

PORTLAND COMMUNITY COLLEGE
PHILOSOPHY DEPARTMENT

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ASSESSMENT PLAN: CRITICAL THINKING & PROBLEM SOLVING

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The Philosophy Department at Portland Community College addresses the efficacy of promoting critical thinking in its courses through a comprehensive approach that accounts for the challenges that arise when trying to assess a component to thinking that is difficult to quantify. In essence, it is a matter of attempting to measure the unmeasurable. It should also be noted that while courses across the curriculum attempt to promote critical thinking, the Philosophy Department is unique in that it offers a series of courses specific to the practice of critical thinking in relation to the analysis and evaluation of argument.

As it is defined in PCC's Core Outcomes, critical thinking is defined as the ability to *"identify and investigate problems, evaluate information and its sources, and use appropriate methods of reasoning to develop creative and practical solutions to personal, professional and community issues."*¹ This outcome is, to a degree problematic, because it fails to acknowledge the prior existing skills associated with critical thinking that students already possess prior to their enrollment at PCC. Thus, the assessment of a critical thinking outcome is a matter of assessing how effective a course and instructor are at improving a student's ability to think critically. For this reason we have attempted to develop an assessment plan that assesses both the growth of a student's critical thinking as well as their mastery of it.

To account for these distinctions the Philosophy SAC has chosen to utilize both a student centered indirect method and a teacher centered direct method of assessment which can be pedagogically incorporated to benefit the student, the instructor, and the College.

Initial thoughts about the data collected from several classes where students tracked and commented on their critical thinking growth during a term:

I have FINALLY finished transcribing all of the data. The comments took far longer than I thought, but I suppose that's good because the students provided a lot of positive feedback. Doing it myself was helpful for me to really read the comments and think about them in relation to each student. There weren't really any big surprises from the whole exercise. Overall, I feel it does a relatively decent job demonstrating cognitive growth for students while also providing some useful lessons for us to build on in our assessment endeavors. I can be more specific when I speak on the findings in the fall.

As an additional note, I feel that this affirmed a lot of what I already assumed about my classroom experience for students due to my having already given the subject a lot of prior thought. Where I think there will be deeper enrichment is when there will be an opportunity for different instructors to compare their results with each other. This would not be done to "rank" who is best. Instead it would act as an opportunity for collective and independent pedagogical reflection that simultaneously acknowledges and addresses the instructional deficiencies we all strive to overcome.

¹ <http://www.pcc.edu/resources/academic/core-outcomes/co-criticalthinking-problemsolving.html>

STUDENT CENTERED - INDIRECT ASSESSMENT

Critical thinking is defined as the ability to *“identify and investigate problems, evaluate information and its sources, and use appropriate methods of reasoning to develop creative and practical solutions to personal, professional and community issues.”*

ASSUMPTIONS:

- 1) Students already utilize existing critical thinking skills prior to their enrollment in a course. Subsequently, the assessment of efficacy in instructing critical thinking must measure the *improvement* of a student’s ability to think critically.
- 2) The student is in a position that is inherently, but not exclusively, superior to that of the instructor to assess whether or not their critical thinking has improved as a result of their participation in a course.
- 3) Growth in critical thinking can be indirectly assessed through an assessment of improvement in the benefits it provides for an individual.
- 4) Assessment strategies must be easily adopted and beneficial for both the instructor and the students.

ADMINISTRATIVE PROTOCOL:

- 1) Students are provided with the “Student Survey” the first day of class prior to any instructional input pertaining to the course. This should take no more than 3-5 minutes and the completed surveys are immediately collected by the instructor with no additional information provided to the students.
- 2) These results are recorded via excel.
- 3) At the second to last class, students are again asked to complete the same “Student Survey” which is then collected and recorded once again. The instructor will then fill out a “Student Survey Reflection” form for each participating student. This form will document their initial and most recent responses to the “Student Survey” as well as the +/- differential of their answers.
- 4) At the last class, students are provided with their “Student Survey Reflection” form which they are expected to provide comments that reflect on the course’s possible influence on any shift in their prior responses.
- 5) This information is then collected and shared within the SAC as a basis for pedagogical improvement.

STUDENT SURVEY
PHILOSOPHY

NAME: _____

Please select a number *between 1 and 100* that best represents your present state of agreement with each of the following statements. Be as honest as possible. Your participation will be used to help improve the course.

I feel comfortable having a discussion with others who express ideas that differ from my own including those whom I strongly disagree with.

(Strongly Disagree) 1 ← _____ → 100 (Strongly Agree)
(Write your number here)

I think about my thinking often.

(Strongly Disagree) 1 ← _____ → 100 (Strongly Agree)
(Write your number here)

I am informed about the moral, social, and political issues that affect my life.

(Strongly Disagree) 1 ← _____ → 100 (Strongly Agree)
(Write your number here)

When I share my ideas with other people they usually understand what I am talking about.

(Strongly Disagree) 1 ← _____ → 100 (Strongly Agree)
(Write your number here)

I feel that I will be able achieve most of my goals in life.

(Strongly Disagree) 1 ← _____ → 100 (Strongly Agree)
(Write your number here)

STUDENT SURVEY REFLECTION
PHILOSOPHY

NAME: _____

Your responses at the beginning and end of the course to the following questions are provided below including their degree of change. Please comment on what you believe your enrollment in this course did to influence your responses at the end of the term. Be as honest and specific as possible. The instructor will not view this form until after final grades have been posted. Thank you.

I feel comfortable having a discussion with others who express ideas that differ from my own including those whom I strongly disagree with.

(Strongly Disagree) 1 ← → 100 (Strongly Agree)

Initial Response: _____ Most Recent Response: _____ +/- Difference: _____

Comments:

I think about my thinking often.

(Strongly Disagree) 1 ← → 100 (Strongly Agree)

Initial Response: _____ Most Recent Response: _____ +/- Difference: _____

Comments:

I am informed about the moral, social, and political issues that affect my life.

(Strongly Disagree) 1 ← → 100 (Strongly Agree)

Initial Response: _____ Most Recent Response: _____ +/- Difference: _____

Comments:

When I share my ideas with other people they usually understand what I am talking about.

(Strongly Disagree) 1 ← → 100 (Strongly Agree)

Initial Response: _____ Most Recent Response: _____ +/- Difference: _____

Comments:

I feel that I will be able achieve most of my goals in life.

(Strongly Disagree) 1 ← → 100 (Strongly Agree)

Initial Response: _____ Most Recent Response: _____ +/- Difference: _____

Comments:

INSTRUCTOR CENTERED - DIRECT ASSESSMENT

“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”

ASSUMPTIONS:

- 1) Critical thinking is a defined a skill set that must be instilled and cultivated within students.
- 2) Student success in critical thinking must be directly assessed based on their ability to reflectively apply reason and logic in their comprehension, evaluation, and construction of arguments.
- 3) The instructor is the best arbiter of a student’s ability to think critically.
- 4) Assessment must be utilized in a manner that is uniform among instructors within the discipline.

ADMINISTRATIVE PROTOCOL:

- 1) Instructors of various philosophy courses will be self-selected to collect student artifacts that are obtained with the student’s written permission.
- 2) Collected artifacts will be individually assessed by all participating instructors according to their application of the provided rubric.
- 3) Once completed, participating instructors will convene and share their ratings according to their interpretation of the rubric with the intent of identifying any discrepancies.
- 4) Instructors will discuss any discrepancies in an attempt to calibrate their application of the rubric.
- 5) This information and the shared experiences of the participating instructors are then collected and shared within the SAC as a basis for pedagogical improvement.

Rubric for assessing critical thinking

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Explanation of issue to be considered critically	<u>Issue</u> -stated clearly -described comprehensively (deliver all relevant information for full understanding)	<u>Issue</u> -stated -described, and clarified so that understanding is not seriously impeded by omissions	<u>Issue</u> -stated -leaves some terms undefined, ambiguities unexplored, boundaries undetermined, backgrounds unknown	<u>Issue</u> -stated -no clarification -no description
Argument(s) made about the issue by the student	<u>Argument(s)</u> - plausible foundational premises -are complete and fair -commit no fallacies	<u>Argument(s)</u> - plausible foundational premises -missing pieces do not compromise fairness -commit no fallacies	<u>Arguments(s)</u> -foundational premises given -some unfairness due to missing or inaccurate premises -commits no fatal fallacies	<u>Arguments(s)</u> -stated -foundational premises and/or conclusions missing -fatal fallacies committed
Evidence* chosen or used to support each argument	<u>Information</u> -taken from source(s) with enough information/evaluation to develop a comprehensive analysis or synthesis -viewpoints of experts are questioned thoroughly	<u>Information</u> -taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis -viewpoints of experts are subject to questioning	<u>Information</u> -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.	<u>Information</u> -taken from source(s) without any interpretation or evaluation -viewpoint of experts is taken as fact, without question.
Influence of context and assumptions for each argument	-thoroughly (systematically and methodically) analyzes own and others' assumptions -carefully evaluates the relevance of contexts when presenting a position.	-identifies own and others' assumptions -identifies 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 emerging awareness of present assumptions (sometimes labels premises or assertions as assumptions) -begins to identify some contexts when presenting a position.

Student's position on the issue	<u>Specific position</u> -imaginative, taking into account the complexities of an issue -limits of the position are acknowledged -others' points of view are synthesized with the position.	<u>Specific position</u> -takes into account the complexities of an issue -others' points of view are acknowledged within the position.	<u>Specific position</u> -stated -acknowledges different sides of an issue.	<u>Specific position</u> -stated -simplistic and obvious
Conclusions, implications and consequences of the student's position	<u>Conclusions and related outcomes (consequences and implications)</u> -logical -reflect student's informed evaluation -student shows ability to place evidence and perspectives discussed in priority order	<u>Conclusion</u> -logically tied to a range of information, including opposing viewpoints -related outcomes (consequences and implications) are identified clearly	<u>Conclusion</u> -logically tied to information (because information is chosen to fit the desired conclusion) -some related outcomes (consequences and implications) are identified clearly.	<u>Conclusion</u> -inconsistently tied to some of the information discussed -related outcomes (consequences and implications) are oversimplified.

*Not all assignments may call for gathering of outside evidence. Based on rubric at www.aacu.org/value/rubrics/pdf/criticalthinking.pdf