



An Introduction to Learning Outcomes

Presented by the Assessment Office
December 2009

Today's Agenda

- 1) Introductions
- 2) Assessment Review
- 3) Student learning outcomes
 - Small group activities
- 4) Wrap up
 - Reflect
 - Q&A
 - Evaluate

Workshop Outcomes

At the end of the workshop, participants can:

- 1 Summarize the role of learning outcomes in program assessment.
- 2 Write good learning outcomes.



Program Assessment

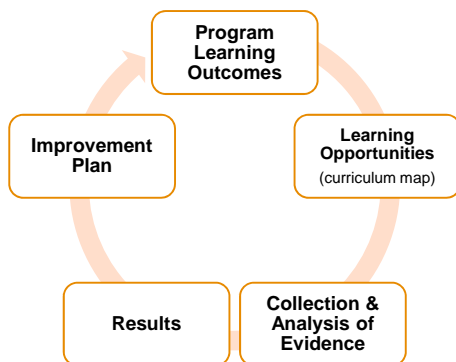
Assessment is a "rich conversation about student learning informed by data."
(Marchese)

Program
Assessment

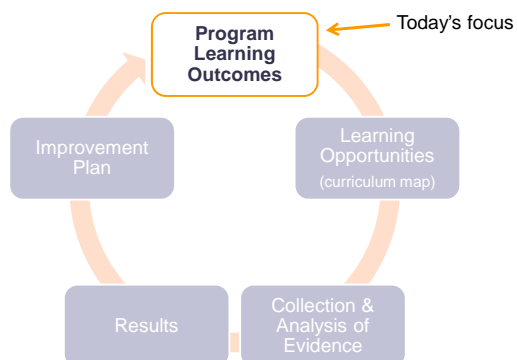


Teacher
Evaluation

Assessment Cycle



Assessment Cycle





Student Learning Outcomes (SLOs)



Example: Good Student Learning Outcome

*emphasis
on student*

observable, "action" verbs

Students can compare and contrast

learning statement

major perspectives of psychology.

Good Outcomes Have "Active" Verbs

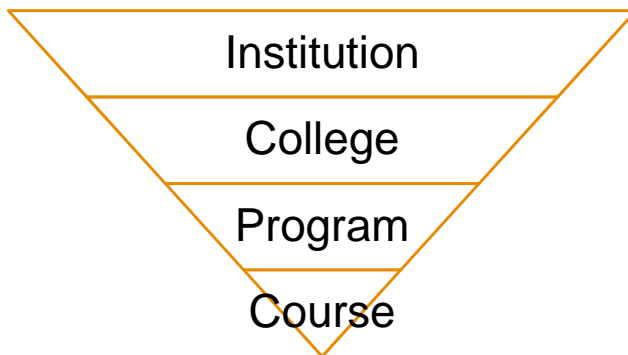
| Target | Possible Verbs |
|---------------|--|
| Knowledge | cite, define, identify, match |
| Comprehension | arrange, classify, describe, summarize |
| Application | apply, change, compute, use |
| Analysis | break down, contrast, organize |
| Synthesis | assemble, construct, modify |
| Evaluation | assess, decide, justify, interpret |



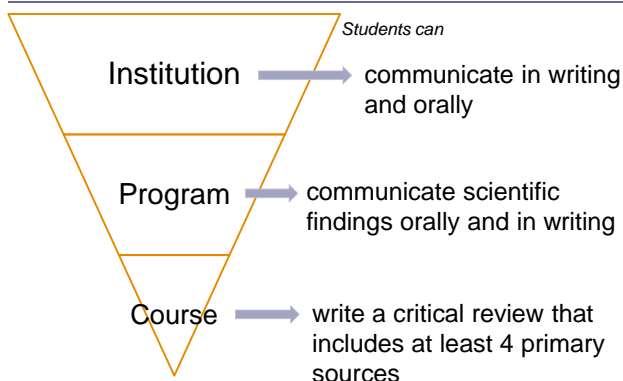
The Good, the Bad, & the Ugly

| | |
|------|---|
| Good | Students can describe leadership styles and predict their effectiveness in different circumstances. |
| Bad | Students have effective interpersonal and leadership skills. |
| Ugly | Faculty include a unit on leadership styles in at least one of their courses each semester. |

Levels of Outcomes



Alignment Across Levels





Role of Program SLOs

- Identify central, key aspects of the program
- Lead to a cohesive curriculum
 - Shift from a course-centered approach to a program-centered approach to education
- Promote effective learning

Strategies to Create Program SLOs

- Fill in the blanks
 - At the end of the program, students should know _____, be able to _____, and value _____.
- Describe the ideal graduate
 - What does that person know? What can she do?
What does she care about

Adapted from Mary Allen's presentation, May 2008, UHM

Strategies to Create Program SLOs

(continued)

- Try a "top-down" approach
 - Use program documents (e.g., mission statement, catalog description) to identify outcomes.
- Try a "bottom-up" approach
 - Review syllabi, assignments, tests, activities, requirements to locate outcomes.

Adapted from Mary Allen's presentation, May 2008, UHM



Program SLO Checklist

1. Important
2. "Action" verbs
3. Assessable
4. Maps to learning opportunities
5. Aligns with program goals
6. Collaboratively authored and collectively accepted

Adapted from P. Maki, Assessing for Learning

Your Turn . . .

1. Groups of 4 (or 3)
2. Each group will be assigned 2 "target levels of learning":
 - Knowledge
 - Comprehension
 - Application
 - Analysis
 - Synthesis
 - Evaluation
3. Create 2 SLOs for the topic on the next slide

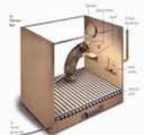
Major Theories of Psychology



Freud & psychoanalysis



Bandura & Social Learning



Skinner & Behaviorism



Maslow & Hierarchy of Human Needs



Check In

- Share your groups' outcomes
- Good, bad, or ugly?

Recap

- Good SLOs
 - Important and assessable
 - Emphasize students' knowledge, skills, or values
- SLOs help students be effective learners
- Program SLOs lead to a cohesive curriculum

Wrap Up

- Workshop Assessment
 - We will collect and analyze
 - Completed questionnaires
 - Group work
 - Evaluation forms
- Questions?
- Please turn in questionnaire & evaluation form



Thank You!

Assessment Office

airo@hawaii.edu

<http://manoa.hawaii.edu/assessment>

Marlene Lowe, 956-4283

mplowe@hawaii.edu

Monica Stitt-Bergh, 956-6669

bergh@hawaii.edu

STUDENT LEARNING OUTCOMES *Best Practices*

Basic Elements of a Student Learning Outcome (SLO)

| <i>emphasis on student</i> | <i>observable, "action" verb</i> | <i>learning statement</i> |
|----------------------------|----------------------------------|--|
| 1. Students | can describe | major factors that influenced the development of the U.S. political system (Political Science) |
| 2. Students | can communicate | original research findings orally and in writing (Creative Media) |
| 3. Students | can distinguish | between science and pseudo-science (Biology) |

Practical Considerations

Start Here

- * Start where you are. Use existing documents as the starting point.
- * Tailor outcomes from other institutions or the field's professional organization(s).

Meaningful & Important

- * Focus on the central aspects of the discipline/field and those that are most meaningful and important.
- * Place the emphasis on students—what they will be able to know, or value—not on what professors will teach or what the program will cover.

"Action" Verbs

- * Use verbs that describe what information, skills, and cognitive/developmental changes students should be able to demonstrate because of the program. (See the list of verbs based on Bloom's Taxonomy.)

Be Realistic

- * Keep the learning outcomes to a reasonable number (4-6).
- * Include only those learning outcomes the program can reasonably and directly address.
- * Avoid jargon; students and others should be able to understand the outcomes.
- * Because all outcomes must be assessed, create outcomes that observable or measureable.

Sequential Outcomes

- * When possible, list the learning outcomes sequentially, in students' developmental pattern.

Collaborate & Disseminate

- * Collaborative development and collective acceptance of program outcomes provides focus and a common direction for the program's faculty members.
- * Once outcomes are collaboratively developed and collectively accepted, they need to be shared!

--continued--

Bloom's Taxonomy

Bloom's taxonomy is a well-known description of levels of educational objectives. It may be useful to consider this taxonomy when creating outcomes. At the senior or graduate level, aim for *application, analysis, synthesis, and evaluation*.

| | |
|----------------------|--|
| Knowledge | To know specific facts, terms, concepts, principles, or theories |
| Comprehension | To understand, explain |
| Application | To apply knowledge to new situations, to solve problems |
| Analysis | To identify parts, relationships, and organizing principles; To identify the organizational structure of something |
| Synthesis | To create something, to integrate ideas into a solution, to propose an action plan, to formulate a new classification scheme |
| Evaluation | To judge the quality of something based on its adequacy, value, logic, or use |

“Action” Verbs

| Knowledge | Comprehension | Application | Analysis | Synthesis | Evaluation |
|-----------------------------|----------------------|-----------------|------------------|-----------------|-------------------|
| cite | arrange | apply | analyze | arrange | appraise |
| define | classify | carry out | break down | assemble | assess |
| duplicate | convert | change | calculate | collect | check |
| find | defend | compute | categorize | combine | choose |
| identify | describe | construct | compare | compile | compare |
| indicate | diagram | demonstrate | contrast | compose | conclude |
| know | discuss | discover | criticize | construct | contrast |
| label | distinguish | dramatize | debate | create | criticize |
| list | estimate | employ | deconstruct | design | critique |
| match | explain | execute | determine | devise | decide |
| memorize | extend | illustrate | diagram | formulate | discriminate |
| name | generalize | implement | differentiate | generate | evaluate |
| outline | give examples | interpret | discriminate | invent | experiment |
| recall | infer | investigate | distinguish | manage | grade |
| recognize | locate | manipulate | examine | modify | hypothesize |
| record | outline | operate | illustrate | perform | interpret |
| repeat | paraphrase | practice | infer | plan | judge |
| reproduce | report | predict | inspect | prepare | justify |
| retrieve | restate | prepare | interrogate | produce | measure |
| state | review | produce | inventory | propose | rate |
| underline | suggest | schedule | organize | rearrange | score |
| | summarize | shop | outline | reconstruct | select |
| | translate | sketch | question | reorganize | support |
| | | solve | relate | revise | test |
| | | translate | | | value |
| | | use | | | |
| <i>Alternative Headings</i> | | | | | |
| Remembering | Understanding | Applying | Analyzing | Creating | Evaluating |

Adapted from Gronlund, N. E. (1991). *How to write and use instructional objectives* (4th Ed.). New York: Macmillan Publishing Co. and Mary Allen Workshop (May, 2008) UHM