This paper discusses rubrics as models of evaluation within a constructivist learning environment. Reasons why rubrics are an appropriate way of evaluating assignments and aspects of importance that are addressed by rubrics are listed. Several World Wide Web sites to gain an understanding and knowledge base through which to further discuss rubrics as assessment and evaluative tools are described. These include Web sites that highlight rubrics for Web lessons, the National Teaching and Learning Forum, a draft rubric for evaluating WebQuests, a practice scoring guide for document-based questions, information about rubrics, a holistic crucial thinking scoring rubric, and a rubric construction set. Guidelines to consider when reviewing rubrics that have been located on the Web are suggested, and pointers that may be useful when developing rubrics are presented. Sample assignment rubrics and a rubric template are appended. (MES)
Title: Rubrics: Models of Evaluation Within a Constructivist Learning Environment

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Note:

This handout was previously presented during a Roundtable Discussion at the National Council of Teachers of English 2001 Spring Conference, from March 29-31, 2001, at the Birmingham-Jefferson Civic Center in Birmingham, Alabama. Following is the reference:

RUBRICS

Models of Evaluation Within a Constructivist Learning Environment

Evaluating learners is always a difficult aspect at any level of the educational process. But what of the evaluative methods within a digital age? As product-oriented assignments begin to become an important aspect of the learning process, what is the most appropriate way of evaluating the assignments? One answer is rubrics. Rubrics offer the learner and the instructor the ability to review the expectations of any assignment so that everyone has a clear understanding of the final product, as well as the expected grading criteria that will be in place for each assignment.

Following are a few answers to the question, “Why?”:

- Promote unanxious expectations
- Make grading criteria known to students
- Drive curriculum and pedagogy
- Reduce teacher subjectivity
- Ensure accountability
- Maintain focus on content and performance standards and student work

(http://www.servtech.com/~germaine/rubric.html, 1995, paragraph 1)

Assessment of student outcomes is an important aspect within a learning environment, for this reason, rubrics may address the following aspects of importance:

- comparison
- classification
- induction
- deduction
- identifying and describing errors in information or processes
- developing a well-articulated argument for a specific claim
As has been the case within courses I instruct, each assignment has an evaluative rubric attached and presented before the learner has begun developing the assignment. The rubric was presented to the learner at the outset of the assignment so that both the learner and the instructor knew exactly what was expected of them and the learner, basically, chose the final grade. What this means is that, within a product-oriented assignment environment, a rubric is the evaluative tool that guides the expectations for the assignment.

The importance of presenting the learner with the rubric as soon as the assignment is presented can not be understated. Both the assignment and the evaluation should be presented at the same time so that the clearly defined assignment and expectations are always available to the learner. If the assignment and rubric were not presented at the same time to the learner, how would the learner know what to develop for the assignment? How would the learner know what to include?
Striving to accomplish an assignment is a thoughtful, time-consuming, possibly tedious task for anyone; the availability of the rubric to the learner at the beginning of the assignment aids the learner in refining the product and orienting the product to include the desired content aspects, while still maintaining the freedom to develop a product-oriented assignment which reflects the learner's personality, style and knowledge.

Following are several Web sites that emphasize the development and use of rubrics within a learning environment. Please review the following Web sites to gain an understanding and knowledge base through which to further discuss rubrics as assessment and evaluative tools:

- **Rubrics for Web Lesson**
  
  http://edweb.sdsu.edu/triton/july/rubrics/Rubrics_for_Web_Lessons.html

  "The Rubric is an authentic assessment tool which is particularly useful in assessing criteria which are complex and subjective." This Web site describes the use of authentic assessment tools, the advantages of using a rubric, and the features of rubrics. It also provides seven examples of rubrics and guidelines to help you develop your own rubric.

- **National Teaching and Learning Forum**
  

  Explains and describes classroom assessment techniques (CAT). Examples include Minute Paper, Chain Notes, Memory Matrix, Directed Paraphrasing, One-Sentence Summary, Exam Evaluation, Application Cards, and Student-Generated Test Questions.

- **A Draft Rubric for Evaluating WebQuests**
  
  http://edweb.sdsu.edu/webquest/webquestrubric.html

  This site provides a sample rubric that can be applied to different teaching situations.
• Practice Scoring Guide for Document-Based Questions
  
  http://www.zuska.simplenet.com/rubric.htm

  This Web site serves as a guide for scoring document-based questions.

• Information About Rubrics
  
  http://www2.nau.eduHde7/ese502/assessment/rubrics.html

  The term "rubric" is defined as a ruler. Within the rubrics, various expectations are listed to determine the adequacy of your subject. The rubrics can allow the facilitator to respond properly and the audience to know what is expected of them, as well as their learning outcome.

• Holistic Critical Thinking Scoring Rubric
  
  http://www.calpress.com/rubric.html

  The Holistic Critical Thinking Scoring Rubric has been discussed at numerous critical thinking workshops and conference presentations. To facilitate multi-modal assessment projects of critical thinking in the curriculum, the California Academic Press is providing an on-line version of this rubric. Permission is granted to reproduce copies of the rubric for teaching assessment and research by students, faculty and administrators at public or non-profit educational institutions.

  This assessment device can be used in conjunction with objective tests to provide multiple measures of critical thinking performance. *As with all assessment devices reliability of measure is of great importance. Care should be taken to assure interrater reliability in the ratings being generated by faculty using the rubric to assess student groups.*

• Rubric Construction Set
  
  http://www.landmark-project.com/classweb/rubrics/

  Educational use of technology and global networks begs for a new type of learn, one that is not easily defined, categorized, or tested. The most successful form of assessment for
these project-based learning techniques are rubrics, with clearly defined objectives and expectations of performance. This tool is designed for teachers who are creating web-based learning experiences for their students, such as WebQuests and ClassWebs. Simply record your objectives and learning indicators, and the Rubric Construction Set will compose the HTML code that you can copy and paste into your education web page.

After reviewing the previously noted Web sites, a clearer understanding of rubrics as assessment/evaluative tools has developed. At this point in the exponential growth of the World Wide Web, numerous rubrics are being developed and offered to the public. Following are some guidelines to consider when reviewing rubrics that have been located on the Web:

- Decide whether the rubric addresses the most important aspects of student performance.
- Decide whether or not the rubric addresses the instructional outcome(s) to be measured.
- Decide whether the rubric includes anything extraneous. If so, change the rubric or use a different one.
- Don't pay too much attention to the rubric's stated grade level. It may be usable at other grades with little or no modification.
- See if a rubric from a different subject area can be adapted to fit your needs. Reading rubrics can often be used to assess listening, writing rubrics may be adapted to assess speaking, and fine arts rubrics can sometimes be applied to several different art forms.
- Make sure the rubric is clear.
- Use this criteria to evaluate the rubric.
- Try the rubric out on some actual samples of student work.
- See if you and your colleagues can usually arrive at consensus about what scores to assign a piece of student work.
- Feel free to combine or modify rubrics to make them work better.

(Chicago Public Schools, 2000, paragraph 1, Tips for Choosing Rubrics,
As a final note, a rubric is only as useful within an educational environment as it is well developed. The time and effort it takes to develop rubrics for use within a learning environment can be astronomical; therefore, the following list of pointers may be useful when developing rubrics:

1. Don't make task-specific rubrics;
2. Don't be excessively general;
3. Avoid dysfunctional detail;
4. Focus on a limited number of dimensions;
5. Use key, teachable criteria;
6. Use measurable criteria;
7. Select descriptors carefully;
8. Aim for four levels of performance;
9. Keep the 'distance' between levels equal; and,
10. Include students in creating or adapting the rubric.

Please note that the previous list of ten pointers that may be useful when developing rubrics have been captured from the following article:


Evaluating learners within a product-oriented environment can be difficult, especially in the digital age. However, a clear understanding of rubrics as assessment/evaluation tools is an important step towards clearly defining assignment expectations for both the learner and the instructor.
I. DOCUMENT IDENTIFICATION:

Title: Rubrics: Models of Evaluation Within a Constructivist Learning Environment

Authors: Caroline M. Crawford

Corporate Source: Not previously published

Publication Date: —

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