DUTCHESS COMMUNITY COLLEGE

Critical Analysis & Reasoning
Institution-Level Student Learning Outcome

SYNOPSIS OF FALL 2015 ASSESSMENT

Students will formulate or evaluate arguments, problems or opinions and arrive at a solution, position or hypothesis based on carefully considered evidence.

Fall 2015 Critical Analysis & Reasoning assessment involved: 26 course sections, 592 students, and 13 faculty

Methodology of Assessing Institution-level Student Learning Outcomes (ISLOs)

Program chairs, each responsible for guiding the continuing success of an academic degree program at the college, detailed required coursework within their program where students are introduced to and develop mastery of each ISLO.

Faculty from disciplines and programs across DCC reviewed ISLO requirements and discussed ways that the ISLO is introduced, reinforced, and mastered by students at various levels.

Faculty developed a shared rubric and guidelines for assessing student competency within specified required courses with rating levels: Beginning, Developing, Meeting, and Exceeding.

Participating faculty applied the rubric to student work in fall 2015. A designated faculty member served as ISLO leader to collect, organize, and analyze data from faculty using the rubric. Participating faculty reviewed the results and analysis, and collaborated on final recommendations.

Recommendations Based on Assessment of All Six Institution-level Student Learning Outcomes

- Limit class size to increase student success in achieving and excelling in the institution-level student learning outcomes.
- Provide support and time for faculty to meet across programs/disciplines so that strategies can be developed and implemented that support student success in achieving and excelling in the institution-level student learning outcomes.
- During next assessment cycle, consider (1) norming sessions and/or holistic scoring, (2) capturing information about students who do not persist to semester's end, and (3) analysis that allows comparisons between achievement early and late in college career at DCC.

Findings and Conclusions

The Critical Analysis and Reasoning rubric identified three standards to assess for critical analysis and reasoning: ability to formulate or evaluate argument/problem/opinion, arrive at a solution/position/hypothesis, and use of carefully considered evidence. The graphic indicates the percentage of students either meeting or exceeding the standard compared to the percentage of students who either did not meet the standard or at beginning stages of development.

	ABILITY TO FORMULATE OR EVALUATE ARGUMENT/PROBLEM/OPINION	ABILITY TO ARRIVE AT A SOLUTION/POSITION/HYPOTHESIS	USE OF CAREFULLY CONSIDERED EVIDENCE
Beginning/Developing	32%	31%	43%
Meeting/Exceeding	68%	69%	57%
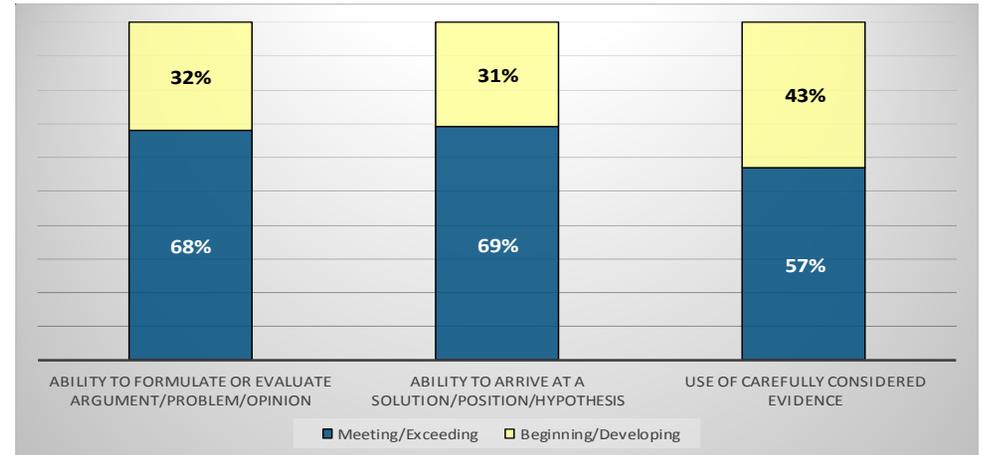
Statistical analyses were performed that drilled down into the data and the results suggest that future critical thinking assessment instruments can and should be refined by student academic year and by 100 versus 200 level courses. The aggregate performance suggests that students performed at a statistically significant lower rate of achievement in the use of carefully considered evidence. With this clear weakness in performance, it becomes possible for DCC to address teaching this skill in a more robust and effective way across the disciplines.

Recommendations Specific to Critical Analysis & Reasoning ISLO

- Develop single guiding set of expectations for students, but invite programs/disciplines to further refine rubric's language to reflect expectations of the discipline.
- Critical Thinking assessment should have a large enough sample of both 100 level and 200 level courses. By specifically including courses taken in the first semester of a program (ENG 101 or BHS 103, for instance) and those taken later (200-level or capstone courses within a program), potential differences might reveal information helpful in determining the overall effectiveness of the program in meeting the learning outcome.
- DCC should address teaching the use of carefully considered evidence in a more robust & effective way across the disciplines.