Education Grand Rounds
University of Oklahoma Health Sciences Center

Rubrics Part 2: Creating Rubrics to Assess Student Performance

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Thank you for joining us! Please use your "clicker" to complete your pre- and post-evaluations. Instructions can be found on the evaluation sheet provided!

Cell phones and pagers should be turned to silent or off. Thank you!

Rubrics Part 2: Creating Rubrics to Assess Student Performance

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Objectives

1. Evaluate your current grading tools and determine if a rubric would be more effective for assessing student performance OR
2. If you are currently using a rubric to assess student performance, evaluate the strengths and weaknesses of that rubric(s)
3. Refine or create a rubric using 10 steps
4. Pilot your newly created or edited rubric with students to identify areas of strengths and improvement

■

Question 1

What Type of Grading Tool Do You Use?

A. Checklist
B. Rating Scale
C. Rubric

Question 2

What are you using grading tool to assess?

A. Knowledge
B. Skills (i.e, communication)
C. Attitudes (i.e., professionalism)

Question 3

How much feedback are you writing for students about the assessment?

A. A lot
B. Medium
C. None

Question 4

Does form help increase or decrease amount of feedback you are writing?

A. Form **increases** need for written feedback
B. Form **decreases** need for written feedback

3 Types of Grading Tools Review

Checklist

1. **Checklist** – Select between dichotomous criteria

    - + Diagnostic, chart progress, improvement focus
    - + Measures if student **can perform skill**

    - - Make absolute decision between 2 choices +/-
        - What if performance is somewhere in between?
    - - May need to write a lot of feedback

1. Checklist

		Yes	No
1. Appropriate **background**		Yes	No
2. Appropriate **font** used on slides		Yes	No
3. Appropriate **amount of text**		Yes	No
4. Appropriate **pictures, tables or graphs**		Yes	No
5. **Professional slides**		Yes	No

Rating Scale

2. **Rating scale** – scores along a continuum of criteria

- + Offers more feedback to student by rating criteria on Likert scale (1=poor, 5=good); **Quality focus**

- - What does a 2 vs. a 3 score mean?
- - Students may focus on score vs. weaknesses

2. Rating Scale						
1. **Background**	Strongly Disagree 1	2	3	4	Strongly Agree 5
2. **Font**	Strongly Disagree 1	2	3	4	Strongly Agree 5
3. **Amount of text**	Strongly Disagree 1	2	3	4	Strongly Agree 5
5. **Professional slides**	Strongly Disagree 1	2	3	4	Strongly Agree 5

Rubric

- Scoring guide evaluating student performance using **<u>full range criteria</u>** (Likert scale) vs. single numerical or dichotomous score

- Rater chooses among **<u>descriptions of performance for each level</u>**

- Helps evaluate **<u>quality of performance</u>**

- Delineates performance from
  - unacceptable → acceptable → exceptional

3. Rubric		
1. Blue **<u>background</u>** (blue), yellow title, white **<u>text</u>**	2	Pts Earned _____ / 2
Other dark colored background with light colored text	1	
Light background with dark title and text	0	
2. **<u>Font</u>** choice on all slides was san serif-such as Arial	2	Pts Earned _____ / 2
Font choice on some slides was switched between serif and san-serif	1	
Font choice on all slides was serif such as - Times New Roman	0	
3. **<u>Amount of text</u>** on all (majority) slides followed 5x5 rule and each bullet had ≤ 2 lines of text, summarized text	2	Pts Earned _____ / 2
Amount of text on some (less than half) slides followed 5x5 rule and each bullet had ≤ 2 lines of text, summarized text	1	
Amount of text on all (majority) slides did not follow 5x5 rule, each bullet had > 2 lines of text or one word bullets, word-word text	0	
4. All slides **<u>professional</u>** - free from typos, grammatically acceptable	2	Pts Earned _____ / 2
Some (< half) slides professional - free from typos, grammatically acceptable	1	
All slides were unprofessional - typos and grammatically unacceptable	0	

Rubric Strengths

1. Combines description & score (Likert scale)
2. Points scaled with performance levels
3. Offer specific feedback for improving performance
   - Grid structures feedback
4. Makes teacher thinking visible
   - What makes a good final product and why
   - Decided in advance prior to grading, distributed early
   - Emphasizes details and guidelines
5. Reduces grading subjectivity
6. Facilitates student self-assessment & products

Rubric Weaknesses

1. Level of detail in form makes live grading difficult
2. Creating them can be time consuming
3. Need to train if multiple graders
4. Difficult to create
   - Time consuming
   - Requires multiple iterations and piloting
   - Hard to delineate levels of performance

Creating Rubrics
10 steps

Creating Rubrics-Step 1

1. **Select the type of <u>grid</u>**
   - Boxes
   - Rows/Tables

Competency	Outstanding Performance	Meets Expectations	Needs Improvement	Unsatisfactory Performance	Not Observed
Introduction 4 points Points earned _____	☐ •Captured audiences' interest •Thesis, purpose and/or presentation goal(s) were exceptionally clear •Introduction was concise and organized •Provided an explicit preview of the talk **(4 points)**	☐ •Captured some of the audiences' interest •Thesis, purpose and/or presentation goal(s) were somewhat clear •Introduction was partially wordy and mostly organized •Preview of the talk was identifiable but vague **(3 points)**	☐ •Did not capture the audiences' interest •Thesis, purpose and/or presentation goal(s) were not communicated clearly •Introduction was either too wordy or too vague •Preview of the talk was confusing and disorganized **(2 points)**	☐ No introduction present in talk **(0 points)**	☐
Organization 4 points Points earned _____	☐ •Uses an exceptional introduction and conclusion •Consistently provides a clear and logical progression throughout presentation. •Facts well connected to topic or objectives •Major points highlighted **(4 points)**	☐ •Uses an appropriate introduction and conclusion •Provides a mostly clear and logical progression throughout presentation. •Most facts well connected to topic or objectives •Most major points highlighted **(3 points)**	☐ •Missing either an introduction or conclusion (presentation ends abruptly) •Progression throughout presentation is difficult to follow. •Facts presented with little connection to topic or objectives •Major points sparsely highlighted **(2 points)**	☐ •No introduction or conclusion used •No logical progression of ideas. •Flow of presentation is confusing •Facts unconnected to topic or objectives •Major points are not evident. **(0 points)**	☐

Rubric for		
1.		Pts Earned _____ /
2.		Pts Earned _____ /
3.		Pts Earned _____ /
4.		Pts Earned _____ /

Creating Rubrics-Step 2

■ **Determine <u>what items to evaluate</u>**

1. What is the purpose of the evaluation?
2. What are the essential learning objectives?
3. Are there national guidelines or standards?
4. Name evidence to be produced
5. Can the performance items be observed?
6. Consider having other colleagues think through what to evaluate as a group
   - ■ Especially important if multiple users of rubric

Creating Rubrics-Step 3

3a. **<u>Group related items</u>**
   - What do the list of items have in common?
     - Nonverbal behavior
     - Eye contact
     - Volume

3b. **Assign <u>descriptive label</u> for common items**
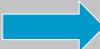   - For example: presentation style

3c. **<u>Arrange criteria in order</u> you would expect to see** items during content or performance review

DESCRIPTIVE LABEL for COMMON ITEMS		
1.		Pts Earned _____ /
2.		Pts Earned _____ /
3.		Pts Earned _____ /
4.		Pts Earned _____ /

Creating Rubrics-Step 4

4. **Define <u>outstanding performance</u>**
   - What would designate quality work?
   - Write the **<u>descriptor of outstanding performance</u>**
     - Independent/not overlapping
     - Clear unambiguous terms (avoid good, appropriate, correct)
     - Contained to one description of performance
     - Observable
   - Obtain feedback about **<u>expectations of outstanding performance</u>**
     - Developmentally appropriate for student or expert?

DESCRIPTIVE LABEL for COMMON ITEMS		
1. ➡ Outstanding Performance		Pts Earned _____ /
2. ➡		Pts Earned _____ /
3. ➡		Pts Earned _____ /
4. ➡		Pts Earned _____ /

Creating Rubrics-Step 5

5. **Define** <u>**poor performance**</u>
   - What is the opposite of outstanding performance?
   - Should it be absent performance
   - Can think of all or nothing
   - Avoid vague or ambiguous words
     - Correctly, appropriately, good

DESCRIPTIVE LABEL for COMMON ITEMS

1.		Pts Earned _____ /
→ Poor Performance		
2.		Pts Earned _____ /
→		
3.		Pts Earned _____ /
→		
4.		Pts Earned _____ /
→		

Creating Rubrics-Step 6

6. Develop a <u>continuum of performance levels</u>
  - **Established outstanding to poor/inadequate**
  - **Now decide <u>what performance exists in between</u>**
    - **Frequently – sometimes – rarely – never**
      - **definitive difference between sometimes and rarely or frequently and sometimes**
    - **0 = never, 1=sometimes, 2=always**
    - **How many levels needed**
      - **3, 4, More?**
    - **Quantify in terms of whole or half number continuums**
      - **0, 0.5, 1, 1.5 Or would 0, 1, 2 work better?**

DESCRIPTIVE LABEL for COMMON ITEMS			
1. Performance in between May be > 1 category			Pts Earned _____ /
2.			Pts Earned _____ /
3.			Pts Earned _____ /
4.			Pts Earned _____ /

4. Stated **all 5 pertinent details** of the case (medication history, social history, microbiology data, physical exam data, laboratory data)		5
Stated **4/5** pertinent details of the case (medication history, social history, microbiology data, physical exam data, laboratory data)		4
Stated **3/5** pertinent details of the case (medication history, social history, microbiology data, physical exam data, laboratory data)		3
Stated **2/5** pertinent details of the case (medication history, social history, microbiology data, physical exam data, laboratory data)		2
Stated **1/5** pertinent details of the case (medication history, social history, microbiology data, physical exam data, laboratory data)		1
Stated **0/5** pertinent details of the case (medication history, social history, microbiology data, physical exam data, laboratory data)		0

Creating Rubrics-Step 7

7. **Pilot with students** and multiple graders
    - Check order of items
    - Evaluate level of clarity vs. ambiguity
    - Train multiple graders and note items of confusion

Creating Rubrics-Step 8

8. **Evaluate the end product**
    - Does rubric capture student performance?
    - Is there **content validity**?
    - Does final score match your general impression

Creating Rubrics-Step 9

9. **<u>Revise</u> rubric where needed**
   - Train multiple graders and note items of confusion
   - Revise rubric to make item's intent clear

Creating Rubrics-Step 10

10. **<u>Share</u>** rubric with students before they begin assignment

Take Home Points

1. Grading tools can increase objectivity when assessing student performance

2. Checklists, rating scales, and rubrics serve different roles in assessing student performance

3. Rubrics provide most feedback, can reduce writing the feedback, helpful with student self-assessment and reflection

4. Rubrics can be created in 10 easy steps but may require several revisions

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