An introduction to assessment for outcomes and the use of rubrics to collect and evaluate data gathered from the assessment process.
Introductions

- Name
- Department
- What’s one thing you would like to learn at today’s workshop?
Workshop Learning Outcomes

- Develop a working definition of key terms in outcome assessment
- Describe strategies for making assessment meaningful and informative
- Explore the use of rubrics in scoring assessments
- Identify one way in which you can improve at least one program or course level assessment
Outcomes Checklist

- Do your outcomes represent 2-4 umbrella ideas that you want students to remember in 5 years?
- Were the outcomes collaboratively created?
- Are your outcomes clearly communicated?
Creating a Meaningful Learning Outcome

Bloom’s Taxonomy (Revised)

- **Remembering**
  - Can the student recall or remember the information?
  - define, duplicate, list, memorize, recall, repeat, state

- **Understanding**
  - Can the student explain ideas or concepts?
  - classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase

- **Applying**
  - Can the student use information in a new way?
  - choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write

- **Analyzing**
  - Can the student distinguish between different parts?
  - appraise, compare, contract, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test

- **Evaluating**
  - Can the student justify a stand or decision?
  - appraise, argue, defend, judge, select, support, value, evaluate

- **Creating**
  - Can the student create a new product or point of view?
  - assemble, construct, create, design, develop, formulate, write
GRADING

- Used by INDIVIDUAL faculty to evaluate individual students’ learning and performance.

- May incorporate criteria – such as attendance, participation, and effort – that are not direct measures of learning.

- A final grade in a course is a global evaluation that represents the overall proficiency of ONE student.

- A collection of grades from a course does not provide specific information linking overall student performance to improvement.
ASSESSMENT

- Used by the department/program to improve student learning.

- Provides detailed and specific information necessary for linking student performance to improvement.

- Goes beyond grading by examining patterns of student learning ACROSS COURSES OR SERVICES

- Uses data to improve educational practices.
What does “authentic assessment” really mean?

What is the difference between “direct” and “indirect” assessment?

Qualitative versus quantitative evidence
Basic Assessment Tools

- Formative (Informal)
  - Reflection notes
  - Polls
  - Surveys
  - Focus Groups
  - Exit Interviews

- Formative (Formal)
  - Quizzes
  - Team based learning (project based)

- Summative
  - Portfolio
  - Term Papers
  - Projects and Presentation
  - Exams
  - Capstone Project
  - Performances
Direct vs. Indirect

Direct Assessment
- +Demonstrated Knowledge
- +Measured achievement of outcomes
- --Can be time intensive

Indirect Assessment
- +Reflection/Opinion
- +Ease of data collection
- +Easy way to measure attitudes, beliefs, values
- --Not “hard” evidence
- --Results may not represent entire population of students
CATS—Creative Assessment Techniques

- Student Background and Experience Assessment
- Minute Notes
- Muddiest Points
- Chain Notes
- Self Assessment
- Peer Assessment
- Student Generated Test Questions
- 3rd Party Assessment
- Multiple Pronged Assessment
- Just In Time Teaching
- Concept Maps
Semester Long Assessments

- Breaking down a large term project into individual components spread out over the course of the semester, evaluated separately, and then evaluated as a final product.

- An essay question on each exam that is directly related to a specific course outcome.

- The Cross-over Assessment--Creating one assessment that can evaluate student success for multiple course outcomes.
What types of assessment does your course or program currently use?

How is the data from these assessments evaluated?
At its most basic, a rubric:

- Is a scoring tool.
- Breaks down an assignment into component parts.
- Provides a detailed description of what constitutes acceptable or unacceptable levels of performance for those parts.
1. Title and assignment description
2. Scale of achievement—descriptive and/or number/letter grade designation
3. The dimensions of the assignment—skills/knowledge expected.
4. The value of each dimension—description of what constitutes each level of performance.

**Title:**

**Assignment Description:**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Level 3 Exemplary</th>
<th>Level 2 Satisfactory</th>
<th>Level 1 Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension 1</td>
<td>Parameters for a level 3 performance</td>
<td>Parameters for a level 2 performance</td>
<td>Parameters for a level 1 performance</td>
</tr>
<tr>
<td>Dimension 2</td>
<td>Parameters for a level 3 performance</td>
<td>Parameters for a level 2 performance</td>
<td>Parameters for a level 1 performance</td>
</tr>
<tr>
<td>Dimension 3</td>
<td>Parameters for a level 3 performance</td>
<td>Parameters for a level 2 performance</td>
<td>Parameters for a level 1 performance</td>
</tr>
</tbody>
</table>
Any assignment can be scored on a rubric

- Paper
- Presentation
- Group Project
- Essay on an Exam
- Performance
- Infographic

Keep your description brief, it is only there to delineate the rubric.
Scale of achievement

The scale allows you to assign a number or letter according to how well or poorly the assignment was performed. Be tactful, but clear in your definitions.

<table>
<thead>
<tr>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophisticated</td>
<td>Competent</td>
<td>Partly Competent</td>
<td>Not yet competent</td>
</tr>
<tr>
<td>Exemplary</td>
<td>Proficient</td>
<td>Marginal</td>
<td>Unacceptable</td>
</tr>
<tr>
<td>Advanced</td>
<td>Intermediate high</td>
<td>Intermediate</td>
<td>Novice</td>
</tr>
<tr>
<td>Distinguished</td>
<td>Proficient</td>
<td>Intermediate</td>
<td>Novice</td>
</tr>
<tr>
<td>Accomplished</td>
<td>Average</td>
<td>Developing</td>
<td>Beginning</td>
</tr>
</tbody>
</table>

Huba and Freed, 2000

While there is no formula for the number of levels on a rubric scale, more than 5 makes it too difficult to differentiate.

If multiple faculty are using the scale to grade across courses, consider using four as it eliminates the inclination to grade down the middle.
The Dimensions allow you to identify which components of the assignment are most important.

You may choose to weight the different components according to the importance of a given aspect of the assignment.

Component skills and knowledge should be defined in the dimensions of the assignment.

<table>
<thead>
<tr>
<th>Component</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Marginal</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge/understanding</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thinking/Inquiry</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of Visual Aids</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation skills</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exemplary 4</td>
<td>Proficient 3</td>
<td>Marginal 2</td>
<td>Unacceptable 1</td>
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</tr>
<tr>
<td>Knowledge/understanding 30%</td>
<td>The presentation uses relevant and accurate detail. Research is thorough and goes beyond what was assigned in texts.</td>
<td>The presentation uses knowledge that is generally accurate. Research is adequate, but does not go beyond what was assigned.</td>
<td>The presentation draws heavily on assumption and theory. Not all research is from reputable sources.</td>
<td>The presentation uses little relevant information. Little or no research is apparent.</td>
</tr>
<tr>
<td>Thinking/Inquiry 20%</td>
<td>The presentation is centered around a thesis which shows a high level of conceptual ability</td>
<td>The presentation shows an analytical structure and a central thesis, but the analysis is not fully developed.</td>
<td>The presentation shows minimal analytical structure and a central thesis, but the link between the two is absent.</td>
<td>The presentation shows no analytical structure and no central thesis.</td>
</tr>
<tr>
<td>Communication 10%</td>
<td>The presentation is imaginative and effective in conveying ideas. The presenter responds effectively to audience reaction and questions.</td>
<td>The presentation is successful at conveying the main ideas, but lacks imagination. The presenters were able to answer most, but not all questions.</td>
<td>The presentation is successful at conveying the main ideas, but lacks energy. The presenters were unable to answer most questions.</td>
<td>The presentation fails to capture the imagination of the audience. The presenter seems confused as to the subject matter.</td>
</tr>
<tr>
<td>Use of Visual Aids 20%</td>
<td>Visual aids are appropriate and easily understood. Presenter refers to visual aids at appropriate moment.</td>
<td>Visual aids are present, but may be hard to view or difficult to use. Presenter refers to visual aids, but more aids would enhance presentation.</td>
<td>Visual aids are present, but there are too few to be impactful. Presenter does not refer to visual aids appropriately to support presentation.</td>
<td>No visual aids are utilized or visual aids are unsuccessful and/or not utilized in the presentation.</td>
</tr>
<tr>
<td>Presentation skills 20%</td>
<td>The presenter engages the audience by speaking clearly and loudly, makes eye contact, and uses appropriate gestures and body language.</td>
<td>The presenter speaks clearly and loudly, but tends to a monotone and fails to use eye contact. Presenter seems uncomfortable in their use of gestures and body language.</td>
<td>The presenter speaks loudly, but swallows their words so they are hard to understand. They fail to make eye contact and do not attempt gestures and are unaware of their body language.</td>
<td>The presenter cannot be heard. There is no attempt to engage the audience.</td>
</tr>
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</table>
Things to Discuss
When Designing a Common Rubric for Outcomes Assessment

1. What skills do you expect a student to have or develop to be able to complete this assignment?
2. What exactly is the assignment? If you are not using a common assessment tool across all sections of a course, you will need to design a rubric that can value the variety of assessment tools.
3. What evidence can students provide in this assignment that would show they have accomplished what you wanted them to?
4. What are the highest expectations you have for a student?
5. What is the worst fulfillment of the assignment you can imagine short of not submitting the assignment at all?
A rubric divides the assigned work into component parts and provides clear descriptions of the characteristics of the work associated with each component, at varying levels of mastery.

Rubrics can be used for a wide array of assignments: papers, projects, oral presentations, artistic performances, group projects, etc.
Rubrics can be used as scoring or grading guides, to provide formative feedback to support and guide ongoing learning efforts, or both.

Examples of Rubrics and Resources:
Examples and Resources

https://www.cmu.edu/teaching/designteach/teach/rubrics.html (provides good examples of rubrics for a variety of courses)

http://www.rcampus.com/indexrubric.cfm (a how to site that helps you build rubrics)

http://course1.winona.edu/shatfield/air/rubrics.htm (Association for the Assessment of Learning in Higher Education (AALHE) Sample Rubric Page—large database of sample rubrics)

https://www.ccaurora.edu/getting-started/testing/direct-indirect (direct/indirect examples)

http://www.uwsp.edu/acadaff/Appendix%20D/Assessment%20Academy%20Session%20DirectMeasures.pdf
(Assessment examples)

https://tomprof.stanford.edu/posting/1199
(Qualitative and Quantitative examples)

http://www.eiu.edu/ihec/Qualitative%20Assessment%20power%20point.pdf
(Qualitative and Quantitative examples)

(Qualitative and Quantitative examples)