

On Rubrics

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Some years ago, at a workshop on pedagogy, a presenter extolled the virtue of rubrics, those conceptual tools for scoring student work, suggesting that they would provide a simple end to all my grading woes and more. Many share her enthusiasm. Certainly many books on college teaching recommend them, particularly for grading. And though I am distrustful of fads, rubrics have a logic to them that checks my usual skepticism. I gave them a try and found them, while not magical, certainly useful. In what follows, I provide a basic introduction to rubrics and their uses, but without the usual hype or promises that the stack of papers on your desk will magically disappear.

CONSTRUCTION OF A RUBRIC

A rubric describes dimensions on which work will be evaluated and gradations of performance within those dimensions, and is therefore tailored to its intended use. Let's consider a rubric that might be used in evaluating an analytic essay assignment. For this example, suppose that we plan to provide students with feedback on the logic of the arguments students advance in their essays. We might identify a continuum of performance on that dimension from the poorest (a paper lacking a thesis or argument) to the strongest (a paper with a clear thesis and a thorough, rigorous argument). Of course, most student work will fall between the extremes, so we need to identify characteristics worthy of note along the continuum. Typical strengths and weaknesses might include papers that provide propositions you can see would support the thesis but in which the student fails to make the connection clear, papers that provide some support but leave obvious gaps in the argument, papers that provide an argument but no clear thesis, and so on.

Identifying and Selecting Dimensions for a Rubric

The instructor chooses the dimensions to include in the rubric according to the course, the assignment, and his or her instructional aims. When the rubric is used to provide feedback to students, the dimensions tell the students what matters in that assignment, which presumably reflects what matters in the course.

Often, high quality work exhibits a gestalt, making it difficult to disentangle

“dimensions.” Before students create high quality work, however, strengths and weaknesses frequently make dimensions somewhat easier to discern. It can be helpful to ask, “Is it possible for the student to do X (e.g., organize a logical argument) without doing Y (e.g., select reliable sources) and vice versa?” If it is, then the two elements are separable and can be used as dimensions in the rubric. If, on the other hand, X and Y always go together (say, evidence is analyzed with respect to the thesis and the existence of a clear thesis), then X and Y should be represented not as separate dimensions but as one.

Identifying and Selecting Levels within a Dimension for a Rubric

If the student can do X (e.g., the essay exhibits a clear progression of ideas) without doing Y (e.g., the essay provides clear, cogent transitions among ideas) but not vice-versa, then X and Y describe points on a continuum of qualities, and so potential levels in the rubric.

The expectations described at each level should be appropriate to the students. One would not typically use the same rubric for first-year undergraduates, advanced undergraduates and graduate students.

Creating a good rubric requires one to express ideas, values, and expectations that are deeply ingrained in one's sensibilities. Making these explicit and expressing them in terms that students can understand is challenging intellectual work.

USES OF A RUBRIC

Most often, faculty use a rubric as a scoring instrument to grade student work, like papers, art work, oral presentations, or dissections. This use has led some to assume a fairly stiff, computational approach to rubrics that imposes artificial structure on student work and on faculty response to it. But it is possible to take a more limber approach. To this end, what follows is collection of annotated illustrations intended to inspire rather than dictate.

FIGURE 1: DIMENSION

To capture a progression of quality and multiple dimensions, most rubrics are laid out as tables, as below:

DIMENSION				
<i>Logical argument</i>	The paper lacks a thesis, sufficient evidence, or argument.	The paper expresses a clear thesis, and provides some evidence. Argument per se is missing.	The paper expresses a clear thesis, but the argument or evidence contains clear gaps	The paper expresses a clear thesis, and a thorough, rigorous argument based on sufficient evidence.
<i>Quality of evidence</i>	Evidence is not drawn from appropriate sources.	Most evidence is drawn from appropriate sources.	All evidence is drawn from appropriate sources.	All evidence is drawn from appropriate sources and quality of sources is explicitly addressed.

Note-taking Using a Rubric

One of my first attempts to use a rubric was motivated by a need to make notes about student class presentations quickly. I did not intend to share the rubric with the students. Instead I used it to ensure that I took every dimension of performance into account in a real-time event. Figure 2 shows a portion of the rubric, as I used it.

Dimension Rubric

The dimensions of the rubric were selected to align with the students' assignment, which included explicit instruction on audience and visual aids, and course work to date. The levels reflected strengths and weaknesses in students' performance that, in my experience, were common for students in a first-year undergraduate class. I would note them and respond accordingly.

My private use of this rubric shaped its content. I identified a continuum of quality on every dimension but did not always divide each dimension into the same number of levels. The second dimension ("awareness of audience") includes three levels, while the first and third dimensions contain four. For my note-taking purposes, there was no need to divide the continuum of performance into more quasi-discrete levels. That is not to say that I could not use my rubric to distinguish between a presentation that was just shy of outstanding and one that rubbed elbows with unacceptable. I used the left-right location of my checkmark to indicate something about quality along the continuum within the boxes in addition to between them. When the presentations were complete, I used these as notes to determine student grades and

to write brief reviews of their performance. The students did not see the rubric itself nor was it used to compute a grade. This casual approach will not suffice when a rubric is intended to communicate with students or colleagues, but it worked well for its intended purpose and gave me a chance to "test drive" a rubric. I eventually revised the content and shared it with students.

Providing Instruction and Feedback Using a Rubric

In point of fact, most people who use rubrics do so to communicate with students, either in response to student work or as part of their assignment instructions. Rubrics used to communicate with others need to express ideas more clearly, and in terms appropriate to their audience, of course, but otherwise, their form and use is the same as those used privately. There are advantages to providing your students with rubrics:

- A rubric can convey to students characteristics of high-quality (and not so high quality) work and thus help students understand instructor expectations.
- When students better understand instructor expectations, they are more likely to meet those expectations. They are also better able to monitor their own progress.
- Linking the rubric to grades can reduce grade disputes.

There are also potential pitfalls in providing your students with rubrics:

- When a rubric accompanies the assignment, students may focus exclusively on the dimensions identified in the

rubric and neglect other elements. Such narrow focus is rarely what faculty have in mind, though it can be part of a strategy for facilitating the development of complex skills. To reduce this risk, let the students know what the rubric represents, and what it does not.

- Rubrics describe qualities of a student's product or performance, the result of a process. Sometimes, such focus can distract a student, particularly if the student is a long way from achieving the desired objective. Discussions of expectations for "the product" and how to achieve them should accompany the rubric. Encourage students to focus on achieving their next level.
- A comprehensive rubric can be lengthy and overwhelming. Nonetheless, they can be helpful for students completing major papers, theses, and dissertations.

Grading Using a Rubric

Rubrics can be used to determine student grades in a formal manner (as opposed to the informal approach described in the section "Using Rubrics for note-taking" above). To do so, one assigns values to dimensions and to levels of achievement and then uses the numeric scores to compute a grade. In the rubric in figure 3, for example, each level (labeled unsatisfactory, developing, satisfactory, exemplary) is assigned a value (0, 6, 12, 15). Notice that the values in this case do not constitute a linear progression. The instructor decides what makes sense. Each dimension is assigned a weight. In this case, the students' statement of their position is accorded less weight (1) than any other dimension (each of which is weighted 2) to reflect the relative challenge posed by each. If the author of the rubric had focused on the importance of each element to the essay, each dimension might have been weighted identically. Again, the instructor decides what makes sense in the context of the assignment and the course.

Computing each student's grade on the essay becomes simply a matter of multiplying the value of the level by the weight assigned the dimension, for each dimension, and summing across dimensions.

FIGURE 2: RUBRIC IN USE

Dimension				
Mastery of material	Understanding inadequate or incorrect	Understanding mostly adequate and correct, some problems	Good when on script ✓	Has command of the material, can go off script
Awareness of audience	Audience not taken into account in writing presentation	Audience needs sometimes taken into account ✓ Terms need def.		Audience needs were consistently taken into account
Use of visual aids	No slides, poor slides or ignored slides	Slides created as script and read ✓	Slides provided text but not read	Slides supported oral presentation, used to illustrate

FIGURE 3: GRADING RUBRIC: CONTENT

	Unsatisfactory	Developing	Satisfactory	Exemplary	(Weight)	Pts
<i>Your Position</i>	0 Does not identify your position	6 Identifies your position, but doesn't indicate how it relates to the authors' positions	12 Identifies your position; relates it to Gladwell and Groopman, though perhaps not in a fully developed way	15 Identifies your position; relates it to Gladwell and Groopman; ideas are well developed and provide a foundation for analysis	1	
<i>Argument and Evidence for Your Position</i>	Neither argument nor evidence provided	Argument or evidence or both provided, but only minimally developed	Argument and evidence provided; sufficiently well developed to provide reasonable support for your position	Argument and evidence provided; well developed, providing strong support for your position	2	
<i>Counterarguments</i>	Does not mention counter-arguments	The counterargument identified attacks only weak elements of the position or is not developed	The counterargument identified attacks a central element of the position and is reasonably well developed	The counterargument identified attacks a central element of position and is very well developed; it gives the reader pause to consider the opposing position	2	
<i>Rejoinder to Counterarguments</i>	Does not respond to counterarguments	Response to counterargument adds no new information to original argument, but simply repeats previously articulated propositions; or the argument is not well developed	Response to counter-argument adds new information to original argument; argument is reasonably well developed	Strong, novel arguments are made in response to the counterargument.	2	

Total

For many of us, that's too reductionist or we're not comfortable quantifying dimensions and levels. Making those decisions takes much forethought. Some faculty complain that the grades they compute in this way do not always reflect the grades they want to assign. There can be several reasons for the mismatch:

- The dimensions and levels may not express important values an instructor wants to bring to bear on the grade. Modifying the rubric often remedies that problem. Alternatively, if an occasional student does something that is not well represented in the rubric but is still a legitimate response to the assignment, we can respond to the student's work without the rubric. A rubric is a tool. If it is not the right tool for the job, use a different tool.
- The level values are assigned inflexibly. Better to think of the values as small ranges, such as 12 +/-2. Stronger work might get 14 and weaker work might get 10.

Even when faculty choose not to compute grades using rubrics, they can be handy for getting the big picture of an assignment in deciding a grade. For example, I discovered that I would often wish to assign a low grade to an essay whose weak grammar irritated me throughout, but would find by following a rubric that the poor grammar was the only unsatisfactory dimension of the paper. The rubric reminded me of the paper's strengths and helped me to assign the appropriate grade. In addition, my students got a better picture of the strengths and weaknesses of the paper.

Course or Program Assessment using a Rubric

Rubrics can also contribute to assessments of courses or programs. To illustrate, consider the rubric above, used to grade student essays and provide them feedback. Suppose that the instructor creates, as part of her grade book, an entry for the students' score on each dimension in addition to the total score (the grade). The result might look like

the top portion of the spreadsheet below.

In assessing the course itself, the instructor might ask whether students, as a group, met or exceeded the course objectives. In this particular case, one goal of the course was to advance the students' ability to engage in evidence-based argument. Each of the dimensions in the rubric for this assignment reflected an objective associated with that goal. Based on her past experience, the instructor expected students to begin the semester performing in the "emerging to satisfactory" range. Their performance on earlier assignments confirmed that expectation. To determine whether the course achieved its goal, the instructor could aggregate scores on each dimension across students, tallying, say, the number, or percentage, of students at each level of performance (as shown on the bottom portion of Figure 4). If this assignment represented the culmination of work on this goal, then the instructor might reasonably conclude that, at the conclusion of the course, almost all of students were able to

articulate their own position on an issue and support it with evidence and argument at at least a “satisfactory” level; several had performed even better. Skill with counter-argument and rejoinder was more varied. The instructor can use this information to adjust instruction for future classes.

If a course serves as a core, gateway or capstone for a department or program, faculty can use student performance in the course for program assessment. Using a rubric is both an efficient way to take a measure of the students and a simple way to convey that information to among colleagues. If several faculty teach comparable courses (say, senior capstone seminars) and the department or program wants to draw information from each of them, adopting a common rubric enables collecting the same dimensions across faculty and course sections. We can thus get a department-wide assessment.

Nota bene: If a department or program adopts a rubric for program assessment, some faculty might also like to use that for instruction or grading, but some might not.

In order to do the program assessment, everyone needs to use the same rubric and the same criteria behind the scenes, but it is not necessary that everyone use the rubric for instruction or grading.

The examples described in this article are intended to provide a taste of the uses to which faculty have put rubrics and of the variations in the form they take. Although there are many rubrics publicly available, adopting a rubric “off the shelf” is uncommon. Most faculty create their own from scratch or adapt existing rubrics.

RESOURCES

Stevens, D. & Levi, A. (2005). *Introduction to Rubrics: An assessment tool to save grading time, convey effective feedback and promote student learning*. Sterling, VA: Stylus Publishing.

Walvoord, B.E., & Anderson, V.J. (2010). *Effective Grading: A Tool for Learning and Assessment in College* (2nd Ed.). San Francisco, CA: Jossey-Bass.

FIGURE 4: TALLIED SCORES

Student	Position	Argument and evidence	Counter-arguments	Rejoinder	Total
Aidan	12	11	8	8	66
Benjamin	15	11	10	8	73
David	12	12	10	10	76
Don	15	15	14	14	101
Doug	15	15	0	0	45
Ellen	14	13	15	13	96
Eva	12	11	8	8	66
Grace	8	10	8	8	60
Gretchen	15	15	14	15	103
Jennifer	15	15	14	14	101
Maggie	12	12	10	12	80
Maxwell	12	12	10	12	80
Peter	14	14	14	14	98
Virginia	12	15	15	12	96
% students					
Unsatisfactory	0	0	7.1	7.1	
Emerging (<10)	7.1	0.0	21.4	28.6	
Satisfactory (10-14)	57.1	64.3	57.1	57.1	
Exemplary		35.7	35.7	14.3	7.1

Many faculty use checklists or other scoring devices, like those illustrated here, to speed grading. Such lists are relatively easy to compile and can make scoring student work quick and consistent. For me, the shortcomings of these devices quickly became clear.

When presented with checklists (like Figure X), students focus on whether or not they have nominally satisfied the requirements, without regard for the quality of the work.

The form in Figure Y lets students know that there are gradations of quality but provides no information about what distinguishes levels of performance. Rubrics, for students, are intended to satisfy that need.

FIGURE X
A SIMPLE GRADING CHECKLIST

- Begins on page 3
- Starts with the title
- Tells the reader why study was performed
- Starts out broad and becomes specific
- Includes hypotheses and rationale for them

FIGURE Y
A MORE SOPHISTICATED GRADING CHECKLIST

Rating (Circle One)

5=Excellent 3=Average 1=Deficient

CONTENT

1. The speaker's purpose was clear.
1 2 3 4 5
2. The material was presented in a logical, easy-to-follow sequence.
1 2 3 4 5
3. The background material was appropriate, not excessive, and helped your comprehension of the research question.
1 2 3 4 5
4. The presentation facilitated data comprehension.
1 2 3 4 5
5. The speaker used enough data from original research to back up his/her points.
1 2 3 4 5
6. The statistical interpretation of the data was clear and correct.
1 2 3 4 5
7. The discussion of the data brought out important issues.
1 2 3 4 5