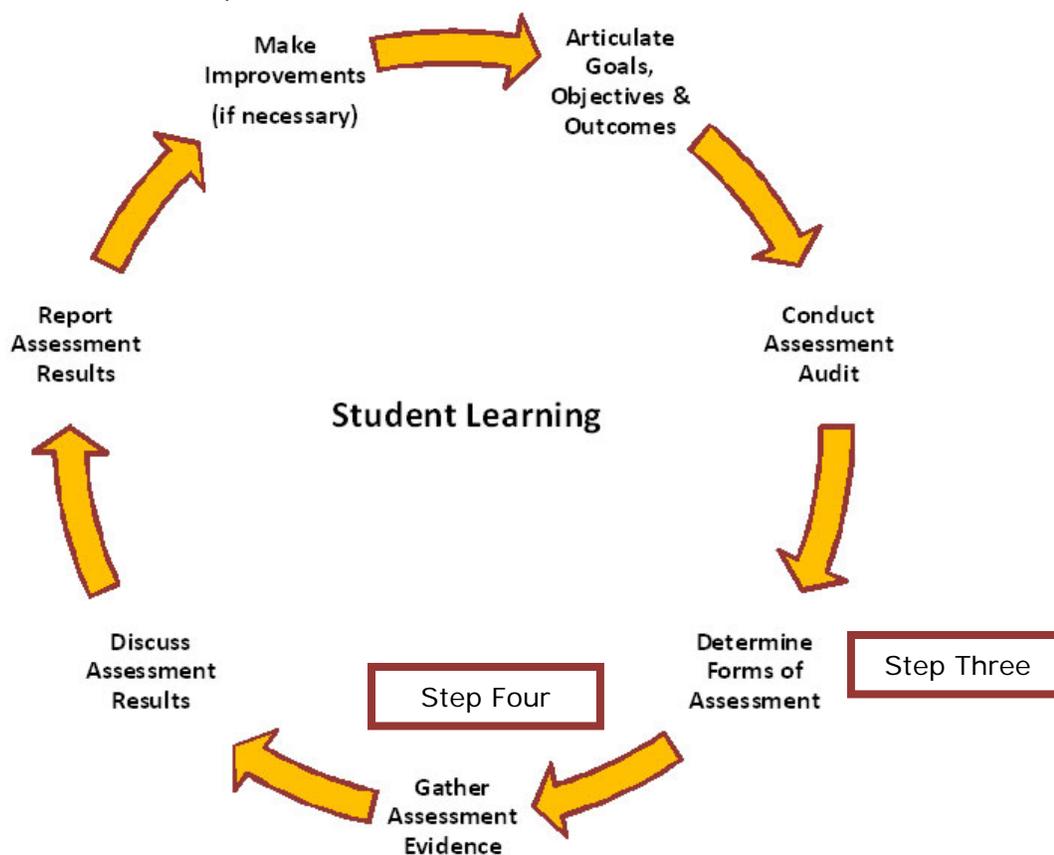


## Outcomes Assessment Essentials: Rubrics, A Course-Embedded Tool

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Course-embedded tools provide direct measures of student learning; these tools are discussed in more detail in [Outcomes Assessment Essentials No. 2: Types of Outcomes Assessment Measures](#). One course-embedded measure is a rubric. Rubrics can be used in two ways: (1) to assess individual assignments, projects, etc and (2) communicate professional judgment in the form of numeric data defined by criteria or descriptors. Deciding upon and using rubrics as one of your program's assessment tools are steps three and four of the assessment process.



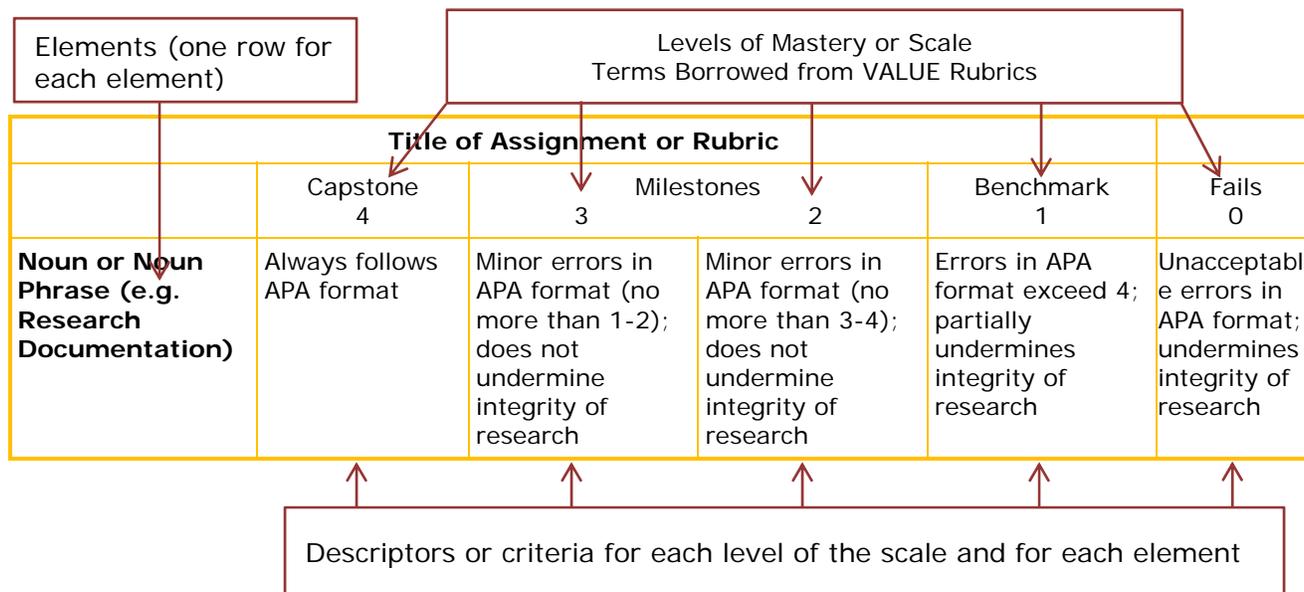
### Rubric Essentials

**Definitions of a rubric:** "a scoring tool that lays out the specific expectations for an assignment;" "a format in which the traits of the student's work are separately

named, and each trait is evaluated according to a scale from high to low;" "articulates in writing the various criteria and standards that a faculty member uses to evaluate student work. It transforms informal professional judgment into numerical ratings on a scale."<sup>1</sup> You may encounter a variety of rubrics, including holistic and checklists, yet the most effective for outcomes assessment are criteria-based or performance-level rubrics (e.g. the VALUE

<sup>1</sup> Dannelle D. Stevens and Antonia J. Levi, *Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback, and Promote Student Learning* (Sterling, Virginia: Stylus, 2005), 3; Barbara E. Walvoord and Virginia Johnson Anderson, *Effective Grading: A Tool for Learning and Assessment in College*, 2<sup>nd</sup> ed (San Francisco: Jossey-Bass, 2010), 39; Barbara E. Walvoord, *Assessment Clear and Simple* (San Francisco: Jossey-Bass, 2004), 19.

rubrics). Rubrics with criteria are often organized into tables. Not surprisingly, the terminology for different parts of the rubric can vary. So to create a common vocabulary, here are essential terms used throughout this essay.



### Course and Assignment Grades and the Challenge of Outcomes Assessment

Accrediting bodies and outcomes assessment experts point out that course or assignment grades in isolation provide insufficient information about student learning. If you report that 10% of

students earned As; 31% earned Bs; 44% earned Cs; 10% earned Ds and 5% failed the course or the assignment, within your department and your discipline, you may know what criteria had to be met to achieve these grades, but outsiders will not. Why? In isolation, these grades are not linked to "specific content or skill;" they are not "... tangible, visible, self-explanatory, and compelling evidence of what exactly students have or have not learned."<sup>2</sup> Looking from the outside in, and more "stakeholders" are scrutinizing education, what professional standards did students have to meet to earn an A? How does that compare to the student who earned a C? While I wish that my professional judgment, as manifest in the grades students earn and the degrees conferred, would prove that I am fulfilling the mission of higher education, the reality is accrediting bodies and other stakeholders no longer find this acceptable. However, individual assignment grades, when linked to criteria-based rubrics, are direct measures of student learning. They are accepted by BU's accrediting body, the Middle States Commission on Higher Education.

**Middle States Commission on Higher Education:** "...grades have been, and will continue to be, an excellent indicator of student learning *if they are appropriately linked to learning goals*. The Commission recognizes that grades are an effective measure of student achievement if there is a demonstrable relationship between the goals and objectives for student learning and the particular bases (such as assignments and examinations) upon which student achievement is evaluated (Standard 14). In and of

<sup>2</sup> Middle States Commission on Higher Education, *Student Learning Assessment: Options and Resources*, 2<sup>nd</sup> ed., (Philadelphia, 2007), 35; Linda Suskie, *Assessing Student Learning: A Common Sense Guide*, 2<sup>nd</sup> ed. (San Francisco: Jossey-Bass, 2009), 20

themselves, however, grades are not direct evidence of student learning. That is, a numeric or a letter grade alone does not express the *content* of what students have learned; it reflects only the degree to which the student is perceived to have learned in a specific context.”<sup>3</sup>

### Will using rubrics for outcomes assessment require more work from faculty?

Initially, the development of rubrics takes additional time, but there are advantages for you and your students which makes this course-embedded tool worth adopting.

#### Advantages

**Are there any advantages for faculty to use rubrics for outcomes assessment?** Yes, if you accept that outcomes assessment is here to stay and believe that faculty should control how it is accomplished. What

is more, rubrics provide advantages to teaching and learning:

1. Rubrics can make grading more efficient and consistent. Still, initially creating rubrics can be time-consuming, but they are worth the effort.
2. If you already grade student work with rubrics, then using these tools to report outcomes becomes much easier.
3. If effectively-worded rubrics are distributed in advance of an assignment, students welcome clearly articulated expectations. Indeed, rubrics may encourage students to take responsibility for their work by making professional standards clear.
4. Dannelle D. Stevens and Antonia J. Levi, authors of *Introduction to Rubrics*, suggest that rubrics “level the playing field” for first generation or under-prepared students. They write, “we may assume that students will be able to figure [assignments] out ‘on their own.’” If they cannot, then some faculty may conclude these students should not be in university; it’s part of the winnowing out process. However, those students who did figure it out, even if they struggled to make sense of vaguely worded assignments and unarticulated expectations, probably never did so “‘on their own.’” Most likely, Stevens and Levi argue, they came from “privileged upbringing or education” or their college-educated parents socialized them to succeed. The reality is our student population is changing, and we are encountering more under-prepared students in the classroom. As Stevens and Levi declare, “Pretending all students are starting from the same point does not assure equity in the classroom; it simply privileges those who were privileged already.”<sup>4</sup> Thus, assignment guidelines combined with rubrics distributed in advance that accurately define expectations, professional standards, and academic language may improve student learning.

**Rubrics are not limited to grading individual assignments.** They may also be used to communicate to what extent professional standards have been achieved by students in a program. For example, in order for a course to qualify for general education points, faculty must link course-level student learning objectives (SLOs) to at least one element of the AACU VALUE rubrics. They may need to adopt, revise, or create VALUE rubric criteria or descriptors to communicate accurately the levels of achievement. In this instance, rubrics are being used to report outcomes, not necessarily being used to grade individual assignments.

### Using Rubrics to Make Professional Standards Clear

#### Sample from Inquiry and Analysis VALUE Rubric

Element	Capstone	Milestones	Benchmark	Fails
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<sup>3</sup> *Student Learning Assessment*, 36-37.

<sup>4</sup> Stevens and Levi, 27-28.

	4	3	2	1	0
<b>Existing Knowledge, Research, and/or Views</b>	Synthesizes in-depth information from relevant sources representing various points of view/approaches.	Presents in-depth information from relevant sources representing various points of view/approaches.	Presents information from relevant sources representing limited points of view/approaches.	Presents information from irrelevant sources representing limited points of view/approaches.	Fails to meet minimum standards

This rubric element, if it is one of the SLOs being assessed for general education or the program, is referenced when departments report the percentage of students who achieved Capstone, Milestones 3 and 2, Benchmark, and Failed. In addition, we provide supporting evidence that might include a combination of course-embedded assessment items. For example:

1. aggregated subscores on test items that have been linked to a student learning objective through test blueprinting; and
2. the distribution of scores students earned on individual assignments that have been linked to student learning objectives through rubrics which would be accompanied by student samples for each level.

Barbara Walvoord, author of *Assessment: Clear and Simple* and *Effective Grading*, summarizes: "A rubric articulates in writing the various criteria and standards that a faculty member uses to evaluate student work. It transforms informal professional judgment into numerical ratings on a scale." She acknowledges that when qualitative data gets transformed into numbers "something is always lost in translation, but the advantage is that these ratings can now be communicated and compared."<sup>5</sup>



1. Select an assignment and determine your student learning objectives (SLOs). If you are creating a rubric to report program outcomes, and not explicitly for grading, then list the student learning objectives that your department plans to assess. **Tip 1:** Before writing elements or criteria, review your assignment critically; take notes on what and why you are asking your students to do. **Tip 2:** Consult your professional organization for language. **Tip 3:** Countless rubrics are available on the internet; in Google, limit the search domain to .edu and combine rubric with the type of assignment (e.g. presentation, essay, etc).
2. Identify elements that you expect to grade or assess by drawing from assignment guidelines and course, department, or program SLOs. Formulate these as nouns or noun phrases. For example, the VALUE Rubric for Inquiry and Analysis lists the following elements as nouns or noun phrases in column 1: Topic Selection; Existing Knowledge, Research and/or Views; Design Process; Analysis; Conclusions; Limitations and Implications.
3. Determine what scale or levels of mastery you intend to adopt. Barbara Walvoord recommends that faculty use a four-level scale to avoid middle drift that will more likely occur with a five-level scale, especially when multiple faculty are using the rubric.

<b>Terminology for Levels of Mastery or Scale</b>			
Capstone 4 <sup>6</sup>	Milestone 3	Milestone 2	Benchmark 1
Exemplary	Accomplished	Developing	Beginning
Excellent	Very Good	Average	Fair
Distinguished	Proficient	Apprentice	Novice

<sup>5</sup> Barbara Walvoord, *Assessment: Clear and Simple*, 19.

<sup>6</sup> <http://www.aacu.org/value/rubrics/pdf/InquiryAnalysis.pdf>

4. Determine if those scales will be assigned point values or be weighted. Keep in mind that rubrics can be used “as a guide, not a calculator.”<sup>7</sup>
5. Write criteria or descriptors for the different levels of mastery or scale.
  - a. If you are a novice at creating a rubric, you may want to start with only a three-level scale. However, the VALUE rubrics are a 4 + 1 – level scale. Four levels are listed with the recommendation that 0 be used when students fail to meet minimum standards.
  - b. **Work from the outside in:** write descriptors or criteria for highest and lowest levels of achievement then work your way towards the center of the scale. By the way, writing criteria is the most intellectually challenging aspect of creating rubrics. We know what good work looks like but to explain it to our students, who are novices in our disciplines, and to outsiders is difficult.
  - c. Notice the **differences in word choice** between the different scales for the Analysis element.<sup>8</sup> In addition, action verbs from Bloom’s taxonomy are incorporated.

	Capstone 4	Milestone 3                      2		Benchmark 1	Fails 0
Analysis	<b>Organizes and synthesizes</b> evidence to reveal <b>insightful</b> patterns, differences, or similarities related to focus.	<b>Organizes</b> evidence to reveal <b>important</b> patterns, differences, or similarities related to focus.	<b>Organizes</b> evidence, <b>but</b> the organization is <b>not effective</b> in revealing important patterns, differences, or similarities.	<b>Lists</b> evidence, but it is <b>not organized</b> and/or is <b>unrelated</b> to focus.	<b>Fails</b> to meet minimum standards.

6. **Test out the rubric.** If you have student work from previous semesters, try out the rubric on a few samples to determine if the differences in scale are clearly articulated. Ask colleagues to review and critique.

For more details on creating rubrics, consult TALE’s Teaching Resources webpage → Rubrics. In addition, you can create rubrics within BOLT. For more information, consult the Instructional Media and Design Center.



### So how are rubrics used to report outcomes assessment?

Below is the most direct and simple model of how course-embedded outcomes assessment begins with the individual faculty member. The two direct measures of student learning referenced in this model are test blueprinting and rubrics, which are the most commonly used course-embedded assessment tools.

#### The Most Direct and Simple Model of Course-Embedded Outcomes Assessment<sup>9</sup>

##### Instructor:

- By the beginning of each semester, the instructor identifies assignments, projects, tests, etc that fulfill course student learning objectives & will be used by him/her for department course-embedded assessment.
- The instructor provides this information to the department at the beginning of the semester and indicates if s/he is using rubrics and/or test blueprinting.

<sup>7</sup> Walvoord and Anderson, 45.

<sup>8</sup> <http://www.aacu.org/value/rubrics/pdf/InquiryAnalysis.pdf>

<sup>9</sup> Adapted from Walvoord, *Assessment: Clear and Simple*, 13-18.



**Instructor:**

- The instructor develops the rubric criteria for projects, presentations, essays, etc and/or develops a test blueprint in the case of objective exams.
- If the course has multiple sections or is taught by multiple faculty, colleagues may want to work as a team to develop rubrics or blueprint tests. However, they do not have to use the same rubrics nor do they have to give the same tests. Each individual instructor identifies which test items and assignments will contribute to the department's assessment of student learning objectives (SLOs).
- If the course has received approval for general education points, the department, according to the General Education Guidelines, will have already developed a rubric to report results for outcomes assessment (i.e. the VALUE rubrics).



**Instructor:**

- The instructor evaluates individual assignments during the semester and submits final grades to the registrar.
- The instructor reports assignment grades linked to criteria-based rubrics and test blueprints to the department for program-level and general education outcomes assessment.
- The instructor uses the opportunity to reflect upon what the grades reveal about student learning and teaching effectiveness, and when relevant revises assignments, methodology, sequence of material, pedagogy, etc.



**Instructor:**

- In the case of multiple section offerings, faculty may use their own rubrics to grade essays, projects, etc and have their own test items, but they will need to "translate" their results into the tools the department has chosen for reporting outcomes.

**Example: Translating Course Results for your Department**

In History 126 (Western Civilizations II), one of the course SLOs for which the department is seeking general education credits: "Students will identify and distinguish between important historical developments and movements, events, and actors relevant to the regions and periods covered by this course." This learning objective is linked to the VALUE rubric Element Existing Knowledge (Inquiry and Analysis). Some history faculty will decide to assess this SLO by administering objective exams, others will ask students to write essays.

How can individual faculty "translate" their results into the rubric which the department has created for reporting outcomes?

- If the instructor chooses to measure the SLO by objective exams, then s/he would test blueprint. The test blueprint, which the faculty member would submit to the department, links test items to student learning objectives. Then, s/he would report on the percentage of students who got those test items correct as aggregate sub-scores.
- If the SLO was measured through an essay exam, then the faculty member would provide the rubric that s/he used to evaluate student work and report the percentage of students who reached capstone (4), milestones (3 & 2), benchmark (1), or failed (0). These are the scales provided by the VALUE rubrics.

- **An extra level of complexity and time may be necessary.**
  - If your department is evaluating student learning through essays, presentations, portfolios, research papers, capstone projects, etc., they need to consider the following question: **Do all faculty in the department agree upon what A, B, C, D-level work looks like?**

- To ensure “inter-rater reliability ... [that is] the probability that several faculty raters will score a particular student’s work in the same way,” faculty may want to consider the following approach:
  1. Generate a set of anonymous samples in order to discuss grading standards. Be sure to remove student names and identity of course instructors.
  2. Faculty who participate in the sampling should be teaching the course(s), though not necessarily in that semester, and additional department faculty may want to participate.
  3. Have each faculty member rate the samples using a common rubric, then gather and discuss the results. Have you arrived at considerable agreement? If not, use this as an opportunity to discuss the differences. The goal is to get everyone “on standard,” that is reach inter-rater reliability.
  4. Ensuring inter-rater reliability does add time to the process and some faculty may see this as an unnecessary burden but the results may stimulate valuable, intellectual discussion within your department about the standards of your profession. Still, course-embedded assessment can lose some of its appeal because scoring exceeds normal grading time.



#### Department:

- The department reports results annually through whatever means and format the university has developed (e.g. TracDat). For example, this particular SLO listed below is one of the History Department’s general education goals which will be assessed. We would then report aggregate scores in the forms of percentages for each level of the scale.

Related Value Rubric Element(s)	SLOs for Hist. 126	Capstone 4	Milestone 3	Milestone 2	Benchmark 1	0
Existing Knowledge (Inquiry and Analysis)	Students will identify and distinguish between important historical developments and movements, events, and actors relevant to the regions and periods covered by this course.	Identifies key historical characteristics regarding relevant people, events, movements, or developments in a consistently accurate manner.	Identifies key historical characteristics regarding relevant people, events, movements, or developments in a predominantly accurate manner.	Identifies key historical characteristics regarding relevant people, events, movements, or developments in a manner that is more often accurate than not.	Identifies key historical characteristics regarding relevant people, events, movements, or developments with minimal accuracy	

- The department discusses what the results reveal about student learning, teaching effectiveness, and curriculum and contemplate making revisions, if deemed necessary or within its control, depending upon their assessment.

#### Useful Web Sources:

- See chapter 3, “Evaluating Student Learning,” in Middle States Commission on Higher Education, *Student Learning Assessment: Options and Resources*, 2<sup>nd</sup> ed.
- [Teaching and Learning Enhancement \(TALE\) Center](#); see especially [Outcomes Assessment](#) web pages and [Teaching Resources](#) → Rubrics.

Written and sources gathered by L. M. Stallbaumer-Beishline, PhD  
Associate Professor of History  
TALE Director  
Bloomsburg University of Pennsylvania

