Campus Assessment Update

Summer, 2015

Again this year, activity is building in both curricular and co-curricular assessment. Gloria Rogers, Senior Scholar to the Higher Learning Commission, started off 2015 with two days of meetings at which program faculty discussed data collection and reporting on results. She gave very useful tips on using a cycle of assessment that is informative but not overwhelming. Several programs have implemented her suggestions, and by the end of 2015, all academic programs will have submitted an assessment report. Academic Support Services and Student Services are writing outcomes to assess co-curricular student learning in the intellectual skills.

Student Learning Outcomes

This spring, institutional learning outcomes for the master's and doctoral programs were revised and are as follows:

The CMU doctoral degree graduate will be able to:

- Advance science, education, leadership, practice, or policy within a chosen discipline by completing an original research project approved by a faculty panel. (Specialized Knowledge/Applied Learning)
- Employ discipline-specific logical, mathematical, or statistical methods, or other analytical processes to address a topic or issue. (Quantitative Fluency)
- Create oral and written arguments or explanations, well-grounded in discipline-specific theories and methods, for specified audiences. (Communication Fluency)
- Formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives. (Critical Thinking)
- Synthesize, evaluate, or refine the information base of various scholarly sources. (Information Literacy)
- Choose ethical and legal courses of action in research and professional practice. (Ethical Reasoning)

The CMU master's degree graduate will be able to:

- Contribute to scholarly advancement in the chosen field by completing projects individually and collaboratively. (Specialized Knowledge/Applied Learning)
- Employ discipline-specific logical, mathematical, statistical methods, or other analytical processes to address a topic or issue. (Quantitative Fluency)
- Create oral and written arguments or explanations, well-grounded in discipline-specific theories and methods, for specified audiences. (Communication Fluency)
- Formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives. (Critical Thinking)
- Synthesize, evaluate, or refine the information base of various scholarly sources. (Information Literacy)
- Evaluate moral, ethical, legal, or professional challenges within the discipline. (Ethical Reasoning)

Assessment Committee Activity

The Assessment Committee was very active this past year with assessment report and program reviews in addition to participating in the EL assessment pilot and the first assessment of EL outcomes this past spring. An additional institutional student learning outcome in ethical reasoning will be added to the four existing outcomes. Many programs are already assessing student learning in ethics as part of specialized knowledge. The new Degree Qualifications Profile has made ethical reasoning a separate category for assessment and the Assessment Committee will begin discussion on this in the fall.

Program Assessment Report Review

This spring, baccalaureate program faculty submitted assessment reports for review by the Assessment Committee. The committee subgroups reviewed the reports using the assessment rubric; and provided comments and suggestions to the individual programs. All associate and technical certificate program faculty will submit reports this fall. Once the reports have been reviewed by the committee, programs will follow the three-year assessment cycle for reporting. The Assessment Committee determined it was beneficial to see all the reports this year to give programs a basis for writing future reports.

Program Review

The Assessment Committee reviewed the assessment portion of program reviews for the following: Math, Computer Information Systems, Construction Management, Psychology, Spanish, and Visual Communication. The Director of Assessment of Student Learning and the Faculty Assessment Coordinator met with each of the external reviewers in these programs to discuss progress in assessment of student learning.

ETS Proficiency Profile

Students who have achieved at least 90 credit hours were asked to take the ETS Proficiency Profile in both the fall and spring semesters. The results of these scores are in Appendix A. CMU will continue to use the Profile as a measurement of student intellectual skills for assessment. A comparison of national scores from 2008-2013 can be found at:
https://www.ets.org/s/proficiencyprofile/pdf/CredS_Carn9_AllTabs_UNP.pdf.

Essential Learning

A template was approved by the Essential Learning Committee to place in course syllabi listing the ELO(s) along with course outcomes that are to be assessed during the semester. An example of this template is found in Appendix B. It is requested that faculty include this template in EL course syllabi.

In November, 2014, the second pilot study of three Essential Learning outcomes (ELOs) was conducted. There were approximately 15 faculty members and a librarian along with members of the Assessment and Essential Learning committees at each session. The results of this pilot review can be found in Appendix B. Faculty, overall, had a positive review of the Written Communication and Critical Thinking VALUE Rubrics. There were some concerns about the artifacts that were submitted not being aligned to what the rubric was assessing. The group reviewing the Quantitative Literacy rubric were not as positive about the rubric nor the artifact submitted. The Essential Learning committee has been working on a

common ground for both Math and the Natural Sciences to utilize the same type of rubric for quantitative literacy.

The first assessment review for Essential Learning in written communication and critical thinking was completed in June, 2015. The results of this review can be found in Appendix C. Overall, the artifacts reviewed had average criterion scores in the milestone 1 category on the VALUE rubric indicating that the work was higher than the benchmark score. Both the Assessment Committee and the Essential Learning Committee will review the findings and potentially provide recommendations for future assessments. Both of these outcomes will be assessed in fall, 2015. The hope is that there will be a usable quantitative literacy rubric so assessment can be done in spring 2016 in that area.

ePortfolio and Assessment Working Group

This spring, a working group was formed to explore the possibilities of adding an ePortfolio platform to the CMU campus. A Request for Proposal document was written based on the questions from the group. The platform will include an assessment package that will enable students to submit artifacts for both Essential Learning and programs. The decision will be made this fall as to which platform will be used.

Thank You

Assessment has really moved forward in this past year and Suzanne Lay, Faculty Assessment Coordinator, and I would like to thank the CMU community for participating in this very important part of student learning on our campus. Please contact us if you have any questions.

Bette Schans
Director of Assessment of Student Learning

Appendix A
Colorado Mesa University
Comparison of ETS Scores
Spring 2013 through Spring 2015

The results of the ETS Proficiency Profile for fall, 2014 indicate that scores remain at similar levels as the three previous semesters. Participation rates did not change from 2013 to spring, 2014 but increased slightly in fall, 2014. Scores across skills decreased in 2015. Proficiency levels also decreased.

Numbers of Students completing test:
Spring, 2015: 336/579 (58.0%)
Fall, 2014: 178/381 (46.7%)
Spring, 2014: 250/587 (42.6%)
Fall, 2013: 167/367 (45.5%)
Spring, 2013: 213/500 (42.6%)

Score Scales:
Total 400-500
Skills 100-130

Comparison of Scores Total

	Total	Writing	Reading	Critical Thinking	Mathematics
Spring 2015	439.85	113.52	116.26	110.16	113.52
Fall 2014	443.76	111.44	117.3	114.54	113.88
Spring 2014	446.87	114.66	119.26	112.14	114.03
Fall 2013	443.42	114.37	117.54	111.72	112.96
Spring 2013	446.37	114.65	118.45	112.58	113.88

Proficiency Summary (%) (Proficient/Marginal)

	Read 1	Read 2	CT	Writing 1	Writing 2	Writing 3	Math 1	Math 2	Math 3
Sp. 15	47/22	22/18	3/7	47/29	15/28	5/21	47/20	24/26	7/13
Fa. 14	57/13	24/24	4/11	56/24	19/33	7/21	52/24	25/27	8/16
Sp. 14	66/13	38/20	5/16	58/22	24/31	9/24	52/21	26/27	10/14
Fa. 13	56/19	34/14	5/12	56/28	16/35	4/24	49/16	17/35	5/14
Sp. 13	59/17	33/18	5/16	53/30	22/25	6/25	53/18	26/28	8/15

Major Comparison

Program	Total	Critical Thinking	Reading	Writing	Mathematics
Art sp 15	437.19	109.44	114.81	114.25	111.5
Art sp14	440.67	109.75	117.46	114.38	112.83
Art sp13	441.67	111.13	118.2	113.8	112.53
Biology sp 15	459.75	115.08	122.67	115.92	118.25
Biology fa14	447.82	110.36	119.82	113.82	118.36
Biology sp13	456.75	117.08	121.67	115.33	116.08
Bus Admin sp 15 Accounting Marketing	436.7 440.83 432.88	109.11 110.33 109	115.01 114.42 114.29	112.82 113 110.76	113.02 118 112.59
Business fa14	435.8	109.29	113.77	112.71	112.17
Business sp13	443.47	112.21	117.74	113.47	113.11
Crim. Justice 15	436.78	110.44	116.11	112.44	111.94
Crim. Justice 14	440	111.76	117.47	113.41	111.41
Crim. Justice 13	440.44	110.94	114.39	113.33	114.67
Env. Science 14	446.15	112.31	116.92	114.69	115.46
Env. Science 13	455.94	114.56	121.56	115.33	117.06
Health and Med Sciences sp 15 Nursing Kinesiology	444.05 452.65 436.88	110.64	117.14	114.86	114.52
Health Sciences fa 14	445.5	111.91	117.57	115.48	114.04
Nursing (sp14)	447.83	112.49	120.02	114.13	114.26
Nursing (fa13)	445.32	112.4	118.2	114/66	113.14
Nursing (sp13)	444.69	111.81	118.24	115.38	112.29
Math sp13	455.69	113.23	121	114.92	117.54
Psychology (sp 15)	438.21	109.63	118.05	113.58	111.21
Psychology (fa 14)	445	113.82	117.36	114.82	111.09
Psychology (sp14)	448.96	113.04	119.84	115.8	113.48
Psychology (fa13)	439.11	111.29	117.21	113.66	110.63
Psychology (sp13)	433.5	110.4	113.9	113.3	109.7
Other sp 15	435.22	108.67	114.44	113.53	112.56
Other fa14	445.85	110.65	119.5	115.54	114.31
Other sp14	442.61	110.91	118.12	113.88	113.03
Other fa13	437.33	109.53	114.53	113.6	113.47
Other sp13	439.45	111.18	115.45	113.18	113.06

Appendix B
Template for Student Learning Outcomes
Essential Learning Course

Student Learning Outcomes for this Course

Essential learning courses provide important tools that enable students to fully realize their potential at the baccalaureate level. When students have completed the Essential Learning program, they possess strong abilities in critical thinking, quantitative analysis, communication and specialized knowledge/applied learning. The Essential Learning outcomes that will be assessed in *Social and Behavioral Sciences are:*

- Produce effective arguments and summaries in written English
- Critically examine and evaluate an argument
- Demonstrate investigative and analytical thinking skills to solve problems.

The student learning outcomes for this course are:

- WRITTEN COMMUNICATION alignment
- EXAMINE AN ARGUMENT alignment
- DEMONSTRATE THINKING SKILLS alignment
- Course
- Course
- Course

Remove any reference to the old General Education Objectives

Appendix C
Reports of Value Rubric Review Groups
November 2014

Report of Value Rubric Review Group
Critical Thinking
November 6, 2014

Members: Suzanne Lay, Kurt Haas, Heather Patterson McCullough, Ann Gillies, Judy Williams, Paul Behl, Jeanine Howe, Jamie Walker, Nathan Perry, Risharra Stulc, Courtney Kason, Jeremy Hawkins, Regis Tucci, Kirk Gustafson, Russ Walker, Brian Parry, Jennifer Daniels, Jeremy Franklin, Gary Looft, Bette Schans

The review group for the critical thinking value rubric met from 2 to 6 p.m. on November 6, 2014. The first hour of the session was spent scoring and calibrating one artifact. Over the next two hours, the group read and scored 5 artifacts each (2 reviewers read the same 5 artifacts) for a total of 51 artifacts. During the remaining time, the group discussed the process and the usefulness of the rubric for assessing critical thinking in Essential Learning.

The following are comments and suggestions as a result of the discussion:

- There should be campus-wide discussions about the definition of critical thinking. Faculty involved in submitting artifacts need to have an understanding of the rubric and ensure that the work being submitted can be assessed for critical thinking.
- Prior to actually scoring the artifacts, the review group should be in agreement about the terminology in the rubric, try to have an understanding of the differences between the ratings of benchmark, milestone and capstone. There needs to be more discussion about the rubric itself prior to the calibration.
- It will be important to have the assignment attached to the artifacts. It was difficult to know if something was missing or just not assigned in the papers. Need to make a separate column for 'not applicable' and 'not met'.
- It was difficult to overlook the grammar and sentence structure and focus just on the critical thinking aspects of the papers.
- There was some questions about the 4 point scale. Should it be broadened?
- Some of the wording in the criteria may need to be changed for clarification. It was hard to find differences between the ratings of 3 versus 4 in the Analysis criteria.
- The wording in the Evidence criteria is not clear. Perhaps changing the title 'Evidence' to 'Support' may fix that issue. The use of the term 'experts' in the last sentence should be changed to 'sources' for clarity. What is the connection between evidence and analysis? Can there be analysis without evidence?
- What is the difference between student's position and the conclusion? Should there be conclusion throughout the document or only in the last one or two paragraphs?
- Overall, the group felt that the rubric is effective and the majority believes it can be used as is. Some stated that, if some wording is changed, it will be usable.
- There was greater consistency in scoring in this section than the other two.

The results are as follows:

Explanation of issues:	2.29
Evidence:	2.13
Analysis:	2.56
Student's position:	1.90
Conclusions and related outcomes:	2.19
Average of Artifacts	2.22

Report of Value Rubric Review Group
Quantitative Literacy
November 5, 2014

Members: Suzanne Lay, Jason Reddoch, Shawn Robinson, Dave Weinberg, Anne Bledsoe, Eli Hall, Aparna Palmer, Matt Rosenberg, Lisa Driskell, Olga Grisak, Elizabeth Sharp, Eric Sandstrom, Jared Workman, Tim D'Andrea, Eliot Jennings, Lisa Friel, Gary Looft, Bette Schans

The review group for the quantitative literacy rubric met from 2 to 6 p.m. on November 5, 2014. The first hour of the session started with an explanation of the artifact used for scoring, discussion of the rubric categories and criteria, and a calibration of the same artifact for all members. Over the next two hours, the each person read and scored five artifacts (two reviewers scored the same 5 artifacts) for a total of 50 samples. During the remaining time, the group discussed the process and the usefulness of the rubric for assessing quantitative literacy in Essential Learning.

The following are comments and suggestions as a result of the discussion:

- The artifact used was developed for classes in MATH 113, College Algebra. It took time for the reviewers to understand the problem and how the answer was derived. Once that was established, there were members in the group who were uncomfortable scoring the artifact or chose not to participate. The calibration also was time consuming.
- A major discussion revolved around using artifacts from other disciplines besides math. If artifacts from MATH 110 or 113 are the only items assessed, there is no real meaning to assessing students in quantitative literacy for essential learning. Other disciplines that have quantitative literacy assessment in other courses should be able to also assess in the essential learning courses. Some natural and physical science courses could apply as well as some courses in the social behavioral sciences. Overall, the natural and physical science faculty were not in favor of assessing quantitative literacy in essential learning courses.
- It again appeared (as with Written Communication) that the lower criteria had words that should be at a higher level context. There was discussion of compressing the 6 categories into 3 especially since MATH 113 does not necessarily address Application/Analysis, Assumptions, and Communication. MATH 110 does. Would it be more appropriate to have a wider point scale (benchmark = 1-3, milestone 2 = 4-6, etc.)? This might make it easier to give a higher or lower score when trying to place the work with the terminology.
- Is the assessment cart being put before the curriculum horse? Do we determine what should be assessed in the current curriculum or are curricular revisions necessary based on the criteria of the rubric? Is this rubric appropriate to what is being taught or should is there a different one that is more appropriate to CMU? Do the experts on campus create a new rubric?
- There may be difficulty in assessing artifacts that do not have an explanation of how to solve or that have faculty assessing who do not have the expertise. Perhaps a rubric that is not as complicated as the AAC&U value rubric would be more beneficial to our process.

The results are as follows:

Interpretation:	2.00
Representation:	2.24
Calculation:	2.43
Application/Analysis:	1.56
Assumptions:	0.76
Communication:	1.38
Average of artifacts	1.73

Report of Value Rubric Review Group
Written Communication
November 4, 2014

Members: Kurt Haas, Vincent Patarino, Gillian McKnight-Tutein, Steve Werman, Gig Leadbetter, Laureen Cantwell, Alison Harris, Susan Longest, Dan Ashton, Darren Gemoets, Terry Chase, Keith Fritz, Robin Calland, Bill Wright, Monte Atkinson, Joe Richards, Kate Dreiling, Blake Bickham, Megan Glynn, John Sluder, Bette Schans

The review group for the written communication value rubric met from 2 to 6 p.m. on November 4, 2014. The first hour of the session was spent scoring and calibrating one artifact. Over the next two hours, the group read and scored five artifacts each (2 reviewers read the same 5 artifacts) for a total of 50 artifacts. During the remaining time, the group discussed the process and the usefulness of the rubric for assessing written communication in Essential Learning.

The following are comments and suggestions as a result of the discussion:

- It was determined prior to the session that the assignment would be included with the artifacts. This was based on the suggestion by the members of the assessment committee subgroup which held a mini pilot the previous month. The review group concurred that it was vital to have the assignment in order to know what the particular artifact was addressing and to score the paper.
- The review group decided that there should be changes in the wording of some of the criteria categories to make the scoring more understandable. Some examples are: in Criteria 5, what is the difference between some errors and few errors? Also, it appears that the language in the benchmark and lower milestone categories is stronger than the language at the capstone level.
- Some members questioned the lack of the word grammar in the criteria. It is implied in the term “mechanics” in Criteria 5. Others thought that grammar should have its own criteria because it is easy for grammar to be washed out or get lost in the context of the categories of syntax and mechanics. The answer comes down to meaning and maybe this does need to be clarified.
- Should there be a category for proof-reading?
- Terry Rhodes stated that in scoring the rubric, readers should start by looking at the highest category and then move down if the paper does not meet the category (4 -3 -2 -1). Some members stated it was easier to start lower and go to the higher levels.
- There was a discussion regarding content specific areas. Some faculty use MLA style while others assign APA or another writing style. The rubric is very general so faculty from all disciplines should be able to score the artifact regardless of the style used. Also, even if faculty are reading an artifact from another discipline, they do not have to understand the content as long as the elements of the rubric are present in the paper.
- The requirement for sources in a paper is not clear. The category of ‘Not Applicable’ needs to be added if the assignment does not require sources so the score will not be skewed.
- Overall the group decided that the rubric could be used if the language of some wording in the categories was changed.

The results are as follows:

Context and Purpose:	2.23
Content Development:	2.01
Genre and Disciplinary Conventions:	1.99
Sources and Evidence:	1.79
Control of Syntax and Mechanics:	2.08
Average of artifacts:	2.02

Appendix D
Report of Essential Learning Assessment
July, 2015

The process of review of EL student learning outcomes began on May 19 when two groups of faculty met to calibrate the written communication and critical thinking rubrics. Members of the groups were:

Written Communication	Critical Thinking
Robin Calland	Sean Flannigan
Kate Dreiling	Olga Grisak
Kurt Haas	Suzanne Lay
Courtney Kasun	Brian Parry
Suzan Longest	Vince Patarino
Carrie McVean-Waring	Shanell Sanchez
Bette Schans	Bill Wright

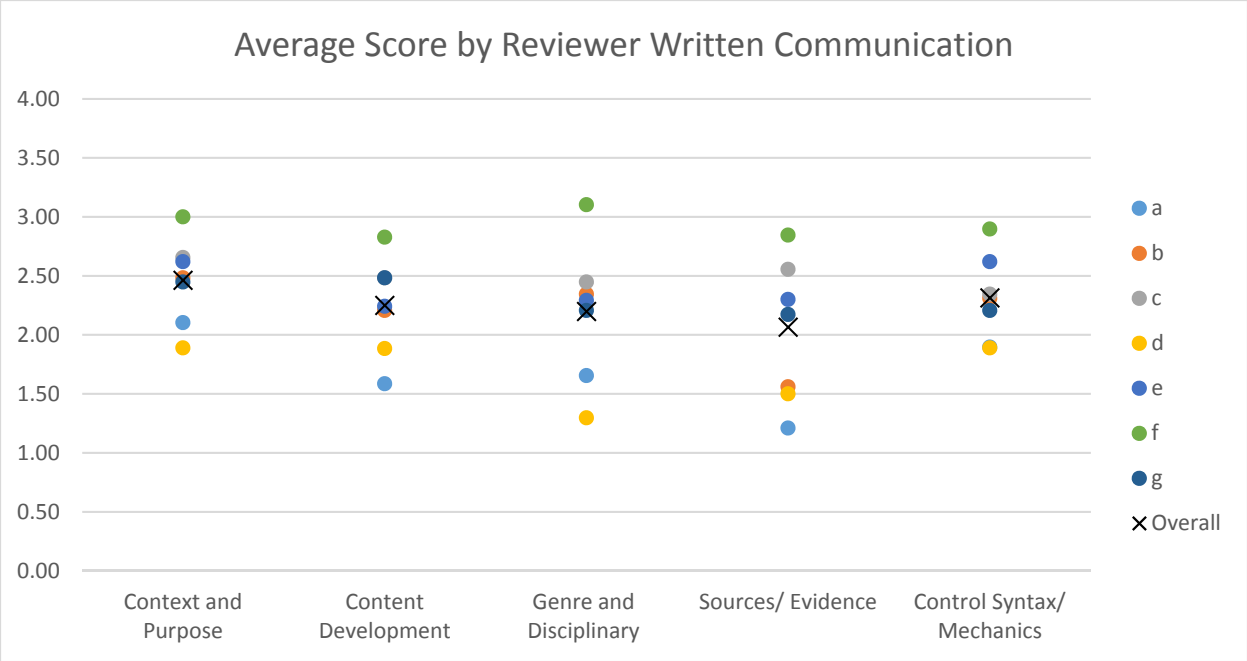
The calibration sessions took approximately 3 hours to complete. Each faculty member was given approximately 30 artifacts to review and score over the course of 3½ weeks. Score sheets were submitted and data compiled. Each criteria score was averaged and the results are as follows:

Written Communication

	Average
Context and Purpose for Writing	2.46
Content Development	2.25
Genre and Disciplinary Conventions	2.20
Sources and Evidence	2.07
Control of Syntax and Mechanics	2.31
Total rubric average	2.26

Seven faculty reviewers scored 110 artifacts that came from ENGL 111 and 112, Fine Arts, Theatre, Music, Social Behavioral Sciences and Humanities courses. The types of assignments were research, argument and critique papers. Each artifact was scored by two reviewers.

Overall, the average scores were higher than scores from November, 2014. This may be due to the time spent explaining the rubric prior to the calibration of two artifacts. A correlation was performed between the scores of the criteria and all had fairly high correlation with the highest between Context and Purpose for Writing, and Content Development. The lowest correlation was between Content Development and Control of Syntax and Mechanics.



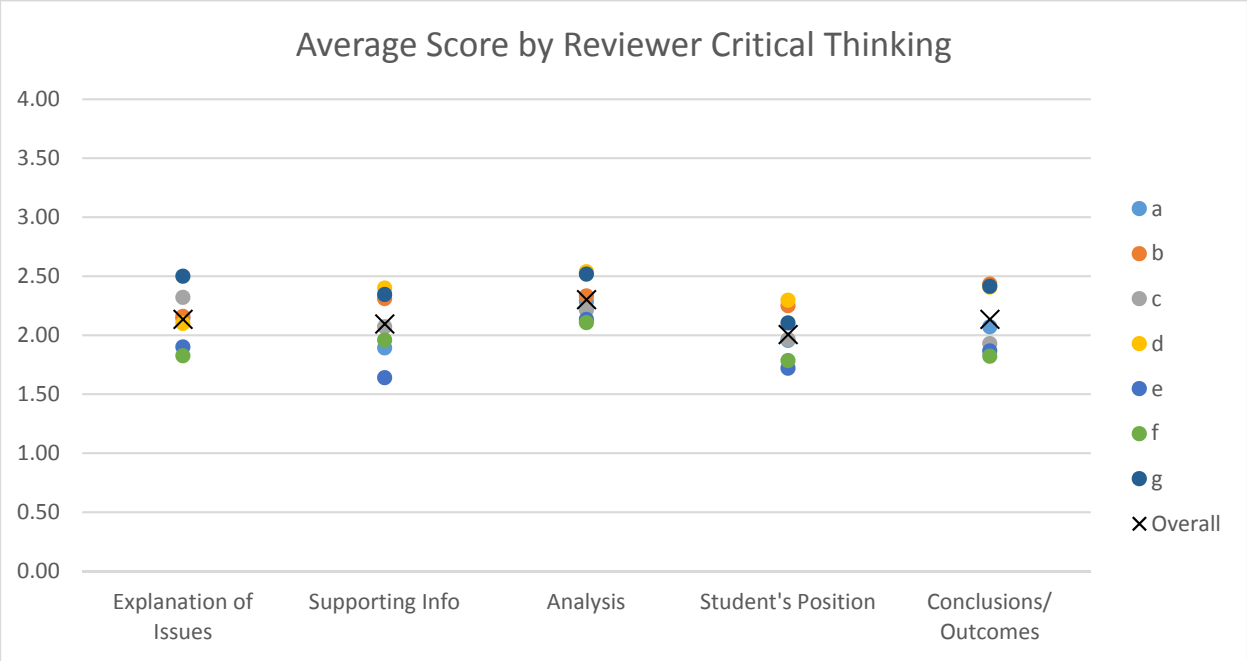
Comments from the reviewers included suggestions for improving methods of artifact distribution such as asking faculty to submit all artifacts from an assignment and then have the director of assessment do a random selection of artifacts; and, assure that all faculty submitting artifacts also provide the information coversheet with the criteria that are covered and the assignment for the assessment.

A major concern for reviewers was, again, the lack of citation of resources or actual resources in the papers. As we move forward, there needs to be a discussion among faculty teaching essential learning courses regarding inclusion of resources and citations in essays submitted for assessment.

Critical Thinking

	Average
Explanation of Issues	2.13
Supporting Information	2.10
Analysis	2.30
Student's Position	2.01
Conclusions and Related Outcomes	2.14
Total rubric average:	2.18

110 artifacts came from the Social Behavioral Sciences, Humanities, and Fine Arts courses. Overall, the average scores were lower than scores from November, 2014 with the exception of Criterion 3. The reason for the lower scores may be the same as it is for Written Communication in that the reviewers had better idea of how to score the criteria which resulted in lower averages. Correlation scores were again high between criteria with the highest score comparing Analysis and, Conclusions and Related Outcomes. The lowest correlation score was between Supporting Information and, Conclusions and Related Outcomes.



Future Assessment

Fall of 2015 we, again, will be assessing Written Communication and Critical Thinking. Work on assessment of Quantitative Literacy will begin with discussion of a common rubric for both CSMS and Natural Sciences. Three other EL outcomes (Examine and Evaluate an Argument, Demonstrate Investigative and Analytical Thinking Skills, and Select and Use Appropriate Information or Techniques) will be assessed in spring, 2016. Discussion of assessment methods will begin this fall.