Rubrics 101: A Tool to Assess Learning

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Session Outcomes

- 1. Participants will be able to define the term 'rubric.'
- 2. Participants will be able to describe the types and styles of rubrics.
- 3. Participants will be able to articulate how rubrics can be used to measure learning/development outcomes.
- 4. Participants will be able to articulate how data from rubrics can be used to make decisions.

Rubric: Definition and Purpose

Rubric: "a scoring tool that lays out the specific expectations for an assignment" (Stevens & Levi, 2005, p. 3)

It is a way of organizing criteria to systematically determine if the outcome is met based on data gathered through papers, observation, document analysis, or some other appropriate method.

Rubric: Types

- ***** Types of Rubrics:
 - Analytic (specific feedback along several dimensions)
 - Holistic (single score)
 - General (criteria is general across tasks)
 - Task Specific (unique to a task)

From: http://its.monmouth.edu/facultyresourcecenter/rubrics.htm April 11, 2007

Developing a Rubric

Note** You would have already determined the outcome(s) to be measured and the best method of collecting data such as observation, case study, reflection paper, etc.

Adapted from Stevens, D.D., & Levi, A.J. (2005). <u>Introduction to Rubrics.</u> Stylus Publishing, LLC Sterling, VA.

Part One:

- ** Carefully determine the implementation of the method for gathering the information.
 - Who: Population or sample?
 - When: End of the program/semester or on-going?
 - **How: Reflection questions, journals, observations, etc: Carefully consider questions asked or tasks to be performed

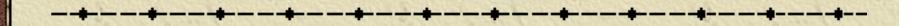
Part Two:

Determine the dimensions of the rubric: what do you want to measure more specifically? The dimensions are the criteria for your outcome.

Some examples:

- * Leadership: communication, decision making, motivation, etc.
- * Sportsmanship: cooperate with officials, remain calm when interacting with opposite team, no foul language, etc.
- * Active Listening Skills: Sits leaning slightly forward, makes eye contact, nods, asks open ended questions, etc.
- * Problem Solving Skills: Identifies the problem, identifies the available options, able to recognize the consequences for each option, etc.

Dimensions



	Scale Level 1	Scale Level 2	Scale Level 3	Scale Level 4
Dimension 1				
Dimension 2				
Dimension 3				

Stevens, D.D., & Levi, A.J. (2005). Introduction to Rubrics. Stylus Publishing, LLC Sterling, VA.

Part Three: Scales

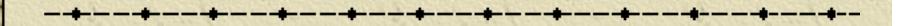
Determine the size of the scale to be used and the appropriate labels based on the criteria

Yes/no check list or scale of 3-5 (although some recommend even numbers)

Some examples (Style)

- * Yes, No
- * Beginner, Intermediate, Advanced
- * Exemplary, Accomplished, Developing, Beginning
- # High mastery, Average mastery, Low Mastery

Scales



Stevens, D.D., & Levi, A.J. (2005). Introduction to Rubrics. Stylus Publishing, LLC Sterling, VA.

Part Four:

- ** Describe each dimension in some detail and/or....
- ** Describe what it should look like based on each of the levels of the scale you have chosen.

Sample Group Project Rubric

Collaborative Work Skills: Group Project

		_	
Teacher	Name:	Dr	Filing
. oaciici	· ·		9

Student Name:

CATEGORY	4	3	2	1
Preparedness	Brings needed	Almost always brings	Almost always brings	Often forgets needed
	materials to class	needed materials to	needed materials but	materials or is rarely
	and is always ready	class and is ready to	sometimes needs to	ready to get to work.
	to work.	work.	settle down and get	
			to work	
A delication of the second				06
Attitude	Never is publicly	Rarely is publicly	Occasionally is	Often is publicly
	critical of the project	critical of the project	publicly critical of the	critical of the project
	or the work of others.	or the work of others.	project or the work of	or the work of other
	Always has a positive			members of the
STATE OF THE PARTY	attitude about the	attitude about the	group. Usually has a	group. Often has a
	task(s).	task(s).	positive attitude	negative attitude
Working with Others	Almost always	Usually listens to,	Often listens to,	Rarely listens to,
	listens to, shares	shares, with, and	shares with, and	shares with, and
	with, and supports		supports the efforts of	
STATE OF THE PARTY	the efforts of others.	others. Does not	others, but	others. Often is not a
	Tries to keep people	cause "waves" in the	sometimes is not a	good team player.
Secretary of the second second	working well together.		good team member.	
Focus on the task	Consistently stays		Focuses on the task	Rarely focuses on
	focused on the task		and what needs to be	
SECTION OF	and what needs to be	Solid State of the Control of the Solid State of the Control of th	done some of the	needs to be done.
Constant of the second	done. Very self-	time. Other group	time. Other group	Lets others do the
STEED STEED STEED STEED	directed.	members can count	members must	work.
Additional and the state of the	THE RESERVE OF THE PARTY OF THE	on this person.	sometimes nag,	
Monitors Group	Routinely monitors	Routinely monitors	Occasionally	Rarely monitors the
Effectiveness	the effectiveness of	the effectiveness of	monitors the	effectiveness of the
	the group, and	the group and works	effectiveness of the	group and does not
	makes suggestions	to make the group	group and works to	work to make it more
	to make it more	more effective.	make the group more	effective.
	effective.		effective.	
Quality of Work	Provides work of the	Provides high quality	Provides work that	Provides work that
CONTRACTOR SANCTOR	highest quality.	work.	occasionally needs	usually needs to be
STEED STEED STEED STEED	STATE STATE OF THE		to be checked/redone	
全心自己的是不是不够明白的			by other group	others to ensure
		THE PARTY OF THE PARTY OF	members to ensure	quality.
0.000	在是自己的自己的证明	The state of the s	quality.	

Review the Entire Process

- **Once you have all the 'Parts,' review the entire process from the beginning:
 Outcome, method and questions/situation, dimensions, scale and descriptions.
- *Will you be able to gather the necessary data to determine where they fit on the scale for each dimension?

Testing Your Rubric

- ** Use a Metarubric to review your work (see pg. 94 of Stevens and Levi [2005] for example)
- ** Peer review- ask one of your peers to review the rubric and provide feedback on content
- * Student review-ask a student to do so as well if appropriate
- ** Test with students use student work or observations to test the rubric
- * Revise as needed
- * Test again
- * Multiple raters norm with other raters if appropriate

Scoring

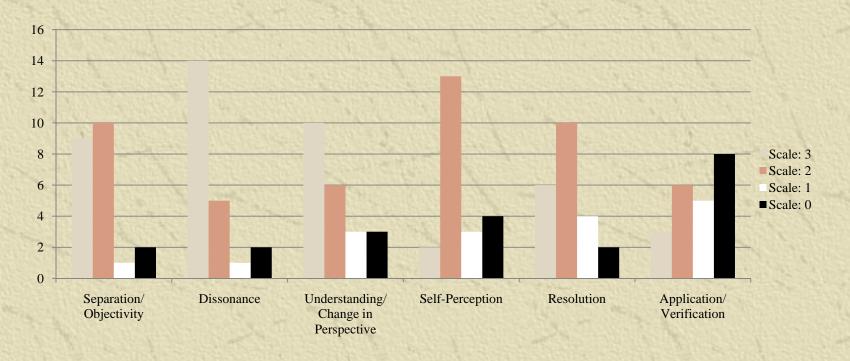
- * Individual vs. Aggregate Scores
- * Average Score By Dimension and Total
 - Total Score: Total scores may be reviewed to get a big picture
 - Dimension: Dimension scores to look for patterns
- * Frequency Distributions
 - Scale: Frequencies by scale to get a clearer understanding of the data

Scoring the Data

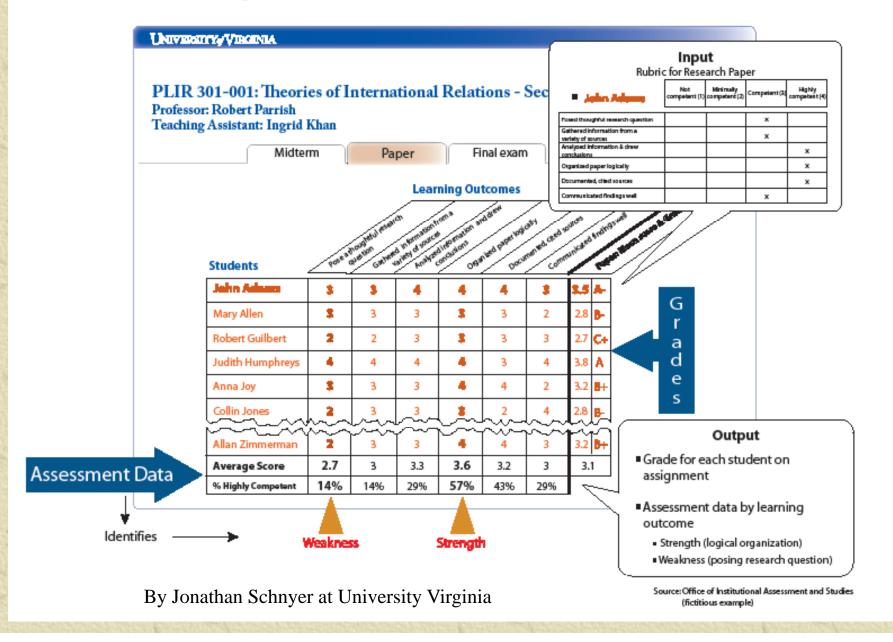
				Paper		Separation/		Understanding/ Change in	Self-		Application/	
ID#	Class	Age	Gender	Length	Total	Objectivity	Dissonance	Perspective	Perception		Verification	totals
Α	FR	19	F	5	18	3	3	3	3	3	3	18
В	SR	21	M	3	17	3	3	3	3	3	2	17
С	FR	18	F	7	16	3	3	3	2	2	3	16
D	SR	21	M	5	16	3	3	3	2	3	2	16
E	SO	19	F	9	15	2	3	3	2	2	3	15
F	FR	18	M	3	14	3	3	3	2	3	0	14
G	SO	20	M	3	14	3	3	3	0	3	2	14
Н	SO	19	M	5	13	2	2	3	2	2	2	13
1	FR	18	М	8	13	3	3	3	2	2	0	13
J	JR	20	F	5	13	2	2	2	2	3	2	13
K	SO	20	M	5	13	3	3	2	2	2	1	13
E Co	FR	18	M	7	13	2	3	2	2	2	2	13
M	JR	20	F	3	11	3	3	3	0	2	0	11
N	FR	18	F	5	10	2	2	2	2	2	0	10
0	SO	22	M	4	10	2	3	2	2	2	0	11
Р	FR	18	F	6	10	2	3	1	2	1	1	10
Q	FR	19	М	9	9	2	2	1	2	1	1	9
R	FR	18	M	3	9	2	3	2	1	1	0	9
S	FR	18	М	15	7	2	1	1	1	1	1	7
T	SO	20	F.	4	7	1	2	0	1	2	1	7
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4337	100	23/20	1879	THE COLUMN	Average Score	2.526315789	2.789473684	2.368421053	1.84210526	2.21052632	1.368421053	13.10526316

Frequencies

Frequencies	Scale: 3	Scale:2	Scale: 1	Scale: 0
Separation/ Objectivity	9	10	1	2
Dissonance	14	5	1	2
Understanding/ Change in Perspective	10	6	3	3
Self-Perception	2	13	3	4
Resolution	6	10	4	2
Application/ Verification	3	6	5	8



Using a Rubric to Produce Both Grades and Assessment Data



Insight Rubric for NCSU Judicial System Reflection Paper

Paper#;		
	Page length:	

Insight Rubric

Adapted from: Murray, M. (1995) Artwork of the Mind, New Jersey: Hampton Press, Inc.

Insight	Insufficient 1	Beginning Development 2	Developing 3	Achieve 4	No tes
	(None)	(Minimal)	(Moderate)	(Substantially)	
Acknowledge Role	No objectivitytaking	Minimal objectivity - Still	Moderate objectivity -May still	Shows objectivity -	
(Objectivity)	elements very personally -	minimizes most aspects of	minimize some aspects of their	Acknowledges and does not	
	minimizes their role and	their involvement or impact	involvement or impact on the	minimize their role in the	
(Minimize	impact on the situation	on the situation	situation	situation	
role/be havior/imp act)					
Dissonance	Does not acknowledge the	Acknowledges some aspects	Acknowledges many aspects of	Acknowledges all of the	
(Behavior is	problem(s) or most of the	of the problem(s)-may or may	the problem(s)- including	significant problem(s)	
wrong/violation and/or	problems-not well articulated-	not acknowledge that	acknowledge that policies/laws	including violation of	
poor choice)	does not acknowledge	policies/laws were violated-	were violated- well articulated	policies/laws-well articulated	
	violation of law/policy	not well articulated			
Objectivity (Sees others	No objectivitysees only	Minimal objectivity-	Moderate objectivity-	Shows objectivity -sees other	
views)	their own perspective	understands at least one other	understands at least some other	peoples' perspectives	
		person's perspective-	peoples' perspectives-		
Understanding/Change in	Lack of understanding of	Developed some new	Developed some new	New understanding of	
Perspective	situation and lack of	understandings regarding the	understandings regarding the	situation and developed new	
	development of new mindset	situation but it is not a	situation but it is not a complete	mindset regarding the situation	
	toward the problem	complete understanding and	understanding and developed	is able to fully acknowledge	
		developed new mindset	new mindset regarding portions	why the behavior(s) was a	
(why) -impacts/community		regarding portions of the	of the situation-is able to	problem.	
		situation-is not able to	acknowledge why portions of		
		acknowledge why portions of	the behavior(s) was a problem		
		the behavior(s) was a problem			
Self-Perception	Student lacks a new way of	Student is beginning to	Student is actively reevaluating	Student has a positive new	
Acknowledge change in	looking at him or herself and	reevaluating how he or she	how he or she sees him or her	way of looking at him or	
how they see themselves	their world/college experience	sees him or her self and their	self and their world/college	herself and their world/college	
		world/college experience	experience	experience	
Resolution	No new response to the	New response to the original	New response to the original	Quality response to the	
(What they should have	original situation	situation addresses some	situation addresses most aspects	original situation-addresses all	
done)		aspects of the situation	of the situation	aspects of the situation	
Application/Verification	Does not apply learning to	Narrowly applies learning to	Applies learning to other or the	Broadly Applies learning to	
(What they will do next	other or the same situations	other situations or possible	same situations (not always part	other or the same situations	
time/or have already done	and does not continue to	situations. Learning does not	of lifestyle) may be a long term	(becomes part of their	
differently)	process through testing	appear to be sustainable.	solution or may demonstrate that	lifestyle) or demonstrates that	
			they continue to think through	they continue to think through	
				the resolution by testing them	

^{**}Do not attempt to measure insight if the student's paper if the student does not answer questions

AAC&U: Association of American Colleges and Universities

VALUE: Valid Assessment of Learning in Undergraduate

Education



Learning Outcomes for the development of VALUE Rubrics:

Intellectual and Practical Skills

Inquiry and analysis

Critical thinking

Creative thinking

Written communication

Oral communication

Reading

Quantitative literacy

Information literacy

Teamwork

Problem solving

Personal and Social Responsibility

Civic knowledge and engagement—local and global

Intercultural knowledge and competence

Ethical reasoning

Foundations and skills for lifelong learning

Integrative Learning

Integrative learning

TEXAS A&M http://sllo.tamu.edu/

http://sllo.tamu.edu/rubrics#Citizenship

Rubrics

- •Citizenship
- Communication
- •Critical Thinking
- Delegation
- Diversity
- Effective Meetings
- •Ethical Leadership

- •Financial Responsibility
- •Membership Selection
- •Mission/Vision/Goals
- Project Management
- •Risk Management
- •Service
- •Teams and Groups

Overview:

Developing a rubric: Questions to answer

- 1. Who, when, how: outcome, participants, raw information
- 2. What: dimensions/criteria
- 3. To what degree: scale
- **4.** How do you know: descriptions when appropriate and test and retest (Train reviewers)
- 5. What does the data mean: means, frequencies, etc.

Rubistar – A Free Web-Based Rubric Template Generator

http://rubistar.4teachers.org/index.php



Science Fair Experiment

Powered by 4Teachers.org

4Teacher Tools

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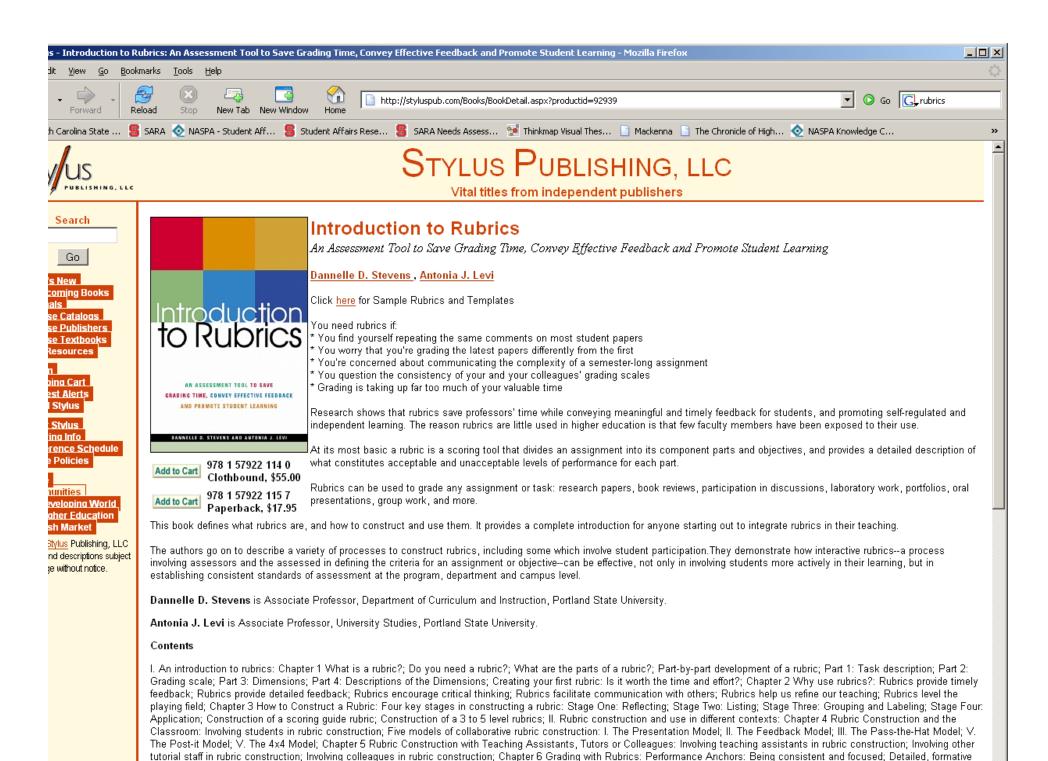
Find a Rubric | Create a Rubric | Login | Sign Up | Tutorial | RubiStar en Español

Oral Projects	Products	Multimedia
Class Debate	Making A Brochure	Digital Storytelling
Historical Role Play	Making A Game	HyperStudio/Powerpoint
lutan šavo	Making A Man	Appearance and Content
Interview	Making A Map	Multimedia Project
Newscast - Presentation and	Making A Poster	
Planning		Scott County Digital Storytelling
Oral Presentation Rubric	Newspaper	Storyboard- multimedia
Oral Fresentation Nubit	Public Awareness Campaign	Storyboard- Multimedia
Puppet Show		Video- Preproduction
Charac Tallina	Timeline	Web Cite Design
Story Telling	Writing a Musical	Web Site Design
Video - Talk Show		
Science	Research & Writing	Work Skills
Building A Structure	6+1 Trait Writing Model	Collaborative Work Skills
Lab Report	Book Jacket Report	Self-Evaluation of Participation

Group Planning -- Research

Project

In Music



References/Resources

- * Huba and Freed (2000) <u>Learner-Centered</u>
 <u>Assessment on College Campuses.</u>
- * Stevens and Antonia (2005) book <u>Introduction to</u> <u>Rubrics</u>. Stylus Publishing, LLC.
- * http://its.monmouth.edu/facultyresourcecenter/rubrics.htm
- * SAS inSchool http://www.SASinSchool.com