Rubrics

Criterion-Referenced Assessment

The move from a **norm-referenced** to a **criterion-referenced** model of assessment is a signifcant change in the outcome-based approach. Norm-referenced assessment measures students against each other ('grading on a curve'). Criterion-referenced assessment measures student performance against an explicit set of standards. Norm-referenced assessment provides very little feedback for students to improve their performance. Consider this:

- Kin-Wah scored 70 out of 100 points for his Seminar Presentation assignment. What does the score tell him? Next to nothing, except where he stands in terms of the total number of points.

- Mei-Ling scored 75 out of 100 points for the same assignment. What does that score tell her? Not much more except that she did better than Kin-Wah.

- Can the scores and accompanying comments from the teacher (if any) help the students improve their next presentation? Not likely, because these comments seldom reveal everything the teacher is looking for in a good presentation.

- Even if a student is very industrious and reads all the feedback made by the professor to all the students, s/he will only get a fuzzy glimpse of what is considered a good seminar presentation.

As you can see, grades do not give students direction as to what to do next. Most will try to 'study harder' to improve their performance – whatever that may mean is all up to their own imagination. In other words, test scores and grades help professors and students to *monitor* learning, and to rank and to select students, but they do little to *promote* learning.

For example, if Kin-Wah were to improve on his next performance, he will need to know:

- What aspects of the presentation are important and being assessed, for example, aspects such as organisation, style, visual aids, content, use of language, personal appearance, and responsiveness to audience.

- What levels of mastery are for each aspect, for example, *competent, acceptable, and incompetent.*

- What competent, acceptable, and incompetent performance looks like, for example, an incompetent *use of language* may mean that the listeners are distracted by grammatical errors, use of slang, incomplete sentences, etc.

- What the consequences are of performing at each level, for example, a 'Competent' earns 3 points, whereas an 'Acceptable' means 2 points, etc.

If Kin-Wah has this information prior to the presentation, he will have a clear sense of what he is trying to accomplish. He will not have to second-guess what the professor is looking for. This information will help him to prepare his presentation properly and give him a means to assess his own work before, during, and after the presentation. The rubric brings all these useful pieces of information together.

What are Rubrics?

A rubric is a scoring scale used to assess student performance along a task-specific continuousness of criteria. It explains to students the standards against which their work will be judged. With key criteria made explicit, students can use the information to develop, revise, and judge their own work. Let's look at a simple rubric for evaluating literature research.

Research Rubric

Criteria	Weighting	Poor (1)	Good (2)	Excellent (3)
Number of Sources	x1	1 – 4	5 – 9	10 – 12
Historical Accuracy	x3	Lots of historical inaccuracies	Few inaccuracies	No apparent inaccuracies
Organisation	x1	Cannot tell from which source information came	Can tell with difficulty where information came from	Can easily tell which sources information was drawn from
Bibliography	x1	Bibliography contains very little information	Bibliography contains most relevant information	All relevant information is included

(Source: http://jonathan.mueller.faculty.noctrl.edu/toolbox/rubrics.htm)

There are several elements in a rubric and we shall discuss each in turn.

Aspects of Quality

The *rows* of a rubric list the aspects of quality that are important in reaching the goal of the project. These have been targeted as important for giving feedback. For example, in the research project above, it is important to include a sufficient number of sources, to have few historical inaccuracies, and so on.

Levels of Mastery

The *columns* in a rubric label the level of the student work relative to the intended outcome. In the example we have 'poor', 'good', and 'excellent'. Next to each label is the number of points a student can score as a result of performing at that level. In this way, students can easily calculate the score by multiplying the number of points with the weight assigned to each particular aspects of quality. In this example, 'historical accuracy' has a higher weighting (x3) than the other criteria.

Descriptors of Quality

The *cell* in a rubric provides a commentary describing the key features of work at each level of mastery. In the example, the professor describes what 'excellent organisation' means – in such a way that the reader can easily tell which sources the information was drawn from.

The educational value and usefulness of a rubric is defined in terms of the richness of information in these cells. If the students read all of the information in the 'Poor', 'Good', or 'Excellent' columns, they have a clear concept of the standard of work they should strive to attain. The task they face may still be difficult, but knowing clearly what the standard is provides them with direction and with information to help them continually improve.

More Rubric Examples

Developing effective rubrics requires a lot of practice. However, you can speed up the learning process by studying rubrics created by others. The Student Learning Outcomes website at the California State University System is a good place to begin with: http://www.calstate.edu/acadaff/sloa/links/rubrics.shtml. You'll find that there are different presentation formats for rubrics.

Analytical vs. Holistic Rubrics

The most common types are the **analytical rubric** and the **holistic rubric**. Most rubrics, like the research rubric example, are analytical rubrics. An analytical rubric defines the performance standard for each criterion. The holistic rubric, on the other hand, does not list separate levels of performance for each criterion. Instead, a holistic rubric assigns a level of mastery (Poor, Good, or Excellent) across multiple criteria as a whole. For example, the analytical research rubric above can be re-written as a holistic rubric.

3 - Excellent Researcher   • included 10-12 sources   • no apparent historical inaccuracies   • can easily tell which sources information was drawn from   • all relevant information is included
2 - Good Researcher   • included 5-9 sources   • few historical inaccuracies   • can tell with difficulty where information came from   • bibliography contains most relevant information
1 - Poor Researcher   • included 1-4 sources   • lots of historical inaccuracies   • cannot tell from which source information came   • bibliography contains very little information

Using Rubrics to Teach

Well-developed rubrics can accomplish two broad purposes – to educate students and to judge their work (Huba & Freed, 2000). Rubrics are more than just assessment tools; they are very powerful teaching tools that can educate students in a number of ways.

- We can use rubrics to reveal to students the standards of our discipline. By giving them clear information on what constitute excellence in a professional context, we help students internalise standards they can aspire to reach throughout their lifetime.

- Besides describing excellence, rubrics also inform students about the many qualities that constitute good, and poor, work. This is a valuable feedback mechanism that enhances the student's ability to self-assess and self-correct.

- You can involve students in setting standards. For example, before you finalise the scoring rubric for a certain assignment, have an open discussion with the class as to what criterion should be included; and what should characterise performance at each level. Ask them to give examples of poor, good, and excellent work, etc.

- The scoring rubric is also a good conversation piece that can open up meaningful dialogue with students about learning. As students are always concerned about their grades, the rubric allows us to tie together their concern with important learning issues of quality, professionalism, and so on.

- We can involve a variety of individuals to give feedback to students about their work by using a rubric. Besides their peers, you can involve other faculty members, employers, advisors, mentors, parents, and so on. Students will learn that different individuals have different perspectives and that their work will be judged in different ways throughout life.

- Rubrics can inform audiences off campus about our intended learning outcomes and standards. Professional bodies, the UGC, or foreign universities are interested at times in what we are doing or how to interpret our students' grades.

- Use the rubric to provide students with intermediate or formative feedback on their assignments. You may think that this is a time consuming; but the improvement a student can make by having his or her work assessed in progress may save you many hours of unfocused lecturing.

Steps in Constructing Rubrics

There are five questions that can guide the development of useful rubrics. Your answer to each of these questions is followed by an actionable task (Huba & Freed, 2000).

1. What criteria or essential aspects of quality must be presented in the student's work to ensure that it is high in quality? Include these elements in the rows of your rubric.

2. How many levels of mastery do I wish to illustrate for students? Include these as columns in your rubric and label them.

3. For each criterion or essential aspect of quality, what is a clear description of performance at each mastery level? Include descriptions in the appropriate cells of the rubric.

4. What rating scheme will I use in the rubric? Add this to the rubric in a way that fits in with your grading philosophy.

5. When I use the rubric, what aspects work well and what aspects need improvement? Revise your rubric accordingly.