

SPHEIR Pedagogical Training 1.0

Formal Evaluation of Student Learning – Exams and Rubrics



The task of assessing and grading student learning is one of the most complex and stressful responsibilities of the faculty member, and, at the same time, most important. It is critical that the grading process is fair, reliable, valid, and relevant so that the resulting grade is an accurate representation of a student's achievement. When done properly, the grade and accompanying feedback are additional teaching opportunities where students can improve their learning.

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Learning Objectives: Upon successful completion of this session, you will be able to:

- Define the difference between subjective and objective items
- Describe the advantages and limitations of both types of items
- Link stated learning goals to appropriate test items
- Construct a valid, effective exam for both diagnostic and learning purposes
- Create a rubric for fair grading

Suggested References:

Walvoord, B. E., & Anderson, V. J. (2010). *Effective grading: A tool for learning and assessment*. (2nd ed.) San Francisco: Jossey-Bass.

Improving Your Test Questions. University of Illinois – Center for Innovation in Teaching & Learning. <https://go.illinois.edu/ImproveTestQuestions> (retrieved 11.27.20)



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Part A: Notes and Activities

NOTES:

Some important assertions:

- Tests are not just for assigning grades. They should facilitate learning for you and your students.
- Check your assessment methods against your goals.
- Don't rely on just one or two exams to determine the grade....or even importantly, to determine the depth of learning.
- Think of evaluation as being diverse and frequent.
- This session serves merely as an introduction to assessing student learning.

ACTIVITY: Test Item Exam: True or False

First time: 1) 2) 3) 4) 5)

Second time: 1) 2) 3) 4) 5)

NOTES: Kinds of Test Items

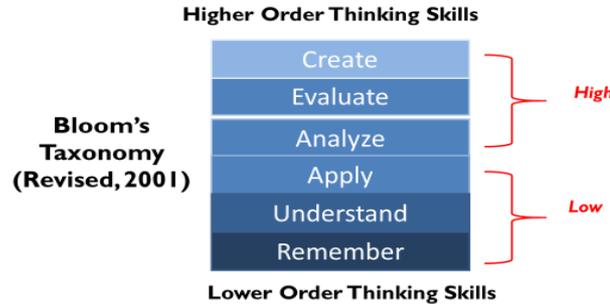
	<i>Objective Test Items</i>	<i>Subjective Items (Constructed Response)</i>
Examples		
Advantages		
Limitations		

ACTIVITY: Think of a class topic. Write it here _____

- 1) Write two objective test items.
 - Multiple Choice
 - True – False
- 2) Write one subjective test item.
 - Short Essay

Part B: Notes and Activities

NOTES:



The general form for writing a learning objective: **Students will be able to** verb noun phrase.

An example of a learning objective: **Students will be able to** write a learning objective that is clear and specific.

The Cognitive Dimension

	Remember	Understand	Apply	Analyze	Evaluate	Create
	Retrieve relevant knowledge from long-term memory	Construct meaning by connecting "new" to "prior" knowledge	Use a procedure to perform exercises or solve problems	Break material into its constituent parts and relate parts to whole	Make judgments based on criteria or standards	Put elements together to form a coherent whole
VERBS	Remember Recognize Identify Recall Retrieve	Understand Interpret Clarify Paraphrase Illustrate Classify Categorize Summarize Generalize Infer Conclude Explain Predict Compare Contrast Map	Apply Execute Carry out Use Implement	Differentiate Discriminate Focus Distinguish Select Organize Outline Integrate Structure Attribute Deconstruct	Analyze Evaluate Check Coordinate Detect Monitor Test Critique Judge	Create Generate Hypothesize Plan Design Produce Construct
QUESTIONS	What happened after... How many... What is... Who did... Where did... occur?	How would you explain... Who do you think... Why did... How would you graph... Which... corresponds to... What are examples of... How could you group...	How would you solve... How would you do... What would you say to... How would you work a case of...	What was the turning point? How is... similar to... Why did... occur What is needed to... What were some of the motives for...	Is there a better solution to... What do you think about... and why? Do you think... is a good thing and why?	What are possible solutions to... How would you design an... What would happen if... How many ways can you...
ACTIVITIES	Make a list showing... Make a time line Make a chart showing...	Write a summary of... Prepare a flow chart of... Write an explanation of... Make a taxonomy of... Draw a map/model of... Draw a graph of... Write possible outcomes of Retell an event	Solve a problem Write a response to a case study Perform a lab experiment	Write a biography Make a map showing interrelationships Write an analysis of... Write an essay examining bias in... Construct a chart to organize related data	Conduct a debate (or a mock trial) Write a critique Prepare a case Write an opinion piece	Design an experiment Create a new product Plan a marketing campaign Create art Design a building

ACTIVITY: Remember the topic you chose for one of your classes? Write that topic here

- Do you have learning objectives for that class session? If so, please write it here (or write one right now) _____
- Create an exam test item for two of your stated learning objectives.

Part C: Notes and Activities

NOTES:

Your Notes: Creating an Effective, Fair Test

A. What should be tested?

B. What kind of test items?

C. How assemble the test? How long should it be?

ACTIVITY – Create a Table of Specification for Your Class (using your identified learning objectives)

Content Area – Learning Objectives	% of emphasis in module	Low Level	High Level	Points on Evaluation

Rubrics

- A *rubric* shows how learners will be assessed and/or graded.
- A scoring rubric is a set of ordered categories to which a given piece of work can be compared.
- Scoring rubrics specify the qualities or processes that must be exhibited in order for a performance to be assigned a particular evaluative rating.
(McDaniel, 1994).

**BAKE-OFF
CAKES SCORE SHEET**

SOME CHARACTERISTICS OF EXCELLENT CAKES: General characteristics would include symmetrical shape with a flat or slightly rounded top, good distribution of ingredients, moist and tender, free from tunnels, and a pleasing flavor.

	MAXIMUM POINTS	SCORE
EXTERNAL CHARACTERISTICS (30)		
SHAPE - symmetrical, flat or evenly rounded top.	10	_____
SURFACE Unfrosted: uniform light brown except where darkened by ingredients. Looks appealing. Frosted: Consistency characteristic of kind, creamy, moist, free from stickiness, crystals, or crustiness. Flavor: characteristic of kind, delicate, and pleasing in combination with cake. Distribution, style, and color, suitable to kind of cake and frosting.	10	_____
VOLUME - light in weight in proportion to size (extra ingredients, such as fruits and nuts add weight).	10	_____
INTERNAL CHARACTERISTICS (30)		
TEXTURE - tender, moist crumb, velvety feel to tongue. Added ingredients supply appropriate textural changes (nuts should be crunchy, fruits moist and soft, etc.). Ingredients well distributed.	10	_____
GRAIN - appropriate to kind of cake.	10	_____
COLOR - characteristic of kind of cake.	10	_____
FLAVOR (40) Blended flavor of ingredients. Free from undesirable flavor from fat, leavening, flavoring, or other ingredients.	40	_____
TOTAL . . .	100	_____
RATING		
<u>Excellent</u> 100-90	<u>Very Good</u> 89-80	<u>Good</u> 79-70
		<u>Fair</u> 69-0
COMMENTS:		

Rubric Categories

- External
- Shape
- Surface
- Volume
- Internal
- Texture
- Grain
- Color
- Flavor

A Sample Rubric

- Clearly stated thesis sentence (5 pts)
- Expression and organization (15 pts)
- Use of appropriate supporting examples (12 pts)
- Grammar (5 pts)
- Spelling (3 pts)
- Effective closing paragraph (5 pts)

An Expanded Rubric

- 5 pts - clearly stated thesis sentence, point of view is maintained throughout
- 4 pts - stated thesis sentence but it is not maintained throughout essay
- 3 pts - the main idea is implicit in the writing but never made explicit
- 2 pts - the main idea needs to be guessed at
- 1 pt - there is no thesis sentence to guide the reader
- 0 pts - student made no effort to complete task

NOTE: Examples of Different Kinds of Rubrics (from Eberly Center at Carnegie Mellon University) <https://www.cmu.edu/teaching/design/teach/rubrics.html>