specified by professional organizations
PRACTICAL ADVICE:

The more complex the outcome, the harder it will be to assess
Student Learning Outcomes

• Students should be able to critically comprehend, interpret, and evaluate written, visual, and aural material.
Student Learning Outcomes

• Students will recognize, analyze, and interpret human experience in terms of personal, intellectual, and social contexts.
PRACTICAL ADVICE:

• Format for learning outcomes:

Students will

<<action verb>>  <<something>>
PRACTICAL ADVICE:

• Use whatever language on which you can agree.
Student Learning Outcomes

- Learner Centered
- Specific
- Measurable
- Public
- Distinctive
- Frame Perceptions
- Cognitively appropriate
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<td>Solve</td>
<td>Write</td>
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Lower division course outcomes
Outcomes can overlap
Common Core

Outcome  Outcome

Outcome  Outcome
Program A

Outcome  Outcome  Outcome  Outcome
Program B

Outcome  Outcome

Outcome  Outcome

Outcome  Outcome

Outcome  Outcome
Program D
Consider the structure of your curriculum when you write your outcomes.
Curricular Structure

• “Tall” Curriculum
  • Clear sequence of courses
    • Prerequisite Structure
      • Cohort Model
Capstone

Prerequisite Courses
Curricular Structure

• “Tall” Curriculum
  • Clear sequence of courses
    • Prerequisite Structure
    • Cohort Model

• “Flat” Curriculum
  • Relatively few requirements
  • Multiple pathways / options / electives
Prerequisite Courses
Prerequisite Courses
2. Define the Outcomes
Components

- Define student learning outcomes
- Provide a common language for describing student learning
- Must be *outcome specific*
- Must be shared across faculty
- Number of components will vary by outcome
Goal

Outcome
Outcome
Outcome
Outcome
Outcome
Communication

Write  Relate  Speak  Listen  Participate
Communication

- Write
- Relate
- Speak
- Listen
- Participate

Component
Component
Component
Component
Component
Communication

Write Component
Relate Component
Speak Component
Listen Component
Participate Component
Communication

Write
Component
Component
Component

Relate
Component
Component
Component

Speak
Component
Component
Component

Listen
Component
Component
Component

Participate
Component
Component
Component
Components

Goal

Outcome Outcome Outcome Outcome Outcome

component component component

Evaluative elements
Components

Goal

Outcome Outcome Outcome Outcome Outcome

Object component component component

Evaluative elements
Components

Communication

Write  Relate  Speak  Listen  Participate

Sales presentation

delivery  content  organization
Components

Communication

Write  Relate  Speak  Listen  Participate

Oral Report

delivery  content  organization
Components

Communication

Write  Relate  Speak  Listen  Participate

Process Summary

delivery  content  organization
Components

Communication

- Write
- Relate
- Speak
- Listen
- Participate

Eulogy
- delivery
- content
- organization
Components

Communication

Write  Relate  Speak  Listen  Participate

Lab report
- mechanics
- style
- organization
Components

Communication

Write  Relate  Speak  Listen  Participate

Memo

- mechanics
- style
- organization
Components

Communication

Write  Relate  Speak  Listen  Participate

Letter

mechanics  style  organization
PRACTICAL ADVICE:

• If you can’t identify components for your outcomes, you probably need to rethink them.
Why you need common components
Speaking
teacher1

Speaking

volume
poise
conclusion
Speaking

- eye contact
- gestures
- volume
- sources
- transitions

- style
- rate
- poise
- examples
- verbal variety

- appearance
- evidence
- conclusion
- organization
- attention getter
Can our students deliver an effective Public Speech?

eye contact  gestures  volume
style  rate  poise
appearance  evidence  conclusion
sources  examples  transitions
organization  verbal variety  attention getter
Can our students deliver an effective Public Speech?
Can our students deliver an effective Public Speech?

- eye contact
- gestures
- volume
- sources
- transitions
- style
- rate
- poise
- examples
- verbal variety
- appearance
- evidence
- conclusion
- organization
- attention getter
Common Mistakes: Student Learning Outcomes
Common Learning Outcome
Mistakes

Too many
Learning Outcomes

• **NOT** a compilation of your course level student learning outcomes

• NOT intended to represent everything that your students learn in the program
Exertion without Intention
Exhaustion
Intention without Exertion
Intention and Exertion
Common Learning Outcome

Mistakes

Too many

Inappropriate cognitive Level
Common Learning Outcome
Mistakes

Too many

Inappropriate cognitive Level

Too many action verbs
PRACTICAL ADVICE:

If you have multiple action verbs, you might be able to use the highest order verb from the list.
Common Learning Outcome Mistakes

Too many

Inappropriate cognitive Level

Too many action verbs

Including components in the outcomes
Example #1

Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
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Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.

BETTER: Students will be able to apply factual information to a problem.
Example #1

Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.

BETTER: Students will be able to apply factual information to a problem.

COMPONENTS:
  - Relevance
  - Clarity
  - Comprehensiveness
  - Aware of Bias
Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines (one of these experimental components should develop, in greater depth, students’ laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty)
Example #2

Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines (one of these experimental components should develop, in greater depth, students’ laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty)

BETTER: Students will be able to test hypotheses.
Example #2

Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines (one of these experimental components should develop, in greater depth, students’ laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty)

BETTER: Students will be able to test hypotheses.

COMPONENTS
- Data collection
- Statistical Analysis
- Graphical Analysis
- Identification of sources of error
Common Learning Outcome Mistakes

Too many

Inappropriate cognitive Level

Too many action verbs

Including components in the outcomes

Confusing Outcomes with Objects
Outcomes / Objects

Term Paper
Case Study
Review of Literature
Portfolio
Business Plan
Standardized Exam
3. Map the outcomes to the curriculum
Program Level
Student Learning Outcomes

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Build a curriculum
Program Level Student Learning Outcomes

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K= Knowledge/Comprehension;  A= Application / Analysis;  S= Synthesis /Evaluation
Program Level Student Learning Outcomes

Diagnose Learning

K= Knowledge/Comprehension;  A= Application / Analysis;  S= Synthesis /Evaluation
4 & 5. Identify the assessment points in the curriculum
Prerequisite Courses
Prerequisite Courses

Capstone

Diagram showing the relationship between Capstone and Prerequisite Courses.
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<td>12</td>
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Prerequisite Courses
Prerequisite Courses

19  20  21  22  23  24
13  14  15  16  17  18
  7  8  9  10  11  12
  1  2  3  4  5  6
4 & 5. Identify how students can demonstrate achievement of the outcome
Learning Objects

• Standardized Exam
Learning Objects

Learning Objects

• Test
• Project
• Assignment
• Portfolio
• Recital
• Performance
• Presentation
• Exhibit
• Internship
Create an assessment plan
<table>
<thead>
<tr>
<th>Components</th>
<th>Courses &amp; Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>list of courses and experiences supporting achievement of the outcome</td>
</tr>
<tr>
<td>1</td>
<td>Component 1</td>
</tr>
<tr>
<td>2</td>
<td>Component 2</td>
</tr>
<tr>
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<td>Component 3</td>
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<td>Component 5</td>
</tr>
<tr>
<td>6</td>
<td>Component 6</td>
</tr>
</tbody>
</table>

**Learning Object**
- Assignment, test, other student work

**Assessment Tool**
- Test score, national norm rubric, scale

**Benchmark**
- Acceptable performance level on assessment tool
Outcome

What we looked at

How we assess it

What we found

What it means

What we're going to do about it

What happened

Outcome

<<object>>

<<assessment tool>>

<<results>>

<<interpretation>>

<<action>>

<<feedback>>