

Enhancing Student Learning by Improving Students' Ability to Think Critically

St. Petersburg College – QEP Impact Report – September 2013 1. Goals and Outcomes

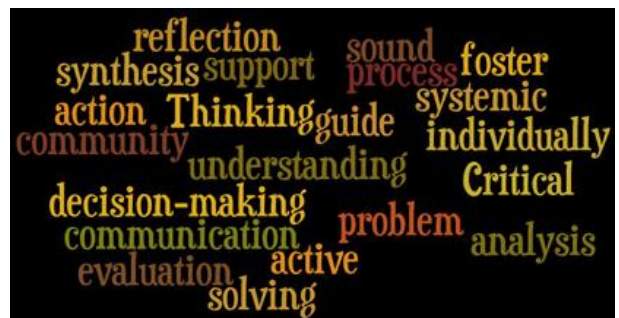
St. Petersburg College (SPC) identified key initiatives faculty believed would have a favorable effect on students' critical thinking. These initiatives covered three overarching goals: Student Success, Professional Development, and Critical Thinking Resources. The Student Success Initiative is the primary focus of the QEP, supported by professional development for faculty and resource materials that reflect and facilitate faculty research on integrating critical thinking activities in the classroom. The specific goals from the three initiatives in the QEP, all directed at improving students' critical thinking skills and faculty ability to develop, infuse, and assess those skills, include:

STUDENT SUCCESS INITIATIVE

Goal 1-1: Enhance students' critical thinking skills through "teaching for critical thinking" classroom activities across the curriculum which will result in the following thirteen student learning outcomes:

1. Students will have demonstrated improvement in critical thinking skills identified in the following Student Learning Outcomes (SLOs), as evidenced by scores on external tests and ratings on the Assessment Rubric for Critical Thinking (ARC). Students will be able to:

- A. Demonstrate the ability to communicate ideas effectively.
- B. Identify inappropriate conclusions.
- C. Use mathematical skills to solve real-world problems.
- D. Interpret numerical relationships in graphs.
- E. Understand the limitations of correlational data.
- F. Identify and evaluate evidence for a theory.
- G. Separate factual information from inferences.
- H. Separate relevant from irrelevant information.
- I. Identify new information that might support or contradict a hypothesis.
- J. Explain how new information can change a problem.
- K. Integrate information in order to solve a problem.
- L. Use journaling as a tool for in depth reflection of their thinking.
- M. Students will be able to learn and apply new information that can change a problem.



2. Key stakeholders will report positively regarding improvements in critical thinking skills of SPC graduates.
3. Students will report an increase in instructional practices improving critical thinking skills in the majority of modified courses or class activities across the curriculum.

Goal 1-2: Develop and use general and discipline-specific assessment tools and strategies for measuring students' critical thinking skills.

1. The majority of programs will have at least one discipline-specific critical thinking assessment tool or strategy for measuring students' critical thinking skills.

Goal 1-3: Collect student artifacts through ePortfolio.

1. A range of artifacts will have been collected that demonstrate student growth in critical thinking skills in selected courses across the curriculum.

Goal 1-4: Implement critical thinking programs supported by key student organizations.

1. Each key student organization will have had at least one activity related to critical thinking annually.
2. The majority of students participating in student activities will report the activities add value to their development of critical thinking skills.

PROFESSIONAL DEVELOPMENT INITIATIVE

Goal 2-1: Provide professional development opportunities to assist faculty in developing class activities to support "teaching for critical thinking."

1. SPC will have developed advanced critical thinking seminars with a discipline-specific focus for identified disciplines.
2. At least 75% of full-time faculty and the majority of adjuncts will have participated in seminars on "teaching for critical thinking."
3. The majority of surveys and other forms of feedback on critical thinking seminars will be positive.

Goal 2-2: Develop in-house critical thinking expertise (i.e., faculty champions) using a "train-the-trainer" approach.

1. SPC will have institutionalized the "Train-the-trainer" program in order to continue developing expertise.

Goal 2-3: Institute Academic Roundtables (ARTs) to investigate general and discipline-specific strategies for "teaching for critical thinking."

1. SPC will have formed ARTs for the majority of General Education, A.S., and Baccalaureate programs.
2. The majority of faculty participating in ARTs will affirm the value of ARTs to research strategies.

CRITICAL THINKING RESOURCES INITIATIVE

Goal 3-1. Compile electronic critical thinking resources for SPC faculty and staff organized through a College gateway website.

1. The majority of faculty will identify the gateway website as a valuable source of information and ideas.

Goal 3-2. Create and collect critical thinking reusable learning objects (RLOs) for SPC and other institutions in Florida and across the world who are seeking multimedia/electronic critical thinking materials.

1. SPC will have collected or created a minimum of 50 RLOs promoting critical thinking in a variety of disciplines.
2. The majority of RLOs will receive favorable feedback in the form of positive student and faculty reactions.

Goal 3-3. Contribute to the critical thinking literature through presentation and publication of instructional portfolios of strategies that support “teaching for critical thinking.”

1. Instructional portfolios will be available for the majority of programs at the College.
2. The majority of faculty will give a positive rating to the peer presentations and portfolios on teaching for critical thinking.

Goal 3-4. Acquire and use print and multimedia critical thinking resources available at Critical Thinking Resource Centers housed in campus libraries.

1. The majority of faculty will identify the Critical Thinking Resource Centers as valuable sources of information and ideas.

EXPECTED OUTCOMES AND BENEFITS

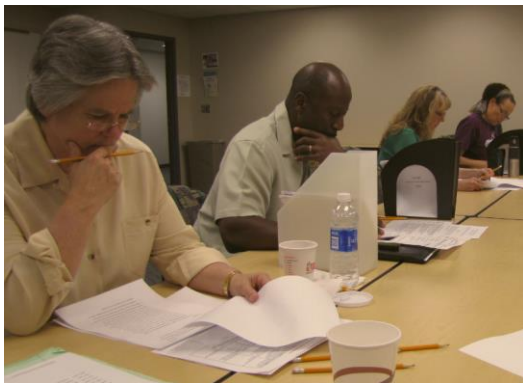
SPC expected improvements in critical thinking skills to translate into deeper learning and understanding congruent with the College’s mission. This improved learning would be spearheaded by an engaged and energized faculty reinforced across the College programmatically and by other staff and recognized by students and employers. SPC expected to contribute to the applied research in the field. At the conclusion of the implementation, decisions would be made on which activities and initiatives were effective in promoting improved critical thinking, and how the institution would sustain these effective approaches.

2. Changes to the QEP

Despite the fact that SPC’s QEP implementation coincided with the nation’s economic downturn, the QEP Director position was fully funded. Existing staff from two departments, Web & Instructional Technology Services (WITS) and Institutional Research & Effectiveness (IRE), supplemented the responsibilities of the Technology Coordinator and Assessment Coordinator positions, until the latter was filled in March 2011.

Regarding Sub-Goal 1-1.1: After analyzing the first two years of data collected, several enhancements, including alignment of SPC’s Student Survey of Instruction (SSI) and the CCSSE, resulted in the collection of additional data. SPC chose to administer the ETS Measure of Academic Proficiency Progress (MAPP) during the 2007-08 academic year in lieu of the iSkills assessment, as better alignment existed. Unfortunately, due to ETS

instrument modifications to the MAPP, SPC was not able to administer the assessment again until 2011, once it became the Proficiency Profile (PP) assessment.



Regarding Goal 1-3: During a critical thinking advisory meeting in October 2009, it was determined that since ANGEL Learning, the College’s learning management system, decided not to develop its ePortfolio, this could no longer be implemented. Instead a recommendation was made to reallocate the funds to the administration of the Community College Survey of Student Engagement (CCSSE) in order to assess student reflection as intended, and to gather student perception feedback benchmarked against national means.

Regarding Sub-Goal 1-4.2: Data collection efforts were refined to pinpoint gains in specific critical thinking processes. This resulted in assessing only prominent events rather than numerous small events.

3. Impact on Student Learning

SPC’s students benefited from the efforts of the QEP. SPC’s three initiatives – student success, professional development, and critical thinking resources – were successful in enhancing student learning by improving students’ ability to think critically.

Faculty changed their instructional practices to teach for critical thinking. As documented in the Instructional Portfolios, faculty integrated strategies aimed at fostering critical thinking in their students, including asking essential questions, assessing critical thinking, implementing problem-based learning, and being explicit about the elements of critical thinking.

The efforts of the QEP brought about a focus on critical thinking beyond student learning. For example, the three-year course review now incorporates consideration of the elements of critical thinking. The general education assessment and the Student Survey of Instruction now include critical thinking items. Critical thinking is now more a part of the SPC culture.

STUDENT SUCCESS INITIATIVE

Goal 1-1 Enhance students' critical thinking skills

1-1.1 Improvement in critical thinking skills

Student learning outcomes (SLOs) improved in the critical thinking elements of communication, evaluation, analysis, synthesis, and reflection, as evidenced by direct assessment measures. Student learning outcomes improved in the critical thinking elements of communication, analysis, synthesis, and reflection, as evidenced by indirect assessment measures.

Direct Assessments

To assess students' performance on critical thinking skills, SPC aligned three direct assessments described below to the six elements of critical thinking and the 13 SLOs. (Table 1 – Across the 56 total measures, students showed improvement in 11 of the 13 SLOs.) The assessments were administered between the 2007-08 and 2011-12 academic years.

Critical thinking Assessment Test (CAT): 2007-08 to 2011-12, N=429

The CAT was administered each spring term in six randomly-selected sections of face-to-face Elementary Statistics, STA 2023, and College Algebra, MAC 1105. The CAT is made up of 15 items and aligns to the six elements of critical thinking and the 13 SLOs.

Assessment Rubric for Critical thinking (ARC): 2009-10 to 2011-12, N=370

Each fall term, six randomly-selected sections of Applied Ethics, PHI 1600, participated by submitting their students' Critical Thinking Application Papers (CTAPs) to be scored with an in-house-developed rubric that aligns to the six elements of critical thinking and the 13 SLOs.

ETS® MAPP/Proficiency Profile: 2007-08 and 2011-12, N=285

Students' critical thinking skills were scored on a scale of 100-130 (31-points) and results were reported as composite sub-scores for each topic. Four items from the MAPP/PP aligned to four elements of critical thinking and eight SLOs.

Indirect Assessments

To assess students' and stakeholders' perceptions regarding critical thinking skills, SPC aligned three indirect assessments described below to the six elements of critical thinking and the 13 SLOs. (Table 1 – Across the 61 total measures, students showed improvement in 8 of the 13 SLOs.) The surveys were administered between the 2006-07 and 2011-12 academic years.

Employer Satisfaction Survey: 2006-07 through 2010-11, N=630

Employers of SPC graduates are surveyed annually during the spring term. Employers rate how prepared they feel the graduates are in a variety of areas including those aligned to five elements of critical thinking and 11 SLOs.

Alumni Satisfaction Survey: 2006-07 through 2010-11, N=5,306

SPC alumni are surveyed six months after they graduate. Graduates rate how prepared they feel in a variety of areas including those aligned to five elements of critical thinking and 11 SLOs.

Community College Survey of Student Engagement (CCSSE): 2006-07, 2010-11, and 2011-12, N=3,836

Students provide their perceptions of their behaviors as well as institutional practices. Students rate a variety of topics including those aligned to five elements of critical thinking and 10 SLOs.



Data from Instructional Portfolios

In addition to the institution-wide direct and indirect assessments, SPC assessed student improvement at the individual program level. At the program level, Faculty Champions, in conjunction with members of their discipline-specific Academic Roundtables (ARTs), developed strategies or interventions to teach for critical thinking within their curriculum. Faculty also identified or developed an assessment and gathered data to assess the effectiveness of that strategy. Assessments varied from applying a critical thinking rubric to a problem-based scenario to critical thinking items on tests to surveying students' perception of critical thinking gains. Of the College's 15 programs/curricular areas, 14 were represented by 29 ARTs that each developed an Instructional Portfolio to document interventions, observations, analysis, and results of efforts of their critical thinking initiatives. Twenty-seven included an assessment; 22 reported assessment data. Seventeen of the 22 documented improvement in students' critical thinking skills. (Appendix A)

Instructional Portfolio Results (Sampling)	
Radiography	– improvement in critical thinking abilities as they encounter difficult patients in the clinical setting
Ethics	– improvement in synthesis and reflection
Mathematics	– scenario-based project class average increased from 78% to 86-88% over two years

Improvement in Critical Thinking Skills

SPC students' improvement is evidenced by the positive differences in means or gain scores. Differences in means, or gain scores, were calculated for every aligned measure as illustrated in Table 1. Gain scores were calculated by subtracting the first year's results from most recent year's results. Because of varying scales and point ranges, the gain scores were standardized. Standardized gain scores were calculated for each measure and an average standardized gain score was calculated for each element. The gains demonstrated for indirect measures were minimal due to highly positive baseline perceptions of critical thinking.

Table 1: Institution-Wide Direct & Indirect Measures of Students' Critical Thinking Skills

Critical Thinking Elements	Student Learning Outcomes	Instrument (# of items)	Total # of measures	Average Standardized Gain Score	Total Student (N)
I. Effective Communication	A. Students will be able to demonstrate the ability to communicate ideas effectively.	Direct: ARC (1), CAT (1), MAPP (1)	3	4.9	1,055
		Indirect: Employer (4), Alumni (4), CCSSE (2)	10	0.44	9,712
II. Problem Solving	B. Students will be able to identify inappropriate conclusions.	Direct: ARC (3), CAT (1), MAPP (1)	5	-0.7	1,078
		Indirect: Employer (3), Alumni (3), CCSSE (1)	7	-0.8	9,634
	C. Students will be able to use mathematical skills to solve real-world problems.	Direct: ARC (3), CAT (1), MAPP (1)	5	-0.7	1,078
		Indirect: Employer (3), Alumni (3), CCSSE (1)	7	-0.8	9,634
III. Evaluation	D. Students will be able to interpret numerical relationships in graphs.	Direct: ARC (3), CAT (1), MAPP (1)	5	1.4	1,079
		Indirect: Employer (2), Alumni (2)	4	-0.85	5,922
	E. Students will be able to understand the limitations of correlational data.	Direct: ARC (3), CAT (1), MAPP (1)	5	1.4	1,079
		Indirect: Employer (2), Alumni (2)	4	-0.85	5,922
	F. Students will be able to identify and evaluate evidence for a theory.	Direct: ARC (3), CAT (1), MAPP (1)	5	1.4	1,079
		Indirect: Employer (2), Alumni (2)	4	-0.85	5,922
IV. Analysis	G. Students will be able to separate factual information from inferences.	Direct: ARC (4), CAT (1), MAPP (1)	6	1.3	1,079
		Indirect: Employer (2), Alumni (2), CCSSE (3)	7	0.8	9,748
	H. Students will be able to separate relevant from irrelevant information.	Direct: ARC (4), CAT (1), MAPP (1)	6	1.3	1,079
		Indirect: Employer (2), Alumni (2), CCSSE (3)	7	0.8	9,748
V. Synthesis	I. Students will be able to identify new information that might support or contradict a hypothesis.	Direct: ARC (3), CAT (1)	4	8.2	795
		Indirect: Employer (1), Alumni (1), CCSSE (1)	3	0.63	9701
	J. Students will be able to explain how new information can change a problem.	Direct: ARC (3), CAT (1)	4	8.2	795
		Indirect: Employer (1), Alumni (1), CCSSE (1)	3	0.63	9701
	K. Students will be able to integrate information in order to solve a problem.	Direct: ARC (3), CAT (1)	4	8.2	795
		Indirect: Employer (1), Alumni (1), CCSSE (1)	3	0.63	9701
VI. Reflection	L. Students will be able to use journaling as a tool for in depth reflection of their thinking	Direct: ARC (1), CAT (1)	2	4.3	790
		Indirect: CCSSE (1)	1	3.8	3825
	M. Students will be able to learn and apply new information that can change a problem.	Direct: ARC (1), CAT (1)	2	4.3	790
		Indirect: CCSSE (1)	1	3.8	3825

1-1.2 Stakeholders report positively regarding improvements in critical thinking of graduates

Employers provided positive feedback regarding graduates' ability in the critical thinking elements of communication, analysis, and synthesis, as evidenced by indirect assessment measures shown in Table 1. Perceptions started out high, but still showed gains. In fall 2012 49% of faculty and staff surveyed identified that students demonstrated improvements in their critical thinking ability.

1-1.3 Students will report an increase in instructional practices improving critical thinking skills

Students reported an increase in instructional practices promoting their critical thinking. This is supported by the seven custom questions added to the 2011 and 2012 CCSSE aligned to Evaluation, Synthesis, and Reflection. The purpose of the questions was to determine whether students were given opportunities to think critically in their courses. One question aligned to reflection asked students how often they considered ideas different from their own during that academic year. That question had a positive gain score of 1.9 demonstrating an increase in opportunities to consider varying viewpoints, which is essential for critical thinking.

Goal 1-2 Assessment tools and strategies for measuring students' critical thinking skills

1-2.1 Majority of programs will have at least one discipline-specific critical thinking assessment

Of the College's 15 programs/curricular areas, 14 developed or identified one or more discipline-specific strategy or assessment to measure critical thinking (Appendix A). Examples of strategies or tools include reusable learning objects (RLOs) as well as the development of standard methodology and problem solving models. In addition, the Assessment Rubric for Critical Thinking (ARC) was developed by QEP staff and Faculty Champions (FCs) during the inaugural year. As part of their study of critical thinking, FCs guided their Academic Roundtables (ARTs) to investigate critical thinking assessments and to compose discipline-specific scenarios aligned to the ARC. One of the first disciplines to implement the ARC was the Ethics department, which integrated its use into the Critical Thinking Application Paper (CTAP) that students write in Applied Ethics, PHI 1600. Ninety-one percent of FCs and ART members surveyed in fall 2012 reported that there was at least one discipline-specific critical thinking assessment tool or strategy identified or developed for their department while serving in their role. Faculty reporting awareness of these strategies indicated the strategies were somewhat effective (54.3%) or very effective (39.6%) at measuring students' critical thinking skills based on either shared departmental data or data they personally collected.

Goal 1-3 Collect student artifacts through ePortfolio

Details regarding this goal can be found under the [Changes to the QEP](#) section of this document.

Goal 1-4 Implement critical thinking programs supported by key student organizations

1-4.1 Each key student organization will have at least one annual critical thinking activity

SPC's key student organization is the Student Government Association affiliated with the Student Life & Leadership program. From 2008 to 2012, 43 critical thinking events were held at eight campuses/centers and other off-site locations (Table 2).

Table 2: Number of Critical Thinking Activities Held at each Site per Year

	2008	2009	2010	2011	2012	Total
Allstate Center	1		1			2
Clearwater Campus	1		1		4	6
Downtown/Midtown Center	1	3	5			9
EpiCenter	1		1			2
Health Education Center	1		1		1	3
Seminole Campus	1	3	1			5
St. Petersburg/Gibbs Campus	1	1	1			3
Tarpon Springs Campus	1		1	3	4	9
Off-Site				2	2	4
Total	8	7	12	5	11	43

Critical Thinking Student Activities (Sampling)
Toastmasters – students think on their feet as they delivered improvisational speeches (3 to 5 minutes)
Annual Leadership Conference – students enhanced their leadership skills while learning that effective leaders engage in critical thinking
Constitution Day – combined student government elections, voter registration, and the Constitution to learn about campus politics, American politics, and the importance of critical thinking to being an active and engaged citizen

1-4.2 Students will report the activities add value to their development of critical thinking skills

As explained under the [Changes to the QEP](#) section of this document, data collection efforts were refined, which lead to fewer student activities being assessed. Students completed an evaluation on five different activities held at the Clearwater, Seminole, St. Petersburg/Gibbs, and Tarpon Springs Campuses during the fall semesters of 2010, 2011, and 2012. Most students (83%) strongly agreed that their participation in the event helped to improve their critical thinking skills. A sample of how specific events impacted student critical thinking skills are shown below:

Great Debate 2008 – Student debates were held on four campuses, each on a different topic. Students in the audience were polled before and after each debate. At one campus, approximately 20% of participants indicated that they changed their position after having heard the argument. This demonstrates disposition toward openness to new ideas, a skill necessary to critical thinking.

Extreme Entrepreneurship Tour (EET) 2010 – Analysis of survey results from 384 students indicated that after having attended the EET, participants rated each critical thinking characteristic higher in terms of importance than they did prior to participating. Characteristics included: being creative, examining assumptions before coming to a conclusion, considering different points of view, questioning why things are done in a certain way, and being involved in decision-making. The increase from the pre-survey to the post-survey in each area ranged from 6.1% to 13.6%.



Free Speech and Social Media event 2012 – Eighty-four students of 277 completed the survey after the event and rated their ability to engage in related critical thinking processes, pre and post event. Students rated their ability to communicate their understanding, identify key issues, separate arguments from facts, and integrate information to draw a conclusion as “Excellent” at a much higher rate after the event than prior to attending.

PROFESSIONAL DEVELOPMENT INITIATIVE

Goal 2-1 Provide professional development opportunities

2-1.1 SPC will have developed critical thinking seminars with a discipline-specific focus



Beginning spring 2008, faculty and staff participated in professional development activities. The largest were the Critical Thinking Institutes held each spring and fall. Institutes were organized as mini-conferences including an opening keynote presentation followed by concurrent breakout sessions. Prominent scholars, L. Dee Fink, Gerald Nosich, David Sousa, Barry Stein, Milton Cox, Dean Kohrs, Johnny Good, Edna Ross, and Saundra McGuire, were featured speakers. Faculty Champions (FCs) engaged in the scholarship of teaching and learning with their Academic Roundtables (ARTs) lead discipline-specific sessions, and QEP staff presented additional critical thinking concepts including teaching and assessment strategies. Attendance ranged from 80 to over 300. Annual ART Retreats were held beginning in 2009. Retreats were designed to bring the previous year’s FCs and ART members together with the upcoming year’s FCs and ART members in a more relaxed and intimate opportunity for exchange of ideas and expertise.

Each ART was led by one or two FCs (Appendix A) who attended train-the-trainer workshops approximately five times per year. During these workshops FCs discussed critical thinking research in their discipline, devised a critical thinking teaching intervention, planned an assessment strategy, and compiled evidence of their study in an online Instructional Portfolio. Faculty also attended scoring workshops to assess students’ critical thinking skills using the Critical Thinking Assessment Test (CAT) developed by Tennessee Technological University or the Assessment Rubric for Critical Thinking (ARC) developed by SPC. CAT and ARC Scoring Workshops provided opportunities for faculty to enhance their skills in assessing students’ ability to think critically.

2-1.2 At least 75% of full-time faculty and the majority of adjuncts will participate in events

A total of 1,924 SPC faculty, adjuncts, and staff attended 45 events between 2008 and 2012 (duplicated attendees across events). The unduplicated number of full-time faculty attending critical thinking events was 267 (71%) and part-time adjuncts was 162 (18%). Though slightly below the goal of 75%, SPC was pleased with the overall interest and participation of its full time faculty.

2-1.3 The majority of feedback on critical thinking seminars will be positive

Feedback regarding critical thinking events was positive. Individual evaluations were sent out electronically to faculty and staff participants of 19 of the larger College-wide events to determine the perceived value of the information and their experiences. These 19 events were attended by 1,104 faculty and staff over the five-year period (duplicated attendees across events), and 476 responses were received for a response rate of 43%. Between 82% and 99% of faculty and staff reported that the information they received and/or their experience from the event they attended will be useful to or enhance their teaching. A survey in fall 2012 indicated 96.3% of faculty and staff rated the information presented by other faculty and staff at the various critical thinking events they had attended as either somewhat useful (55.2%) or very useful (41.1%).

Goal 2-2 Develop in-house critical thinking expertise

2-2.1 SPC Institutionalized the "Train-the-trainer" program

Faculty members who were selected by their Dean to serve as a Faculty Champion (FC) for their discipline developed critical thinking expertise. In some cases, two faculty partnered for this position, totaling 38 FCs identified between 2008 and 2012 (Appendix A). The FC was paid a stipend to attend training, lead a discipline-specific Academic Roundtable (ART) of peers, and develop an Instructional Portfolio. FCs attended conferences such as the International Lilly Conference on College Teaching, the Teaching Critical Thinking program at Tufts University, the International Conference on Critical Thinking, the train-the-trainer workshop for the Critical Thinking Assessment Test (CAT), and the Critical Thinking for Instruction and Learning online course provided through the Foundation for Critical Thinking and Sonoma State University. In addition to working with members of their ART, FCs shared their projects and relayed their expertise through their Instructional Portfolios and by giving presentations at the Critical Thinking Institutes. Over 75% of FCs and ART members surveyed in fall 2012 reported they had held sessions intended to develop critical thinking expertise of other department faculty. Nearly all faculty members who reported attending sessions held by ARTs found them either somewhat effective (67.6%) or very effective (29.7%) in designing instruction to improve critical thinking.

Goal 2-3 Institute Academic Roundtables (ARTs)

2-3.1 SPC will have formed ARTs for the majority of programs

Between 2008 and 2011, 29 Academic Roundtables (ARTs) were formed representing 14 of the College's 15 programs/curricular areas (Appendix A). An ART is a learning community focused on an academic discipline or related discipline clusters led by one or two Faculty Champions. The primary goal of the ART was to investigate general and discipline-specific strategies for teaching for critical thinking, study critical thinking within the field, design a strategy to teach for critical thinking, implement the strategy, and to assess its effectiveness. This demonstrates the Scholarship of Teaching and Learning (SoTL).

2-3.2 The majority of faculty participating in ARTs will affirm the value of ARTs

Eighty percent of Faculty Champions (FCs) and Academic Roundtable (ART) members surveyed in fall 2012 believed that their strategies were effective (60%) or very effective (20%) in aiding other faculty members to design instruction to improve students' critical thinking. In addition, 80% of FCs and ARTs agree (51.1%) or strongly agree (28.9%) that their participation helped to improve their research skills related to designing instruction for critical thinking.

CRITICAL THINKING RESOURCES INITIATIVE

Goal 3-1 Compile electronic critical thinking resources through a College website

3-1.1 The majority of faculty will identify the gateway website as a valuable source

The critical thinking Gateway Website (www.spcollege.edu/criticalthinking), intended for SPC faculty use, contains over 270 documents linked from 35 webpages. There were over 338,000 hits and over 31,000 unique visitors in 2012. The site is organized with

The screenshot shows the 'Critical Thinking Gateway' website. At the top, there is a search bar and navigation links. The main content area is divided into several sections: 'Critical Thinking' (with a definition and a photo of two students), 'News & Events' (with a list of events and materials), 'Quality Enhancement Initiatives' (with a list of programs and activities), 'Student Success' (with a list of programs and activities), 'Professional Development' (with a list of opportunities for faculty and staff), and 'Critical Thinking Resources' (with a list of electronic critical thinking tools). The website is organized with a clear navigation menu on the left and a main content area on the right.

resources for the three initiatives – student success, professional development, and critical thinking resources. The catalog of materials housed in the campus libraries' Critical Thinking Resource Centers is linked from the site. Videos of sessions, presentation files, handouts, and other materials from Critical Thinking Institutes are also available. The Instructional Portfolios developed by the Faculty Champions (FCs) and their Academic Roundtables (ARTs) are linked from the site. Resources to assist FCs and their ARTs were developed and compiled in a community group in SPC's online learning management system linked from the site. These include tutorials, videos, checklists, and links to online resources. The site is also home to meeting minutes and other documentation reported by committees and groups working on the critical thinking initiative.

Faculty and staff surveyed in fall 2012 were asked to rate the value of the Gateway Website. Of those who rated the overall value of the resources, 97.8% said that they are somewhat valuable (58.9%) or very valuable (38.8%). Over 70% either agreed (56.8%) or strongly agreed (13.6%) that the site is a valuable source of information and ideas on improving students' critical thinking skills.

Goal 3-2 Create and collect critical thinking reusable learning objects (RLOs)

3-2.1 SPC will have collected or created a minimum of 50 RLOs

The number of Reusable Learning Objects (RLOs) developed or collected was less than anticipated. Thirty-eight RLOs were created and met guidelines set by the QEP team: ease of use, interactive, meaningful, and feedback. One RLO explained the elements and standards of critical thinking. Another fostered applying a critiquing process to research studies. Another engaged the learner in a real-life simulation with application of skills/knowledge.

3-2.2 The majority of RLOs will receive favorable feedback

In the fall 2012 survey, faculty who were not Faculty Champions or Academic Roundtable members and had utilized critical thinking RLOs in their courses rated the effectiveness of these RLOs as somewhat effective (70.7%) or very effective (19.6%) in improving their instruction.

Goal 3-3 Contribute to the critical thinking literature through instructional portfolios

3-3.1 Instructional portfolios will be available for the majority of programs at the College

Twenty-nine (14 out of 15 College programs/curricular areas) Instructional Portfolios were developed (Appendix A). An Instructional Portfolio provides written documentation of the Academic Roundtable's study and implementation of teaching for critical thinking organized according to Laurie Richlin's (2001) model of the Ongoing Cycle of Scholarship of Teaching and Learning (SoTL): Teaching Learning Connection, Literature Review, Intervention, Systematic Observation, Observations, Results Analysis, Peer Evaluation, Key Issues, Results Synthesis, and Context of Knowledge Base. Instructional Portfolios are published in an online community group in the College's Learning Management System ANGEL and linked via the Gateway Website, contributing to the applied research in the field.

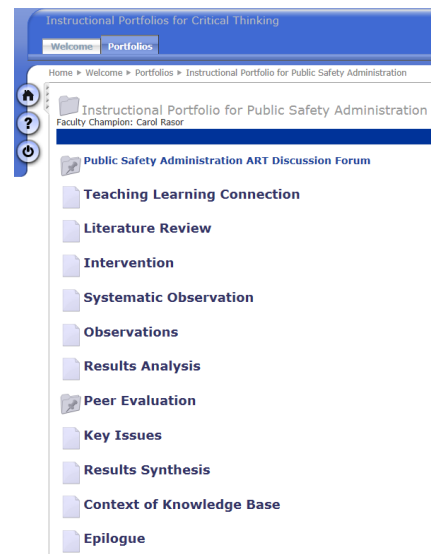
3-3.2 The majority of faculty will give a positive rating to the peer presentations and portfolios

Approximately 96% of faculty and staff surveyed in fall 2012 rated the information presented at various critical thinking events by peers and Instructional Portfolios as either somewhat useful (55.2%) or very useful (41.1%).

Goal 3-4 Acquire resources available at Critical Thinking Resource Centers

3-4.1 The majority of faculty will identify the Critical Thinking Resource Centers as valuable

Critical thinking resources are accessible online via the critical thinking Gateway Website, and housed in the Critical Thinking Resource Centers in the campus libraries. Items considered to be part of the critical thinking collection are cataloged and consist of more than 200 titles. To aid their literature review, Faculty Champions (FCs) were provided a set of books borrowed from the critical thinking collection. Along with supporting faculty in conducting a literature review, library staff presented sessions aimed at acquainting faculty with the materials contained in the critical thinking collection. In the fall 2012 survey, faculty who were not FCs or Academic Roundtable (ART) members were asked about their awareness and utilization of the Critical Thinking Resource Centers. Sixty-seven percent indicated that they were aware of the Critical Thinking Resource Centers, and more than half use the available resources either sometimes (43.5%) or often (9.1%). Approximately 74 % of faculty and staff, including those who served as a FC or ART member, agreed (54.7%) or strongly agreed (19.4%) that the Critical Thinking Resource Centers are valuable sources of information and ideas.



UNANTICIPATED OUTCOMES

There were a number of outcomes not anticipated in the original plan that resulted in structural changes. Critical thinking is one of the College’s five general education outcomes. A section of critical thinking questions was incorporated into the General Education Assessment in 2010. In 2008, the six elements outlined in SPC’s definition of critical thinking were incorporated into the College’s course review process. This encourages faculty to infuse critical thinking as they make course improvements.

Other institutions looked to SPC for critical thinking expertise and leadership and sent representatives to attend our Critical Thinking Institutes, hosted speakers from SPC at their institutions, and inquired about content on our Gateway Website including: Palm Beach State College, Polk State College, Hillsborough Community College, Volunteer State Community College, Tarrant County College, and North Carolina Agricultural and Technical State University.

Our train-the-trainer approach, enhanced with guest speakers the first two years, succeeded in making faculty eager for additional information. This desire to learn to teach for critical thinking led to the creation of the Center for Excellence in Teaching and Learning (CETL), which established interdisciplinary teams of faculty that include the CETL Faculty Board, CETL Campus Faculty Associates, and Faculty Champions for Critical Thinking. One of the goals of CETL is to maintain the critical thinking effort that was initiated by the QEP. This is facilitated through partnerships for delivering faculty development and also CETL Critical Thinking Grants to fund faculty projects such as the “Making Thinking Visible” book study and the “What was I Thinking” student workshop series.


As SPC’s commitment to providing students opportunity to think critically continued to grow, the Student Government Association (SGA) was given the responsibility for managing their own student activities budget beginning with the 2010-11 academic year. They designed the proposal process and supervised the allocation of funds. This huge responsibility is steadily increasing as the anticipated 2013-14 budget amounts to \$1.5 million.

MAKING THINKING VISIBLE

Ever wonder HOW to teach thinking within your existing lessons? What is thinking from a student’s point of view? Come join our...

Book Study Group

Researchers from Harvard’s international Project Zero have spent many years looking at what cultivates thinking dispositions in school settings. They have presented their findings in a format that is useful for instructors in their latest book: [Making Thinking Visible: How to Promote Engagement, Understanding, and Independence for All Learners.](#)




A book study group is being formed at the **Clearwater Campus**, and participants will receive a copy to keep! Space is limited, so reserve yours now: <https://www.spcollege.edu/survey/9448>

Date	Time	Location
Monday, April 2	12:30-2:00 p.m.	CETL Room LI 211
Monday, April 9	12:30-2:00 p.m.	CETL Room LI 211

During these first two meetings, the group will decide about future meetings and the possibility of continuing the study virtually with face-to-face meetings near the end of the book to share stories of how the “Thinking Moves” and “Routines” worked in our classes. For more information contact: Sue Blanchard or Janice Thiel.

Take time to meet and grow with colleagues!



4. Reflection on What We Learned

Five years after initiating our QEP, critical thinking is still an important outcome for SPC students, congruent with the College’s mission. Critical thinking is an evolving way for faculty to approach teaching, and this is evident through the Epilogues completed by Faculty Champions as they reflected on and updated the work of their Academic Roundtables. SPC’s definition of critical thinking was lacking, until we focused on the active, systematic process of critical thought. A number of best practices were identified including: action research, problem-based learning, writing and reflection, graphic organizers, and modeling. We ascertained the importance of focusing on the elements of critical thinking and to be explicit about critical thinking in our teaching.

The process taught us that acquiring and refining the skills necessary to think critically is a journey, which requires ongoing effort in order to remain engaged in that process. The Quality Enhancement Committee transitioned into a Critical Thinking Counsel to help continue the College focus on critical thinking. The Center for Excellence in Teaching and Learning (CETL) will continue to sponsor Critical Thinking Grants that were initiated during the QEP’s last year. CETL is the vehicle for SPC educators and students on the journey to further infuse critical thinking into SPC’s culture through aligning critical thinking with student success, professional development, and resources.



Appendix A

Programs/Curricular Areas and Their Faculty Champions and Academic Roundtables

Program/Curricular Area	Academic Roundtable (ART) with Instructional Portfolio	Year Formed	#Faculty Champions (FCs)	#ART Members Including FCs	Discipline-Specific Assessment Y/N?	Documented Improvement in Critical Thinking Y/N?
Natural Sciences Department	Natural Science	2010	1	2	Y	N
Engineering and Building Arts Department	-	-	-	-	-	-
College of Computer Information & Technology	Computer and Information Technology	2011	1	4	Y	N
	Business Technologies	2009	1	8	Y	N
College of Business	Business	2011	1	6	Y	Y
College of Public Safety Administration	Public Safety Administration	2011	1	5	Y	N
Fine Arts/Humanities Department	Humanities & Fine Arts	2011	1	3	Y	Y
College of Education	Education	2008	2	2	Y	Y
	Early Childhood	2008	1	5	Y	N
Hospitality & Tourism Department	Hospitality & Tourism Management and Parks & Leisure Services	2010	1	3	Y	Y
College of Policy and Legal Studies	Paralegal Studies	2009	1	7	Y	N
College of Nursing	Nursing	2009	2	8	Y	N
Communications Department	Sign Language Interpretation	2011	1	6	N	-
	Communication	2009	1	12	Y	N
School of Veterinary Technology	Veterinary Technology BAS	2010	2	2	Y	Y
	Veterinary Technology AS	2010	1	3	Y	Y
Associate of ARTS	Mathematics	2011	2	2	Y	Y
	Social & Behavioral Sciences	2011	1	9	Y	Y
	Ethics	2008	1	12	Y	Y
	Student Life Skills	2008	2	6	Y	N
College of Health Sciences	Dental Hygiene and Orthotics & Prosthetics	2010	1	7	Y	Y
Health Sciences Department	Health Information Management	2011	1	3	Y	Y
	Emergency Medical Services	2010	2	6	Y	Y
	Funeral Services	2010	1	5	Y	Y
	Human Services	2010	1	5	Y	Y
	Medical Laboratory Technology (program closed)	2010	2	2	N	-
	Physical Therapist Assistant	2010	2	4	Y	N
	Radiography	2010	1	1	Y	Y
	Respiratory Care	2010	1	3	Y	Y
Extracurricular	Library	2009	2	8	Y	N
Total	29		38	149		