

Rubrics Validated to Program Outcomes and Course Outcomes

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Abstract: *As educational corporation's improvements closer to which include a number of strategies of e-learning in their program, one of the foremost systems which are being utilized in universities is the Education Management System. Every company can also have a unique set of necessities primarily based on the quantity of students, the assets and technical help available. Making a preference about which Learning Management System to use can be complex. In this paper, we have introduced a rubric which evaluates Education Management System in opposition to a set of weighted criteria, thereby enabling universities to make a desire on which Education Management machine to implement. Research on rubrics for assessing overall performance used to be initially searched on line in the Educational Resources Information Center (ERIC). The search for rubrics/educational rubrics/scoring rubrics gave hundreds of hits, which demonstrates that the phrase is embedded in the vocabulary of instructors and educators. The rubric appears to be a trendy in the Learning method, and at gaining knowledge of conferences, which is viewed by way of the physique of literature that has accrued in the previous time on design, structure, logic, and use of rubrics as a device for evaluation of performance. Several advantages of the usage of scoring rubrics in overall performance assessments have been projected, such as elevated reliability of scoring, the possibility to facilitate valid judgment of complex capabilities, and raise of learning.*

Keywords: Educational Resources Information Center, Learning Management System, Rubrics

I. INTRODUCTION

Rubric is an assessment tool to save time, convey actual feedback and promote learner education. Rubrics are not an assessment alone but also a teaching and learning tool. It is a way of organizing standards to systematically determine if an outcome is met based on data gathered through reflection papers, remark, document analysis, or some other applicable method. Rubrics are useful because they support to:

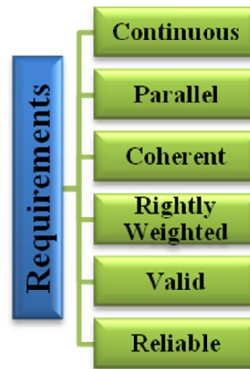
Sr. No	Use of Rubrics
1	Focus instruction on the most important outcomes
2	Provide problem-solving formative feedback so students can improve.
3	Communicate explicit expectations to students at the time an assignment is given
4	Communicative how scoring is determined; provide a rationale for grading accountability
5	Produce more consistent and reliable grading
6	Accessing the student's work efficient, consistent, objective and quick
7	Encouraging students to think about their own thinking and possibly about their own criteria for what is "good" to analyze their own work and process to see how it matches up with the standard explained in the rubric

In this paper we describe a rubric that has developed to consider Education Management System. A set of standards have been identified and classified. We have chosen the standards as per necessities from school contributors and corporates we have interacted with, and based totally on an evaluation of literature in [5], [6] and [7]. The standards chosen have a direct or oblique affect on the students' getting to know experience; A "Weight" component is assigned to every criterion and is noted in opposition to every criterion. We have supplied a pattern cost for the weight however this can be modified as per the wishes of the organization. The ranking assigned is based totally on the 5 factors with emphasis on each the

wonderful and terrible aspects. Each Education Management System evaluated secures a rating between 0-4 for every standards primarily based on whether or not the necessities are met.

1.1 Technical Requirements of Rubrics

1. Continuous: The change in quality from score point to score point must be „equal“, the degree of difference a 5 and 4 should be same as between 2 and 1. The descriptors should reflect this continuity.
2. Parallel: Each descriptor should be constructed parallel to all others, in terms of critical language used in each sentence.
3. Coherent: The rubric must focus on the same criteria throughout. While the descriptor for each point on the scale will be different from the ones before and after, the changes should refer to the variance of quality for the criteria.
4. Rightly Weighted: With multiple rubrics there must be a right, not arbitrary weighting of each criterion in reference to others.
5. Valid: The rubrics permits valid interferences about the performance to the degree that what is scored is what are central to performance, not what is merely easy to see and score.
6. Reliable: The rubrics enables consistent scoring across judges and time .Rubric allows reliable scoring to degree that evaluative language and comparative language is transferred into highly descriptive language which helps judges recognize the salient and distinctive features of each level of performance



II. TYPES OF RUBRICS

Analytic	<ul style="list-style-type: none"> • Categorizes levels of performance by traits/parts
Holistic	<ul style="list-style-type: none"> • Categorizes levels of performance as a whole
Generic	<ul style="list-style-type: none"> • Describes a general performance • Reading Responses • Critical Thinking • Class Participation
Task-specific	<ul style="list-style-type: none"> • Describes a performance specific to a single task • Essay on a specific topic, such as a book or film • Portfolio

2.1 Analytic

Analytic rubrics articulate tiers of overall performance for every standards used to get admission to scholar learning. It offers beneficial comments on areas of energy and weaknesses. The criterion can be weighted to mirror the relative significance of every dimension. It divides a product or overall performance into necessities qualities or domains so that every can be judged separately. When to use analytic rubrics various schools are at the same time having access to pupil work. Description promotes regular scoring. Outside target market will be analyzing rubrics scores. Substantial comments to college students or school is desired. Profiles of unique strength/weaknesses are desired.

Template for Analytic Rubric

Criteria	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Crit. #1	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	
Crit. #2	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	
Crit. #3	Description reflecting beginning level of performance	Description reflecting movement toward mastery level of performance	Description reflecting achievement of mastery level of performance	Description reflecting highest level of performance	

2.2 Holistic

Holistic rubrics have a tendency to be used when a speedy or gross judgment wishes to be made. Often first-rate for formative assessments (homework assignments) to shortly evaluate scholar work. It can be used the place it is hard to consider overall performance on one criterion independently of overall performance on a distinct criterion. Ex. Writing Rubric, Art Rubric.

Template for Holistic Rubric

Score	Description
5	Demonstrate complete understanding of the problem.
4	Demonstrate considerable understanding of the problem.
3	Demonstrate partial understanding of the problem.
2	Demonstrate little understanding of the problem.
1	Demonstrate no understanding of the problem
0	No response /task not attempted

2.3 Generic

It contains criteria that are general across tasks and can be used for similar tasks or performances. Criteria are assessed separately, as in an analytical rubric.

- “[Use] when students will not all be doing exactly the same task; when students have a choice as to what evidence will be chosen to show competence on a particular skill or product.
- [Use] when instructors are trying to judge consistently in different course sections”

2.4 Task-specific

Task Specific rubrics are useful for grading student work intended to access recall and comprehension of a body of knowledge-remembering and understanding facts and concepts. Unique criteria are assessed separately. However, it may not be possible to account for each and every criterion involved in a particular task which could overlook a student’s unique solution.

- “It’s easier and faster to get consistent scoring
- [Use] in large-scale and “high-stakes” contexts, such as state-level accountability assessments
- [Use when] you want to know whether students know particular facts, equations, methods, or procedures” [1].

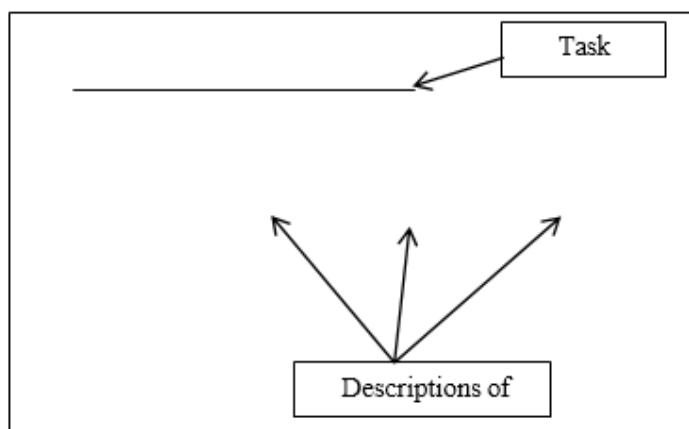
III. STAGES IN RUBRICS CONSTRUCTION

There are many important decisions to be made in rubric construction

- The criteria to be used in accessing performance.

- How many rubrics will be used
- How fine discrimination needs to be made (i.e. how many different points on the scale there will be).
- How different criteria will be weighted relative to other criteria (if there are separate rubrics for various criteria).
- What point on the scale will be cut score (i.e. difference between passing and failing the task).
- Which standard will anchor the rubric

3.1 Format for Rubric Creation



	Scale Level 1	Scale Level 2	Scale Level 3
Dimension 1			
Dimension 2			
Dimension 3			

3.2 Task Description

- Involves a performance of some sort by the student.
- The task can take the form of a specific assignment; e.g., a paper, a poster, a presentation
- The task can take the form of overall behavior; e.g., participation, use of proper lab protocols, Behavioral expectations in the classroom.

A. Scale

- Positive terms which may be used: “Mastery”, “Partial Mastery”, “Progressing”, “Emerging”
- Nonjudgmental or noncompetitive language: “High level”, “Middle level”, “Beginning level”
- Commonly used labels:
 - Sophisticated, competent, partly competent, not yet competent
 - Exemplary, proficient, marginal, unacceptable
 - Advanced, intermediate high, intermediate, novice
 - Distinguished, proficient, intermediate, novice
 - Accomplished, average, developing. Beginning
- 3-5 levels are typically used
 - the more levels there are, the more difficult it becomes to differentiate between them and to Articulate precisely why one student’s work falls into the scale level it does
 - but, more specific levels make the task clearer for the student and they reduce the Professor’s time needed to furnish detailed grading notes.

B. Dimensions

- Lay out the parts of the task simply and completely
- Should actually represent the type of component skills students must combine in a successful scholarly work
- Breaking up the assignment into its distinct dimensions leads to a kind of task analysis with the Components of the task clearly identified.

C. Description of the Dimensions

- A rubric should contain at the very least a description or the highest level of performance in that dimension.
- Scoring Guide Rubric = a rubric that contains only the description of the highest level of performance.

IV. LIMITATIONS OF RUBRICS

While well-designed rubrics make the evaluation process more usable and consistent, their real importance lies in advancing the teaching and learning process. But it doesn't mean that the assessment task is simple. The best rubrics allow teachers and educators to appeal on their qualified knowledge and to use that qualified knowledge in ways that the rating process doesn't fall victim to personality variations or limitations of human information processing.

- A serious issue with rubrics, however, is how long it takes to create them, especially writing the descriptions of performances at each level. With that in mind, rubrics should be developed for only the most important and complex assignments.
- Another challenge with rubrics is that if poorly designed they can actually diminish the learning process. Rubrics can act as a straitjacket, preventing creations other than those envisioned by the rubric-maker from unfolding. ("If it is not on the rubric, it must not be important or possible.")
- The challenge then is to create a rubric that makes clear what is valued in the performance or product without constraining or diminishing them. On the other hand, the problem with having no rubric, or one that is so broad that it is meaningless, is to risk having an evaluation process that is based on individual whimsy or worse unrecognized prejudices.

V. CONCLUSION

Grading rubrics are effective and competent tools which allow for objective and reliable evaluation of a range of performances, assignments, and activities. Rubrics can help clarify your anticipations and will show students how to meet them, making students accountable for their performance in an easy-to-follow format. The feedback that students receive through a grading rubric can help them improve their performance on revised or subsequent work. Rubrics can help to rationalize grades when students ask about your method of assessment. Rubrics also allow for consistency in grading for those who team teach the same course, for Task Assignments as assigned to the task of grading, and serve as good documentation for accreditation purposes.

REFERENCES

- [1]. Arter, J., &McTighe, J. (2001). Scoring rubrics in the classroom: Using performance criteria for assessing and improving student performance. Thousand Oaks, CA: Corwin Press, Inc.
- [2]. Stevens, D. D., & Levi, A. J. (2005). Introduction to rubrics: An assessment tool to save grading time, conveys effective feedback, and promote student learning. Sterling, VA: Stylus.
- [3]. Hagen, Kim, and Diana Hibbert "Developing a learning Management System based on the IMS Learning Design Specification" Advanced Learning Technologies ,2006.Sixth International Conference on IEEE,2006
- [4]. Aydin,CansuCigdem and G. Trikes "Open Source learning Management System in e-learning and moodle" Education Engineering (EDUCON),2010 IEEE .IEEE 2010.
- [5]. Kumar, Sheo,Anil Kumar Gankotiya and KamleshDutta ,"A Comparitive study of moodle with other e-learning Systems. "Electronics Computer Technology (ICECT),2011 3rd International Conference on Vol.5 .IEEE 2011.
- [6]. Niall Slater,Web 2.0,Personal Learning Environments s ,and the future of Learning Management Systems (Research Bulletin 13,2008) (Boulder ,CO:EDUCAUSE Center for Applied Research ,2008)

- [7]. Brown, G. T. L., Glasswell, K., & Harland, D. (2004). Accuracy in the scoring of writing: Studies of reliability and validity using a new Zealand writing assessment system. *Assessing Writing*, 9, 105–121.
- [8]. Flowers, C. P., & Hancock, D. R. (2003). An interview protocol and scoring rubric for evaluating teacher performance. *Assessment in Education: Principles, Policy and Practice*, 10, 161–168.
- [9]. Osana, H. P., & Seymour, J. R. (2004). Critical thinking in preservice teachers: A rubric for evaluating argumentation and statistical reasoning.
- [10]. Educational Research and Evaluation, 10, 473–498 Penny, J., Johnson, R. L., & Gordon, B. (2000a). The effect of rating augmentation on inter-rater reliability: An empirical study of a holistic rubric. *Assessing Writing*, 7, 143–164.