

Critical Thinking Assessment Report 2018

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Chair, Critical Thinking Oversight and Assessment Committee

Background

When the general education program commonly known as “IF 14” was revised in 2014, academic departments were asked to identify the courses within their programs where critical thinking (CT), writing (W), and information management (IM) would be “infused” and assessed. This report will focus on critical thinking. For a variety of reasons, the oversight and assessment committee elected to keep the definition of critical thinking vague in order to accommodate disciplinary differences. Most broadly, ‘critical thinking’ can be defined as “thinking about thinking” in some area of inquiry. In its communications with departments, the committee emphasized that critical thinking involves explicit awareness of the thinking process within each disciplinary context (e.g., what it means to think like an artist, biologist, chemist, dancer, engineer, historian, or psychologist).

SUNY Student Learning Outcomes related to critical thinking are considered competencies. In particular, Students will (1) Identify, analyze, and evaluate arguments as they occur in their own or other’s work and (2) Develop well-reasoned arguments. These learning outcomes capture important aspects of critical thinking across most fields of inquiry, but each of these outcomes and their constituent terms will need to be adapted to each course and disciplinary context. When deciding which courses would carry the CT designation, departments were encouraged to consider what critical thinking might look like within their disciplinary and programmatic context.

Data Collection

In fall 2017, the Oversight and Assessment Committees from CT, W, and IW reached out to the instructors teaching courses in spring 2018 that carried all three infused designations. Instructors in these designated courses were informed that their courses would be assessed in spring 2018. They were asked to identify an assignment where the infused categories would be assessed in that course. In January 2018, instructors were asked to submit syllabi, the assignment to be assessed, and student work by May. The goal was to collect 100% of the student work products from 100% of the designated courses.

In spring 2018, there were 53 courses identified by departments as carrying all three infusion designations (CT, W, IM). Materials from 24 courses were submitted by the review deadline. Materials from 8 courses were received after the deadline and were not included in the review. Materials were not received from 21 courses. Of the items submitted by the deadline, students work products from 16 courses were deemed suitable for review. The 8 courses excluded from analysis were set aside because the assignment was not submitted, because nature of the assignment insufficiently clear, or because it was unclear how to apply the assessment rubric. The analysis below will focus on those 16 courses from 12 different academic disciplines.

Review process

Five reviewers convened in May 2018 to review the student work products according to a rubric previously endorsed by the critical thinking oversight and assessment committee (see below).

Assessment Rubric

CT student Learning Outcome	Exceeds standards (4)	Meets Standards (3)	Approaching Standard (2)	Below Standard (1)
Students will identify, analyze, and develop well-reasoned arguments. (As defined in accordance with disciplinary practices).	The student demonstrates the ability to independently analyze and develop well-reasoned arguments.	The student demonstrates the ability to identify, analyze, and develop arguments.	The student demonstrates some ability to identify, analyze or develop arguments, but only in a limited way.	The student does not demonstrate the ability to independently analyze and develop well-reasoned arguments

To promote consistency among reviewers, each of the reviewers read and assessed five student work products according to the rubric before collectively discussing their ratings and rationale. For instance, the reviewers discussed the relationship between good writing and good argumentation as well as the extent to which the quality of writing should influence the assessment of CT. Because there was an independent committee charged with assessing writing, the CT reviewers focused on the elements of reasoning present insofar as they could be separated from the quality of the writing. Likewise, reviewers discussed their own disciplinary views of argumentation and how those views might influence their assessment. Thereafter, two reviewers read and rated sample products from each course. After the review of each course was complete, reviewers compared results and discussed the need to recalibrate their understanding of the rubric.

Results

Of the 16 courses under review, the enrollment cap was collectively 291 students. (Number derived by adding the enrollment caps for each of the sections). We reviewed approximately 30% of the student work products in each section. A total of 91 student work products were assessment.

SLO	Combined enrollment cap	Sample reviewed	Exceeds N/%	Meets N/%	Approaching N/%	Below N/%
Students will identify, analyze, and develop well-reasoned arguments.	291	91	7/ 8%	28/ 31%	34/ 37%	22/ 24%

In addition to the numerical ratings, reviewers were encouraged to submit their written observations. For example, reviewers observed that the samples often asked overly broad questions and made big claims without support. Some had difficulty defining basic concepts. Others were able to identify elements of reasoning, but only in a superficial way. Some of the best examples not only offered multiple lines of argumentation, but also demonstrated an awareness of the strengths and weakness of the evidence being offered.

Discussion and limitations

According to our findings, more than half of the students sampled failed to meet the standard for critical thinking on campus (61%). In many cases, the assignments from which the samples were drawn did not clearly ask students to engage in the type of reasoning being assessed by the rubric. While the assignments were deemed “close enough” to be included in the analysis, it could be that scores are somewhat lower than they might have been if the assignment had explicitly asked students to offer well-reasoned arguments. Moreover, while the committee was cognizant of disciplinary differences, the presence of argumentation was much clearer in some cases over others. However, even if students are closer to meeting standards than this snapshot suggests, there is more that could be done to promote critical thinking across campus. It is worth noting that those meeting and exceeding standards came from a cluster of courses in which the assessment assignment required that students explicitly develop well-reasoned arguments.

Recommendations

The committee offers the following recommendations:

- (1) Departments should review the courses being designated as infused with critical thinking and consider the assignments used to assess critical thinking within the course.
- (2) Instructors might consider how to raise student awareness of critical thinking as a process and find ways of helping students understand the constituent elements of the process.
- (3) The assessment could be improved in a variety of ways. For whatever reason, the data collected from faculty were incomplete (e.g., work products without assignment descriptions) or didn't arrive at all.
- (4) Special attention should be given to critical thinking outside of student writing samples. For example, there were work products submitted from some disciplines (e.g., the arts) that were difficult to evaluate using the current procedures. Modes of assessment in these areas exist, but need to be incorporated into campus-wide CT assessment.
- (5) It is unclear that the best examples of critical thinking would be in those assignments that also involve writing and information management. While these three categories tend to go together, it might be better to assess critical thinking within the context of assignments explicitly devoted to critical thinking.

Reviewers:

Atta Cessay, Political Science
Eric Dolph, Art and Design
John Draeger, Philosophy
Stephani Foraker, Psychology
Ted Schmidt, Economics and Finance