

Rubrics

Purpose:

There are two major uses of assessment (National Research Council, 2000). In addition to evaluating student work, effective assessments should also provide opportunities for feedback and revision. Well-developed rubrics can do both. One definition of a rubric comes from the work of Arter and McTighe (2001):

A rubric is a particular format for criteria—it is the written-down version of the criteria, with all score points described and defined. The best rubrics are worded in a way that covers the essence of what we, as teachers, look for when we’re judging quality, and they reflect the best thinking in the field as to what constitutes good performance. Rubrics are frequently accompanied by examples (anchors) of products or performances to illustrate the various score points on the scale. (p. 8)

Subjective assessment of student work has always been a challenge for faculty. It is much easier to give (and grade) an objective test, but written examinations do not always measure higher-order thinking and even more rarely do they allow students to reveal their ability to use the knowledge they have gained to solve real world problems. Performance tasks or authentic assessments are more likely to challenge students to engage in professional behavior and critical thinking, but are much harder to evaluate. One goal of using performance assessments is to make an essentially subjective process as clear, consistent, and defensible as possible. This can be done by developing explicitly defined performance criteria and communicating them to students through a rubric (Arter & McTighe, 2001).

Example of a rubric to assess “Effectiveness of Team Interactions:”

Criteria	Unacceptable	Marginal	Proficient	Exemplary
Discussion	Usually uninvolved in the discussions, even when asked for an opinion; or makes irrelevant or distracting statements; rarely listens to others	Usually pays attention to the discussion but rarely offers ideas or opinions; will respond when asked; rarely encourages others	Usually offers ideas and opinions; consistently respects the ideas of others; sometimes encourages others to participate	Consistently volunteers ideas and opinions appropriately; usually listens carefully and acknowledges contributions from others in a way that encourages them to participate; consistently open-minded
Task accomplishment	Rarely fulfills role/assignment required to achieve team goal	Usually tries to fulfill role/assignment; sometimes requires assistance from other team members	Regularly fulfills role/assignment within team; sometimes identifies other roles needed for team success	Consistently fulfills role/assignment to achieve team goals; usually accurately identifies needed team roles; consistently helps and encourages others to fulfill their roles/assignments
Problem solving	Rarely aware that a problem exists; unconcerned with finding a solution	Usually aware of team challenges, but doesn’t know what to do; will listen to discussions regarding the challenges; seldom has ideas for a	Sometimes able to identify areas of conflict; consistently tries to facilitate team discussion regarding the conflict, but struggles to get others to talk; sometimes able to	Consistently able to identify areas of conflict; usually able to facilitate team discussion regarding the conflict; often able to suggest possibilities to remedy the situation

		solution	suggest possibilities to remedy the situation	
Interpersonal interactions	Rarely attends to others thoughts or feelings; often makes personal attacks	Sometimes listens to others; tolerates others but rarely conveys a respect for their ideas or abilities	Often listens to others and conveys message of respect for their ideas and abilities; sometimes values thoughts and abilities of others; often encourages their participation	Consistently listens to others and conveys message of respect; usually values thoughts and abilities of others; consistently encourages others to participate

[Click here](#) to see an example of a rubric used to guide students' written reflections in a journal for a leadership development course at Iowa State University.

Learning theory:

Assessment should be used not only to diagnose learning, but also to promote learning and the development of skills (Huba & Freed, 2000). Traditional assessment methods too often focus only on a final grade and do little to enhance student learning. Feedback is given through notes written on papers or check marks on tests, but rarely is the information used by students to improve their own understanding, behavior, or skill development. “The roles for assessment must be expanded beyond the traditional concept of testing. The use of frequent formative assessment helps make students’ thinking visible to themselves, their peers, and their teacher” (National Research Council, 2000, p. 19). Well-developed rubrics can be used by students, peers, and faculty before, during, and after a learning opportunity. They make explicit the criteria that will be used in the evaluation, but even more valuable – they reveal to students specific skills, behaviors, and understandings that can be used by students to create, revise, and evaluate their own work (Huba & Freed, 2000). Feedback is most valuable when students are given the opportunity to use it to revise their thinking and performance while they are working on a task (National Research Council, 2000). Once students are familiar with the power of a rubric, they can monitor their own feedback and use it to enhance their thinking, knowledge, and skills.

A rubric is a valuable assessment tool used to guide student learning and to evaluate the quality of a paper, presentation, report, project, or skill that requires higher-order thinking and allows students to reveal their ability to use the knowledge they have gained. Rubrics can be used to

- clarify instructional goals (Arter & McTighe, 2001),
- communicate expectations to students before they engage in a learning opportunity (Arter & McTighe, 2001),
- make public key criteria that students can use to develop, judge, and revise their own work (Huba & Freed, 2000),
- break the whole into manageable parts (Licklider & Wiersema, 2002),
- reveal what quality looks like (Huba & Freed, 2000),
- provide models of quality (Licklider & Wiersema, 2002),
- portray professional skills, behaviors, and understandings (Huba & Freed, 2000),
- provide valid and reliable assessment of student learning outcomes on complex and hard-to-assess student performances (Arter & McTighe, 2001), and
- encourage and promote learning throughout the experience (Licklider & Wiersema, 2002).

Time required:

The initial development of a rubric can be very time consuming, but the dividends for faculty and students are well worth the investment of time. It is also important to realize that most rubrics are works in progress. It will be nearly impossible to create a “perfect” rubric on the first draft. In fact, it is wise to re-evaluate and make changes as necessary every time a rubric is used.

Developing a rubric:

These suggestions come from the work of Arter & McTighe (2001).

Determining the features or criteria to be assessed:

1. Considering the performance task given to students, list the features of a high-quality product or performance based on your own experience. Expand your list by reflecting on past student work and performances. Also consider professional behavior and critical thinking necessary on the job.
2. Fine-tune the list of features by using it to actually assess student work. This will probably reveal one or more important notions to be considered.
3. Read what other “experts” in the field have to say about high-quality products and performances. What can the professionals do? How do they use their knowledge? In what kind of thinking do they engage? How do they solve problems?
4. Refine the list of features and determine the most appropriate order.

Determining the indicators of quality:

1. It is first necessary to determine the number of “score points” or categories to identify the range of qualitatively different degrees of understanding, proficiency, or quality in the product or performance. There is no “right” answer for the best number – it depends on many factors. Most rubrics have from 3 to 7 categories for identifying quality. Consider the following guidelines:
 - More categories are needed for tasks that are complex.
 - Enough categories are needed to distinguish quality (4 or more), but not so many that faculty and students can’t distinguish the levels.
 - Rubrics that are used to compare to a standard usually use 4 categories: 4 – “exceeds the standard,” 3 – “standard,” 2 – “below the standard,” and 1 – “way below standard.”
 - If the rubric is used to track development across grade levels, more categories should be used.
 - There should be a good reason for selecting **either** an odd number of categories **or** an even number. An odd number should be used if the middle point represents a “balance of strengths and weaknesses,” but an even one should be used to avoid “gravitating to the mean.”
 - Some faculty like to stay away from a 5-point scale because it looks too much like the typical grading scale.
2. If you have an intuitive sense of the features of quality, sort student work into three or four groups based on the level of quality. If not, review the professional literature regarding the skills and use of knowledge you are trying to assess.
3. As the student work is sorted, write down reasons for placing it into each pile. The reasons will help refine not only the criteria, but also the indicators of quality for each category.
4. To further describe the indicators of quality for each category, consider responses to the following questions:
 - What makes this work good?
 - What is missing from this performance?
 - What would a professional presentation include?
 - What does this reveal about student thinking?
 - What should be added to this?
 - How will this portray professionalism?

Instructions for learners:

Students know quality work. They recognize a quality performance, a well-written paper, a professional skill; but seldom do they have the opportunity to assess the quality of their own work or the work of their peers. They are used to having faculty tell them the quality of their own behavior, performance, or skill development. Consider guiding the students through a similar process that was used to develop the rubric. Ask them to identify features of quality work. Then ask them to describe different levels of quality possible for each feature. Finally, allow them to assess student work (from previous classes) in order to uncover the power of using a rubric to guide and refine their own learning.

Tips to consider:

- Help students understand the purpose (and power) for using a rubric.
- Invest the time required to help students learn how to use a rubric to enhance their own learning.
- Require students to use the rubric to assess their own work – including evidence and written justification – before handing in the finished product.
- Consider allowing students to help develop the rubric (especially the first time).
- Be flexible! Revise the rubric as needed. It is nearly impossible to create a “perfect” rubric on the first try. It is not unusual to change them each time they are used.

References:

Arter, Judith & McTighe, Jay. (2001). *Scoring rubrics in the classroom: Using performance criteria for assessing and improving student performance*. Thousand Oaks, CA: Corwin Press, Inc.

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