Grading Assignment

• Spend three minutes grading the following assignment - No questions please!

"We generally think of communication as a matter of voice and gesture, but the skin is an important human communicative organ. Animals communicate their moods and sometimes make threats by fluffing their fur or causing it to rise on the backs of the neck and shoulders. Humans cannot do that. However, the patterns of human hair distribution and colored do signal sex and age. Fair-complexioned people can also involuntary change blood flow to the skin and blushed to indicate embarrassment, turned red with rage, and go pale with shock. In addition, we have considerable voluntary control over subcutaneous muscles in the face and neck, many of which attach to the skin to produce stretchings and wrinklings of facial expressions."

YOUR GRADE: _____

A grade is....... 

"... an inadequate report of an inaccurate judgment by a biased and variable judge of the extent to which a student has attained an undefined level of mastery of an unknown portion of an indefinite amount of material."

> Paul Dressel Basic College Quarterly p. 6, 1957
Objectives

• Increase knowledge of rubrics and how to best utilize these for assessment purposes in the classroom, laboratory, and clinic.
• Provide tools and tips on how to develop rubrics.
• Engage in a hands-on opportunity to create a rubric.
• Impart a tool kit of resources on rubrics.

Outline

• Defined
• Advantages
• Types
• Creating
• Weighting
• Evaluating
• Making Your Own
• Summary

Etymology

• “Middle English rubrike red ocher, heading in red letters of part of a book, from Middle French rubrique, from Latin rubrica, from rubr-, ruber red” Webster’s (2003)
Practitioner’s Definition: What are Rubrics?

- “a scoring guide or scale consisting of a set of criteria that describe what expectations are being assessed/evaluated and descriptions of levels of quality used to evaluate students work or to guide students to desired performance levels”
  [Link to definition]
- “a chart or template which specifies the criteria to be used to evaluate an assignment”
  [Link to definition]
- “an authentic assessment tool...that seeks to evaluate a student’s performance based on the sum of a full range of criteria rather than a single numerical score”
  [Link to definition]

What it Does

- “provides columns of characteristics which categorize a student’s efforts to meet these criteria as unacceptable, acceptable, or above.”
  [Link to definition]
- “Although the same criteria are considered, expectations vary according to one’s level of expertise. The performance level of a novice is expected to be lower than that of an expert and would be reflected in different standards.”
  [Link to definition]
- “allows the instructor to rate each student’s assignment by checking pre-established criteria, rather than writing the same comments on many assignments.”
  [Link to definition]
- “reduce or eliminate the repetitive work which makes grading tedious...while encouraging commentary from instructor.”
  [Link to definition]
- “used to evaluate students’ work by measuring the product according to real-life criteria.”
  [Link to definition]
- can be created for any content area.
  [Link to definition]

What Rubrics Do for the Student

- Improve students’ projects
  - provides explicit guidelines regarding expectations and marking criteria
  - can prepare accordingly
  - motivates student to pay close attention to specific requirements
  - ownership - students involved in creating the rubric
- Increases learning
  - provides scaffolding necessary to improve quality of work and increase their knowledge
  - increases the quality of direct instruction by providing focus, emphasis, and attention to particular details as a model for students
  - develops students’ abilities
- Impacts the perceptions of fairness of marking
  - rubrics reduce the “subjective” nature of marking
Advantages for the Teacher


- Enhances quality of direct instruction
  - knowing implicitly what makes a good final product and why
- Increases efficiency of marking
  - reduce or eliminate repetitive work
  - reuse rubrics for various activities
  - any content area
  - multi-section courses: teams of instructors/markers/graders can customize rubrics for particular programs or assignments
  - can always be designed to allow room for encouraging commentary
- Permits comprehensive grading
  - provides streamlined info on students’ strengths and weaknesses
  - focuses on particular skills being developed
- Calibration: reduces allegations from students about inconsistency in grading

Types of Rubrics

http://www.teachervision.com/index.html

- Analytic
  - identify and assess individual components of a finished product.
  - Example
- Holistic
  - assess student work as a whole
  - Sample rubric
  - HolisticWritingRubricforSCRs_Eng.pdf
- Which One: Content being assessed?
  - Less detail - holistic
  - Detail is important - analytical
- One assessor vs. many assessors
  - Analytic helps multiple graders emphasize the same criteria.

Creating a Rubric: Step 1

- Choose criteria to be evaluated
  - list of what students are to accomplish through assignment
    - essential learning objectives or learning outcomes
    - evidence to be produced
    - measurable skills
    - low inference behaviours = easily identifiable
- Choose concepts to be taught
- Example
Creating a Rubric: Step 2

• Organize criteria
  – from most important to least important
  – in a logical order
  – in a sequential order

Creating a Rubric: Step 3

• Develop a grid inserting criteria
  – Assign specific grading criteria for each main category:
    • Limited, Some, Considerable, High Degree
    • Poor, Average, Good, Excellent
    • Beginning, Developing, Accomplished, Exemplary
  – Example
• Importance of using valid criteria
  – Example

Language of Rubrics: Limited
[Adapted from http://www.rubricbuilder.on.ca/learn.shtml]

• Level 1 or “Limited”
  – minimum expected from a student who will be receiving a passing (50-59%) grade.
  – Example
    – If criteria is “uses correct terminology” the minimum expected is that students will use the most common or familiar terms. This is a limited capacity, but clearly defines for the students what the level of quality is for a Level 1 performance.
• Performance Descriptor
  – is able to use common and familiar terms correctly.
Language of Rubrics: Some
[Adapted from http://www.rubricbuilder.on.ca/learn.shtml]

- Level 2 or "Some"
  - mediocre performance level.
  - student has clearly passed but is not the standard you would expect (60-69%).
  - Example:
    - if criteria is "uses correct terminology", expect that students can move one step beyond Level 1. Since level one indicates the student uses common or familiar terms, the next step is that they are using some of the newer terminology as well. This is a "some" capacity, but a definite and clear difference from Level 1.
  - Performance Descriptor:
    - is able to use common, familiar, and some newly acquired terms correctly.

Language of Rubrics: Considerable
[Adapted from http://www.rubricbuilder.on.ca/learn.shtml]

- Level 3 = Considerable
  - standard expectation performance level
  - what expect general population of students are capable of demonstrating (70-79%).
  - Example:
    - if criteria is "uses correct terminology", expect that students can move one step beyond Level 2. Since level two indicates the student uses common, familiar and many new terms, the next step is that they are using most or all of the newer terminology in their written and oral work. This is a "considerable" capacity, but a definite and clear difference from Level 2. It is not perfect, but a standard level of expected competence and should paraphrase your criteria which is the standard you have set.
  - Performance Descriptor:
    - is able to use common, familiar, and most newly acquired terminology correctly.

Language of Rubrics: High Degree
[Adapted from http://www.rubricbuilder.on.ca/learn.shtml]

- Level 4 or "High Degree"
  - is beyond the standard expectation performance level—one that requires the student to move beyond what is taught in the classroom (80-100%).
  - Example:
    - if criteria is "uses correct terminology", expect that students move one step beyond a Level 3. Students may pick up more obscure words you use in class but do not necessarily expect students to know and remember. They may use the words correctly in a new context, apply a global perspective, or apply the words to convey meaning about themselves.
  - Performance Descriptor:
    - is able to use common, familiar, and all newly acquired terminology correctly.
Weighting Rubrics

http://www.teachervision.com/index.html

- Defined:
  - is an analytic rubric in which certain concepts are judged more heavily than others
- Rationale:
  - clearly communicates to S. & T. which parts of the project are more important to learn for a particular activity
  - can be changed to stress different aspects of a project over a period of time as different criteria are being taught.

How To Weight Rubrics

- Assign numeric weights to different concepts
- Multiply total point value by each item's assigned percentage to arrive at the point value for that item
- Rubric templateb.pdf

Evolution of the Pre-Clinical Rubric

- Attending Rubric Faculty Development Workshop
- First Rubric Iteration
  - Refinement
- Second Rubric Iteration
  - Refinement
- Third Rubric Iteration
  - Refinement
- Study: Student Rubric Feedback
  - Refinement
  - Findings
14/02/2011

RPD Rubric – page 1

Dong C, Schonwetter D, Cast
Removable Partial Denture
Available from:
http://services.aamc.org/30/mededportal/servlet/s/segment/mededportal?subid=7951

RPD Rubric – pages 2 & 3

Study: Student Rubric Feedback

1. What are the useful features of the rubric?

2. If you were teaching the course, how might you improve the rubric?
Feedback on the Rubric Utility from Students

- Comprehensive, detailed (what to include, key aspects, critical components, required elements, headings/sub) (18)
- Checklist, user-friendly, easy to read, clear, organized, itemized, outlines, breakdown list (17)
- Advance organizer, directs, guides preparation, what is expected, no surprises (7)
- Identifies areas of weakness, need to focus on improving (7)
- Comments section for feedback, explains, exactly, how errors can be corrected (5)
- Identifies areas of strength, well done (4)

Suggestions for Revisions to Rubric

- Indicate weighting of each subcomponent (19)
- Define required elements with examples (i.e. clinically acceptable) (6)
- Further division of "components" (5)
- I like it. Very comprehensive, complete, nothing (5)
- List errors that are clinically unacceptable (5)
- How much each error is worth in terms of deduction (3)
- Weighting of each section (3)
- Visual display of casts from best to worst as a learning opportunity
- Additional column that states above average quality work
- Place rubric criteria in order (step by step) of action
- Self-evaluation by students

Implications for the Pre-Clinical Classes

- Students appreciate clear guidelines to help them complete procedures
- Students consistently identified they want to understand the grading scale
- The rubric can be presented as an introduction to the course
- Repeated use of the rubric provides opportunities for the students to achieve competency
- Emphasize self-learning
Using A Rubric in the Clinical Environment

Clinical Competencies

1. Abide by the CDHA Code of Ethics
2. Adhere to the laws and the professional standards governing the practice of dental hygiene
3. Use a model of care that provides a holistic framework for the practice of dental hygiene
4. Communicate effectively and collaboratively during professional interactions
5. Use a client-driven approach with diverse populations in all ages and stages of life
6. Use critical thinking and problem-solving strategies to make decisions drawing upon the best possible evidence
7. Serve as a client advocate
8. Contribute to the advancement of the dental hygiene profession through involvement in professionally related activities and associations
9. Commit to self-assessment and life-long learning in order to provide contemporary dental hygiene services
10. Initiate and provide oral health promotion and disease prevention strategies which address identified risk factors of oral disease in order to promote optimal oral/health and wellness for individuals, groups and communities
11. Assess, plan, implement and evaluate preventive and therapeutic dental hygiene interventions designed to facilitate the achievement of optimal oral health
12. Apply management skills in a variety of professional settings.

The Clinic Manual: Framework for the clinic rubric

Clinical Rubric
Assessment Phase - Example

<table>
<thead>
<tr>
<th>Rating</th>
<th>AccuratelyRecordsHardTissueStatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Acceptable</td>
<td>1. Information complete and precise, chart represents an exact duplication of hard tissue status of the client, including occlusion 2. All records are provided and/or utilized, e.g. radiographs 3. Cavities and/or restorations are neatly recorded and accurately represent the outline of either</td>
</tr>
<tr>
<td>2: Acceptable</td>
<td>1. Minor errors e.g. resin restorations, deficient margins</td>
</tr>
<tr>
<td>3: Unacceptable</td>
<td>1. Major error of an obvious nature; e.g. large carious lesions, leaking margins and/or voids – a pit in which the explorer catches and remains (incipient lesion) and/or 2. Entry error on chart, i.e. reversed quadrants, teeth incorrectly identified and/or 3. Untidy charting, outlines not representative of caries or restoration 4. Radiographic records not utilized 5. Answers to questions indicate inadequate knowledge/understanding 6. Fails to seek consult concerning diagnosis of abnormal condition</td>
</tr>
</tbody>
</table>
### Clinical Rubric

#### Planning Phase - Example

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acceptable</th>
<th>Partial Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Client prioritize identified goals. 2. Options explained and consent obtained. 3. Long and short-term goals mutually agreed. 4. Review progress and satisfaction of client at each appointment. 5. Identifies relevant data from assessment. 6. Identifies problems affecting dental hygiene care. 7. Dental hygiene care related to overall oral health. 8. Goals and their measurement specified. 9. Treatment identified and sequenced appropriately. 10. Identifies relevant assessment data (e.g., does not consult radiographs or incorrectly assesses). 11. Does not identify significant problems or plan for their care. 12. Does not relate dental hygiene care to overall dental care. 13. Produces a plan which is inappropriate in content or sequence. 14. Provides inadequate or incorrect rationale for care plan. 15. Does not reassess at each appointment. 16. Does not alter plan when appropriate. 17. Answers to questions indicate inadequate knowledge/understanding.</td>
<td>1. Partial attempts at involvement of client made. 2. Overlooks minor points which may slightly influence desirable outcome.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1. Identifies relevant data from assessment. 2. Identifies problems affecting dental hygiene care. 3. Dental hygiene care related to overall oral health. 4. Goals and their measurement specified. 5. Treatment identified and sequenced appropriately. 6. Identifies relevant assessment data (e.g., does not consult radiographs or incorrectly assesses). 7. Does not identify significant problems or plan for their care. 8. Does not relate dental hygiene care to overall dental care. 9. Produces a plan which is inappropriate in content or sequence. 10. Provides inadequate or incorrect rationale for care plan. 11. Does not reassess at each appointment. 12. Does not alter plan when appropriate. 13. Answers to questions indicate inadequate knowledge/understanding.</td>
<td>1. Inadequate attempt to involve client in planning. 2. Long and short-term goals not identified. 3. Consent not obtained. 4. Answers to questions indicate inadequate knowledge/understanding.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1. Involves client in planning process. 2. Identifies relevant data from assessment. 3. Identifies problems affecting dental hygiene care. 4. Dental hygiene care related to overall oral health. 5. Goals and their measurement specified. 6. Treatment identified and sequenced appropriately. 7. Identifies relevant assessment data (e.g., does not consult radiographs or incorrectly assesses). 8. Does not identify significant problems or plan for their care. 9. Does not relate dental hygiene care to overall dental care. 10. Produces a plan which is inappropriate in content or sequence. 11. Provides inadequate or incorrect rationale for care plan. 12. Does not reassess at each appointment. 13. Does not alter plan when appropriate. 14. Answers to questions indicate inadequate knowledge/understanding.</td>
<td>1. Involves client in planning process. 2. Devises Mutual Plan of Care. 3. Modifies Plan of Care.</td>
<td></td>
</tr>
</tbody>
</table>
Early Clinical Assessment Client – Rubric

<table>
<thead>
<tr>
<th>Competency</th>
<th>Not Competent</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>- provides no information about client</td>
<td>- provides limited information about client</td>
<td>- provides adequate information about client</td>
<td>- provides comprehensive information about client</td>
</tr>
<tr>
<td>Risk Factors</td>
<td>- does not identify any risk factors</td>
<td>- identifies some risk factors</td>
<td>- identifies most risk factors</td>
<td>- identifies all risk factors</td>
</tr>
<tr>
<td>Treatment Plan</td>
<td>- does not outline treatment plan</td>
<td>- outlines some aspects of treatment plan</td>
<td>- outlines most aspects of treatment plan</td>
<td>- outlines all aspects of treatment plan</td>
</tr>
<tr>
<td>Competencies</td>
<td>- does not include assessment of competencies</td>
<td>- includes some competencies</td>
<td>- includes most competencies</td>
<td>- includes all competencies</td>
</tr>
<tr>
<td>Instructor Comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rubric Use in Evaluating Overall Program Competency

Clinical Competencies
1. Adhere to the CDHA Code of Ethics
2. Use a model of care that provides a holistic framework for the practice of dental hygiene
3. Communicate effectively and collaboratively during professional interactions
4. Use critical thinking and problem-solving strategies to make decisions drawing upon the best possible evidence
5. Use a client-driven approach with diverse populations in all ages and stages of life
6. Use critical thinking and problem-solving strategies to make decisions drawing upon the best possible evidence
7. Serve as a client advocate
8. Communicate with clients in a variety of professional settings
9. Use critical thinking and problem-solving strategies to make decisions drawing upon the best possible evidence
10. Use critical thinking and problem-solving strategies to make decisions drawing upon the best possible evidence
11. Assess, plan, implement, and evaluate preventive and therapeutic dental hygiene interventions designed to facilitate the achievement of optimal oral health
12. Apply management skills in a variety of professional settings.
Portfolio Scoring Rubric

The rubric below lists the tasks that faculty will use to evaluate portfolios. Note each task as you evaluate the portfolio.

1. NURSE: Student demonstrates consistent progress in meeting professional outcomes.
2. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
3. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
4. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
5. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
6. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
7. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
8. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
9. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
10. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
11. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
12. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
13. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
14. NURSE: Student demonstrates increasing knowledge in clinical practice setting.
15. NURSE: Student demonstrates increasing knowledge in clinical practice setting.

Total Score:_____

Comments:
Group Work Developing a Rubric on Assessment of Professionalism

### GENERAL SETTINGS
1. Lecture
2. Clinic
3. Lab
4. Externship
5. Test
6. Assignment
7. Presentation
8. Small group projects

### SPECIFIC SCENARIOS
1. Environment conducive to learning
2. Patient not comfortable during tx, explaining treatment plan to patient
3. Dental/dental hygiene lab exercise
4. Representing the Faculty on externship
5. Time management during test
6. Presentation of assignment
7. Questions from audience
8. Interaction with peers

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OVERVIEW OF RUBRIC DEVELOPMENT

- **Step 1:** Choose criteria to be evaluated
- **Step 2:** Organize criteria
- **Step 3:** Develop a grid inserting criteria
- **Step 4:** Provide the criteria language
- **Step 5:** Provide the weighting
Break

- 10 minutes
- Please form groups with 5 people
- Be prepared to document
- Be prepared to present your rubric

Group Work Developing a Rubric on Assessment of Professionalism

Presentations

Guidelines on Professionalism

- [http://www.adea.org/policy_advocacy/Pages/LearnMoreAboutADEAStatementonProfessionalism.aspx](http://www.adea.org/policy_advocacy/Pages/LearnMoreAboutADEAStatementonProfessionalism.aspx)
- The University of Oklahoma, School of Medicine Professional Assessment Instrument
- The University of Manitoba, Faculty of Dentistry Instructor Assessment Guidance Rubric used in the fourth year general practice clinic
Evaluation of the Rubric

- Efficient
- Concerns raised by students
- Common errors that may need to be listed as new criteria
- Any problems with grey areas
- Is it valid?
Rubrics Should
http://fcis.oise.utoronto.ca/~krobbins/rubrics.html

• Be teacher or student and teacher created
• Be given prior to the task
• Be used often during teaching as an assessment tool
• Be a combination of quality and quantity of student learning
• Be fair to all students
• Indicate both what students learn and how well they learn
• Have clear indications of how students can improve
• Allow students the ability to assess their own work
• Be specific to the task they are being used to assess/evaluate.

Summary

• There are many pros to using rubrics and some challenges.
• Rubrics may be applied interprofessionally, in general settings, and to specific scenarios.
• Many rubrics already exist. Some are being shared and some are being adapted.

Questions and Answers

Email addresses:
- c_dong@umanitoba.ca
- joanna_asadoorian@umanitoba.ca
- schonwet@cc.umanitoba.ca
- Salme_Lavigne@umanitoba.ca
Resources Worth Considering

- A page of resources for rubrics and assessment: http://people.senecac.on.ca/selia.karsten/EC/resources_7.html
- A web page showing an example of evaluation criteria: http://www.uu1.eiu.edu/%7Ecfmgb/web.htm
- Rubistar is a tool to help teachers design rubrics. Some of the categories include: oral presentations, multimedia, research projects, writing, science and math. You can use one of their templates or customize your own. This application will even make printable rubrics so there’s no need to cut and paste. You can even save your customized rubric on the server and then re-design whenever necessary. http://rubistar4teachers.org
- Marking guidelines for the team web project in Selia Karsten’s eCommerce class: http://people.senecac.on.ca/selia.karsten/EC/e-commerce.html
- Criteria for marking web reports: http://people.senecac.on.ca/selia.karsten/EC/reportcriteria.html

Resources

- Both projects are summarized here: http://people.senecac.on.ca/selia.karsten/EC/610w2003/projects.html
- http://www.ux1.eiu.edu/%7Ecfmgb/web.htm
- http://people.senecac.on.ca/selia.karsten/EC/reportcriteria.html
- http://rubistar.4teachers.org rubric_bank.html (excellent bank of rubrics!)
- http://www.12educators.about.com/where to get more information