

# Assessment and Rubric Design

June 16, 2017

## Session Objectives

By the end of the session, each participant will:

- Complete an assessment audit of one course.
- Examine and identify learning continuums that are relevant to his or her course.
- Redesign or create a new summative assessment for the course.
- Post the assessment guidelines and rubric on MyMV.

## **Workshop Norms & Procedures**

- Participate as fully as you are able. You will have time to process and ask questions, but you will also be expected to share your thoughts.
- Consider your own goals and work to achieve them.
- Invite and welcome the contributions of every participant.
- Conduct personal business outside of the workshop.
- Hand up of the presenter means “attention, please!”
- If you have a relevant question, please raise your hand. If you wonder whether the question is relevant to the group, please write it on a sticky note and place in the “Parking Lot.”

**What Makes a Good Assessment?**

## Any Assessment You Design Should...

- ❑ Have clearly articulated criteria
- ❑ Be valid and reliable
- ❑ Provide sufficient measure of the desired result
- ❑ Encourage students to self-assess their own learning

Figure 2



## Determine How to Assess What You Are SUPPOSED to Assess

| If the desired result is for learners to... → | Then you need evidence of student's ability to... → | So the assessments need to require something like... |
|---|---|--|
|   |   |  |

| Type of Learning Objective  | Examples of Types of Assessment   | How to Measure   |
|---|---|--|
| <b>Remember</b><br>Students will be able to: <ul style="list-style-type: none"> <li>recall</li> <li>recognize</li> </ul>  | <ul style="list-style-type: none"> <li>Objective Test items that require students to recall or recognize information:               <ul style="list-style-type: none"> <li>Fill-in the Blank</li> <li>Multiple Choice items with question stems such as, "what is a...", or "which of the following is the definition of)"</li> <li>Labeling diagrams</li> </ul> </li> <li>Reciting (orally, musically, or in writing)</li> </ul>   | <ul style="list-style-type: none"> <li>Accuracy – correct vs number of errors</li> <li>Item Analysis (at the class level, are there items that had higher error rates? Did some items result in the same errors?)</li> </ul> |
| <b>Understand</b><br>Students will be able to: <ul style="list-style-type: none"> <li>interpret</li> <li>exemplify</li> <li>classify</li> <li>summarize</li> <li>infer</li> <li>compare</li> <li>explain</li> </ul> | Papers, oral/written exam questions, problems, class discussions, concept maps, homework assignments that require (oral or written): <ul style="list-style-type: none"> <li>Summarizing readings, films, speeches, etc.</li> <li>Comparing and/or contrasting two or more theories, events, processes, etc.</li> <li>Classifying or categorizing cases, elements, events, etc., using established criteria</li> <li>Paraphrasing documents or speeches</li> <li>Finding or identifying examples or illustrations of a concept, principle</li> </ul> | <i>Scoring or performance rubrics</i> that identify critical components of the work and discriminates between differing levels of proficiency in addressing the components   |
| <b>Apply</b><br>Students will be able to: <ul style="list-style-type: none"> <li>execute</li> <li>implement</li> </ul>  | Activities that require students to use procedures to solve or complete familiar or unfamiliar tasks; may also require students to determine which procedure(s) are most appropriate for a given task. Activities include: Problem sets, performances, labs, Prototyping, Simulations   | Accuracy scores, Check lists, Rubrics, Primary Trait Analysis  |

How might these be assessed?

- Explain
- Create
- Compare
- Analyze
- Summarize

Do any of these provide a closed-answer response?

## Using Rubrics

“*The main purpose of rubrics is to assess performances.* For some performances, you observe the student in the process of doing something, like using an electric drill or discussing an issue. For other performances, you observe the product that is the result of the student's work, like a finished bookshelf or a written report” ([Brookhart, 2013](#)).

# Elements of Effective Rubrics

1. Criteria (the LEARNING you are assessing)
2. Description of criteria
3. Levels of mastery
4. Description of each characteristic at each level of mastery

## Example of Holistic Rubric Effective Use of Time

| <b>Student</b>  | <b>Teacher</b>  | <b>Expert</b>  |
|---|---|--|
| As fast as a runner   | As fast as a baseball leaving CC's hand   | Faster than a speeding bullet  |
|  |  |  |

## Example of Generic Rubric Principles of Critical Thinking

|                               | Undeveloped  | Emerging   | Developed   | Exemplary   |
|-------------------------------|--|--|---|---|
| <b>Thinking Independently</b> | Is limited by the accepted way of doing things. Is hesitant to think for himself or herself; may mindlessly accept the ideas of peers, or society. Waits for others to determine errors in thinking and set the course of action. May accept ideas or beliefs without understanding why. Resists considering new ways of looking at things. Easily falls for manipulation. | Makes a conscious effort to seek an understanding of ideas before taking a stand on them, by asking questions and gathering additional information from other sources when prompted or reminded. Will consider new ways of looking at things, but often stays within already accepted ways of doing things or gives lip service to a new approach. Can detect manipulation and resists it. | Seeks understanding of ideas independently without prompting from an outside source. Deliberately considers new perspectives and ways doing things as a matter of course. Will risk presenting or accepting new ideas or actions when based on the contributions of genuine authorities. Thinking still requires some monitoring. Identifies manipulation by name and resists it. | Diligently incorporates all known knowledge (seeks out new knowledge) and insight into thoughts and behavior. Demonstrates a willingness to think things out for own self. Is not manipulated by others and understands ways to manipulate someone else, though avoids doing so. Is self-monitoring, catching own errors in thinking. Can determine when information is relevant, when to apply a concept or to use a specific skill. |

## Example of a Task Specific - Boat design

| Novice Boat Builder   | Apprentice Boat Builder   | Master Boat Builder  | Mentor Boat Builder  |
|---|---|--|--|
| My boat lost its shape or sank as soon as I put it in water.  | My boat floated for a while and then started to leak before the end of the time trial.  | My boat floated, moved, and was air tight for at least 5 minutes.  | My boat floated, moved, and stayed airtight long past the end of the time trial.   |
| Before I let go, I was pretty sure it wasn't going to work like I planned. It doesn't look like my schematics (or if it does, it's because I changed them after I built my boat.) | Before I let go, it looked like the design but was missing some parts or I added new parts before the test without updating the schematics. | Before I let go, it looked exactly like the final schematics and moved just about how I expected. I can tell you about the evolution of my design. | Before I let go, it looked exactly like the final version of the schematics. I can show how my design improved based on schematics from test runs. |

## Example of Analytic Rubric Classroom Behavior

|   | Getting Acclimated   | Learning the Ropes   | Community Member   | Community Leader  |
|---|--|--|--|---|
| <b>My responses</b> – how I provide answers or information to my teacher and classmates           | <input type="checkbox"/> I remain silent when called on or provide responses that are not matched to the task, make my classmates uncomfortable, or are disrespectful to my teacher. | <input type="checkbox"/> I give responses that are on target but occur at the wrong time. I may shout out the right answer or talk over others in a small group.           | <input type="checkbox"/> I give responses that are on target and when it makes sense. I raise my hand before speaking in a large group and participate in small group discussions. | <input type="checkbox"/> I provide responses that provoke deeper thinking. I share discussion time and let others talk, even when I know the answers.   |
| <b>My questions</b> – the quality and nature of the questions I pose to my teachers or classmates | <input type="checkbox"/> I ask questions unrelated to the topic or related to content we've already discussed.   | <input type="checkbox"/> I ask questions that reflect the general content or task.   | <input type="checkbox"/> I ask specific questions when my teacher calls on me or I ask them on my own when I am unsure of content or next steps.                                   | <input type="checkbox"/> I ask specific questions that show I am making connections between my new and prior knowledge.   |
| <b>My level of independence</b> – how much support I need to accomplish tasks                     | <input type="checkbox"/> I require individual support from my teacher to follow directions and remain on-task.   | <input type="checkbox"/> I follow the purpose of the directions but often miss key steps. My teacher has to check with me to make sure I am following directions as given. | <input type="checkbox"/> I follow directions on my own. I may occasionally need a prompt to remain on task but my teacher doesn't need to check to make sure I'm working.          | <input type="checkbox"/> I follow directions on my own. I complete tasks in a way that exceeds expectations and if I deviate from the given directions, I can explain how my way still accomplishes the goal or task. I help others when they seem confused by the direction or task. |

## WHERE SHOULD I START?

Focus on two defining aspects: [the criteria](#) and the [descriptions of levels](#).

Criteria:

- Use curriculum standards and/or continuums --criteria should be characteristics of learning outcomes
- Should be definable and observable--What characteristics of student work would give evidence for student learning of the knowledge or skills specified in this standard?

Descriptions:

- Should [describe](#) the performance rather than quality conclusions
- Determine how many levels are appropriate
- Begin with performance level you intend for most students to reach

# Is my rubric effective?

|        | Criteria  | 1<br>Below   | 2<br>Approaching  | 3<br>Meeting   |
|--------|---|--|---|--|
| DESIGN | <b>Selection &amp; Clarity of Criteria (rows)</b>                     | Criteria being assessed are unclear, have significant overlap, or are not derived from appropriate standards for product/task and subject area                               | Criteria being assessed can be identified, but not all are clearly differentiated or derived from appropriate standards for product/task and subject area | All criteria are clear, distinct, and derived from appropriate standards for product/task and subject area   |
|        | <b>Distinction between Levels (columns)</b>                           | Little or no distinction can be made between levels of achievement   | Some distinction between levels is clear, but may be too narrow or too big of a jump  | Each level is distinct and progresses in a clear and logical order   |
|        | <b>Quality of Writing</b>   | Writing is not understandable to all users of rubric, including students; it has vague and unclear language which makes it difficult for different users to agree on a score | Writing is mostly understandable to all users of rubric, including students; some language may cause confusion among different users                      | Writing is understandable to all users of rubric, including students; it has clear, specific language that helps different users reliably agree on a score   |
| USE    | <b>Involvement of Students in Rubric Development *</b>                | Students are not involved in development of rubric   | Students discuss the wording and design of the rubric and offer feedback/input  | Teachers and students jointly construct rubric, using exemplars of the product or task   |
|        | <b>Use of Rubric to Communicate Expectations &amp; Guide Students</b> | Rubric is not shared with students   | Rubric is shared with students when the product/task is completed, and used only for evaluation of student work   | Rubric serves as a primary reference point from the beginning of work on the product/task, for discussion and guidance as well as evaluation of student work |