

Critical Thinking General Education/Core Competency Assessment: Fall 2012

Students were randomly selected from two groups: those with 15 or fewer credits (freshmen) and those with 45 or more credits (seniors), representing students at the beginning and ending of their CCP careers. Faculty for these students were then asked to complete a survey based on a rubric developed by faculty (see Appendix A). The survey consisted of six questions about various aspects of Critical Thinking:

- Analyzing ideas from multiple sources
- Applying information
- Presenting multiple perspectives
- Drawing supported conclusions
- Synthesizing ideas
- Participating in self reflection.

Possible responses for each item were:

- Accomplished (Valued at 4)
- Competent (Valued at 3)
- Developing (Valued at 2)
- Beginning (Valued at 1)
- Not Applicable.

Responses of 'Not Applicable' were not included in analysis.

Data were collected over two semesters: Spring 2012 and Fall 2012. Three hundred survey requests were sent out in Spring 2012 and four hundred in Fall 2012. A total of 178 surveys were completed between the two semesters. Of those, 151 contained enough data to use: 54 freshmen and 97 seniors. The highest possible score on the first rows is four. The 'Critical Thinking Composite' was simply a sum of the values associated with the six aspects; the highest possible value for that scale is 24.

Results

		Mean (Freshmen)	Mean (Seniors)	Mean Difference	Sig. (1-tailed)
Multiple Sources	Mean	2.56	2.77	.21	.088
	N	50	91		
Apply Information	Mean	2.53	2.87	.34*	.009
	N	47	94		
Multiple Perspectives	Mean	2.56	2.72	.16	.147
	N	50	89		
Support Conclusions	Mean	2.67	2.82	.16	.141
	N	51	96		
Synthesize Ideas	Mean	2.63	2.86	.24	.055
	N	51	96		
Self Reflection	Mean	2.69	3.02	.33*	.011
	N	49	90		
Critical Thinking Composite	Mean	15.51	16.94	1.42*	.047
	N	45	77		

In each case, students with more credits performed better than those with fewer, lending evidence to the value added by a CCP education. In 3 cases these differences were significant: Applying Information, Self Reflection, and the overall Critical Thinking Scale (created from summing all the sub scores). Two other scores: Synthesizing Ideas, and Multiple Sources approached a significant difference. Finally, two scores: Multiple Perspectives and Supporting Conclusions were farther from significance.

However, it is also important to note that with the exception of Self Reflection, no average score was higher than 3, or competent, for seniors. Even though the assessment indicated growth in all areas, there may not be enough growth if means below 3.

Additional Indirect Evidence:

- Students have been as or more successful in courses that fulfill requirements related to Critical Thinking than in other general education areas (IR#195).¹

Institutional Research measures grades in courses designated as “Interpretive Studies” courses under the Major Academic Approaches model.

- CCP students report that the college benefits their ability to think clearly and analytically on par with national averages and rank it 3rd highest gain out of 8 (IR#191).²

This information is based upon the 2009 administration of the Community College Survey of Student Engagement.

- Thinking critically and analytically had the highest growth score out of 8 (IR#204).³

This finding was also based upon the 2009 administration of the Community College Survey of Student Engagement.

Conclusions and Recommendations

Overall, the survey support that the College is moving students’ critical thinking skills in the correct direction during their time at the institution. It is recommended that departments look through their required courses for Student Learning Outcomes examples associated with the two weakest of the sub sets of Critical Thinking (Multiple Perspectives and Supporting Conclusions) and discuss ways in which these courses could continue to bolster these activities among students.

Because Critical Thinking is a general education outcome that is associated with a student’s overall experience, rather than with a specific course or course sequence, it would also be important for faculty, staff, and administration to encourage student participation in the full extent of what CCP has to offer. This might include: extra-curricular clubs and activities, attending talks by visiting scholars, art exhibits, concerts, and plays, or regularly utilizing the services that the College offers students such as tutoring or advising.

It is also recommended that Critical Thinking be assessed again in three years.

¹ http://www.ccp.edu/VPFIN-PL/ir/ir_reports/ir_report_195.pdf

² http://www.ccp.edu/VPFIN-PL/ir/ir_reports/ir_report_191.pdf

³ http://www.ccp.edu/VPFIN-PL/ir/ir_reports/ir_report_204.pdf

APPENDIX A: Survey Instrument

Dear Faculty Member,

The institution's assessment of general education/core competencies is important in ensuring that CCP graduates demonstrate competency in several areas through their cumulative learning experiences. This semester, we are assessing the core competency, Critical Thinking. You are being asked to participate in this effort.

Specifically, the assessment plan for this core competency is to utilize the faculty-developed Critical Thinking rubric to assess selected students at the end of the fall semester. Two samples of students are being assessed:

Sample 1: a sampling of students in their first semester/first course at the college

Sample 2: a sampling of students who have earned 45+ credits

Students in both samples have been randomly selected. You are one of the professors of record for the student(s). You are being asked to answer 6 multiple choice questions about each student; I anticipate it will take you less than 15 minutes to assess the student(s) based on your experiences and observations of the student(s) in your class this semester. If more than one student has been selected from your class, you will be completing a separate assessment for each student. Not all questions may apply to your specific class; if they do not, please select Not Applicable.

Prior to opening the Survey Monkey link and completing the assessment of your student(s), please take a few minutes to read the information below as it will assist you in engaging in a fair and accurate assessment. Thank you in advance for your participation. I sincerely value your time and effort.

John V Moore III
Director Academic Assessment and Evaluation

Critical Thinking

The definition of Critical Thinking that was developed by the Critical Thinking committee is:

Students will actively reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions. A student who is competent in Critical Thinking is able to:

1. Gather and analyze data, ideas, and/or concepts from multiple sources
2. Apply information related to formulas, theories, procedures, principles or themes
3. Present multiple solutions, positions or perspectives
4. Draw well supported conclusions
5. Synthesize ideas into a coherent whole
6. Participate in the self reflection/assessment process

The brief explanations below were developed by the Critical Thinking Committee to help in informing your use of the rubric. In evaluating each student, the instructor can use student responses to recent written or oral assignments, classroom activities, classroom discussions.

1. Student JNumber -- See email for student's JNumber. If you were asked to assess more than one student, please enter the survey again and complete it a second time for your second student.

2. Has the student above completed enough of your course for you to make a judgement on their critical thinking skills?

- Yes
- No

3. Student gathers and analyzes data, ideas, and/or concepts from multiple sources.

- Accomplished – Blends multiple sources. Interprets accurately, appropriately and in depth in new contexts.
- Competent – Presents information accurately and appropriately. Uses multiple sources.
- Developing – Reports information – paraphrases. May have minor inaccuracies, irrelevancies or omissions.
- Beginning- Copies information, often inaccurately, incompletely, or omits relevant information; uses only one source.
- Not Applicable.

4. Student applies information related to formulas, theories, procedures, principles or themes.

- Accomplished – Employs formulas, theories, procedures, principles or themes accurately, appropriately and or creatively in new contexts.
- Competent – Applies formulas, theories, procedures, principles, or themes appropriately and accurately in familiar context.
- Developing – Uses appropriate formulas, theories, procedures, principles or themes with minor inaccuracies.
- Beginning- Labels formulas, theories, procedures, principles or themes inappropriately, inaccurately, or omits them.
- Not Applicable.

5. Student presents multiple solutions, positions or perspectives.

- Accomplished – Explains accurately and thoroughly, multiple solutions, resolutions, positions, or perspectives that balance opposing views of an issue.
- Competent – Describes two or more solutions, resolutions, positions, or perspectives accurately.
- Developing – Identifies simple solutions or perspectives with minor inaccuracies.
- Beginning -- Identifies a single solution or resolution or fails to present one.
- Not Applicable.

6. Student draws well supported conclusions.

- Accomplished – Creates an independent judgment that is reflected in the conclusion or solution. Well supported by evidence and logic.
- Competent – Organizes a conclusion that is complete, logical and consistent with evidence.
- Developing – Offers an abbreviated or overly simple conclusion that is mostly consistent with evidence and has minor inaccuracies.
- Beginning- Proposes a conclusion or resolution that is inconsistent with evidence, illogical or omits conclusion altogether.
- Not Applicable.

7. Student synthesizes ideas into a coherent whole.

- Accomplished – Integrates ideas into solutions that are clear and cohesive.
- Competent – Connects ideas or develops solutions in a clear and orderly manner.
- Developing – Uses a simple pattern to organize solutions.
- Beginning- Lists ideas or expresses solutions in a disjointed manner, no order.
- Not Applicable.

8. Student participates in the self reflection/assessment process

- Accomplished – Self-identifies strengths /weaknesses in work and makes efforts to improve. Uses feedback to increase self awareness, improve overall research methods, and enhance learning.
- Competent – Identifies strengths and weaknesses in work. Seeks assistance when needed to improve work.
- Developing – Attempts to identify strengths and weaknesses in wok. Accepts feedback to improve work.
- Beginning- Unable to identify major strengths and weaknesses in work. Does not seek and/or resists feedback on work.
- Not Applicable.

9. If you have additional comments related to this student and critical thinking, please share them below. (optional)

Thank you for taking the time to complete this survey. Your contributions will help the College better understand the impact that we're making on our students and help us improve educational outcomes. Results from this survey will be shared with you via the Department Heads' meeting.