2010

General Education: Pilot Assessment
Critical Thinking

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2010 General Education Pilot Assessment: Critical Thinking

Purpose of Assessment Pilot

The assessment pilot had two purposes: 1) to provide a sample of the type of results obtained by using rubrics to evaluate course-embedded assignments; and 2) to test the assessment process and identify needed improvements to ensure that valid, meaningful results are obtained.

Overview of Assessment Pilot

- Artifacts were gathered from approximately 8 courses and 30 sections of the new general education pilot courses offered in Spring 2010. (Appendix A)
- More than 600 artifacts were submitted; of those, approximately half were false documents, as many students had simply uploaded blank documents or documents containing only their name.
- Evaluators used the Critical Thinking VALUE Rubric (Appendix B) to score 102 of the assessable artifacts on General Education Learning Outcome 1: Students will demonstrate an understanding of and ability to employ the processes of intellectual inquiry.
- All evaluations took place using the Blackboard Artifact Assessment process.

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Critical Thinking Scores

Artifacts were scored using the Critical Thinking VALUE Rubric on a scale of 1 – 5, with 5 representing the highest level of performance and 1 being the lowest level. In order to process scores, an artifact must have been evaluated at least two times, with evaluators being in agreement by at least one point. Forty-nine of the 102 artifacts scored were both evaluated twice and in agreement. The final score is the average of those two evaluations. Any artifact that has not been scored at least twice or is in need of a tie-breaker evaluation is not included in this analysis.

Artifacts were scored holistically, which means a single, whole number score was given to describe the performance in each piece. A final score of a 3 means that both evaluators judged the artifact to generally meet the criteria listed in column 3 of the Critical Thinking rubric. An artifact with a score of a 3.5 means that one evaluator felt the artifact generally met the criteria in column 3, while the other evaluator felt the artifact generally met the criteria in column 4.

Score	Frequency	Percent
2	5	10.2
2.5	2	4.1
3	16	32.7
3.5	13	26.5
4	8	16.3
4.5	4	8.2
5	1	2.0
Total	49	100.0

Critical Thinking

Mean Score: 3.34

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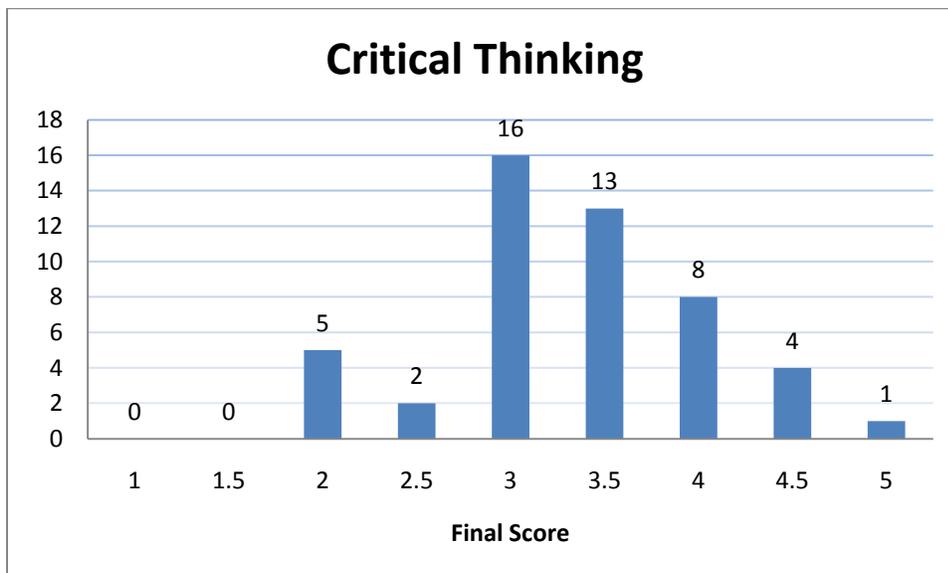
Monitoring the Evaluation Process

All evaluations took place using the Blackboard assessment system. Evaluators were normed via a Blackboard discussion board. During the norming process, evaluators read and scored a minimum of three artifacts, and were asked to discuss their rationale for evaluating these artifacts. Evaluators were deemed to be "normed" when the group came to an agreement on the accurate score of each of the three critical thinking samples. Neither of the two groups that participated in the scoring of artifacts required a fourth artifact for norming purposes.

In total, 102 artifacts were scored by nine different evaluators using the Critical Thinking VALUE Rubric. Of those, 79 artifacts were scored by two separate evaluators, leaving 23 in need of an additional evaluation.

Artifacts Evaluation

Category	Value
Total Artifacts Scored	102
Artifacts Scored Twice	79
Additional Evaluation Needed	23
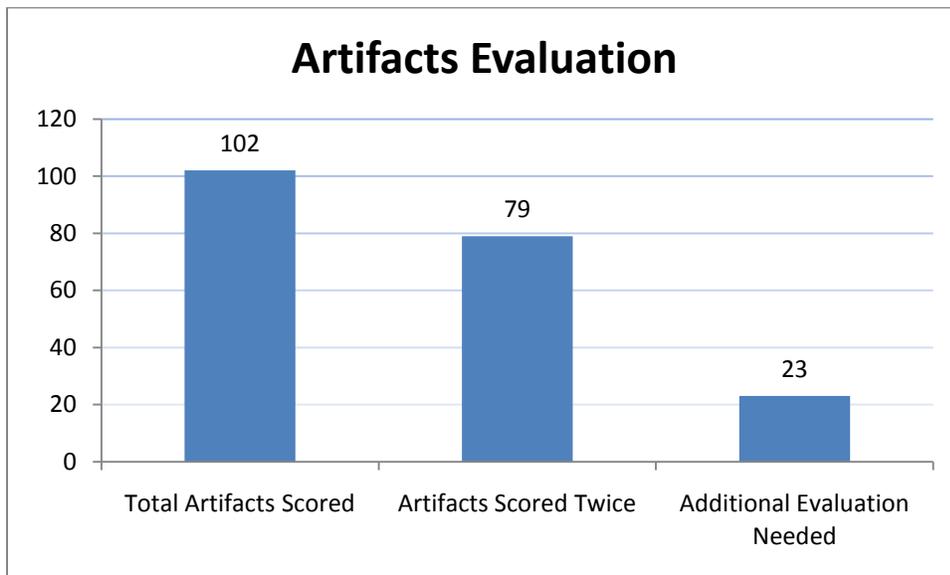
Artifacts that were scored at least twice were evaluated for agreement. Scores that were within one point of each other were considered to be "in agreement."

Evaluator Consensus

Category	Value
Agreement	49
Disagreement	30

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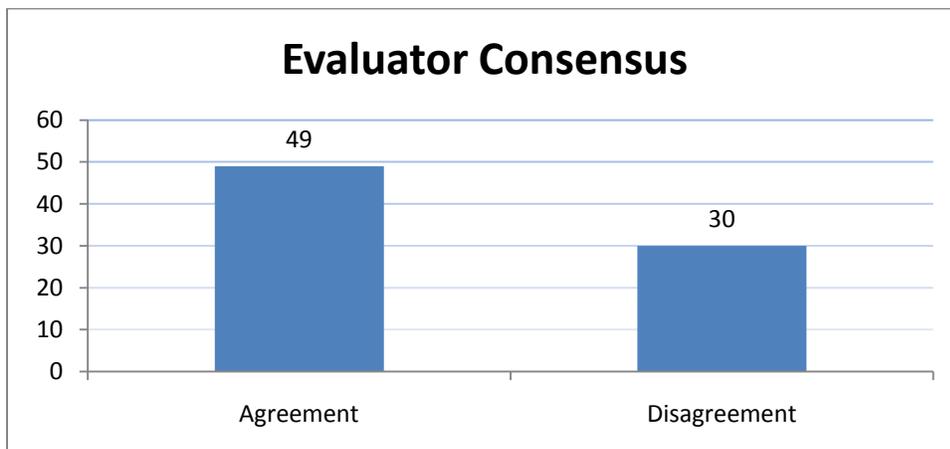
Consensus	Frequency	Percent	Valid Percent	Cumulative Percent
Agreement	49	62	62	89
Disagreement	30	38	38	100
Total	79	100	100	

Lessons Learned

- Clear communication regarding the assessment assignment is necessary to ensure that students post the appropriate documents to the Bb course shell.
- In order to run an efficient evaluation process, it is necessary to monitor evaluator progress regularly. To accurately build a report that would allow the Office of Assessment (OA) to view assessment scores, data needed to be added into the Blackboard system ; therefore, the results of the evaluation were not available to the OA as scoring was taking place. Consequently, the predicted number of third reads necessary was much lower than the actual. Had this report been available during the pilot, the OA staff would have noticed quickly that two evaluators should have been asked to re-read the norming documents before continuing their evaluations. One evaluator consistently scored artifacts high, while the other consistently scored artifacts low. Of the 30 artifacts that will require an additional evaluation, 22 of those (73%) were scored by one or both of these evaluators. It is expected that the OA staff will be able to run this report in the future on a regular basis. Therefore, evaluators that appear to need more norming will be approached in a timely manner.
- Artifact packets will be deployed to two evaluators at a time, so that OA staff can immediately see if an artifact needs a third read.

General Education Assessment Initiative
Blackboard Pilot - Spring 2010

Faculty	Course & Section	Artifact Type	Submission
Diane Haleman	FAM 252 Sections 001 & 002	Life Cycle Paper	February 12, 2010
Clayton Thyne	PS 235 Sections 004, 005, & 006	Paper	Finals Week
William Rayens	A&S 100 Sections 001, 002 & 003	E-Journal 5: Hypothesis Testing in the News	April 23, 2010
Joseph Straley	?	Student Report on the Experiments they designed and performed	Finals Week
Diane King	ANT 352 Sections 001	Ethnographic Project	April 28, 2010
Bill Edwards	SOC 101 Sections 001 – 008	Second Paper (Research and Ethics)	Finals Week
Andrea Friedrich	PSY 215 Sections 001-008	Final Papers	April 30, 2010
Kwok-Wai Ng	PHY 211 Sections 001-006	Lab Number 5 Final Examination	Finals Week

Appendix A1

CRITICAL THINKING VALUE RUBRIC
for more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics
and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors
demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core
expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to
position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student
success.

Definition
Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Framing Language
This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research
suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.
This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments
that require students to complete analyses of text, data, or issues. Assignments that cut across presentation mode might be especially useful in some fields. If insight into the process components of
critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially
illuminating.

Glossary
The definitions that follow were developed to clarify terms and concepts used in this rubric only.
- Ambiguity: Information that may be interpreted in more than one way.
- Assumptions: Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from
http://dictionary.reference.com/browse/assumptions)
- Context: The historical, ethical. political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and
events.
- Literal meaning: Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.
- Metaphor: Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.

Appendix B 1

see blue.

CRITICAL THINKING VALUE RUBRIC

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http://www.aacu.org/value/rubrics/

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

	5	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.	Assign a one to any work sample that does not meet the minimum college level.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation, to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.	Assign a one to any work sample that does not meet the minimum college level.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.	Assign a one to any work sample that does not meet the minimum college level.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.	Assign a one to any work sample that does not meet the minimum college level.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.	Assign a one to any work sample that does not meet the minimum college level.

Appendix B 2

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Appendix B 3