Improving Learning & Authentic Assessment: A Rubric Approach

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Measuring Learning and Improvement

- Balancing Summative and Formative
  - Summative = Assessment at the end of a program/year/college career to measure total learning gains
  - Formative = Assessment done at intervals within the process

- Balancing Direct and Indirect
  - Indirect = Assessment student’s perceived learning based questions asked of them
    - National Surveys: NSSE, CIRP
    - Local Surveys, Course evaluations
    - Focus groups
  - Direct = Assessment of student’s demonstration of learning based upon student developed artifacts
    - Writing samples, reflections papers, journals,
    - Policy papers, information booklets, non-text products of student work (videos, art projects, tutorials)
    - CLA, VALUE Rubrics, Portfolios

VALUE Rubrics & Assessment

Background on AAC&U VALUE Rubrics

(Valid Assessment of Learning in Undergraduate Education)

2007-2009
VALUE Rubrics & Assessment

- The VALUE Initiative was developed in 2007 in response to Congressional pressure.

- The purpose of VALUE was to create an *authentic* assessment methodology as an alternative to standardized testing.

- VALUE was funded by FIPSE (US DoE) and State Farm Insurance.

The Power of VALUE Rubrics as Tools for Both Assessment and High-Impact Learning

- Rubrics to help *guide* students and faculty
- Places individual *faculty judgment* within national shared experience; national benchmarks
- Focuses on *students’ best work*, and allows for mining of samples for *assessment* purposes
- Can *build up* from course level to program level to institutional reporting needs AND *drill down* from general to specific program/course context
Valuing the VALUE Rubrics

- Standards-based Assessments vs. Standardized
- Faculty Developed
- Focused on Competence vs. Deficits
- Based on Student Work
- Connect directly to Essential Learning Outcomes

Essential Learning Outcomes For UW-Madison Students

These learning outcomes were developed through extensive national survey and interviews done by the Association of American Colleges & Universities with employers, faculty, staff, and students. The basic question: “What qualities and skills do you want in college graduates?”

Beginning in their first year, and continuing at successively higher levels across their college studies, students should prepare for twenty-first century challenges by gaining:

**Knowledge of Human Cultures and the Physical and Natural World:**
- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts
- Focused by engagement with big questions, both contemporary and enduring

**Intellectual and Practical Skills, Including:**
- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving
- Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance

**Personal and Social Responsibility, Including:**
- Civic knowledge and engagement—local and global
- Interpersonal knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning
- Achieved through active involvement with diverse communities and real-world challenges

**Integral Learning, Including:**
- Synthesis and advanced accomplishment across general and specialized studies
- Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems
Rubric Creation Process

1. National Advisory Panel (12 faculty & higher education leaders)
   • 16 Inter-disc/Inter-institutional teams of faculty/scholars (Over 100)
2. Reviewed existing rubrics to develop broad agreement on dimensions of outcomes
3. Established criteria based on existing material
4. Rubric development team members each volunteered to write a line of performance descriptors
5. Conference calls discussing, in detail, each cell, word by word until consensus was reached.

Rubric Revision Process

- Tested by faculty in 2-4 waves on over 100 campuses.
  - provided feedback in the form of answers to three questions (levels, criteria, descriptors) and some general narrative comments
  - National reliability study
- Feedback was given directly to Rubric Development teams
Rubric Revision Process (cont’d)

- AAC&U VALUE Initiative Manager identified overall trends in feedback and established general revision goals applicable for all Rubric Development Teams

- Conference calls began again, revising rubrics in the same manner in which they were created, line by line, cell by cell, word by word – three rounds.

Rubrics Use & Impact

- To date accessed by over 5661 institutions/organizations
  - Domestic & international, K-12, state university systems
  - 3 Consortia: RAILS, Connect2Learning, South Metropolitan Higher Education Consortium
EXERCISE

- Written Communication VALUE Rubric
- Focus: CONTENT DEVELOPMENT (See cheat sheet)
- Performance Descriptor for Content Development
- Capstone Benchmark

INTEGRATIVE LEARNING VALUE RUBRIC

The VALUE rubric is developed to provide faculty, students, and faculty development professionals with a comprehensive, multi-dimensional, and rigorous rubric for evaluating learning outcomes across the baccalaureate degree. The VALUE rubric is designed to provide clear, specific, and measurable expectations for student learning outcomes across the baccalaureate degree.

The VALUE rubric is structured to provide a framework for evaluating student learning outcomes across the baccalaureate degree. The rubric includes four dimensions: KNOWLEDGE, THINKING, VALUES, and SKILLS.

KNOWLEDGE
- Adapting the definition to ensure that learning outcomes are aligned with the rubric.
- Context: The context in which the learning outcome is presented.
- Content: The content that is assessed.
- Comprehension: The extent to which the student demonstrates understanding of the content.
- Application: The extent to which the student applies the content in new situations.
- Analysis: The extent to which the student analyzes the content.
- Synthesis: The extent to which the student synthesizes the content.
- Evaluation: The extent to which the student evaluates the content.

THINKING
- Analyzing: The extent to which the student analyzes the content.
- Applying: The extent to which the student applies the content in new situations.
- Synthesizing: The extent to which the student synthesizes the content.
- Evaluating: The extent to which the student evaluates the content.

VALUES
- The extent to which the student demonstrates an understanding of the values that are important to the discipline.

SKILLS
- The extent to which the student demonstrates proficiency in the skills that are essential to the discipline.

The rubric is designed to provide a comprehensive framework for evaluating student learning outcomes across the baccalaureate degree. The rubric includes four dimensions: KNOWLEDGE, THINKING, VALUES, and SKILLS. The rubric is designed to provide clear, specific, and measurable expectations for student learning outcomes across the baccalaureate degree.
Integrative Learning VALUE Rubric

Dimensions

<table>
<thead>
<tr>
<th>Capture</th>
<th>Milestone 1</th>
<th>Milestone 2</th>
<th>Benchmark 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connections to Experience</td>
<td>Meaningfully synthesizes connections among experiences related to formal classes to construct extended personal knowledge.</td>
<td>Effectively articulates connections among elements of life experiences, showing commitment to a coherent and persuasive vision.</td>
<td></td>
</tr>
<tr>
<td>Connections to Disciplines</td>
<td>Independently constructs links among fields of study by synthesizing, comparing, and contrasting different ideas, methods, and concepts from more than one field of study.</td>
<td>Independently connects examples, facts, or theories from more than one field of study.</td>
<td></td>
</tr>
<tr>
<td>Transfer</td>
<td>Applies skills, abilities, theories, or methodologies gained in one situation to new situations.</td>
<td>Applies skills, abilities, theories, or methodologies gained in one situation to new situations.</td>
<td></td>
</tr>
<tr>
<td>Reflection and Self-Assessment</td>
<td>Describes the learning experience in terms of key events, ideas, and experiences that contributed to the development of knowledge.</td>
<td>Describes the learning experience in ways that enhance understanding, integrating the interdisciplinarity of language and learning through reflection.</td>
<td></td>
</tr>
</tbody>
</table>

VALUE Rubrics & Assessment
# VALUE Rubrics & Assessment

## Rubrics for Integrative Learning

<table>
<thead>
<tr>
<th>Category</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>Synthesis</td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td></td>
</tr>
</tbody>
</table>

Score: [Insert Score]

Performance Descriptors:

- [Insert Descriptors]

- [Insert Descriptors]

- [Insert Descriptors]

- [Insert Descriptors]

- [Insert Descriptors]

- [Insert Descriptors]

- [Insert Descriptors]

- [Insert Descriptors]

5/24/2014
The Ground Rules

- This is not grading.
- We are not changing the rubric (today).
- Our work is time sensitive. Go with your instinct.
- Think globally about student work and about the learning skill. Think beyond specific disciplinary lenses or content.
- Start with 4 and work to benchmark (1).
- Pick one score per dimension. Avoid “.5”.
- Assign “0” if work does not meet benchmark (1) score. N/A exists. Assign “not applicable” if the student work is not intended to meet a particular criterion.

EXERCISE

- Written Communication VALUE Rubric
- Focus: CONTENT DEVELOPMENT
  (See cheat sheet)
- Performance Descriptor for Content Development
- Capstone ⟷ Benchmark
Your Turn: SCORING

- Read the sample of student’s work
- Score for **content development**
- Refer to Ground Rules
- Capstone $\Rightarrow$ Benchmark
- Collect scores and discuss
- Rescore

Workshop Participant Scores on Writing Sample – Content Development

**Dimension: Content Development**

<table>
<thead>
<tr>
<th>Score Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (Capstone)</td>
</tr>
<tr>
<td>3 (Milestone)</td>
</tr>
<tr>
<td>2 (Milestone)</td>
</tr>
<tr>
<td>1 (Benchmark)</td>
</tr>
</tbody>
</table>

These were the scores of the workshop participants after review of a writing sample that was provided to participants with no information. The sample was intended to be a model of score value 2 work.
UW-Madison VALUE Rubric Project

- Summer 2013
- Hosted a 2-day workshop with faculty from across disciplines
- Piloted the Written Communication VALUE Rubric

AAC&U VALUE Rubric Project

- "Value-added" approach to compare first year students (Fyr) and students near graduation (NGR)
- Goal was to collect 350 artifacts at each level
- Identified 52 courses that had high numbers of Fyr and NGR and seemed likely to have a suitable writing assignment
- 22 courses (41 instructors) had a suitable assignment and agreed
- Invited 2450 students to submit artifacts
- Collected 451 submissions.
Lessons Learned

- Not a one-and-done activity; plan for multiple cycles
- One rubric at a time
- The ground rules are important
- Hugely valuable learning activity for faculty and staff around assessment of student learning
- Faculty want to work in discipline groups – listen to them
- Criteria for selecting scorers – it depends
- Work samples and assignments – best practice is still emerging (unless you have portfolios)
- This work is FUN!

THANK YOU!

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- AAC&U VALUE Rubrics www.aacu.org/value