Creating Rubrics for Assessment

“rubrics teach as well as evaluate”

SLO Flex Workshop
September, 12, 2012
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Overview of Presentation

- What is a RUBRIC?
- Advantages of a RUBRIC
- Types of RUBRICS
- Sample RUBRICS
- How to Create and Use a RUBRIC
- Evaluating your Rubric

- Resources
What is a Rubric?

- Set of criteria and a scoring scale that is used to assess and evaluate students’ work.
- Often rubrics identify levels or ranks with criteria indicated for each level.
- Can have as few as two levels of performance or as many as appropriate
  - As simple as Pass/ NO pass
  - 3-5 levels work best
Advantages of Rubrics: Instructor

- Objective and consistent among all students
- Leads to insight concerning the effectiveness of instruction
- Clarifies criteria in specific terms
- Data analysis becomes easier
- Shows areas in need of improvement
- Establishes “ground rules” to resolve potential academic disputes
Advantages of Rubrics: Instructor (cont.)

- Reduces subjectivity involved in evaluating qualitative work
- Benchmarks against which to measure and document progress
- Reduces time necessary to evaluate student work
- Ensures all instructors are measuring work by same standards
- Promotes connection between student assessment and course objectives
BONUS! Rubrics Foster Dialogue

• Encourages collaboration and discussion with colleagues
• Students’ opinions on rubrics help to make them better and provide a way for students to have a direct impact on how they are being assessed
• Faculty who teach the same sections can develop and use the same rubric to score projects
• While the first few rubrics faculty create may take some time, each successive rubric becomes easier.
Advantages of Rubrics: Students

“SEE the goal to ACHIEVE the goal”

- Helps define “quality”
- Instructors expectations are clear
- Manner in which to meet the expectations are clear
- Students can better judge and revise their own work and assist their peers
- Vehicle for student feedback – promote student/faculty communication
- Promotes self-assessment of their own learning and performance
- Leads to improvements in the quality of student work
Types of Rubrics

**Holistic**
- Consists of a single scale with all criteria to be considered together
- A single score is assigned
- Instructor scores the overall process or assignment as a whole, without judging component parts separately

**Analytical**
- Breaks the objective into component parts
- Each portion is scored independently using a rating scale
- Final score is made up of adding each component part
Holistic Rubrics

- Holistic rubrics tend to be used when a quick or gross judgment needs to be made.
- Often best for formative assessments (homework assignments) to quickly review student work.
- Can be used where it is difficult to evaluate performance on one criterion independently of performance on a different criterion.
  - Ex. Writing rubric, Art rubric
<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Demonstrates complete understanding of the problem. All requirements of task are included in response.</td>
</tr>
<tr>
<td>4</td>
<td>Demonstrates considerable understanding of the problem. All requirements of task are included.</td>
</tr>
<tr>
<td>3</td>
<td>Demonstrates partial understanding of the problem. Most requirements of task are included.</td>
</tr>
<tr>
<td>2</td>
<td>Demonstrates little understanding of the problem. Many requirements of task are missing.</td>
</tr>
<tr>
<td>1</td>
<td>Demonstrates no understanding of the problem.</td>
</tr>
<tr>
<td>0</td>
<td>No response/task not attempted.</td>
</tr>
</tbody>
</table>
Table 3: 
*Math Performance Task – Scoring Rubric: Data Analysis*

Name _____________________________

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Makes accurate estimations. Uses appropriate mathematical operations with no mistakes. Draws logical conclusions supported by graph. Sound explanations of thinking.</td>
</tr>
<tr>
<td>3</td>
<td>Makes good estimations. Uses appropriate mathematical operations with few mistakes. Draws logical conclusions supported by graph. Good explanations of thinking. Attempts estimations, although many inaccurate. Uses inappropriate mathematical operations, but with no mistakes. Draws conclusions not supported by graph. Offers little explanation.</td>
</tr>
<tr>
<td>1</td>
<td>No response/task not attempted.</td>
</tr>
</tbody>
</table>
Holistic Rubrics

ADVANTAGES

- Emphasis on what learner is able to demonstrate rather than what s/he cannot do.
- Saves time by minimizing the number of decisions grader has to make.
- Can be applied consistently by multiple graders, increasing reliability.

DISADVANTAGES

- Does not provide specific feedback for improvement.
- When student work is at varying levels spanning criteria points it can be difficult to select the single best description.
- Criteria cannot be weighed.
**Analytic Rubrics**

- Instructor scores separate, individual parts of the assignment or performance first then sums the individual scores to obtain a final score.

- Consists of two components:
  - Criteria (vital traits, key qualities, dimensions)
  - Levels of Performance
Analytic Rubrics (cont.)

- Generally better to start with a **smaller number of levels of performance** for a criterion and then expand if necessary.

- **EXAMPLE:**

  
<table>
<thead>
<tr>
<th>Beginning</th>
<th>Emerging</th>
<th>Mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td>(NO PASS)</td>
<td>(PASS)</td>
<td></td>
</tr>
</tbody>
</table>
Portfolio Student Learning Outcome Assessment Rubric

SLO: 

*Students will be able to compose thoughtful, well-organized, grammatically correct short essays, using properly documented outside sources and personal observations and experiences to develop a unified thesis.*

- Criteria/Primary Traits = Thesis (thoughtfulness, unity), Organization (well-organized), Evidence (outside sources, personal observations and experiences), Essay Length (short essays), Grammar (grammatically correct), MLA Style (properly documented)

- Level of Performance = Pass/ No Pass
<table>
<thead>
<tr>
<th></th>
<th>Portfolio Pass Standard</th>
<th>Portfolio No Credit Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thesis</strong></td>
<td>• Demonstrates clear thesis statements which assert a unified focus. There may be some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>awkward or mechanical sentence structure.</td>
<td>• Fails to demonstrate a consistent understanding of thesis statements; statements are often</td>
</tr>
<tr>
<td></td>
<td></td>
<td>statements of facts, not arguments.</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>• Demonstrates consistent use of transitions and sense of logical essay structures.</td>
<td>• Fails to demonstrate logically organized well-structured arguments.</td>
</tr>
<tr>
<td></td>
<td>• Main points are found in topic sentences and are related to thesis.</td>
<td>• Topic sentences and main points do not relate to the thesis.</td>
</tr>
<tr>
<td><strong>Evidence</strong></td>
<td>• Contains sufficient source materials used as evidence in support of points. Sources</td>
<td>• Consistently fails to use sources to support points.</td>
</tr>
<tr>
<td></td>
<td>are applicable, detailed and explained.</td>
<td>• Consistently fails to use detailed, applicable evidence to support main points.</td>
</tr>
<tr>
<td><strong>Use of Written English/Grammar/Syntax</strong></td>
<td>Demonstrates consistent correct modes of expression; some vague or awkward phrases, but</td>
<td>• Extremely difficult to read and understand. Word choice is inappropriate or incorrect.</td>
</tr>
<tr>
<td></td>
<td>these do not inhibit meaning or readability.</td>
<td>• Contains numerous and distracting grammar and sentence boundary errors. Meaning is inhibited</td>
</tr>
<tr>
<td></td>
<td>• Contains writings that follow rules of Standard Written English; some errors, but not</td>
<td>by errors in grammar.</td>
</tr>
<tr>
<td></td>
<td>distracting.</td>
<td><strong>Use of MLA Citation</strong></td>
</tr>
<tr>
<td><strong>Use of MLA Citation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criteria #1</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>Description reflecting a beginning level of performance</td>
<td>Description reflecting movement toward mastery level of performance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria #2</th>
<th>Beginning</th>
<th>Developing</th>
<th>Accomplished</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Description reflecting a beginning level of performance</td>
<td>Description reflecting movement toward mastery level of performance</td>
<td>Description reflecting achievement of mastery level of performance</td>
<td>Description reflecting highest level of performance</td>
</tr>
<tr>
<td>LIS 10</td>
<td>Unsatisfactory</td>
<td>Developing (No Pass)</td>
<td>Accomplished (Pass)</td>
<td>Exemplary</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>----------------------</td>
<td>--------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Selects a variety of appropriate sources</td>
<td>No academic sources; only one type of sources appropriate to the topic; less than 5 sources</td>
<td>No academic sources; at least 2 types of sources appropriate to the topic; minimum of 5 sources</td>
<td>At least 1 academic sources; used 3 or more types of sources appropriate to the topic; minimum of 6 sources</td>
<td>At least 3 academic sources; used 3 or more types of sources appropriate to the topic; minimum of 6 sources</td>
</tr>
<tr>
<td>Prepares clear and accurate MLA citations</td>
<td>Citations were less than satisfactory (more than 10 unique errors)</td>
<td>Some citations were satisfactory; most were not (no more than 7 unique errors)</td>
<td>Citations were good (no more than 5 unique errors)</td>
<td>Citations were virtually perfect (no more than 3 unique errors)</td>
</tr>
</tbody>
</table>
Weighing

A numerical value can be assigned to each point on a scale.

If one criteria is more important than another, apply more weight (multiple the point by a number greater than 1).

- 4 Criteria (content, organization support, conventions) - if you want to emphasize content, multiple the organization by 2.

- Scales of uneven length – shorter scales would count less than the longer ones. Organization, support and content rated on a 6 point scale and spelling and punctuation rated on a 3 point scale)
Analytic Rubrics

**ADVANTAGES**
- Provides useful feedback on areas of strength and weaknesses
- Criterion can be weighed to reflect the relative importance of each criterion.

**DISADVANTAGES**
- Takes more time to create and use than a holistic rubric.
- Unless each point for each criterion is well-defined, instructors may not arrive at the same score.
Where to Begin...

- Identify a measureable SLO or learning objective
- Decide what meeting the outcome looks like
- Articulate exactly what you are looking for and how you will know it has been met
- Look to the course objectives or SLOs as possible “criterion”
Where to Begin... (cont.)

- Develop or adapt an existing rubric
- Keep it short and simple
- Decide if you wish to develop a holistic or analytic rubric
- Determine the levels of performance
Where to Begin... (cont.)

- Share it with students prior to the assessment
- Assess, Measure, Evaluate
- Consider “norming session” with faculty
- Use the rubric on an assignment, provide feedback, reflect and continuously improve.
Levels of Performance

*How many levels of performance should I use?*

- The number of levels varies; no specific number is standard
- A rubric can have as few as two levels (like a checklist)
- Apply the rubric one or more times, and then re-examine the number of levels that best serve your needs.
- As the number of levels increases, and those judgments become finer and finer, the likelihood of error increases.
Using a Rubric

“SEE the goal to ACHIEVE the goal”

- Rubric can be used to assess a student, course, or a program
- Helps define excellence
- Bridge between teacher expectations and assessment
- Useful for both the students and the instructor
- Provides a common language to discuss learning
- Provides rationale for measuring and evaluating
Great Tool for Program Assessment

- Use in classes and aggregate data across sections
- Internship supervisors can be invited to use rubric in assessing how well their intern meets a PSLO; data from all interns can be aggregated
- When two instructors use the same rubric, the reliability of the rubric can be tested for use by multiple instructors.
  - Identifies program strengths and areas for improvement
  - “Double duty” out of grading by using common rubric that is used for grading and program assessment
Evaluating Rubrics

- Colleague review
- Student review -- is it clear to them?
- Align/match standards?
- Manageable?
- Consider imaginary student performance on the rubric.
Evaluating Rubrics

- Does the rubric relate to the outcome(s) being measured?

- Does it cover important criteria for student performance?

- Does the top of the rubric reflect excellence?

- Are the criteria and scales well-defined?

- Can the rubric be applied consistently by different scorers?
Arguments against Rubrics

“I once gave extra credit to a student who realized that without providing a shred of meaningful content she could meet all the requirements of a state writing rubric he posted in his classroom. As required she used the word “persuade” and two synonyms, composed a clear topic sentence and closing sentence, and made no spelling or grammatical errors. But she did it without saying anything coherent.”

• Sharing rubrics with students will encourage formulaic writing
• They don't always take outside circumstances into account
• Can be too analytical for artistic projects
Modifying Existing Rubrics

Why reinvent the wheel?

- University of Hawaii, Manoa – Rubric Bank
  http://manoa.hawaii.edu/assessment/resources/rubricbank.htm

- AACU - Valid Assessment of Learning in Undergraduate Education (VALUE) Rubrics

- Large Collection of Rubrics from various colleges
  http://www.csub.edu/tlc/options/resources/handouts/Rubric Packet_Jan06.pdf

- AALHE Rubric Samples
  http://course1.winona.edu/shatfield/air/rubrics.htm
RESOURCES


