

St. Petersburg College
Educational Outcomes Assessment Record

2005-2006

(Report Year)

**Critical Thinking : Think logically, critically and creatively to solve problems
and make decisions;**

(Goal)

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Table of Contents

Assessment Records

1. Students will: "think logically, critically and creatively to solve problems and make decisions".

Attachments

1. Critical Thinking & Application Paper 2005-06
Online at:
<https://it.spcollege.edu/edoutcomes/attachments/166-320/Critical%5FThinking%5FCTAP%5F0506.doc>
2. Critical Thinking & Application Paper Specifications Plan 2005-06
Online at:
<https://it.spcollege.edu/edoutcomes/attachments/166-320/Critical%5FThinking%5FSpecs%5FPlan2004%2D20051.dc>
3. Critical Thinking & Application Paper Rubric 2005-06
Online at:
<https://it.spcollege.edu/edoutcomes/attachments/166-320/Critical%2DThinking%5F0506%5FCTAP%5FRubric.doc>

Approvals

Educational Outcomes Coordinator(s): Carol Weideman, Jesse Coraggio, Magaly Tymms - December 15, 2006

Director of IRE: Carol Weideman - December 18, 2006

VP Educational and Student Services: Stan Vittetoe - December 18, 2006

Educational Outcomes Assessment Record

2005-2006

I. Major Learning Outcome #1

Students will: "think logically, critically and creatively to solve problems and make decisions".

II. Introduction

This is a summative interpretation and assessment of the major learning outcomes of students enrolled in St. Petersburg College general education Applied Ethics courses. The overall objectives of this report are to supply findings that the faculty can use to create action plans for continued improvement in the academic program and in the learning and performance of our students.

III. Methodology

Means of Assessment:

This Major Learning Outcome was evaluated using the following two methods. The first is a Critical Thinking and Application Paper administered in all SPC general education Applied Ethics courses. In this paper, students are provided with a workplace-related ethics case or scenario and are required to apply a variety of course concepts and skills to determine and defend a best course of action. The second is SPC's Employer Survey, in which employers are asked to rate the ability of former SPC students to acquire, interpret and use information effectively.

Date(s) of Administration: Method 1: Administered once per semester; Method 2: yearly

Method 1: The Critical Thinking and Application Paper

Given all the necessary details in a work-related scenario, all students in SPC general education Applied Ethics courses were required to write an 'Applied Ethics Critical Thinking and Application Paper. Six directives for sections of the paper were prescribed and part of the score on the paper came from Writing/Composition skills. This was a Gordon Rule writing assignment. The central purpose of this type of assessment is to assess students' ability to use critical thinking skills to solve a problem. (See Attachment: [Critical Thinking & Application Paper Specifications Plan 2005-06](#))

Assessment Instrument:

In this measure, a hypothetical ethical scenario is presented to all students in SPC general education Applied Ethics courses. This assessment is a part of regular class activities in these courses. Students are required to 1. identify the ethical issues involved, 2. utilize the ETHICS model for critical thinking and ethical decision-making to resolve the central ethical issue, and 3. identify any fallacies used by the characters in their reasoning. The ETHICS model was designed by SPC Applied Ethics faculty and is based on major learning

outcomes for the course. A standard “grading rubric” was developed by the Applied Ethics faculty and is used by all faculty to ensure consistency in grading for purposes of measurement.

In the fall session, students were provided with a hypothetical scenario written by an SPC faculty member. However, beginning in the spring session, and based on data from previous sessions (as well as suggestions from faculty and students), the Applied Ethics program began utilizing cases written for the National Intercollegiate Ethics Bowl (sponsored by the Association for Practical and Professional Ethics).

Instructions for faculty and students were included with the assessment instrument when distributed. (See Attachment: [Critical Thinking & Application Paper 2005-06](#))

Domain Specifications:

1. Writing/Composition – embedded into grade
2. Identifying Logical Fallacies
3. Evaluating the Problem
4. Thinking through the Options
5. Highlighting the Stakeholders
6. Identifying and Applying Relevant Ethical Principles
7. Choosing the Wisest Option and Stating your Justification

Gathering the data:

Faculty graded the student papers using a scoring rubric. (See: [Critical Thinking & Application Paper Rubric](#))

1. Writing/Composition -----5 points
 2. Identifying Logical Fallacies-----15 points
 3. Evaluating the Problem-----5 points
 4. Thinking through the Options-----10 points
 5. Highlighting the Stakeholders -----10 points
 6. Identifying and Applying Relevant Ethical Principles-----45 points
 7. Choosing the Wisest Option and Stating your Justification----10 points
- For a total of 100 points.

Population:

Population: The sample population consisted of all students in general education Applied Ethics courses.

5209 students took the assessment over the course of three semesters in 2005-06.

Method 2: St. Petersburg College Employer Survey

The survey was given to employers of students who completed their course work at St. Petersburg College in 2003 - 2004. Employers rate students from (1) Poor to (7) Excellent on the item: “acquires, interprets and uses information effectively.”

References:

Critical Thinking & Application Paper 2005-06

Online at:
<https://it.spcollege.edu/edoutcomes/attachments/166-320/Critical%5FThinking%5FCTAP%5F0506.doc>
Critical Thinking & Application Paper Specifications Plan 2005-06

Online at:

IV. Criteria for Success

Method 1: Critical Thinking & Application Paper

A goal of 70% competency, based on the college's passing rate in good standing, applied to the multiple-choice questions.

Method 2: SPC Employers' Survey

Goal: Above average (4 out of 7) mean on the item, "acquires, interprets and uses information effectively."

V. Summary of Assessment Findings

Method 1: Critical Thinking & Application Paper

Discussion Session I, Fall 2005:

Analysis was conducted using student success rates. ([See Attachment: Critical Thinking Statistical Analysis](#))

Face-to-face Classes Student Success Analysis:

5209 students completed the CTAP. Although each of the domains was not recorded separately, the aggregate passing rate is available. Over eighty-six percent (86.37%) of the students exceeded the predefined standard (a grade of 70).

Broken down by grades:

10.08% of students received a score of 100;
33.12% of students scored between 90 and 99;
28.72% of students scored between 80 and 89;
14.45% of students scored between 70 and 79.

Method 2: Employers' Survey

Employers ranked former St. Petersburg College students on a scale of (1) Poor to (7) Excellent on "acquires, interprets and uses information effectively." On a scale of 1 to 7, the resulting mean rating on the 2004-05 employer survey was 6.3.

VI. Discussion and Analysis of Assessment Findings

Use of Past Results:

During 1998-1999 students in speech classes used an essay as prompt and through an assessment instrument purchased from the Foundation for Critical Thinking wrote a paper graded by a grader trained by the Foundation. The results indicated that student scores in critical thinking improved with the number of credits earned at SPC.

In 2003 and 2004 Critical Thinking was assessed in Speech classes using a test based on the

International Critical Thinking Test which was derived from the Paul/Elder critical thinking model developed by the Foundation for Critical thinking. Comparative analysis was conducted on students who had completed just a few courses at SPC and those students who had completed over 49 credit hours. The results showed that students' critical thinking skills do rise. However, these results also indicated that faculty need to implement new ways to help students learn the skills of thinking critically.

In 2004-05 and 2005-06 Critical Thinking was assessed by in general education Applied Ethics courses by administering the Critical Thinking & Application Paper (CTAP) to all students. This instrument does not provide the information necessary to determine the correlation between student hours and critical thinking abilities. It assesses students abilities to think logically by applying concepts and skills learned during their required Applied Ethics course.

Results of the CTAP indicate that a large percentage (86.37%) of SPC students in general education Applied Ethics courses are able to demonstrate the ability to utilize logical and critical thinking skills in a systematic way. This is especially encouraging in light of other findings that indicate that most students take a required Applied Ethics course in their first two semesters at the College.

Results of the Employers Survey indicate that, when asked, employers of SPC graduates rank them from (1) Poor to (7) Excellent on “acquires, interprets and uses information effectively.” The results for several years are below.

1997-98	5.9 out of 7
1998-99	6.0
1999-00	5.7
2000-01	6.1
2001-02	6.0
2002-03	6.2
2003-04	6.3

As a result of these past assessments, the following actions were taken to *Improve Student Success, Enhance Curriculum and Faculty Development, and College-wide Enhancement*: Greater emphasis is now placed on critical thinking in all ethics classes. The SPC-produced *Ethics Applied* textbook series was revised to include more emphasis on critical thinking skills and demonstrations of their implementation. Applied Ethics faculty members agreed to do more assessment of Critical Thinking in their classes. The faculty-initiated change from faculty-written ethics scenarios to ethics cases from the National Ethics Bowl has improved the instrument and the quality of student papers. Finally, the grading rubric has been revised and student instructions for completing the CTAP have been revised and clarified.

VII. Action Plan and Timetable for Implementation

Based on the analysis of the results the following Action Plan Items have been selected for implementation:

A. Enable Greater Student Success

A1. Identify needs and address ways to improve overall student success

B. Enhance Curriculum & Faculty Development

B6. Delete course(s)

B9. Initiate outreach to the community (employers, high schools, etc.)

C. Improve Teaching and Learning Throughout the College

C1. Provide cross-discipline professional development

D. Improve Assessment Methodology

D5. Revise assessment instruments

Ref. #	Action Plan Detail	Date to Accomplish
A.	Enable Greater Student Success	
A1.	The Applied Ethics Program is continuing to research the possible utilization of the Defining Issues Test from the University of Minnesota. This test assesses students moral reasoning abilities, but may have implications to assess general critical thinking skills, as well.	4/2007
A1.	Additional minor revisions are planned for the Critical Thinking & Application Paper. These include revisions and refinements to the grading rubric, student instructions, and the point system on which grades are based.	2/2007
B.	Enhance Curriculum & Faculty Development	
B6.	PHI 1603, a 2-credit option among the general education Applied Ethics courses has been approved for deletion by C&I. The final course offering will be in Session 3, 2006-07.	7/2007
B9.	Continue collaborating with SPC's Corporate Training office to create a partnership wherein the Applied Ethics Institute will provide organizational ethics training in the community. Implementation meetings are continuing in the fall of 2006-07 to create and market the new consulting product. The product will have three parts. First, a WITS-based pre-survey to all members of the organization to gauge the strengths and weaknesses of the organization's ethical culture. Second, a 4-hour workshop (or series of them if needed) to improve areas of weakness. Third, follow-up as needed to ensure that the identified areas of weakness are being addressed and that improvements continue. Our goal is to pilot the product - perhaps with the Greater St. Petersburg YMCA - in the spring of 2006-07.	5/2007
C.	Improve Teaching and Learning Throughout the College	

C1.	The Applied Ethics Program will work with SPC administration to identify the best source of training on teaching and assessing critical thinking skills, and to determine a schedule for such training that falls in line with the QEP schedule.	12/2007
D. Improve Assessment Methodology		
D5.	The Applied Ethics Program is continuing to research the possible utilization of the Defining Issues Test from the University of Minnesota. This test assesses students moral reasoning abilities, but may have implications to assess general critical thinking skills, as well.	4/2007
D5.	Additional minor revisions are planned for the Critical Thinking & Application Paper. These include revisions and refinements to the grading rubric, student instructions, and the point system on which grades are based.	2/2007

VIII. Budgetary and Planning Implications for Upcoming Unit Planning Cycle

The recommendations that follow will be suggested to the appropriate program directors to be included in the unit planning process:

Budget:

Appropriate funds are requested for the following:

1. The Defining Issues Test appears to be an improvement over our current assessment tools in almost every way. It measures higher level ethical reasoning skills, is backed by years of research that documents its validity and reliability, and would serve as an educational tool for our students as well as an assessment tool for the Applied Ethics Program. However, it will cost money. Early estimates are \$2 per student for the pre/post combination. That multiplies to somewhere around \$10,000 per year. These funds will either need to be appropriated through the SPC budget system or a \$2 student fee might be considered.
2. Some SPD funds will be needed to provide faculty with better training in teaching and assessing critical thinking skills. Since this is also the core goal of the Quality Enhancement Plan, it is assumed that these funds and training opportunities will be available in the future. However, given the key importance of critical thinking in the Applied Ethics Program, tentative approval has been given for our program to locate and utilize such training in advance of the rest of the College. Some funds will be required for this.

Planning:

1. Prepare budget with necessary requests across campuses.
2. Plan course responsibilities and release time to meet course demands and allow the plans above to be accomplished.