Outcomes Assessment

Adapted from a presentation by Arend Flick, Assessment Coordinator, Riverside Community College District
Outcomes Assessment Is . . .

- Something you’re already doing, even though you probably don’t call it that.
Assessment Is Not . . .

- The same thing as grading.
- A threat to academic freedom.
- Going to go away.
A Definition

Assessment is best understood as a three-part, process in which we . . .

- Identify what we want students to be able to do, know, or think at the end of a unit of instruction. (That is, identify SLOs.)
- Determine the extent to which they can do or know those things.
- Adjust teaching practices and curriculum in light of that information.
Assessment Cycle

1. Articulate goals for student learning

2. Gather evidence about how well students are meeting the goals (and discuss/interpret this evidence)

3. Use this information to improve and to make learning visible
Why Do Assessment?

- To improve.
- To document learning.
- To assist in planning and resource allocation processes.
An Introduction to Student Learning Outcomes

- As opposed to “objectives,” SLOs emphasize application of knowledge (what a student can do at the end of a course of instruction).

- They are not discrete or highly specific skills but “complexes of knowledge, ability, and attitudes.”

- To be fully “operational,” they must include (or make reference to):
Operational SLOs include

- The **behavior** students will exhibit as evidence that the outcome has been achieved.
- The **conditions** under which this behavior is demonstrated.
- The **standard** or criterion that will be used to evaluate success.
For Example

- **Objective**: “Teach students scientific method.”

- **Objective**: “Teach the theory of natural selection.”

- **SLO**: “Students will be able to distinguish between testable and not testable hypotheses.”

- **Operational SLO**: “Given a list of 10 proposed hypotheses [condition], students will be able to correctly classify [behavior] at least eight [standard] hypotheses as either testable or not testable according to accepted scientific method.”

Adapted from presentation by Bob Nash & Michele Wild, Coastline College
SLO Caveats

- The fewer the better.
- For course SLOs, all instructors who teach the same section of a course should have the same SLOs, agreed upon collaboratively whenever feasible.
- Don’t get hung up on language--this is only the first (and by far the simplest) part of the assessment cycle.
Bloom’s Taxonomy

Avoid words like learn, know, and understand.
Use Bloom’s Taxonomy: Level 3 or higher

<table>
<thead>
<tr>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Apply</td>
<td>Analyze</td>
<td>Arrange</td>
<td>Assess</td>
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<tr>
<td>Change</td>
<td>Calculate</td>
<td>Categorize</td>
<td>Compare</td>
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<td>Compute</td>
<td>Contrast</td>
<td>Construct</td>
<td>Conclude</td>
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<td>Construct</td>
<td>Criticize</td>
<td>Design</td>
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<td>Demonstrate</td>
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<td>Explain</td>
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<td>Employ</td>
<td>Examine</td>
<td>Modify</td>
<td>Measure</td>
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<td>Interpret</td>
<td>Illustrate</td>
<td>Organize</td>
<td>Perform</td>
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<tr>
<td>Modify</td>
<td>Inspect</td>
<td>Prepare</td>
<td>Rate</td>
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<td>Operate</td>
<td>Question</td>
<td>Produce</td>
<td>Score</td>
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<td>Predict</td>
<td>Relate</td>
<td>Rearrange</td>
<td>Select</td>
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<td>Prepare</td>
<td>Select</td>
<td>Relate</td>
<td>Summarize</td>
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<td>Solve</td>
<td>Reorganize</td>
<td>Support</td>
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<td>Translate</td>
<td>Test</td>
<td>Revise</td>
<td>Value</td>
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<tr>
<td>Use</td>
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</table>
Some Practice Writing Course-Based SLOs

- Identify one of the five or six most important things a student should leave your class being able TO DO (or know). Address student competency rather than content coverage.
- Use active verbs to craft sentences that are clear, intelligible to students.
- If possible, integrate the behavior, conditions, and standards into the sentence.
- If possible, ensure that the SLO is assessable, measurable.
- Share draft SLO with colleagues to sharpen focus.
Course-Based Assessment

- Use a common final exam or a group of common questions mapped to course SLOs
- Use a rubric to evaluate sample student work
Chose specific SLOs to assess

Developed rubric

Developed plan to select representative sample of late-1A writing

Met to read and score 115 essays (about 10% of those actually written in the course)

Interpreted results, returned essays to instructors with comments, and reported back to the discipline on findings.
Outcomes Assessed:

- Effective use of quotation
- Effective use of MLA conventions in citing sources
- Effective control over conventions of written English (including grammar, punctuation, etc.)
- Suitable choice and conception of topic
- Sufficient cognitive engagement with topic
# English 1A Assessment Results

<table>
<thead>
<tr>
<th>N = 115</th>
<th>Little or No Evidence (1)</th>
<th>Inadequate Evidence (2)</th>
<th>Adequate Evidence (3)</th>
<th>Clear Evidence (4)</th>
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</thead>
<tbody>
<tr>
<td>Use of Quotation</td>
<td>20</td>
<td>29</td>
<td>45</td>
<td>21</td>
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<tr>
<td>Use of MLA Conventions</td>
<td>29</td>
<td>27</td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td>Grammar and Punctuation</td>
<td>9</td>
<td>25</td>
<td>30</td>
<td>51</td>
</tr>
<tr>
<td>Quality of Topic</td>
<td>8</td>
<td>21</td>
<td>37</td>
<td>49</td>
</tr>
<tr>
<td>Engagement with Topic</td>
<td>12</td>
<td>34</td>
<td>43</td>
<td>26</td>
</tr>
</tbody>
</table>
Assessment Results

![Bar chart showing assessment results for different categories: Q, MLA, MECH, TOPIC, ENGA. The categories are represented as Little Evidence, Inadequate Evidence, Adequate Evidence, and Clear Evidence. The chart indicates the distribution of evidence for each category.]
Assessment Results (Simplified):

- Percentage of sample essays demonstrating clear or adequate evidence of SLO achievement:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Choice of topic</td>
<td>74.4</td>
</tr>
<tr>
<td>Grammar, etc.</td>
<td>70.4</td>
</tr>
<tr>
<td>Engagement w/topic</td>
<td>68.7</td>
</tr>
<tr>
<td>Use of quotation</td>
<td>57.4</td>
</tr>
<tr>
<td>Use of MLA conven.</td>
<td>51</td>
</tr>
</tbody>
</table>
Interpretation of Results

- **Choice of Topic:**
  - 75% of students sampled chose (or were assigned) topics that seemed suitable for late-1A writing.
  - But 25% did not.
Effective Use of Quotation:

- Our 8% discrepancy rate suggests that we defined this criterion sharply enough to get accurate data.
- The 57% success rate is disquieting.
- Discussion during and after the reading suggested that students were having equal difficulty with the mechanics of quoting, the ability to contextualize and analyze quotation effectively, the process of deciding when and how much (or little) to quote.
Use of MLA conventions:

- Barely half of the essays demonstrated competency in this area.
- Discussion at the reading speculated that we aren’t spending enough time teaching MLA conventions and quotation methods--or holding students to sufficient standards in our grading practices.
Using the Results to Improve

- As a model for doing course-based assessment, this approach has been modified to assess learning in other English courses.

- English 1A assessment report sent to all English 1A instructors, underscoring evidence that we need to teach and assess quotation and MLA usage.

- Workshops on these SLOs in our writing labs.

- Discussion and professional development activities on how to teach to these SLOs in discipline meetings.

- Development of course handbooks to make expectations clearer and provide pedagogical advice to all instructors.
An Introduction to Rubrics

- Can be used to classify virtually any product or behavior (e.g., essays, reports, portfolios, recitals, oral presentations, performances).

- Can be used by students and/or by faculty, for various purposes.

- Are especially useful when given to students along with the assignment so students will know your expectations and how they’ll be graded.
Types Of Rubrics

- **Holistic** - performance traits are aggregated and a single score is given to each product

- **Analytic** - each primary trait has a separate score
Steps for Creating a Rubric

1. Identify what learning outcome(s) you’re assessing (e.g., critical thinking).
2. Identify an assignment that could enable students to demonstrate they’ve achieved that outcome.
3. Describe the best student product you could expect and the criteria you associate with that exemplary product.
4. Do the same with clearly inferior work, and then with marginally acceptable and marginally unacceptable work.
5. Categorize the criteria—a table is useful for that purpose.
6. Test the rubric, ideally asking colleagues who were not involved in its creation to use it, revising as needed to eliminate ambiguities.
A Simple Generic Rubric

- **4 Strong**  Clear evidence that the student has achieved the SLO.
- **3 Marginal**  Acceptable evidence that the student has generally achieved the SLO.
- **2 Inadequate**  Insufficient evidence that the student has achieved the SLO.
- **1 Weak**  Little or no evidence that the student has achieved the SLO.
Creating An Outcomes Assessment Rubric

Basic Assessment Rubric Structure

<table>
<thead>
<tr>
<th>SLO Criteria</th>
<th>“Emerging” 0 Points</th>
<th>“Competent” 1 Point</th>
<th>“Exemplary” 2 points</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Criterion # 1</td>
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<td>Criterion # 2</td>
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<td>Criterion # 3</td>
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<tr>
<td>Criterion # 4</td>
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Emplo##ing Rubrics to Do Course-Based Outcomes Assessment

- Involve everyone in the discipline (including adjuncts)

- You don’t have to assess products from every student in every section—a random sampling is fine.

- Aggregate the data and DISCUSS THEIR IMPLICATIONS: you aren’t completing the assessment cycle unless you use results to improve teaching and learning.
What to Do If Assessment Results Are Disappointing?

- Consider alternate teaching methods.

- Brainstorm with colleagues about their methods.

- Reconsider the curriculum itself.

- Reconsider the assessment method—maybe it gave you bad data.
Assessment Resources: Books

Assessment Resources: Websites (all with useful links)

- The California Assessment Initiative: http://cai.cc.ca.us/
- The Center for Student Success of the California College Research and Planning (RP) Group: http://css.rpgroup.org
- Janet Fulks’s excellent Bakersfield College website: http://online.bakersfieldcollege.edu/courseassessment/Default.htm
- North Carolina State’s comprehensive website: http://www2.acs.ncsu.edu/UPA/assmt/resource.htm
- The Riverside CCD Assessment website: http://www.rcc.edu/administration/academicaffairs/effectiveness/assess/index.cfm