USING RUBRICS IN THE IMPLEMENTATION OF 21ST CENTURY LEARNING OUTCOMES ACROSS THE CURRICULUM

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Winston-Salem State University
Questions

Who are you?

- Faculty
- Have responsibility for assessment of learning
- Institutional research staff
- Accreditation liaison

What do you already know about using rubrics for assessment?

- Know little about their use for assessing learning
- Know about them but have not been involved in institution wide use

What do you want to know about using rubrics at an institutional level?
Outline
• Overview of general education reform at Winston-Salem State University
• Use of rubrics for institutional student learning outcomes assessment
• What we’ve learned and where we are headed
WSSU Background

• Public, HBCU serving about 4500 undergraduate and 450 graduate students.

• Focused on liberal education but strong and large programs in allied health fields.

• Fall 2009, Task Force reviewed the general education outcomes and curriculum - general education curriculum had not been substantially changed for 20 years despite several cycles of review

• Studied materials from the LEAP (Liberal Education and the American Promise) project from the American Association of Colleges and Universities (AAC&U)
WSSU Background

• General education had a set of outcomes (like communication, critical thinking) which were supposed to be achieved through courses in five prescribed areas of knowledge

• Weaknesses:
  • The intended skills outcomes were confounded within the areas of study.
    • EX: Communication relegated to English
  • Students were given limited opportunities to develop and hone these skills across all areas of knowledge, thus they lacked transferability.
  • Institution was not confident that they were being assessed well or equally.
WSSU Background – Spring 2010

• Decided to disentangle Institutional Learning Outcomes from areas of study

• Seven learning outcomes emerged and were defined

• Outcome statements approved by the faculty

• Agreed to embed in courses across all general education courses
2010 WSSU General Education Framework

Skills for Productive Lifelong Learning and Careers SLOs
- Critical Thinking
- Critical Reading
- Written Communication
- Oral Communication
- Scientific Literacy
- Quantitative Literacy
- Information Literacy

A Broad Base of Knowledge for Success in any Career Areas of Knowledge
- Literature
- Foreign Language and Culture
- The Fine Arts
- History
- Social and Behavioral Science
- Mathematics and Quantitative Logic
- Natural Science

Knowledge of Current and Critical Issues Curricular Themes
- Globalization
- Diversity
- Sustainability
- Civic Knowledge
- Healthful Living
- Ethical Reasoning
# Example of Courses and Student Learning Outcomes

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>SLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 2311</td>
<td>Introduction to Geography</td>
<td>3</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>GEO 2312</td>
<td>Geography of North America</td>
<td>3</td>
<td>Critical Thinking</td>
</tr>
<tr>
<td>GEO 2313</td>
<td>Environmental Geography</td>
<td>3</td>
<td>Critical Reading</td>
</tr>
<tr>
<td>GEO 2315</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
<td>Information Literacy</td>
</tr>
<tr>
<td>GEO 3311</td>
<td>Urban Geography</td>
<td>3</td>
<td>Written Communication</td>
</tr>
<tr>
<td>MUS 1304</td>
<td>Political Music</td>
<td>3</td>
<td>Critical Thinking</td>
</tr>
<tr>
<td>MUS 1305</td>
<td>Music and Poetry in Art Song</td>
<td>3</td>
<td>Critical Thinking</td>
</tr>
<tr>
<td>MUS 1306</td>
<td>Medieval to Modern Women in Music</td>
<td>3</td>
<td>Critical Reading</td>
</tr>
<tr>
<td>MUS 1307</td>
<td>Psychology of Music</td>
<td>3</td>
<td>Scientific Literacy</td>
</tr>
<tr>
<td>MUS 3339</td>
<td>Afro-American Music</td>
<td>3</td>
<td>Written Communication</td>
</tr>
<tr>
<td>MUS 3340</td>
<td>Non-Western Music</td>
<td>3</td>
<td>Written Communication</td>
</tr>
<tr>
<td>PHI 2301</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>Critical Thinking</td>
</tr>
<tr>
<td>PHI 2303</td>
<td>Introduction to Logic</td>
<td>3</td>
<td>Quantitative Literacy</td>
</tr>
</tbody>
</table>
Questions

• How many of you have a set of learning outcomes that are supposed to be taught and assessed across some part of the curriculum?

• Are the outcomes embedded in (1) discipline courses or (2) taught in some configuration of specially designed courses?

• In general how well are they assessed?
  • Well;  OK;  Not well;  Not sure
What is a rubric? What does a rubric look like?

• Criterion-referenced measures - student's aptitude on a task is determined by matching performance against a set of criteria to determine the degree to which the performance meets the criteria for the task

• What do you think of when someone says ‘Rubric’?

• Analytic, Holistic, Single Point
# Rubric Example – Information Lit

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Capstone (4)</th>
<th>Milestone (3)</th>
<th>Milestone (2)</th>
<th>Benchmark (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Determining Information Needed</strong></td>
<td>Clearly defines the scope of the question, determines key concepts to explore, and identifies the most appropriate information sources to address the question</td>
<td>Defines the scope of the question, determines key concepts, and broadly identifies information sources to address the question</td>
<td>Incompletely defines the scope of the question, but does determine key concepts, and identifies some sources to address the question</td>
<td>Has difficulty defining the question and the information sources necessary to address the question</td>
</tr>
<tr>
<td><strong>Accessing Information</strong></td>
<td>Accesses information using effective, well designed search strategies and most appropriate information sources</td>
<td>Accesses information using a variety of search strategies and some relevant information sources</td>
<td>Accesses information using simple search strategies, retrieves information from limited and similar sources and requires some assistance from an information literacy professional</td>
<td>Accesses information randomly, retrieves information that lacks relevance and quality, and relies on information literacy professionals to complete work</td>
</tr>
</tbody>
</table>
Where do you stand?

• Using rubrics in assessment of student work is like teaching to the test.
  • AGREE
  • DISAGREE

• Why credible and widely used, the assessment data rubrics produce is not as good as that from tests.
  • AGREE
  • DISAGREE
Teaching to the Test and Good Data

• A good rubric that delineates the components of a complex concept helps faculty and students focus on the components of the skill in teachable and measurable ways.

• The assignments are not designed to match the rubric, but rather good assignments allow students to demonstrate their skills across the dimensions of the outcome.

• There is a large and growing body of knowledge that demonstrates the quality of the data generated in the use of rubrics to measure learning of complex skills like critical thinking – much more than can be measured in a standardized test.

• Multi State Collaboration (MSC) – a national pilot that could become much like NSSE as a means of comparing data across disciplines and institutions
Working with Rubrics across Faculty and Disciplines  
Ashely Finley

- Essential training through collaboration and discussion
- Building standards without standardization (transparency)
- Building shared, inter-disciplinary knowledge around skills assessment
- Shared stake in data collection
- Building intentionality of assignment development
Use of Rubrics

• Are rubrics being used on your campus to measure program or institutional outcomes?

• What are major obstacles you have encountered in their use?

• How would you like to see them used?
What are VALUE Rubrics (AAC&U)*

Valid Assessment of Learning in Undergraduate Education (VALUE)

Needed
- Tools to assess essential learning outcomes
- In students’ authentic work
  - Real assignments given as part of the assessment of the course by faculty
  - Across diverse learning pathways and institutions

Teams of faculty from across a wide variety of institutions developed and tested

Widely used across US and internationally

VALUE Approach to Assessing Student Learning


Assignments: 
Faculty designed 

Scorers: 
Faculty judgment 

Scores: 
Rubrics 

Student work products from faculty designed assessments in real content courses 

Rubrics describe the learning outcomes on which student work will be scored 

Faculty use expert judgment to evaluate student work based on rubrics dimensions and performance levels
Why AAC&U VALUE Rubrics?

Kate Drezek McConnell

- Sophisticated, authentic approach to capturing information on student learning
- Best thinking of higher ed faculty and professionals
- Specific enough to be useful, broad enough to be meaningful in multiple contexts, at multiple levels for assessment purposes
- Already created/validated so don’t have to reinvent wheel
- Comparisons to other campuses
- Helpful in framing assessment of student learning in co-curricular contexts/high impact practices (Kuh, 2008)
So How Did We Get There?

• A committee composed of faculty from across disciplines as well as staff from academic support areas was asked to develop a common evaluation process for the SLOs that was not discipline specific.

• Because of 2010 QEP, faculty had experience with using a rubric to evaluate writing in the major across disciplines with a large group of faculty.

• Rubrics were presented as the best approach to assess the GE SLOs.
Assessing GE Learning Outcomes 2011-2012

- The AAC&U VALUE rubrics (Critical Thinking, Reading, Oral Communication, Written Communication, Quantitative Literacy, and Information Literacy) that corresponded to six of the WSSU SLOs were shared with faculty committees as a starting place and as a template.

- Only Scientific Literacy did not have a corresponding specific VALUE rubric so that committee used Problem Solving and Inquiry and Analysis as points of reference.
What We Asked the Committees to Do

• Pages 4 and 5 of Handout have the Scientific Literacy Rubric we developed.
• Do the criteria adequately describe the our definition of scientific literacy?
• Do the descriptors clearly define the standard for performance?
• Do the levels reflect advancing skill levels in the criteria?
• Could you use this rubric to measure students scientific literacy?
Assessing GE Outcomes 2011-2012

• VALUE Rubrics with small changes emerged – except for SL.

• Rubrics were approved by the faculty at their first meeting in August 2012.

• Consultants were engaged to work with the seven learning outcome committees to create manuals to help faculty with both teaching activities and assessment using the rubrics.
Assessing GE Learning Outcomes

• As part of the course approval process:
  
  • departments that propose a GE course agree to use the university approved rubrics to assess the general education SLO;
    • Monitored very well by Academic Standards Committee

  • faculty teaching a GE course required to create and administer assignments for which they can use the rubric to assess students’ performance in the SLO and record student data in the university’s electronic assessment data system.
Manual Example: How is the rubric used to assess Information Literacy?

The instructors at WSSU use the Information Literacy rubric for multiple purposes:

- **Communicate** the Information Literacy learning outcome to students, giving them the opportunity to review and practice the criteria by which their assignments will be assessed.

- Use as an **assessment tool** to measure the components of Information Literacy as they connect to the content of the course.

- **Guide course planning and backward design**, providing the outcome criteria for Information Literacy to be used along with the content/discipline goals.

- Report **student progress** on Information Literacy Outcomes.
Side Effect: Use of Rubrics Influences Course Redesign

• See handout, pages 1 & 2
• Rubrics set out the criterion for measurement
• Becomes an integral part of the design of the learning experiences
• Thus pedagogy is impacted in positive ways
Backward Design

• Reconfigures course design and instruction with a focus on the learning outcomes we desire for students

• A very different approach from traditional instructional design that is activity and coverage-focused

• Makes authentic assessment a prominent and necessary part of the learning process rather than just a tool to attach to the end for grading
Example of the Dashboard Created from the Data Collected each Term

• Institutional Assessment and Research manages data reporting to assessment committees and departments

• Using Tableau to display data for faculty in a dashboard

• See Example in next slide
### General Education Outcome Frequencies and Percentages Spring 2015-Spring 2016

<table>
<thead>
<tr>
<th>Information Literacy</th>
<th>General Education Outcome</th>
<th>Frequency</th>
<th>Semester</th>
<th>Benchmark 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Capstone 4</td>
<td>Milestone 3</td>
<td>Milestone 2</td>
</tr>
<tr>
<td>Determining Needs</td>
<td></td>
<td>54</td>
<td>164</td>
<td>91</td>
</tr>
<tr>
<td>Accessing Information</td>
<td></td>
<td>53</td>
<td>168</td>
<td>90</td>
</tr>
<tr>
<td>Evaluating</td>
<td></td>
<td>40</td>
<td>114</td>
<td>90</td>
</tr>
<tr>
<td>Using Information Effectively</td>
<td></td>
<td>49</td>
<td>135</td>
<td>97</td>
</tr>
<tr>
<td>Using Information Ethically</td>
<td></td>
<td>57</td>
<td>124</td>
<td>127</td>
</tr>
<tr>
<td>Total Number of Students Assessed</td>
<td></td>
<td>262</td>
<td>725</td>
<td>495</td>
</tr>
</tbody>
</table>

### Percentage

<table>
<thead>
<tr>
<th>Component</th>
<th>Capstone 4</th>
<th>Milestone 3</th>
<th>Milestone 2</th>
<th>Benchmark 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determining Needs</td>
<td>15.65%</td>
<td>47.54%</td>
<td>26.38%</td>
<td>16.43%</td>
</tr>
<tr>
<td>Accessing Information</td>
<td>15.36%</td>
<td>48.70%</td>
<td>26.09%</td>
<td>9.80%</td>
</tr>
<tr>
<td>Evaluating</td>
<td>17.19%</td>
<td>40.00%</td>
<td>31.58%</td>
<td>11.23%</td>
</tr>
<tr>
<td>Using Information Effectively</td>
<td>14.50%</td>
<td>45.85%</td>
<td>20.70%</td>
<td>16.95%</td>
</tr>
<tr>
<td>Using Information Ethically</td>
<td>16.76%</td>
<td>36.47%</td>
<td>37.35%</td>
<td>9.41%</td>
</tr>
</tbody>
</table>
Assessing WSSU Learning Outcomes

On-going concerns:

• Reliance on faculty
  • to create authentic assignments/prompts
  • use of the rubrics to assess consistently

• Training of faculty

• The reliability of the data across faculty

• What level across some/all components should we expect a freshman, sophomore etc. to attain

• Trouble getting faculty to record data in central assessment system causing delays in the process of analyzing and using results to improve learning
Implementing the GE Outcomes as Institutional Outcomes across the Whole Curriculum and Co-Curriculum

• Moving an imperfect process to the whole curriculum and co-curriculum – what could go wrong?

• Don’t let perfection be the enemy of the good (Kate McConnell AAC&U)
CURRICULUM FRAMEWORK

7 WSSU Student Learning Outcomes to be Evident in Graduates—must be taught and assessed across curriculum and co-curriculum.
QUESTIONS as We Move Forward

• Are faculty prepared/invested in effectively teaching the SLOs?
• Do the assignments really allow students to demonstrate skill across the components?
• Are courses structured to maximize attainment of both university and major/program learning outcomes?
• Are the assessments tracking the increasing cognitive depth as students move through the curriculum?
• What would improve the process for faculty?
• How are the assessment data used to improve the curriculum sequencing/coherence, courses, or teaching to improve learning?
• How do we bring co-curricular partners into the process?
FORMED LEARNING COMMUNITIES OF FACULTY AROUND THE OUTCOMES

- Better teach and assess the outcomes by sharing practices
- Update Manuals with more teaching assistance for faculty
- Introduce new faculty to teaching for the outcomes
- Review new course proposals before they go to curriculum committee
- Create a group that can periodically pull samples of student work and score for institutional purposes
- Provide a trained group to work on issues of reliability across faculty by offering calibration workshops (how to use the rubrics; scoring agreement)
- Determine minimum assessments that all courses will use
- Review assessment data with Academic Assessment Committee
- Address issues of hierarchy of what gets taught/assessed as students progress from 1000 to 4000 level courses
- Where appropriate, implement learning technology software tools to standardize assessment
WSSU SLOs Review, Refresh and Quality Control

Piloted Credo software as a way to help faculty with activities and assessments for the institutional outcomes

Five of our seven outcomes align with current Credo software

• Critical Thinking
• Information Literacy
• Oral Communication
• Quantitative Literacy
• Written Communication
CREDO’S LEARNING OUTCOMES COURSEWARE

• “Developed by educators, instructional designers, critical thinking subject matter experts, and librarians, Learning Outcomes Courseware delivers a library of e-learning content with assessment tools to measure and report on student learning outcomes.”

• Willing to work with us to create more content and assessments – electrify our manuals/ capture good faculty examples.

• Flexibility in that faculty can use what is there or upload their own material and assessments.

• Excellent customer service.

WINSTON-SALEM STATE UNIVERSITY
Why Credo's Learning Outcomes Courseware?

• “Give each student access to high quality, standards-driven instruction

• Measure student learning through a variety of assessment strategies reported into an aggregated gradebook alongside course analytics embedded in campus learning management system

• Scale learning outcomes instruction effortlessly while building the consistent approach

• Enhance cross-campus collaboration between faculty, staff, the library and teaching center

• Free up faculty/staff time to focus on instruction rather than creating materials”


WINSTON-SALEM STATE UNIVERSITY
CREDO Demonstration

• https://wssu.credocourseware.com

• https://wssu.credocourseware.com/courses/course-v1:Winston-Salem-State-University+02+2017/courseware/f08ac2fc6abd4dee94269faedcd80c6a/638f8dba193b39f70fef/
Questions