

# SLO S4: THINK CRITICALLY ABOUT CONCEPTS IN MULTIPLE DISCIPLINES

## Overall Summary Semester: Fall 2013

During the Fall 2013, the School of General Studies implemented the assessment of Critical Thinking in a pilot stage. The tool adopted to assess student learning outcomes is the Critical Thinking Rubric created by the Association of American Colleges and Universities, AAC&U.

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



**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.

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

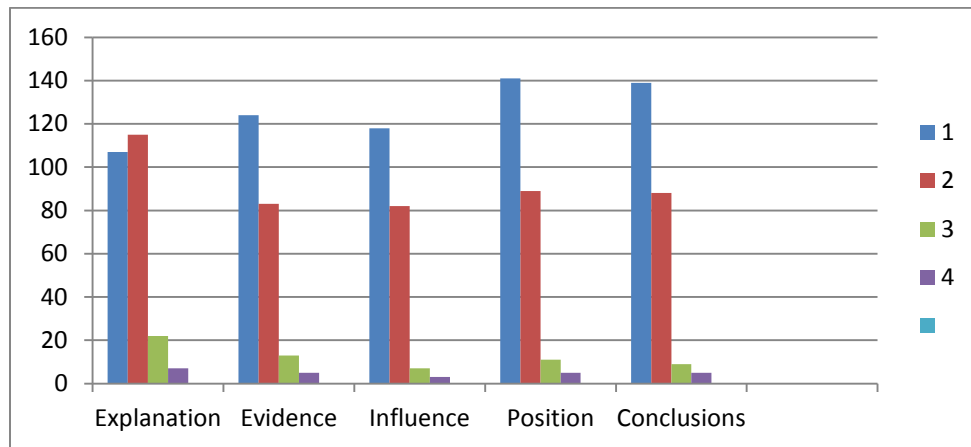
	Capstone	Milestones		Benchmark
	4	3	2	1
<b>Explanation of issues</b>	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified 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.
<b>Evidence</b> <i>Selecting and using information to investigate a point of view or conclusion</i>	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.
<b>Influence of context and assumptions</b>	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.
<b>Student's position (perspective, thesis/hypothesis)</b>	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.
<b>Conclusions and related outcomes (implications and consequences)</b>	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 incoherently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

The rubric for Critical Thinking measures five criteria: Explanation of Issues, Evidence to support positions, Influence of context and assumptions, Student's position, Conclusions and related outcomes. The rubric scoring defines a score level of 1 for a Benchmark level, 2 and 3 for Milestone level, and 4 for Capstone level. It also calls for a score of zero when the work submitted does not meet the basic Benchmark criteria.

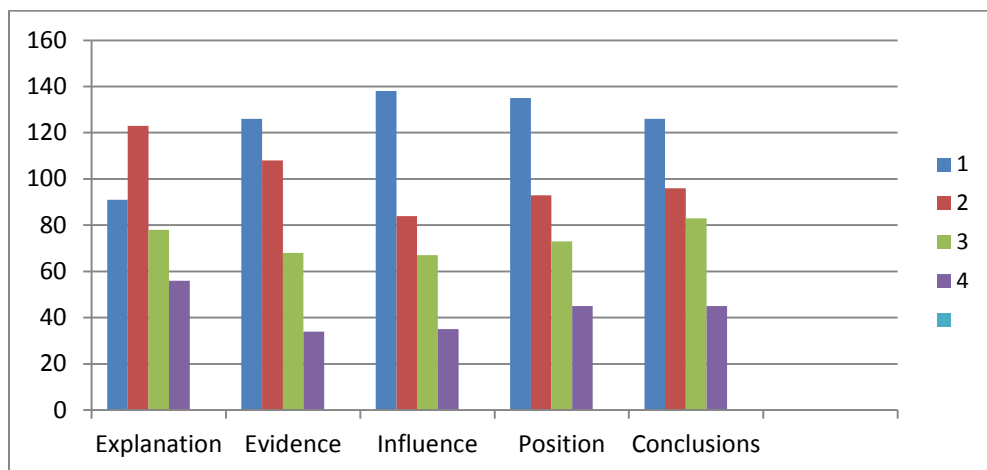
The pilot process defined as criteria of assessment the critical analysis of information received and presented in an academic environment by the students at three levels in their undergraduate career: Basic, Intermediate and Advanced.

Of the total 719 students assessed, 259 were at the Basic level, 374 at the Intermediate level and 86 at the Advanced level.

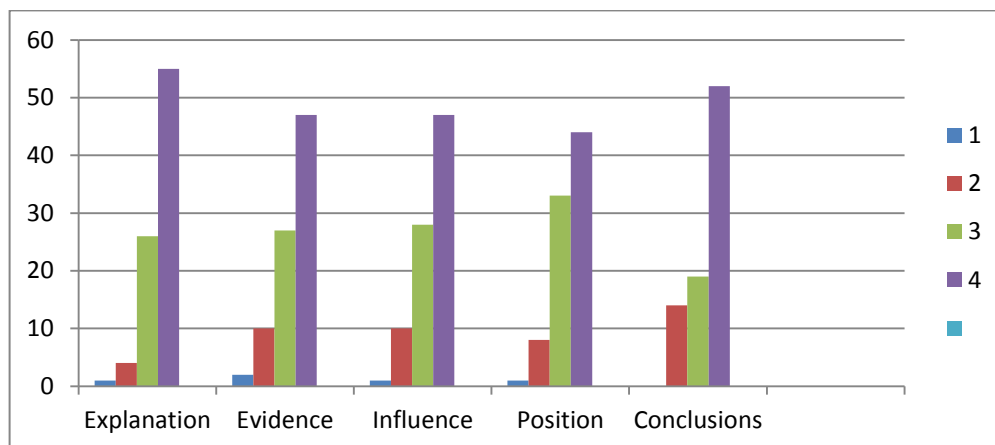
- At the Basic level a sample of 259 students from 19 sections of College Composition (ENG 1030/1031/1032) courses was assessed presenting the following results:



- At the Intermediate level a sample of 374 students from 17 sections of Research and Technology (GE 202\*) courses was assessed presenting the following results:



- At the Advanced level a sample of 86 students from 6 sections of Capstone courses:



During the implementation of this pilot assessment of Critical Thinking a number of documented meetings within departments of each level of assessment took place. Faculty participated to standardize the criteria (calibration of rubric) to better guide the process from Basic (1 Benchmark), to Intermediate (2 &3 Milestone) to Advanced (4 Capstone) levels.

At this first point of assessment the data showed that at the Basic level the scores are in the expected range for students at the freshman level in which the majority of scores were in the 1 – 2 range, where students showed strength in explaining the issues at hand but were weak when presenting opposing points of view. At the Intermediate level the scores reflected the expected range. Student strengths continued to be the explanation of issues, but were still weak in acknowledging their assumptions and questioning the positions of authoritative figures in their field. At the Advanced level the scores do need further consideration. They were not as expected for the range of 4 Capstone level. The weakness remains in identifying assumptions that would lead to bias in their work, but all three steps that lead from explanation of an issue to drawing conclusions could be improved.

#### **RECOMMENDATIONS:**

As this is the first time that we have used the AAC&U rubric to assess Critical Thinking there is no comparative data. However during the discussions analyzing the results at all three levels it was agreed that action needs to be taken to overlap the standardization of criteria (calibration of rubric) between faculty members in the three levels of assessment so that we know we are looking at ‘normed’ data longitudinally in the future.

The gap between intermediate achievement and advanced again suggests that we should review progress at the junior level – to assess whether we need to be doing more at that level, and how much the high number of transfer students at Kean University is changing what we need to teach at the junior level. We also agreed to try and differentiate between these two categories for our next capstone assessment.