Assessing General Education: Tricks, Traps and Techniques

Objectives

Program participants will be able to:
• apply the goal analysis technique to General Education Goals
• write measurable general education learning objectives using the ABCD model
• Identify approaches to General Education Assessment

General Education Assessment

“Involves faculty, staff and administration in observing, analyzing, interpreting and judging patterns of student and alumni performance in relation to standards, criteria, or indicators of effectiveness. These patterns are used to foster student learning.”

“At the end of this course, the student will have learned how to play with some ideas and, with luck, will be a little smarter than when she or he started the course.”

Mary Alexander
Chronicle of Higher Education September 1, 2006

Three Approaches to General Education

1. the *distributive approach*,
2. the *core curriculum approach*,
3. the *process approach*

http://www.iport.iupui.edu/teach/teach_stu_learn_evidence_pulintro.htm

• “A troubling number (students) waste time mastering English and math skills they should have learned in high school”
• “There are signs that students who do earn degrees have not actually mastered the reading, writing and thinking skills we expect of college graduates”
• “A remarkable absence of accountability to ensure that colleges succeed in educating students”

A Test of Leadership, Spelling Report
Student Learning Goals

- Proficiencies
- Knowledge and Understanding
- Habits and Attributes of Character

Proficiencies

- Communication
- Ability to Interpret academic writing and discourse
  - Critical Thinking
  - Planning and Decision Making
- Quantitative proficiency
- Locate, Analyze, Synthesize and Evaluate information
- Technological Proficiency

Knowledge and Understanding

- Scientific principles
- Mathematical Principles
- Historical, cultural, philosophical traditions
- Cultural Diversity and National experiences
- Intellectual, spiritual, literary and artistic expression
- Abstract Ideas and artistic expression in self understanding and society
- Individual and society and interaction

Habits and Attributes of Character

- Sensitivity to social and cultural diversity
- Sensitivity to ethical dimensions
- Disposition to weight opposing viewpoints
- Disposition to continue learning
- Openness to value of new social cultural intellectual contexts
- Appreciation for broader social intellectual and historical contexts
- Recognition of social and intellectual responsibility
Assessing General Education: Tricks, Traps and Techniques

Is there a Common Content for General Education Category?

Yes
- Do students have the opportunity to learn the Common Content?
  - Yes
    - Assess Content
  - No
    - Revise General Education to include Common Content
- No
  - Revise General Education

Is there a common set of Skills and Abilities Attitudes?

Yes
- Do students have the opportunity to develop Attitudes, Skills and Abilities?
  - Yes
    - Assess attitudes, skills and abilities
  - No
    - Revise General Education to include common ability skills and attitude elements
- No
  - Revise General Education

Measuring Student Learning

- What do we want students learn?
- Do students have the opportunity to learn it?
- How do we know that they learned it?
- What do we do with that information?

Goals

Writing goals can provide insight into outcomes desired but does not provide enough specificity for assessment and evaluation

Goals and Objectives

Moving from General to Specific

Goals
- General
- Specific

Objectives

Goal Examples

“The essential role of the university is to train students to think critically and creatively.”

“The student must develop information management skills which enable him/her to apply theoretical concepts in practice”
Goal Analysis

Special Thanks to:
Rober F. Mager Goal Analysis: How to clarify your goals so you can actually achieve them Atlanta Center for Effective Performance Inc 2004

During this stage the important work that will ultimately lead to a list of performance objectives and a list of prerequisites, also described as performance objectives is carried out.

When would we use goal analysis

• The intent is important
• It is described in “Fuzzy” Terms

Translating Goals to Objectives

1. Write down goal
2. List performances that exemplify goal achievement
3. Sort, list and eliminate duplications, fuzzies
4. Describe performances in complete sentences
5. Test for Completeness

First write it down
Then get it right…

Goals and Objectives

• Goals express what we want our students to be or have.
• Objectives describe what we want our students to do.
• Objectives are indicators of goals.
Fuzzies
Abstractions
Processes

Abstractions Fuzzies Processes

• Have a positive attitude towards learning
• Become a good citizen
• Defend liberty
• Appreciates music

Hey Dad,
Let me show you how I can….

Abstractions Vs. Performance

Interview Applicant
Repair a trombone
Appreciate music
Feel a sense of pride
Think Critically

Defend liberties
Write a report
Become a good citizen

Sort, List and Eliminate

• Eliminate duplication
• Separate performances from abstractions (fuzzies)
• Create separate analysis for each fuzzy

Answer questions
– What will I take as evidence that goal has been achieved?
– How could I separate people who have met goals from those who haven’t?
– How would you know a person who is a goal achiever when you see one?
– Why would you think a person is a goal achiever?
– Why would you say a person was not a goal achiever?
Assessing General Education:
Tricks, Traps and Techniques

Example

<table>
<thead>
<tr>
<th>List performances that exemplify the goal</th>
<th>Fuzzy or Abstraction:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoys responsibility</td>
<td></td>
</tr>
<tr>
<td>Makes Good Decisions</td>
<td></td>
</tr>
<tr>
<td>Uses Good Judgment</td>
<td></td>
</tr>
<tr>
<td>Is on time</td>
<td></td>
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</tbody>
</table>

Example

<table>
<thead>
<tr>
<th>Assumes Leadership</th>
<th>List performances that exemplify the goal</th>
<th>Fuzzy or Abstraction:</th>
</tr>
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<tbody>
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<td></td>
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ABCD Model
Questions a good objective answers

- **Audience**: Who will be performing the behavior?
- **Behavior**: What behavior should the learner be able to do?
- **Condition**: Under what conditions do you want the learner to be able to do it?
- **Degree**: How well must it be done?

Overt vs. Covert Performance

<table>
<thead>
<tr>
<th>Overt</th>
<th>Covert</th>
</tr>
</thead>
<tbody>
<tr>
<td>refers to any kind of performance that can be observed directly, whether that performance is visible or audible</td>
<td>refers to performance that cannot be observed directly, performance that is mental, invisible, cognitive or internal</td>
</tr>
</tbody>
</table>

Covert Verbs

- know
- familiarize
- gain knowledge of
- comprehend
- study
- cover
- understand
- be aware
- learn
- appreciate
- become acquainted with
- realize
- develop a working understanding of

Questions

- Can you describe the steps in doing goal analysis?
- What will I be able to do when I have finished goal analysis?
- Your subject may be trivial enough to be reduced to a bunch of performances but mine is intangible?
With gratitude to Linda Suskie, author of a wonderful resource used to prepare this primer – 

*Assessing Student Learning: A Common Sense Guide* 


“Do you mean that you spent a billion dollars and you don’t know whether they can read or not”

John F. Kennedy responding to the lack of information on an early education initiative

Value Added

Criteria

We start out with the aim of making the important measurable and end up making only the measurable important.
### Types of Evidence

<table>
<thead>
<tr>
<th><strong>Direct</strong></th>
<th><strong>Indirect</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible, visible, self-explanatory</td>
<td>Signs, indicators, less convincing – “tell us about ...”</td>
</tr>
<tr>
<td>Quality and quantity of student learning is concretely exhibited</td>
<td>Results may be consistent with student learning, but don’t solicit specifics</td>
</tr>
</tbody>
</table>

### Common Direct and Indirect Measures of Student Learning

<table>
<thead>
<tr>
<th><strong>Direct</strong></th>
<th><strong>Indirect</strong></th>
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<tbody>
<tr>
<td>Tests</td>
<td>Course grades</td>
</tr>
<tr>
<td>Rubrics</td>
<td>Surveys</td>
</tr>
<tr>
<td>Portfolios of student work</td>
<td>Focus Groups</td>
</tr>
<tr>
<td>Capstone projects</td>
<td>Course evaluations</td>
</tr>
<tr>
<td>Field supervisor ratings</td>
<td>Admission to graduate school</td>
</tr>
<tr>
<td>Employer ratings</td>
<td>Student self-ratings</td>
</tr>
<tr>
<td>Scores and pass rates on licensure exams</td>
<td>Student / alumni satisfaction with learning</td>
</tr>
<tr>
<td></td>
<td>Honors, awards, and scholarships</td>
</tr>
</tbody>
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### Types of Assessment

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<th><strong>Objective</strong></th>
<th><strong>Subjective</strong></th>
</tr>
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<tbody>
<tr>
<td>No professional judgment to score correctly – usually one correct answer</td>
<td>Need professional judgment to score – many possible answers of varying quality</td>
</tr>
<tr>
<td>Multiple-choice test</td>
<td>Many assessments are of this type</td>
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<tr>
<td>Matching items</td>
<td></td>
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<tr>
<td>True-false questions</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Qualitative</strong></th>
<th><strong>Quantitative</strong></th>
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<tr>
<td>Flexible, naturalistic methods that are usually analyzed by looking for recurring patterns and themes</td>
<td>Structured, pre-determined response options that can be summarized into meaningful numbers and analyzed statistically</td>
</tr>
<tr>
<td>Often underused, underappreciated</td>
<td>Some audiences find quantitative results more convincing</td>
</tr>
<tr>
<td>Can give fresh insight and help discover problems and solutions</td>
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</tbody>
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### Reasons for Assessment

<table>
<thead>
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<th><strong>Formative</strong></th>
<th><strong>Summative</strong></th>
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<tr>
<td>Improve teaching and learning (or service and satisfaction)</td>
<td>Document learning or service and satisfaction</td>
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<tr>
<td>Used while learning is taking place</td>
<td>Occur at the end of the course or service period</td>
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<tr>
<td>Focus on feedback and adjustment</td>
<td>Focus on sum/total, with little feedback</td>
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### Assessment Approaches

- Commercial Tests
- Portfolio
- Capstone Experiences
- Common Assignments and other course embedded
- Local Tests
- Course Management Programs
- Performances
- Classroom Assessment Techniques
Course Embedded Assessments

- Developed and implemented within the context of individual course(s)
- Required courses in the major, capstone course ideal
- Completion of assessment measures part of course grades
- Contrast to separate session assessment – issues of motivating student to complete assessment

Sample Assessment Tools: Tests

- Direct measure of student learning
- Typically quantitative; essay questions may be qualitative
- Objective if multiple choice / subjective if essays
- Published / normed vs. locally developed

Sample Assessment Tools: Rubrics & Prompts

- Direct measure of student learning
- Qualitative / quantitative
- Subjective – professional judgment required
- Multiple raters – calibrated
- If appropriately developed, can result in consistent results (inter-rater reliability)

Sample Assessment Tools: Portfolios

- Direct measure of student learning
- Qualitative
- Subjective – professional judgment required
- A rubric can be used to evaluate a portfolio

Sample Assessment Tools: Surveys

- Indirect measure of student learning
- Typically quantitative; essay questions may be qualitative
- Subjective – require professional judgment
Sample Assessment Tools:
Focus Groups

- Indirect measure of student learning
- Qualitative
- Subjective – require professional judgment

What is ePort

- A collection of student work throughout their academic career at IUPUI, selected to show learning of the Principles of Undergraduate Learning in relation to course work.
- An opportunity for students to develop their own learning profile and learning matrix, knowledge maps, advising record, and resumes.

University of Wisconsin Green Bay

1. **Standardized exam data.** All students having between 54 and 72 credits take the College BASE. (1 free credit with score above national norm)

2. **Student self-report data.**
   - a. General Education Assessment Research Questions. [each semester]
   - b. Graduating Senior Survey.
   - c. Alumni Survey. [annual]

3. **Embedded assessment data.**
## Embedded Assessment

- General education courses are matched to the appropriate general education learning outcome.
- Faculty members are asked to select an existing assignment or learning activity in the focal course that aligns with the general education learning outcome to be assessed.
- Faculty members are asked to develop a four-point performance rating scale.
- Faculty members are asked to complete a form describing the assignment or activity chosen for assessment, and reporting findings.
- The GEC reviews the information gathered.

## References

## Goal Analysis Worksheet

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<tr>
<td>1. Enjoys responsibility</td>
<td>1. Accepts new assignments without complaining</td>
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<tr>
<td>2. Makes good decisions</td>
<td>2. Appears on time</td>
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<td>4. Is on time</td>
<td>4. Manages time effectively</td>
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<td>5.</td>
<td>5. Assumes leadership in group activities</td>
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<td>10.</td>
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Fuzzy or Abstraction:

**Makes good decisions**

<p>| 1. Identifies support for decisions | 1. etc. |
| 2. Makes decisions in a timely manner | 2. etc. |
| 3. Keeps well informed | 3. etc. |
| 4. | 4. |
| 5. | 5. |
| 6. | 6. |
| 7. | 7. |
| 8. | 8. |</p>
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