

## **Essential Learning Assessment Report: Value Rubrics Pilot Study**

June 10, 2014

A pilot study was performed to determine the use of the AAC&U Value Rubrics in assessing general education courses. Academic departments were asked to submit artifacts in three areas: written communication, quantitative literacy, and critical thinking. These areas were assessed based on the same institutional categories.

Artifacts gathered for the written communication section came from sections in ENGL 112. The artifacts for quantitative literacy were final exams in MATH 110 and 113. For the critical thinking assessment, eight programs submitted 5 papers each.

Teams of faculty were invited to assess the artifacts using the rubrics. The report on each is attached. The initial process was challenging because the rubrics needed to be calibrated and the teams, particularly in quantitative literacy, needed to determine what would be assessed on the examinations or essays. Lack of common understanding on what critical thinking means and what the appropriate rubric elements should be also slowed the process. Once the calibration was completed, each team member would score the essays/exam questions based on the criteria. The scores were averaged and are also listed on individual reports below.

The results on all three assessments were not surprising. In each case, the averages were in the benchmark to first-level milestone range. Having an 'over-time' method of assessment (use rubrics again in the milestone course) could demonstrate the increased level of learning in the essential learning courses and an added value would be to use the rubrics in a capstone course.

There is a good possibility that the Value Rubrics can be used in assessment of Essential Learning, however, it will take sessions with the faculty to inform them of the potential use the rubrics. Another review session at the end of summer or mid-fall using new artifacts would be beneficial to determine validity and reliability. Faculty interested in participating in the next review session should contact the Director of Assessment of Student Learning.

Written Communication Rubric Review  
June 10, 2014

Members of the review team: Robin Calland, Sonia Brandon, Bette Schans

Discussion points:

- Overall, the rubric is valuable in assessing written communication in the course we were reviewing. The decision was made to assess papers only from ENGL 112 for this review. If other discipline papers were used, potentially the wording would need to be revised to accommodate all types of written communication.
- Some of the criteria in the rubric were a bit vague. The categories were appropriate. There was some difficulty in determining proper use of sources and citations in the papers. This would have to clearly be spelled out to all reviewers to assure equivalent scoring on the rubric. The question was raised with the critical thinking review team regarding sources and citations. If other disciplines are not using sources, is it a hindrance to assessing written communication?
- Another question raised concerns plagiarism. If there are no sources or citations, how will reviewers know if it is original work? Again, as with the other two value rubrics, faculty would potentially need to have a specific assignment in mind for assessment of written communication across the EL curriculum.

Recommendations:

- Have the English faculty review the rubric for clarity and categories. After the initial review, include faculty from other disciplines to add any insight.
- A decision should be made campus-wide on the use of sources and citations in the material.
- The reviewers should be able to determine the type of essay being reviewed: is it an argument or a report or what? Having a specific type of assignment for assessment will be beneficial.

Sample size: 33 papers from several courses in ENGL 112

14 assessed by 3 reviewers

19 assessed by 2 reviewers

	14	19
Context and Purpose of Writing:	1.74	1.95
Content Development:	1.88	2.03
Genre and Disciplinary Conventions:	1.62	1.92
Sources and Evidence:	1.79	1.68
Control of Syntax and Mechanics:	2.10	2.26

Total Rubric Average: 1.84 1.97

Immediately prior June 10, one review member dropped out and Sonia was added. Due to time conflicts, she was able to review only 14 of the essays. Robin and Bette completed the review of the other 19 essays.

Quantitative Literacy Rubric Review  
June 10, 2014

Members of the review team: Suzanne Lay, Chad Middleton, Dan Schultz-Ela

Discussion points:

- The rubric does not apply well across the board for both MATH 110 and 113 (especially 113) or for all problems. We selected problems on the tests for which the items on the rubric applied best.
- We believe it would be easier to come up with a common problem (s) that could be used for one item on the rubric. Also, it was discussed that the 113 course really only covers Representation and Calculation on the rubric.
- We do believe that all areas of the rubric should be part of the Essential Learning Experience in Math for all students, not just those taking MATH 110.

Recommendations:

- Random assignments/tests will not work for this rubric. Work to assess needs to be based on the rubric. Most questions covered only Representation and Calculation. Instructors could tailor/refine test questions to specifically ask for rubric criteria. For example: #7 on MATH 110 test could ask students to describe assumptions.
- Solutions to problems assessed would be helpful for the assessors.
- We chose specific problems from the various exams rather than try to evaluate the exam as a whole. Individual problems do not relate to each other. Performance may not be consistent across the entire exam. QL is not like reading a paper in its entirety and drawing conclusions.
- If we look at 3 different problems for a criterion and give three different scores, how do we put that together? Average? Subjective? We had trouble with this!!
- Wording on Interpretation (#4) could be improved. Dan is working on this. As stated, it overlaps with Application/Analysis.
- If instructors do assessments themselves, need to calibrate. But we are not sure that an assessment jury/committee is really appropriate either.
- Shouldn't all MATH essential learning courses cover all criteria from the rubric? Calculation is not the only piece.
- Quantitative literacy should be assessed in the physical sciences as well.

Sample Size: 20 from MATH 110, and 20 from MATH 113

MATH 113

Representation: 2.33

Calculation: 2.55

Total Rubric Average 2.51

MATH 110

Interpretation: 2.54

Representation: 2.17

Calculation: 2.72

Application/Analysis: 2.15

Assumptions: 1.80

Communication: 1.83

Total Rubric Average 2.15

Critical Thinking VALUE Rubric Review  
June 10, 2014

Members of the review team: Kurt Haas, Kristy Reuss, Jake Jones

Discussion points:

- It appears that the concept of critical thinking varies greatly across the disciplines/instructors. The papers gathered came from 6 different majors and the review team found it difficult to determine a common theme of critical thinking from one set of essays to another.
- We found several areas on the rubric that were not applicable to the essays. Several papers focused on reporting rather than critical thinking. Also, several assignments were too prescriptive in the manner in which the paper was written which restricted the element of critical thinking throughout.
- There was much discussion regarding resources and citations in the papers; and plagiarism that was apparent. Some papers did not require resources, others did.

Recommendations:

- If this outcome will be required across the Essential Learnings curriculum, there must be discussion and agreement by all faculty as to what critical thinking is and how it is to be assessed.
- A decision needs to be made regarding the use of references and citations in papers. A comment was made that resources are not required in a 100 level class because students don't learn about resources and citations until ENGL 112. A suggestion was made to include this learning element in all 100 level EL courses, not just in 112.
- A critical-thinking criteria needs to be built into a specific assignment as part of the EL courses that fall under the CT learning outcome. Several departments identified courses that would assess critical thinking, now there must be an assignment that will more closely align to the value rubric.
- The value rubric used was modified for our use at CMU. Elements of the Inquiry and Analysis rubric were incorporated into the CT rubric. This rubric should be evaluated based on what was learned from this review and by other faculty who will be using it.

Sample Size: 40 papers from the SBS and Music departments

Explanation of issues:	1.96
Evidence:	1.59
Analysis:	2.27
Student's position:	1.51
Conclusions/related outcomes:	1.99
Total Rubric Average:	1.85