

Demystifying Assessment and Building Better Rubrics

A G E N D A

- Welcome!!
- Nathan Cole (Theatre Arts): Building Better
- Asher Sund (English): Assessment in the New Five-Year Cycle
- Deanna Hall (Child Development): “All in it Together”
- Jack Bennett (Math Department): “Assessing SLOs – Math”
Department



BUILDING BETTER RUBRICS

for the Ventura College New Five-Year Cycle (2018-2023)

RUBRIC

DEFINED

“a guide listing specific criteria for grading or scoring academic papers, projects, or tests”

--Merriam Webster Dictionary

“a coherent set of criteria for students' work that includes descriptions of levels of performance quality on the criteria.”

--Association of Supervision of Curriculum Development

Essential Elements Rubric				Education Closet Grades 4-5 Arts Integrated Common Core Composition Assessment Rubric																																													
Essential Element	Initiating	Establishing	Developing	Construct Measured	Score Point 3	Score Point 2	Score Point 1	Score Point 0																																									
Flag students for discussion	Assessments in place utilize student scores to determine their work for struggling students	Assessment data typically used to "flag" students, yet processes still exist that focus on scores	Assessment data is used to inform students for discussion on individual level	Comprehension of Key Ideas and Details	The student composition provides an accurate analysis of what the model piece says explicitly and inferentially and references the piece explicitly to support the analysis, showing full comprehension of complex ideas expressed in the piece(s).	The student composition provides a mostly accurate analysis of what the model piece says explicitly and inferentially and references the piece explicitly to support the analysis, showing full comprehension of complex ideas expressed in the piece(s).	The student composition addresses the theme and provides effective and comprehensive development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition demonstrates design, clarity, and cohesion and may or may not include a pathway for the audience to read and interpret the work.																																									
Common across the school	Common assessments in place at certain grade levels for either benchmark or progress monitoring	Common assessments in place at certain grade levels for both benchmark or progress monitoring	Common benchmark or progress monitoring assessments that are consistent at school level																																														
Benchmark assessments	Benchmark assessments in place for most students at most grade levels	Benchmark assessments in place for all students at most grade levels	Benchmark Assessment for all students and at all grade levels	Development of Ideas	The student composition addresses the theme and provides effective and comprehensive development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is consistently appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition demonstrates a lack of design, clarity and cohesion.																																									
Teacher assessments	Student progress and individual needs primarily determined by standardized assessment data	Benchmark and progress monitoring assessments rely upon teacher assessments for further diagnosis	Some benchmark and progress monitoring assessments designed and rely upon teacher assessments for further diagnosis																																														
Progress monitoring assessments	Progress monitoring assessments in place for some students at some grade levels	Progress monitoring assessments in place for struggling students at all grade levels	Progress monitoring assessments in place for struggling students align with specific standards	The student composition addresses the theme and provides effective and comprehensive development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is consistently appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition demonstrates a lack of design, clarity and cohesion.																																									
Efficient use of time	Assessments in place rely upon teacher administration that takes teacher and student time away from instruction and learning	Assessments in place take student time away from instruction and learning	Assessments in place take student or teacher time away from instruction and learning																																														
Assessment schedule established	Benchmark and progress monitoring assessment times communicated as they happen in the school	Benchmark and progress monitoring assessments communicated at least a month prior to them happening in the school	Benchmark assessments established annually for progress monitoring data, communicated throughout the school year	The student composition addresses the theme and provides effective and comprehensive development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is consistently appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition addresses the theme and provides effective development of the topic and/or artistic elements by using clear purpose, details, and/or embellishment; the development is largely appropriate to the task, purpose, and audience.	The student composition demonstrates a lack of design, clarity and cohesion.																																									
Results disaggregated for use	Raw assessment data results shared (or made available) to teachers	Assessment data shared with limited disaggregation - largely dependent on publisher program	Assessment data disaggregated to allow for use of student staff members																																														
Copyright Jigsaw Learning 2012				Essential Elements Rubric - Assessments																																													
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Subject Learning Outcomes addressed in this assessment task: (SLO) ...				The student composition demonstrates inconsistent command of the conventions of the targeted artform consistent with model works. There are a few patterns of technique errors that may occasionally impede understanding.																																													



WHEN

DO I CREATE
OR REVISE RUBRICS

???????



- **SERVICE UNITS** – During the semester the SUO comes up for assessment
- **ACADEMIC COURSES** – During the semester the Course comes up for assessment
- **PROGRAMS** – During the semester the PSLO comes up for assessment

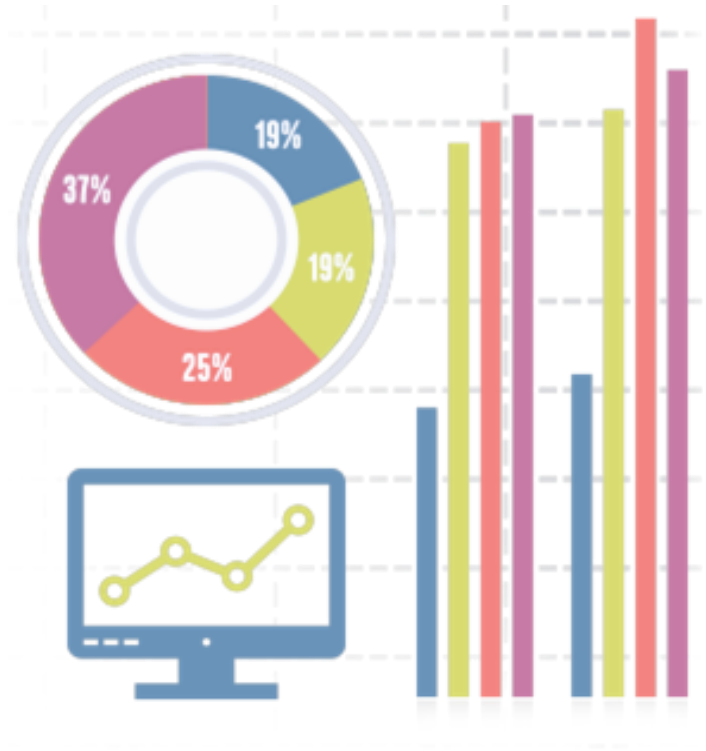
QUESTIONS FOR FRAMING ASSESSMENT



- **DEVELOPING THE OUTCOME:** "What should students know and be able to do?"
- **DEVELOPING THE RUBRIC:** "How will I know when they know it and can do it well?"

IMPORTANCE OF RUBRICS *(for Instructors)*

- Efficient way to examine student performance
 - where students are successful or need additional instruction
- Provides Equity
 - Assess how students meet your standards, not how they compare to other students
 - Variety of instructors teaching same course, in same program, or same broad skill set across the institution
 - Students assessed in the same manner (how students meet the standards, not how they compare to other students)



IMPORTANCE OF RUBRICS

(for Students)



- Precisely defines instructor expectations and standards
- Recognizes their strengths and weaknesses and directs efforts accordingly
- Promotes self-reflection about the learning process and individual progress in the course
- Allows for revision and improvement through quick, clear, and precise feedback

WHAT MAKES A STRONG RUBRIC

- Clear and measurable criteria
- Comprehensive and “exclusive” criteria
 - No overlap across criteria
- Developed with the aid of colleagues and students



TYPES OF RUBRICS



“When the intended learning outcomes are best indicated by performances (things students do, make, say, or write), then rubrics are the best way to assess them.”

--- <http://www.ascd.org/publications/books/112001/chapters/What-Are-Rubrics-and-Why-Are-They-Important%C2%A2.aspx>

ANALYTICAL

Each criterion of the outcome is assessed separately

- separate ratings of specified characteristics/components
- SLO can be broken into components
- components can be assessed individually

Scoring Criteria	Beginning (1)	Developing (2)	Accomplish (3)
Criterion 1	Description reflecting beginning level of performance	Description reflecting toward mastery level of performance	Description reflecting of mastery level performance
Criterion 2			
Criterion 3			
Criterion 4			

- In this option components might help us find problem areas
- We could benefit from a general shell that could be adapted to specific systems

Assessment tool = Essay on Pulmonary and Systemic Circuits of the Heart	Course-Level Student Learning Outcome		
	Students will describe the relationship between the individual gross anatomy components of the organ systems of the human body and relate the composition of these systems to their function		
Component	Excellent	Satisfactory	Below Satisfactory
Systems	Meets satisfactory criteria without spelling errors	Student successfully names both circuits of the heart and associates the circuit with a side of the heart	Student does not successfully name both circuits of the heart and/or fails to correctly associate the circuit with a side of the heart
Chambers	Meets satisfactory criteria without spelling errors	Student names the 4 chambers of the heart and discusses flow in the proper order (atrium to ventricle)	Student does not successfully name all 4 chambers of the heart and/or fails to discuss flow in correct order
Valves	Meets satisfactory criteria without spelling errors	Student correctly names all 4 valves and provides correct location relative to chambers	Student does not correctly name all 4 valves and/or does not provide correct location relative to chambers
Vessels	Meets satisfactory criteria without spelling errors	Student correctly names the vessels emerging from the heart and provides correct location relative to chamber each exits	Student does not correctly name the vessels emerging from the heart and/or does not provide the correct location relative to chamber exited
Physiology	Meets satisfactory criteria and references the process of gas exchange taking place within the circuit	Student correctly associates each system with a relative oxygen (or carbon dioxide) level of the blood leaving the associated ventricle	Student fails to mention oxygen levels, or incorrectly associates the systems with oxygen content

THA V01 – INTRODUCTION TO THEATRE

CSLO – Identify the Aristotelian elements and apply them to a performance.

CRITERIA	EXCEEDS	ABOVE AVERAGE	AVERAGE	BELOW EXPECTATIONS	No Participation
PLOT	Strong plot statement for both the episode and series. Rich in content. Full of thought, insight, and analysis. Well over requested length of response.	Adequate plot statement. Substantial information is provided. Thought, insight, and analysis has taken place. Yet it lacks some detail.	Generally competent. Plot statement lacks great detail and insight because it is too short.	Rudimentary and superficial. No analysis or insight is displayed. Failure to follow directions. Little to no detail.	No mention of the premise of the series or plot of this particular episode.
CHARACTER	Strong character descriptions for both the episode and series. Rich in content and full of detail, thought, insight, and analysis. Well over requested length of response.	Adequate character descriptions. Substantial information is provided. Thought, insight, and analysis has taken place. Yet it lacks some detail.	Generally competent. Character descriptions lacks great detail and insight because it is too short.	Rudimentary and superficial. No analysis or insight is displayed. Failure to follow directions. Little to no detail.	No mention of the characters in the episode or series.
THEME	Strong theme chosen for the episode with strong critical thinking and justification. Strong character descriptions for both the episode and series. Well over requested length of response.	Adequate theme statement. Substantial information is provided. Thought, insight, and analysis has taken place. Yet it lacks some detail.	Generally competent. Description of the theme lacks great detail and insight because it is too short with no presence of justification.	Rudimentary and superficial. No analysis or insight is displayed. Failure to follow directions. Little to no detail.	No mention of the theme in the episode or series.
LANGUAGE	Description of the language spoken by characters is rich in content and full of detail, thought, insight, and analysis. Well over requested length of response.	Adequate description of the language spoke by the characters. Substantial information is provided. Thought, insight, and analysis has taken place. Yet it lacks some detail.	Generally competent. Description of the language characters speak lacks great detail and insight because it is too short with no presence of justification.	Rudimentary and superficial. No analysis or insight is displayed. Failure to follow directions. Little to no detail.	No mention of language in the episode or series.

ANALYTIC Explored

PROS

- Gives diagnostic information to teacher.
- Gives formative feedback to students.
- Easier to link to instruction than holistic rubrics.
- Good for formative assessment; adaptable for summative assessment; if you need an overall score for grading, you can combine the scores.

CONS

- Takes more time to score than holistic rubrics.
- Takes more time to achieve inter-rater reliability than with holistic rubrics.

HOLISTIC

One global, holistic rating

- “SLO doesn’t have recognizable components or related, but possesses separately measureable goals”

Word Choice

Using good vocabulary to give y meaning. Details! Details! Detai

Strong - 4

- * Uses interesting words
- * Uses descriptive adjectives and adverbs, good nouns and verbs
- * Attempts to use alliteration, similes & metaphors
- * Holds readers attention

Effective -3

- * Uses words correctly to express meaning
- * Relies on simple, common language
- * Uses familiar nouns and verbs
- * Few adjectives, adverbs or phrases

Developing-2

- * Words are very simple or used incorrectly
- * Words get in the way of meaning
- * Some words used over and over
- * Words are very general (e.g. stuff, nice, said, fun)

THA V11A – Theatre Production I

THA V11A	CSLO 2 - Perform the duties of a cast or crew member in a main stage Ventura College production.		
EXCELLENT	GOOD	SATISFACTORY	BELOW SATISFACTORY
<ul style="list-style-type: none"> • Attend all work calls or rehearsals prior to performance • Always on time • Performs all required tasks with precision and accuracy • Meet all deadlines • Commitment to the production and • all working partners in work calls, rehearsals and performance 	<ul style="list-style-type: none"> • Attend all work calls or rehearsals prior to performance • Mostly on time • Perform all required tasks with accuracy • Meet all deadlines • Commitment to the production and • all working partners in work calls, rehearsals and performance 	<ul style="list-style-type: none"> • Attend most work calls or rehearsals prior to performance • Generally on time • Perform all required tasks • Meet some deadlines • Partial commitment to the production and • all working partners in work calls, rehearsals and performance • 	<ul style="list-style-type: none"> • Confused or inconsiderate communication and collaboration with peers and mentors. • Poor comprehension of character development and/or crew assignment during the learning process of rehearsals. • Poorly prepared for the Performance phase of production. • Needs extra coaching and or rehearsal which does not rectify the poor quality

HOLISTIC Explored

PROS

- Scoring is faster than with analytic rubrics.
- Requires less time to achieve inter-rater reliability.
- Good for summative assessment.

CONS

- Single overall score does not communicate information about what to do to improve.
- Not good for formative assessment.

GENERAL

“Description of work gives characteristics that apply to a whole family of tasks (e.g., writing, problem solving).”



P R E S E N T A T I O N R U B R I C f o r P B L
(for grades 9-12; Common Core ELA aligned)

	Below Standard	Approaching Standard	At Standard	Above Standard ✓
Explanation of Ideas & Information	<ul style="list-style-type: none"> ▶ does not present information, arguments, ideas, or findings clearly, concisely, and logically; argument lacks supporting evidence; audience cannot follow the line of reasoning ▶ selects information, develops ideas and uses a style inappropriate to the purpose, task, and audience (may be too much or too little information, or the wrong approach) ▶ does not address alternative or opposing perspectives 	<ul style="list-style-type: none"> ▶ presents information, findings, arguments and supporting evidence in a way that is not always clear, concise, and logical; line of reasoning is sometimes hard to follow ▶ attempts to select information, develop ideas and use a style appropriate to the purpose, task, and audience but does not fully succeed ▶ attempts to address alternative or opposing perspectives, but not clearly or completely 	<ul style="list-style-type: none"> ▶ presents information, findings, arguments and supporting evidence clearly, concisely, and logically; audience can easily follow the line of reasoning (CC 9-12.SL.4) ▶ selects information, develops ideas and uses a style appropriate to the purpose, task, and audience (CC 9-12.SL.4) ▶ clearly and completely addresses alternative or opposing perspectives (CC 11-12.SL.4) 	
Organization	<ul style="list-style-type: none"> ▶ does not meet requirements for what should be included in the presentation ▶ does not have an introduction and/or conclusion ▶ uses time poorly; the whole presentation, or a part of it, is too short or too long 	<ul style="list-style-type: none"> ▶ meets most requirements for what should be included in the presentation ▶ has an introduction and conclusion, but they are not clear or interesting ▶ generally times presentation well, but may spend too much or too little time on a topic, a/v aid, or idea 	<ul style="list-style-type: none"> ▶ meets all requirements for what should be included in the presentation ▶ has a clear and interesting introduction and conclusion ▶ organizes time well; no part of the presentation is too short or too long 	
Eyes & Body	<ul style="list-style-type: none"> ▶ does not look at audience; reads notes or slides ▶ does not use gestures or movements ▶ lacks poise and confidence (fidgets, slouches, appears nervous) ▶ wears clothing inappropriate for the occasion 	<ul style="list-style-type: none"> ▶ makes infrequent eye contact; reads notes or slides most of the time ▶ uses a few gestures or movements but they do not look natural ▶ shows some poise and confidence, (only a little fidgeting or nervous movement) ▶ makes some attempt to wear clothing appropriate for the occasion 	<ul style="list-style-type: none"> ▶ keeps eye contact with audience most of the time; only glances at notes or slides ▶ uses natural gestures and movements ▶ looks poised and confident ▶ wears clothing appropriate for the occasion 	
Voice	<ul style="list-style-type: none"> ▶ mumbles or speaks too quickly or slowly ▶ speaks too softly to be understood ▶ frequently uses “filler” words (“uh, um, so, and, like, etc.”) ▶ does not adapt speech for the context and task 	<ul style="list-style-type: none"> ▶ speaks clearly most of the time ▶ speaks loudly enough for the audience to hear most of the time, but may speak in a monotone ▶ occasionally uses filler words ▶ attempts to adapt speech for the context and task but is unsuccessful or inconsistent 	<ul style="list-style-type: none"> ▶ speaks clearly; not too quickly or slowly ▶ speaks loudly enough for everyone to hear; changes tone and pace to maintain interest ▶ rarely uses filler words ▶ adapts speech for the context and task, demonstrating command of formal English when appropriate (CC 9-12.SL.6) 	

Component	Good	Satisfactory	Below Satisfactory
Points	2	1	0
Content	Responds directly to the prompt or question asked. Content is accurate.	Responds to the prompt or question asked. Content is accurate.	Does not respond to the prompt or question asked (content may be unrelated) and/or content is inaccurate.
Organization	Contains a clear sense of order. Includes a thesis or topic sentence. Supporting points are presented in a logical progression.	May lack a thesis or topic sentence, but points are presented in a logical manner.	Lacks organization. Points are presented in a random fashion, making it difficult for the reader to follow.
Development	Develops each point with specific details or examples.	Most points are supported with some details and evidence.	Points are unsupported or supported with sparse details.
Use of Language	Uses discipline-specific language and exhibits some sophistication in word choice.	Discipline-specific language is used sparingly. Has clear sentences but there may be some awkwardness. Appropriate language used.	Limited or inappropriate vocabulary. Slang may be used.
Grammar and Spelling	No major grammatical or spelling errors.	Contains some errors, but they do not interfere with understanding.	Errors are numerous and/or impair understanding.
Integrates Sources (if applicable)	Incorporates summary, paraphrase, and quotations from sources. Uses source information to support own ideas. Cites and documents sources per method required by instructor.	Incorporates some information from sources as supporting information. Cites and documents sources per method required by instructor.	Does not include information from sources, or sources are not documented per method required by instructor.

- Multi-component
 - Analytic
 - Allows for a whole rubric score
- General
 - Broadly applicable
 - Paper or Short Essay
- Simple categories
 - More than one performance goal possible (g or s)

GENERAL RUBRICS (Explored)

PROS

- Can share with students, explicitly linking assessment and instruction.
- Reuse same rubrics with several tasks or assignments.
- Supports learning by helping students see "good work" as bigger than one task.
- Supports student self-evaluation.
- Students can help construct general rubrics.

CONS

- Lower reliability at first than with task-specific rubrics.
- Requires practice to apply well.

TASK SPECIFIC

Description of work refers to the specific content of a particular task (e.g., gives an answer, specifies a conclusion).



Source: From *Assessment and Grading in Classrooms* (p. 201), by Susan M. Brookhart and Anthony J. Nitko

Microscope Use – Holistic Rubric

Course-Level Student Learning Outcome		
Students will individually focus the microscope on a slide during a lab quiz to demonstrate mastery of the microscope.		
Excellent	Satisfactory	Below Satisfactory
Students were able to individually focus a slide on high power using the correct steps without the help of the instructor on the first try.	Students were able to individually focus a slide on high power using the correct steps without the help of the instructor on the second try.	Students failed to individually focus a slide on high power or did not use the correct steps to focus the slide on high power or required the instructor's help to focus the slide on high power on the second try.

NGSS High School Biology - Rubric for Asking Questions in an Ecosystem Framework

Dimension Element	1 Students can...	2 Students can...	3 Students can...	4 Students can...
Create a testable question	With guidance, create a scientific question that meaningfully relates to water pollution.	Create a scientific question about water pollution in the local watershed; Collaboratively determine whether it could be tested in class.	Create a scientific question that is testable by the student in the classroom and justify that testability; Create a question about chemical pollutants in a local watershed, and link it to human impacts.	Create a scientific question that is testable by the student in class and justify that testability; Create a question that quantitatively links to chemical pollutants in a local watershed; Connect their question to human and ecosystem-based causes and effects, differentiating cause from correlation.
Use data and research to formulate a question	With guidance, develop a question that relates to provided data and research.	Develop a question based on provided information and then relate that question to their observations.	Determine which of the provided water quality data is useful and use it along with their observations to develop a question.	Create a scientific question based on personal, careful analysis of data related to the phenomenon, noting gaps or limitations in that data; Create a question that has the potential to deepen current, scientific understanding of the phenomenon (watershed dynamics/pollution).
Frame a question with a lens of systems and system models	With guidance, can see some ways the question relates to the natural system (and the parts that work together).	Frame a question in connection to the lake watershed (system) at a particular level, not necessarily the most relevant or most important aspect of it.	Frame the question with an understanding of the local watershed system, particularly showing understanding of the important human and natural inputs and outputs related to that system or relevant subsystem.	Frame the question in light of their created ecosystem model, justifying using or not using particular elements of the subsystem being focused on and building from the relationships between those elements; Frame a question that shows a quantitative understanding of the system and/or subsystem.

RUBRICS FOR PROBLEM SOLVING IN MATHEMATICS

CATEGORY	Weight	4	3	2	1
Mathematical Errors	30%	90-100% of the steps and solutions have no mathematical errors.	Almost all (85-89%) of the steps and solutions have no mathematical errors.	Most (75-84%) of the steps and solutions have no mathematical errors.	More than 75% of the steps and solutions have mathematical errors.
Explanation	20%	Explanation is detailed and clear.	Explanation is clear.	Explanation is a little difficult to understand, but includes critical components.	Explanation is difficult to understand and is missing several components OR was not included.
Neatness and Organization	15%	The work is presented in a neat, clear, organized fashion that is easy to read.	The work is presented in a neat and organized fashion that is usually easy to read.	The work is presented in an organized fashion but may be hard to read at times.	The work appears sloppy and unorganized. It is hard to know what information goes together.
Diagrams and Sketches	15%	Diagrams and/or sketches are clear and greatly add to the reader's understanding of the procedure(s).	Diagrams and/or sketches are clear and easy to understand.	Diagrams and/or sketches are somewhat difficult to understand.	Diagrams and/or sketches are difficult to understand or are not used.
Completion	20%	All problems are completed.	All but one of the problems are completed.	All but two of the problems are completed.	Several of the problems are not completed.

PERFORMANCE TASK RUBRICS Explored

PROS

- Teachers sometimes say using these makes scoring "easier."
- Requires less time to achieve inter-rater reliability.

CONS

- Cannot share with students (would give away answers).
- Need to write new rubrics for each task.
- For open-ended tasks, good answers not listed in rubrics may be evaluated poorly.

DEVELOPING THE RUBRIC



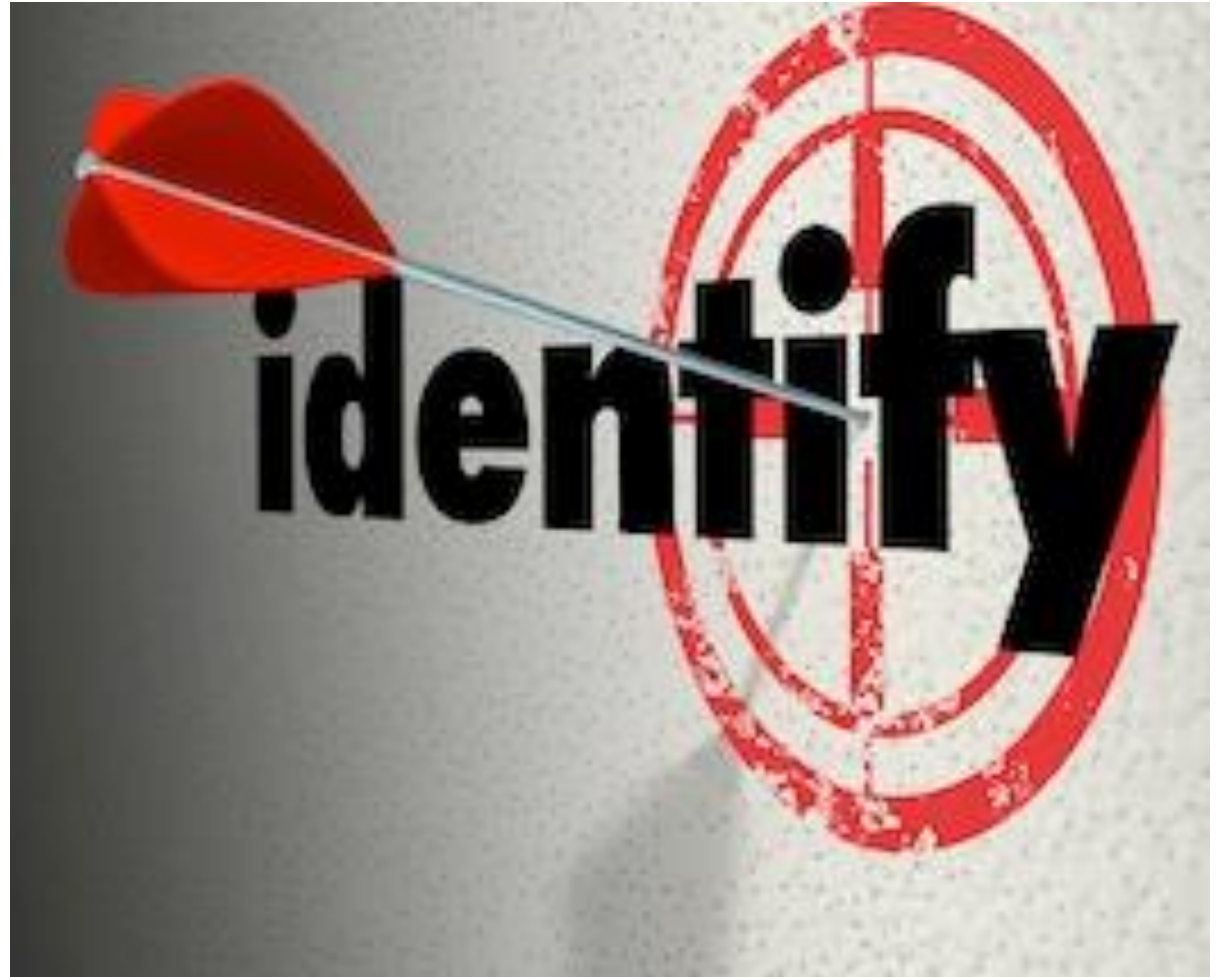
DETERMINE TYPE

- Analytical or Holistic?
- General Performance or Performance Task?



IDENTIFY TARGET

the desired level of
performance
you want to see,
as measured by
indicators,
that represents success
at achieving
your outcome



DETERMINE CRITERIA

dimensions of “quality”

the aspects of performance (e.g., argument, evidence, clarity) that will be assessed.

“Describe the major attributes of the work that will contribute to the overall evaluation.”



QUALITIES OF STRONG CRITERIA

- brief
- understandable
- in a logical order

DETERMINE RANGE

for PERFORMANCE QUALITY or STANDARD S

this element of the rubric provides a detailed description of the defining features that should be found in the work at a particular level of mastery.

Below Expectations	Meets Expectations	Exceeds Expectations		
Unacceptable	Developing	Acceptable	Exemplary	
Inadequate	Barely Adequate	Good	Exemplary	
Unacceptable	Marginal	Meets Expectations	Exceeds Expectations	
Novice	Developing	Proficient	Expert	
Missing or Serious Problems	Below Expectations	Meet Expectations	Excellent Work	
Missing	Unacceptable	Below Expectations	Meets Expectations	Exceeds Expectations

- ONE VIEW: it is not possible for assessors to meaningfully distinguish more than four levels of 'passing' performance.
- ANOTHER VIEW: that students struggle to make sense or use of more than three levels (achieved, mostly achieved, not yet achieved).

EXAMPLE STANDARDS

scale for evaluating BEHAVIORAL ELEMENTS

(group work, team members, in a presentation, etc.)

- ALMOST ALWAYS
- OFTEN
- SOMETIMES
- RARELY

- Exceeds, Meets, Needs Improvement, Does Not Meet
- Exemplary, Proficient, Acceptable, Unacceptable
- Substantially Developed, Mostly Developed, Developed, Underdeveloped
- Distinguished, Proficient, Apprentice, Novice
- Excellent, Above Average, Average, Below Average, Poor
- Meets, Does Not Meet
- Advanced, Intermediate, Basic, Introductory
- Exemplary, Accomplished, Developing, Beginning

CONSULT

Colleagues
Assessment
Experts
Students



REFLECT & RESET

- Apply rubric
- Eliminate ambiguities
 - Of any use to students
 - Appropriate?
 - Overused?
 - How can it be improved?
- Reapply



EXAMPLES & MAKERS



LINKS TO

SAMPLE RUBRICS

- Introduction to Rubrics
- <http://www.introductiontorubrics.com/samples.html>
- Association for the Assessment of Learning in Higher Education
<http://course1.winona.edu/shatfield/air/rubrics.htm>
- Berkley Center for Teaching and Learning -
<https://teaching.berkeley.edu/resources/improve/evaluate-course-level-learning/rubrics>
- University of West Florida -
<https://uwf.edu/offices/cutla/supporting-pages/examples-of-rubrics/>
- Georgia State University -
<http://www2.gsu.edu/~mstnrhx/457/rubric.htm>

Websites for Rubric Making



- <https://rubric-maker.com/>
- [Annenberg Learner](#)
- [iRubric](#)
- [Essay Tagger](#)
- [RubiStar](#)
- [Schrockguide](#)
- [ThemeSpark](#)
- [RubricMaker](#)

SOURCES

- Association for Supervision and Curriculum Development – <http://www.ascd.org/publications/books/112001/chapters/What-Are-Rubrics-and-Why-Are-They-Important%C2%A2.aspx>
- Berkley center for Teaching and Learning - <https://teaching.berkeley.edu/resources/improve/evaluate-course-level-learning/rubrics>
- Carnegie Melon, Eberly Center for Teaching and Excellence - <https://www.cmu.edu/teaching/assessment/assesslearning/rubrics.html>
- Flinders University: <http://www.flinders.edu.au/teaching/teaching-strategies/assessment/grading/designing-rubric.cfm>
- Gardner, Ty, Debbie Newcomb and Andrea Horigan “Meaningful Rubrics”, Ventura College Flex Day Presentation, August 2013.
- Huntington College Office of Assessment - <http://www.hunter.cuny.edu/academicassessment/HowTo/AssessMyCourse/MeasureStudentLearningCourse>
- University of West Florida - <https://uwf.edu/offices/cutla/supporting-pages/rubric-development/>
- https://www.niu.edu/facdev/_pdf/guide/assessment/rubrics_for_assessment.pdf

Assessing SLOs

Math Department

SLO ASSESSMENT STRUCTURE

- Math Department offers many courses and many sections of each course.
- There is a lead instructor for each course the math department offers.
- The lead instructor is responsible for making sure each instructor of the course has the appropriate textbook, sample syllabi, and assists the instructor with assessing the SLOs when the course is up for SLO assessment.

Email Elements

- Inform the instructors of the CSLOs, PSLOs and ISLOs that are being assessed.
- Provide each instructor with the assessment questions and how the assessment should be proctored (i.e., as a quiz, test question, take home problem, etc.).
- Provide each instructor with a detailed rubric on how to grade the problem and on what defines meeting the SLO and not meeting the SLO.
- Provide the instructor with the goal for the percentage of students meeting the SLO.
- Finally, inform the instructor on how to record the results (filling out the online Google doc)

Closing the Loop

- The lead instructor and the instructors of the course discuss (face-to-face or through email) the findings.
- The lead instructor and the instructors for the course create goals for how to improve for the next assessment cycle.

CSLO's for Fall 2018

CSLO 1: Solve systems of equations and analyze the solution space.

1. Solve the system of equations. Describe your solution in terms of the free variables and what it means.

$$\begin{cases} x + y + 2z = 5 \\ x + z = -2 \\ 2x + y + 3z = 3 \end{cases}$$

CSLO 2: Perform matrix analyses of systems of equations.

2. Consider the system

$$\begin{cases} x + 2y + 3z = 6 \\ 2x + 5y + 3z = 7 \\ x + \quad + 8z = 14 \end{cases}$$

- (a) Write the system in the form $A\vec{x} = \vec{b}$
- (b) Find $\det A$ (A from part (a))
- (c) Based on your answer from part (b),
 - i. How many solutions does this system have?
 - ii. What is the rank of the matrix A ?
 - iii. What is the nullity of the matrix A ?
 - iv. Do the row vectors of A form a basis for A ?
 - v. Is $\lambda = 0$ an eigenvalue of A ?
- (d) Find A^{-1} using elementary row operations.
- (e) Solve the system $A\vec{x} = \vec{b}$ using matrix multiplication.

Sample Email

Hello Math V22 Instructors!!!

If you were in attendance at the first department meeting of this year, you will recall the fact that Math V22 is one of the courses that will be assessing our CSLOs this semester. As the lead instructor for Math V22, let me mention a few important facts:

1. All teachers in Math V22 will be administering the exact same assessment. This assessment is attached.
2. All teachers in Math V22 must administer this assessment in the same format. I am going to ask that you give it in class as a quiz. You do not need to count this quiz as an actual grade in your course; that decision is up to you. But, each student must complete these 2 problems as a stand alone assessment, and it must be administered at the end of chapter 5. This must be done in an individual way, not in group work. Each student must fill out his or her own assessment.
3. I believe it is more fair to grade on a partial credit scale and assign each problem a value of 10 points. This allows for us to evaluate their work and the process, not just the final result. In this fashion, a student must get 14 points out of 20 to be considered at a satisfactory level. The goal that we are hoping to achieve with these 2 problems is 70% completing the problems at a satisfactory level.

Once you have completed giving this assessment (at the end of chapter 5), you must fill out the SLO Assessment Findings form. Below, please find the link:

https://docs.google.com/forms/d/e/1FAIpQLScDVpNRvYRFoUMfmgaUH9uOcx_F7m1n-ZXAJLIIFl8kCzK30w/viewform

You can email your results to me or place the form in my mailbox. Since we all cover chapter 5 late in the semester, I am going to give everyone a deadline of December 2nd to turn in the completed form.

Please let me know if you have any questions! I am happy to help.

Best Regards, Jack Bennett

Rubric for Assessment

1) Solution for CSLO #1

Guidelines for Assessing:

1 point for each of the correct row equivalent matrices (5 points total)

1 point for each of the correct solutions for $x, y,$ and z (3 points total)

2 points for the description at the end (2 points total)

$$\begin{pmatrix} 1 & 1 & 2 & 5 \\ 1 & 0 & 1 & -2 \\ 2 & 1 & 3 & 3 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 1 & 2 & 5 \\ 0 & -1 & -1 & -7 \\ 0 & -1 & -1 & -7 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 1 & 2 & 5 \\ 0 & -1 & -1 & -7 \\ 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 0 & 1 & -2 \\ 0 & -1 & -1 & 7 \\ 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 1 & 2 & 5 \\ 0 & 1 & 1 & 7 \\ 0 & 0 & 0 & 0 \end{pmatrix}$$

Let $z = t$

Then, $y + z = 7$

$y + t = 7$

$y = 7 - t$

Also, $x + z = -2$

$x + t = -2$

$x = -2 - t$

$$\text{So } \begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} -2 - t \\ 7 - t \\ t \end{pmatrix}$$

This solution means there are infinitely many solutions to the system of linear equations and one parameter, or free variable, is required to describe the solution space.

2) Solution for CSLO #2

Guidelines for Assessing:

2 points each for parts (a)-(e).

For part (c), one point for 2 correct answers or two points for 4 to 5 correct answers.

$$\text{a) } \begin{pmatrix} 1 & 2 & 3 \\ 2 & 5 & 3 \\ 1 & 0 & 8 \end{pmatrix} \begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 6 \\ 7 \\ 14 \end{pmatrix}$$

$$\text{b) } \det A = -1$$

c) i) Exactly one

ii) 3

iii) 0

iv) Yes

v) No

$$\text{d) } A^{-1} = \begin{pmatrix} -40 & 16 & 9 \\ 13 & -5 & -3 \\ 5 & -2 & -1 \end{pmatrix}$$

$$\text{e) } \begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} -40 & 16 & 9 \\ 13 & -5 & -3 \\ 5 & -2 & -1 \end{pmatrix} \begin{pmatrix} 6 \\ 7 \\ 14 \end{pmatrix} = \begin{pmatrix} -2 \\ 1 \\ 2 \end{pmatrix}$$



**ALL IN IT
TOGETHER**

**SLO COMMON ASSESSMENT
AND
RUBRIC CREATION**

WHY WE USE AND ASSESS SLOS

- **Use staff meetings for discussion (ongoing)**
- **Emphasize**
 - **Consistency for the quality of course content**
 - **Most important aspects of class are assessed**
 - **Normal part of the curriculum planning cycle (observe/assess, reflect, plan, implement)**
 - **Able to deliver material (content) as you see fit**
- **All our faculty are teachers by trade/training**
 - **Understand the importance of assessment**
 - **Understand the need for consistency for the student's sake**
 - **Understand how one class builds on another in our department**

STAFF MEETINGS FOR SLO CREATION

- **Divided all courses into common groups**
- **Meeting for each group set up**
- **Invited faculty who taught the classes being reviewed to attend**
 - **If not able to attend in person, to review what the group had done and offer additional thoughts/suggestions via email**
- **Reached consensus among faculty teaching the same course**
 - **Essential knowledge to be assessed so students will be able to succeed in the next courses they take**
 - **Consensus steamed from the CORs and professional expertise**

COMMON ASSESSMENTS

- Kept course groupings
- Invited faculty to participate in deciding on common assessments
- Between completing the new SLOs and the creation of common assessment, continued conversation happened at staff meetings
 - Willingness to use common assessments
 - Willingness to pilot use of Canvas
 - Faculty consensus after time to process, ask questions, and be heard

COMMON ASSESSMENTS

- **Discussion within each group that met**
 - **How individual teachers assess the SLO currently**
 - **Compared how assessments were similar or different**
 - **Some liked others' way of assessing better**
 - **All willing to adapt what they were doing as needed for common assessment**
 - **Emphasis continued to be that the ONLY common assessments required would be for the SLOs or if written into the CORs**
 - **In reality, there are a handful of core assignments that faculty had already agreed to do in a similar or the same fashion**
 - **So common assessment not an unusual idea**

CREATING RUBRICS

- **First cohort of classes to be assessed are taught by only 3 instructors**
- **Decision was made to start with these classes because**
 - **Classes are similar in theme**
 - **Few instructors makes it easier to pilot**
- **All faculty were informed of pilot class and they would be provided with lessons learned**

CREATING RUBRICS

- **Pulled rubrics used in the past from all instructors for the same course as a guide**
 - **Compared**
 - **Discussed most important aspects**
 - **Agreed on wording of rubric**
 - **Point value of assignment is up to individual instructor**
- **New rubrics being created**
 - **Discussion among the 3 instructors as to what type of criteria they've looked for in the past with assessing this or a similar SLO**
 - **Begin writing all ideas down**
 - **Decide on most important aspects**
 - **Decide on wording**
 - **Decide on progressive criteria for differentiation in grading**