

Using Rubrics to Measure Student Learning Outcomes  
Nicole Luongo  
Associate Professor, School of Education

In today's world, most educational institutions are focused on maintaining and documenting their accountability and assessment measures. At Saint Peter's University (2015), assessment is "perceived as integral to the rhetorical tradition of teaching and learning, testing ideas and the evolution of knowledge" (para. 3), and defined as the "comprehensive and systematic process of gathering and analyzing information through multiple measures and methods for the intentional purpose of incorporating the results into the improvement of services and programs that achieve our mission" (para. 2). Moreover, much of the faculty and administration is committed to the dialogue of assessment as it renews the institution's Jesuit past, informs the current mission, and engages the university in its goal of service to all.

In order to meet various accreditation requirements and fulfill its mission, all Saint Peter's University instructors are asked to include a list of official Student Learning Outcomes (SLOs) in each course syllabus. According to the official Saint Peter's University Assessment Plan (2015), SLOs should engage University personnel who are in a position of assisting in the attainment of student outcomes. The SLOs should address a dialogue among students, faculty, and administrators to determine how well students are learning. Furthermore, the instructors are expected to explain how the SLOs involve students in the assessment process as well as how they will measure each outcome.

### ***Developing SLOs and Assessment Measures***

As I develop SLOs for each of my courses, I ask myself some important questions. Mainly, what do I want each student to be able to *do* as a result of taking this course? What action verb will describe the outcome, and how will I measure it? These questions lead me to the

development of my assessment measures. What assessment instrument will I use? Will I employ a test, a quiz, or require a product for each SLO? If I assign a product, how will I evaluate it? As you can see, each question leads to another one. Next, I ask myself where in the semester will the outcomes be addressed? How will I explain and evaluate each SLO? Following the Saint Peter's University Assessment guidelines (2015), I ask myself how will I engage the students in this process? What tools will I use to measure the outcomes? Many times, I find that I need to use a rubric to assess any SLOs that are indistinct and subjective.

### ***What is a Rubric?***

Since many of my SLOs cannot be numerically measured using tests or quizzes, I often choose to use a rubric as an assessment tool. A rubric is a scoring instrument used to assess subjective assignments (Brookhart, 2013; Brookhart & Nitko, 2008; Lepi, 2014). It is a set of criteria and standards linked to learning objectives that is used to assess a student's performance on papers, projects, speeches, and other assignments (Andrade, 1999). A rubric allows for standardized evaluation according to specified criteria, making grading simpler and more transparent. Brookhart and Nitko define a rubric as a “coherent set of rules to evaluate quality of a student’s performance (either trait-by-trait or as a whole), usually with descriptions of performance at each level” (p. 306). Professors can use rubrics to evaluate assignments such as papers, essays, and other projects.

Effective rubrics focus on measuring SLOs (Brookhart & Nitko, 2008), and use a defined range to rate performance. Often, rubrics contain specific performance characteristics arranged in levels indicating the degree to which a standard has been met. Instructors can use rubrics to develop structured, unbiased scoring procedures for projects, essays, and papers (Reynolds, Livingston, & Willson, 2009). Rubrics have the potential for helping a professor formatively

assess a student's performance by clearly establishing standards and quality expectations. They assist in customizing the student feedback: what a student has done well; what weaknesses exist; and how or what might be done to correct or improve the performance. Additionally, rubric use assists students in the fair and honest opportunity for self-assessment of their work and allows them the opportunity to set, monitor, and achieve their personal learning goals.

Above all, the main purpose of rubrics is to assess performances (Brookhart, 2013). For some performances, the professor observes the student in the process of doing something, such as exhibiting a presentation or reciting a poem. For other performances, the instructor examines the product that is the result of the student's work such as a completed paper or laboratory report. Rubrics can be used to clarify for the learner what qualities the work should have for the completed product. Therefore, students can use rubrics to focus on the SLO and criteria for success. According to Suskie (2009), rubrics can:

- clarify vague goals
- explain the teacher's expectations to students
- help students self-improve
- inspire better student performance
- make scoring easier and faster
- render scoring more accurate, unbiased, and consistent
- improve feedback to students, faculty, and staff
- reduce arguments with students

### ***Developing Rubrics***

Anyone can develop a rubric (Andrade, 1999; Brookhart & Nitko, 2008). An excellent idea is for a professor to develop and modify a rubric with his or her current students. First, the

professor must decide what assignment he or she wants to assess. This assignment should be directly linked to a course SLO. Then, the professor should have his students examine models of good versus “not-so-good” work. The professor could provide sample assignments of differing quality for students to review. Next, the group could list the criteria to be used in the rubric and discuss what counts as quality work. Andrade stressed that student feedback during this stage in the process allows for judgment of the students’ experiences. As the group decides on the levels of acceptable merit, the professor can start to develop the hierarchy of values. These categories should describe the levels of quality (ranging from unacceptable to excellent).

After a rubric is developed, Andrade (1999) suggested that the instructor have the students practice using the rubric on models. Essentially, this exercise will aid in testing the rubric’s reliability. Subsequently, the professor can ask for self and peer-assessment of the rubric. Afterward, the group can revise the rubric based on that feedback and try it again. This process can be repeated until the rubric seems acceptable to all. Finally, the professor can begin using the designed rubric to assess student work.

### ***Online Rubric Generators***

There are many websites that offer free tools to generate rubrics, which can help a professor measure SLOs (Lepi, 2014):

- **Rubistar** <http://rubistar.4teachers.org/index.php>: This is a free online rubric maker that offers rubric templates and pre-made rubrics for a variety of subjects. Personally, I use Rubistar to create most of the rubrics I use in my courses. After I develop the rubric using Rubistar, I cut and paste it into a Microsoft Word document. Then, I modify the rubric to meet my specific assessment needs.

- **eRubric Assistant** <http://emarkingassistant.com/compare-emarking-assistant-and-erubric-assistant-essay-marking-software/erubric-assistant-free-rubric-generator/>: This is free, downloadable software used to create automated grading rubrics in Microsoft Word. This software allows a teacher to input weighted assessment criteria in rows, and the performance standards with marks in columns. The software is available for Windows and Mac.
- **iRubric** <http://www.rcampus.com/indexrubric.cfm>: This free site offers rubric building tools, a gradebook, and a searchable database of pre-existing rubrics. It allows professors the option to work on a rubric from the gradebook, where rubric scores are automatically adjusted to the coursework grading scale and posted on the gradebook. Students get a copy of the scored rubric securely.
- **Rubrics4Teachers** <http://www.rubrics4teachers.com/>: This site offers many pre-made rubrics covering a wide variety of subjects that are available for use. Individuals can search by subject matter. There is a lot of free content on this site, which focuses on already-designed rubrics.
- **Teach-nology** [http://www.teach-nology.com/web\\_tools/rubrics/](http://www.teach-nology.com/web_tools/rubrics/): This site offers a variety of pre-made rubrics, rubric makers, and templates for all subject areas. Instructors can search by age level, subject matter, or keyword.

### ***Types of Rubrics: Analytic & Holistic***

The two main types of rubrics that professors can use are analytic rubrics and holistic rubrics (Brookhart, 2013; Brookhart & Nitko, 2008). An analytic rubric is a specific grading tool that looks like a table with the criteria for a student product listed in the first column and with levels of performance listed across the top row (DePaul University, 2014). Often, analytic rubrics contain numbers and descriptive tags. As seen in Figure 1, the professor can use numbers or

descriptors (“needs improvement”, “developing”, “sufficient”, “above average”) to evaluate student work. Furthermore, analytic rubrics provide specific advice to students “regarding the adequacy of their responses in different areas” (Reynolds, Livingston, & Willson, 2009, p. 227). This feedback can help students focus on their strengths and weaknesses when they modify the assignment or complete a future one.

Figure 1: Analytic Rubric: Paper Rubric

	<b>NEEDS IMPROVE-MENT (1)</b>	<b>DEVELOPING (2)</b>	<b>SUFFICIENT (3)</b>	<b>ABOVE AVERAGE (4)</b>
<b>Clarity (Thesis supported by relevant information and ideas.)</b>	The purpose of the student work is not well defined. Central ideas are not focused to support the thesis. Thoughts appear disconnected.	The central purpose of the student work is identified. Ideas are generally focused in a way that supports the thesis.	The central purpose of the student work is clear and ideas are almost always focused in a way that supports the thesis. Relevant details illustrate the author’s ideas.	The central purpose of the student work is clear and supporting ideas always are always well focused. Details are relevant, enrich the work.
<b>Organization (Sequencing of elements/ideas)</b>	Information and ideas are poorly sequenced (the author jumps around). The audience has difficulty following the thread of thought.	Information and ideas are presented in an order that the audience can follow with minimum difficulty.	Information and ideas are presented in a logical sequence, which is followed by the reader with little or no difficulty.	Information and ideas are presented in a logical sequence, which flows naturally and is engaging to the audience.
<b>Mechanics (Correctness of grammar and spelling)</b>	There are five or more misspellings and/or systematic grammatical errors per page or 8 or more in the entire document. The readability of the work is seriously hampered by errors.	There are no more than four misspellings and/or systematic grammatical errors per page or six or more in the entire document. Errors distract from the work.	There are no more than three misspellings and/or grammatical errors per page and no more than five in the entire document. The readability of the work is minimally interrupted by errors.	There are no more than two misspelled words or grammatical errors in the document.

A holistic rubric consists of a single scale with all criteria being considered as one score (DePaul University, 2014). Reynolds, Livingston, and Willson (2009) explained that a “teacher assigns a single score based on the overall quality of a student’s work” (p.227). In essence, most holistic rubrics are less detailed than analytic rubrics. Generally, holistic rubrics can be constructed more rapidly, and used in a quicker manner than analytic rubrics to assess student work (Miller, Linn, & Gronlund, 2009). The teacher matches an entire piece of student work to a single description on the scale. In Figure 2, the teacher would use this rubric to assign one score to a piece of writing based on the general comments for each number.



**Figure 2: Holistic Rubric: Paper Rubric**

4. Above Average: The audience is able to easily identify the focus of the work and is engaged by its clear focus and relevant details. Information is presented logically and naturally. There are no more than two mechanical errors or misspelled words to distract the reader.
3. Sufficient: The audience is easily able to identify the focus of the student work which is supported by relevant ideas and supporting details. Information is presented in a logical manner that is easily followed. There is minimal interruption to the work due to misspellings and/or mechanical errors.
2. Developing: The audience can identify the central purpose of the student work without little difficulty and supporting ideas are present and clear. The information is presented in an orderly fashion that can be followed with little difficulty. There are some misspellings and/or mechanical errors, but they do not seriously distract from the work.
1. Needs Improvement: The audience cannot clearly or easily identify the central ideas or purpose of the student work. Information is presented in a disorganized fashion causing the audience to have difficulty following the author's ideas. There are many misspellings and/or mechanical errors that negatively affect the audience's ability to read the work.

***Conclusion***

In conclusion, SLOs and rubrics should work together to make your life as a professor easier. As you develop each SLO, consider using a rubric as the assessment tool. A rubric can be used in such varied ways that it can really change the way a professor teaches and assesses. Since students know what to expect, the instructor can guide them easily to the intended outcome.

Rubrics can be used to assess almost any type of student work and SLO.



## References

- Andrade, H. G. (1996). *Understanding rubrics*. Retrieved March 27, 2014, from <http://learnweb.harvard.edu/ALPS/thinking/docs/rubricar.htm>
- Brookhart, S. (2013). *How to create and use rubrics for formative assessment and grading*. Alexandria, VA: Association for Supervision & Curriculum Development.
- Brookhart, S. M., & Nikto, A. J. (2008). *Assessment and grading in classrooms*. Upper Saddle River, NJ: Pearson.
- DePaul University. (2014). *Types of rubrics*. Retrieved March 28, 2014, from [http://teachingcommons.depaul.edu/Feedback\\_Grading/rubrics/types-of-rubrics.html](http://teachingcommons.depaul.edu/Feedback_Grading/rubrics/types-of-rubrics.html)
- Lepi, K. (2014). *6 online rubric makers worth trying*. Retrieved January 12, 2015, from <http://www.edudemic.com/online-rubric-makers/>
- Miller, M., Linn, R., & Gronlund, N. (2009). *Measurement and assessment in teaching* (10th ed.). Upper Saddle River, NJ: Pearson.
- Reynolds, C.R., Livingston, R. B., & Willson, V. (2009). *Measurement and assessment in education* (2nd ed.). Upper Saddle River, NJ: Pearson.
- Saint Peter's University (2015). *Assessment*. Retrieved January 7, 2015, from <http://www.saintpeters.edu/assessment/>
- Suskie, L. (2009). *Assessing student learning: A common sense guide*. (2nd ed.). San Francisco, CA: John Wiley & Sons, Inc.
- Walvoord, B. E. (2010). *Assessment clear and simple: A practical guide for institutions, departments and general education*. San Francisco, CA: Jossey-Bass.

