Southern Association of Colleges and Schools Commission on Colleges

Explore, Evaluate, Express, and Engage

A Quality Enhancement Plan to improve student learning by focusing on critical thinking

REVISED: February 2012

Submitted to the Southern Association of Colleges and Schools Commission on Colleges in partial fulfillment of the Reaffirmation of Accreditation



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Table of Contents

List of Tables	3
Executive summary	4
Introduction to Palm Beach State College	5
I. Broad-based institutional process identifying key issues	
Selecting the topic	
Review of the literature	15
II. Focus of the plan	
Actions to be implemented	
Professional development	24
Identifying and assessing critical thinking outcomes in career programs	26
Fostering critical thinking in educational support services	27
Critical thinking resource centers	28
III. Institutional capability	29
IV. Broad-based involvement in development and implementation	43
Developing the plan	43
Implementation	45
V. Assessment plan	46
Conclusion: Expected impact of the QEP	52
References	53
Appendix A: Constituency representation on committees	
Appendix B: Sample meeting minutes	59
Appendix C: Constituency invited to propose QEP topics	63
Appendix D: Sample faculty sign-in sheets for topic discussions	
Appendix E: Constituents surveyed regarding QEP topic	
Appendix F: Sample campus forum sign-in sheets	
Appendix G: Sample worksheets to solicit topic/plan ideas	68
Appendix H: Sample agenda for Board of Trustees meeting	
Appendix I: Constituents invited to help define critical thinking	
Appendix J: Radiography employer surveys, results	
Appendix K: Dental Health employer surveys, results	
Appendix L: First QEP budget year approved by Board, 6/14/11	
Appendix M: QEP implementation approved by Board, 8/9/11	
Appendix N: Job description for QEP manager	
Appendix O: Organizational chart	
Appendix P: QEP rubric to assess outcomes using scenarios	81

List of Tables

Table 1: Student Profile	5
Table 2: Initial QEP focus topic suggestions, September 2009 – January 2010	10
Table 3: Broad-based representation of constituency who submitted topic suggestions	10
Table 4: Full-time faculty preference of QEP focus topics in first online poll	11
Table 5: Broad-based representation at campus forums in February 2010	11
Table 6: Topics preferred most at February forums and in subsequent online poll	11
Table 7: Weighted scores of preferred topics in forums and online polls	12
Table 8: Critical thinking assessed as a student learning outcome	13
Table 9: Projected budget	32
Table 10: QEP preliminary phase timeline (summer and fall 2011)	33
Table 11: QEP pilot phase timeline (spring and summer 2012)	34
Table 12: QEP implementation phase timeline (2012-2017)	36
Table 13: Direct measures of student learning outcomes	49
Table 14: Indirect measures of QEP success	49
Table 15: Measuring the effectiveness of professional development	50
Table 16: Measuring the effectiveness of supporting strategies	51

Executive summary

Palm Beach State College selected the topic of *critical thinking* through an institutional process in the 2009-2010 academic year. Through continued broad-based, participatory conversations in 2010, constituents derived the following operational definition: *critical thinking is using the skills needed to explore, evaluate, express, and engage in purposeful reasoning in order to reach sound conclusions, decisions, positions, and/or solutions.* The College developed its Quality Enhancement Plan (QEP) using this definition.

Plan development resulted in a single goal to improve student learning: *Students will develop and apply critical thinking skills*. To accomplish this goal, the College will embark on a focused initiative for professional development to help faculty and staff enhance their skills to teach and assess critical thinking. The plan provides a framework to unite faculty, instructors, staff, and administrators in a venture to create a learning environment that includes a common understanding of what critical thinking is and of the skills and characteristics that are associated with critical thinking. It is such a learning environment that will help students develop and apply necessary critical thinking skills.

There are at least three benefits to the College's QEP.

First, student learning will be promoted and improved. As the five-year plan is implemented and completed, students will develop and use the skills associated with critical thinking. This will occur as faculty and instructors integrate critical thinking into the classroom, giving students opportunities to practice critical thinking in ways that encourage its transfer across disciplines and outside the institution.

Second, students will benefit as the QEP provides a College-wide mechanism to teach and assess critical thinking in all academic and career programs. Faculty, instructors, and staff will be provided needed time to review existing practices and results or develop new outcomes and strategies to help students develop critical thinking skills.

Third, with a focused effort on critical thinking throughout the College community, the definition of learning will be broadened and defined. The result will be a cultural shift to a pervasive awareness of the importance of critical thinking as a life- and career-enhancing skill.

The QEP will help the College meet its mission to "create and sustain a dynamic teaching and learning environment" and to prepare "students to contribute and compete ethically and successfully in a diverse global community."

The plan is comprehensive. Student learning outcomes define what QEP implementation will accomplish. A carefully designed strategy for professional development will help realize the outcomes. The projected five-year budget of approximately \$785,010 includes preliminary expenses and is fully fundable. The degree to which the QEP goals and outcomes have been attained will be informed by a well-constructed assessment plan. Palm Beach State College looks forward to the spring 2012 implementation of the following Quality Enhancement Plan.

Introduction to Palm Beach State College

Institution at a glance

Palm Beach State College first opened its doors in 1933 as Florida's first public junior college. That year, 41 students attended classes in a building near what was then Palm Beach High School. Today, the College serves more than 51,000 students at four locations.

Palm Beach State is governed by a five-member District Board of Trustees appointed by the governor and is the sixth largest of the 28 colleges that comprise the Florida College System. The College offers Bachelor's, Associate in Arts, Associate in Science, and Associate in Applied Science degrees, as well as college credit certificates, job preparatory programs, corporate and continuing education, customized training, and lifelong learning courses.

The College is ranked by *Community College Week* (Bradley, 2011) as the 15th largest producer of associate degrees in the country (p. 10), the 14th largest producer of associate degrees awarded to minorities (p. 14), and the 5th largest producer of associate degrees in liberal arts and sciences, general studies, and humanities (p. 19).

Table 1 summarizes the demographic composition of the student population in 2009-2010.

Table 1: Student Profile

Full-time equivalency	20, 482
Gender	56% female
	44% male
Race	52% white
	24% black
	20% Hispanic
	4% other
Number of countries represented among students	172
Enrollment status	37% full-time
	63% part-time
Average student age	28
Number enrolled in distance learning courses	8,997
Number enrolled in distance learning courses	8,997

College Relations and Marketing and the Office of Institutional Research and Effectiveness provide multiple resources on the College website, such as Fast Facts (2010a), to describe the history and demographics of the College (http://www.palmbeachstate.edu/FastFacts.xml). Panorama 2010: Annual Student Enrollment Report (2010c) includes similar but more detailed information (http://www.palmbeachstate.edu/x11122.xml).

College mission and beliefs

The strategic planning process affords the College an opportunity to periodically reconsider and refine its mission, vision, and beliefs. The most recent review was completed in 2009 and resulted in the *Palm Beach State College 2009-2012 Strategic Plan* (2009b), available online at: http://www.palmbeachstate.edu/Documents/Institutional Research/documents/StrategicPlan 09 -12.pdf . The Strategic Plan includes the College mission, vision, and beliefs.

Mission Statement

Palm Beach State College, founded in 1933 as Florida's first public community college, is a diverse, comprehensive institution dedicated to serving the educational needs of Palm Beach County. Integrally linked to the community through strong partnerships, the College provides associate and baccalaureate degrees, professional certificates, workforce development, and lifelong learning.

Palm Beach State College's mission is to create and sustain a dynamic teaching and learning environment that provides a high-quality, accessible, affordable education, preparing students to contribute and compete ethically and successfully in a diverse global community.

Vision Statement

We envision a College of diverse, active learners engaged in intellectual, social, and personal growth that enriches and transforms our community.

Belief Statements

We believe...

- Student success is our first priority, and all students can succeed.
- Ethical standards are integral to the educational experience.
- Faculty and instructors should use instructional methods and technology that meet the diverse learning styles of students.
- The College curriculum and its operations should demonstrate a commitment to ecological sustainability.
- The College must anticipate and respond to evolving community needs by reaching out to all potential partners and establishing programs and courses that will meet those needs.
- Quality education is a worthwhile investment.
- An educated workforce has a positive impact on our community and economic health.
- Faculty/staff development is integral to quality education.
- A safe, secure, and supportive College climate is essential.
- Diversity reflects society and enhances the educational process.
- Equity and equality of opportunity are essential.
- Lifelong learning enhances the quality of life.
- Collaboration enhances the quality of decision-making.

Palm Beach State College has developed a Quality Enhancement Plan that will improve student learning by focusing on critical thinking. The mission, vision, and beliefs were a strong consideration during the topic selection and development process. Furthermore, the plan components will support each of these important institutional cornerstones.

I. Broad-based institutional process identifying key issues

Selecting the topic

Selecting *critical thinking* as the QEP topic was a two-semester effort that emphasized broadbased constituency participation and data collection. From September 2009 through March 2010, all constituents of Palm Beach State College (hereinafter may be referred to as "the College") had the opportunity to participate in a process to identify key issues that emerged from institutional data. Constituents were invited to suggest and discuss possible focus topics for the QEP. During that time, 140 ideas were proposed in writing by full-time and part-time faculty and instructors, students, staff, and administrators. Alumni and members of the external community, primarily business partners, also participated in the discussion. The suggestions were ultimately narrowed to a focus on *critical thinking*. The topic was approved by the District Board of Trustees in June 2010.

Constituents were invited to review various institutional data in the process of topic selection. Examples of available data included grade distribution reports, course evaluations, qualitative student surveys, assessment data, program evaluations, placement test scores, cohort data, and employer surveys. In additional to constituency support, internal data that best supported the topic of *critical thinking* included surveys from career programs and graduating students, general education assessment, and conversations with faculty. These data are discussed later in this section.

A variety of evidence verifies the broad-based process of topic selection. Included documents are meeting minutes of the QEP committees and QEP Advisory Council, listed representation on those committees, sign-in sheets, email and web responses, completed forum and focus group worksheets, updates on the College home page, social media, and the QEP web page. Evidence of the opportunities, the depth of broad-based participation, and the internal data are maintained online or by the QEP manager. Samples are presented in appendices A-H.

The following describes the topic selection and data collection process, which included introducing the QEP effort to each campus, providing opportunities to participate in the selection process, and verifying a need for the topic with both constituency support and institutional data.

Introducing and communicating the QEP effort

In 2006, faculty and staff in multiple disciplines and departments were presented with areaspecific data. They were asked to identify problems related to student learning that might be implicated by the data and to work with each other to develop feasible solutions for "quality enhancement." This collaboration resulted in the implementation of numerous discipline-specific or departmental actions that began in 2007. Each plan was called a QEP. This exercise continued a long-standing College history of data-driven decisions, but it also introduced the term "QEP" to constituents, laying the groundwork to lead the College to a QEP focus topic in the years that followed.

In September and October 2009, this process continued as meetings were held on each campus with faculty and instructors, both full-time and part-time (hereinafter referred to as "faculty" unless otherwise stated). During these meetings, faculty members were informed that an acceptable *college-wide* QEP is now required by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) as part of the application for reaffirmation. They

also learned that this QEP would be an effort to improve student learning and that it would be College-wide. Faculty were invited to begin discussing data and ideas for the QEP focus topic and to submit their suggestions and supporting data using the QEP web page.

All-user emails were sent to employees and students inviting them to submit ideas and to remind them of approaching deadlines. In November 2009, during meetings of the Student Government Association (SGA) and Phi Theta Kappa (PTK), student members were asked to discuss and submit their ideas. Status updates were provided on social networks, and the College community was encouraged to visit the QEP web page to learn more and to submit topic ideas.

Providing opportunities for constituents to participate

Constituents had several means available to participate in the topic selection process.

Web response form and email

The online venue provided a convenient way for individuals to propose a QEP focus topic. Suggestions were submitted to the QEP Development via an online response form or email. Ideas were accepted throughout the 2009 fall semester and until January 15, 2010.

Faculty focus groups

Almost 90 percent of full-time faculty participated in a College-wide faculty meeting on January 4, 2010, in which twelve focus groups were held. In these groups, two activities took place. Faculty first discussed and evaluated twelve previously-suggested ideas, filtering each through a set of SACSCOC guidelines and considering possible goals and assessments. Second, they brainstormed to develop new ideas, goals, and assessments. This faculty meeting, coupled with a QEP Development Team screening of topics, resulted in a list of thirteen possible QEP topics (denoted with an asterisk in Table 2).

Online polls

Online surveys were used twice during the process. After the January 2010 faculty meeting, all employees and students were invited to review the list of thirteen topics. Participants were asked to select topics they would most like to have developed into a long-term plan to improve student learning. As over 500 responses were analyzed, a consensus emerged. Seven of the thirteen topics were important to those who participated and became the focus of subsequent campus forums. The forums and a second online poll were used to further narrow the selection to only three choices. More than 800 online responses were received in the second online poll.

Campus forums

In February 2010, the QEP Development Team visited each campus and held forums to discuss seven possible QEP focus topics. Almost 250 participants, including faculty, staff, students, external community members, and administrators, had the opportunity to select one of the seven topics for discussion. Nearly 51 percent of the forum participants were full-time faculty. QEP team members facilitated round-table conversations that focused on possible goals and assessments, and the feasibility of developing each topic within the QEP. At the end of each forum, groups reported key points regarding their topics, and everyone was given the opportunity to vote for his or her favorite three. Paper ballots were used for the final forum tally. In addition, an electronic poll was conducted using "clickers" to give participants immediate feedback regarding the preferences of those in attendance. These forums and a subsequent online poll helped narrow the topic selections to three: *critical thinking, communication, and initial course placement* (placement). How these three were selected is described next.

Verifying constituency support for the topic of critical thinking

The QEP Development Team was charged with the task of submitting three proposals to the administration for the final QEP topic selection. This team determined which topics were best-supported by the College constituency. Feedback from all stakeholders was considered. High priority was placed on faculty input because they see and experience first-hand the problems related to student learning. Unquestionably, they will be on the front lines of any QEP implementation. By validating the faculty response throughout the selection process, their involvement and support will more likely be retained. Additionally, faculty-driven processes of QEP topic selection, development, and implementation fulfill the expectations of SACSCOC. Faculty strongly favored a QEP with a focus on *critical thinking, communication, or placement*.

To further authenticate the process itself, several other inputs were considered before the proposals were written. The team considered the preferences of part-time faculty, staff, and students as indicated in the online polls, as well as campus preferences indicated in the forum discussions, written feedback, and voting. The topic of *instruction and instructional support* ranked equally with *communication* for the second most-preferred, and *placement* followed very closely. *Critical thinking* and *communication* were supported by all groups in every review of the data; *placement* and *instruction/instructional support* were contenders as the third topic. Full-time faculty strongly preferred the topic of *placement*. When votes were weighted (1-3 points given to a topic for every vote received for third, second, or first choice respectively), *placement* ranked in the top three. Because of this ranking, the QEP team chose to include *placement* as one of the three focus topics. Tables 2-7 summarize the data discussed by the QEP committee in its decision to recommend *critical thinking* as the QEP focus topic.

Table 2: Initial QEP focus topic suggestions, September 2009 – January 2010

140 initial QEP focus topic suggestions submitted in writing, Sept '09 – Jan '10 (Thirteen topics included in the first online poll are denoted by asterisk.)	Number of times suggested	Percent of total
Admission or registration	4	2.9%
Building relationships * (within the College community)	11	7.9%
Career-related	2	1.4%
Communication * (could be addressed within a critical thinking focus)	10	7.1%
Critical thinking *	5	3.6%
Developmental education *	5	3.6%
First-year students *	4	2.9%
Foreign language	1	0.7%
Health and wellness *	6	4.3%
Higher standards * (including student intentionality and accountability *)	6	4.3%
Instruction and instructional support * (could be addressed within a critical thinking focus)	21	15%
Learning communities	3	2.1%
Mathematics * (could be addressed within a critical thinking focus)	4	2.9%
Peer coaching * (could be addressed within a critical thinking focus)	2	1.4%
Personal development * (could be addressed within a critical thinking focus)	8	5.7%
Physical environment	12	8.6%
Placement *	5	3.6%
Programs (could be addressed within a critical thinking focus)	3	2.1%
Scheduling	3	2.1%
Sciences (could be addressed within a critical thinking focus)	2	1.4%
Service learning (could be addressed within a critical thinking focus)	1	0.7%
Student services (not related to first-year experience)	8	5.7%
Sustainability (could be addressed within a critical thinking focus)	6	4.3%
Technology	8	5.7%
Total	140	100%

Table 3: Broad-based representation of constituency who submitted topic suggestions

Constituency participation in submitting written topic proposals (Sept 09 – Jan 10)	Number of ideas submitted	Percent of all ideas submitted by this group
Part-time faculty	15	10.7%
Administration	4	2.9%
Full-time faculty	72	51.4%
PSAV instructors	4	2.9%
Staff	16	11.4%
Students	29	20.7%
Total	140	100.0%

Table 4: Full-time faculty preference of QEP focus topics in first online poll

Topics selected by full-time faculty as 1 st or 2 nd choice in online poll to select top three topics (146 full-time faculty participated casting 287 total votes for 1 st and 2 nd choice topics)	N=287	%
Critical thinking (across the disciplines)	44	15.3
Communication (across the disciplines)	51	17.8
Placement	68	23.7
Instruction and instructional support	25	8.7
Student intentionality and accountability (pulled out as separate topic in January 2010)	41	14.3
Building relationships	9	3.1
Higher standards	49	17.1
Total	287	100.0

Table 5: Broad-based representation at campus forums in February 2010

Campus forum participation		Beach dens	Lake	Lake Worth		Belle Glade		Raton	То	tal
participation	N	%	N	%	N	%	N	%	N	%
Full-time faculty	38	69.1%	35	37.2%	11	34.4%	41	63.1%	125	50.8%
Part-time faculty	0	0.0%	7	7.4%	1	3.1%	1	1.5%	9	3.7%
Staff	10	18.2%	17	18.1%	15	46.9%	9	13.8%	51	20.7%
Students	0	0.0%	10	10.6%	2	6.3%	7	10.8%	19	7.7%
External community	3	5.5%	7	7.5%	0	0.0%	3	4.6%	13	5.3%
Administration	4	7.3%	17	18.1%	3	9.4%	4	6.2%	28	11.4%
Board member	0	0.0%	1	1.1%	0	0.0%	0	0.0%	1	0.4%
Total	55	100%	94	100%	32	100%	65	100%	246	100%

Table 6: Topics preferred most at February forums and in subsequent online poll

Summary of topics that placed in top three choices with all votes (at forums and online)	Number times placed 1 st	Number times placed 2 nd	Number times placed 3 rd	Number times placed top three
Critical thinking (across the disciplines)	1	4	6	11
Communication (across the disciplines)	2	1	1	4
Placement	1	4	1	6
Instruction and instructional support	6	1	1	8
Student intentionality and accountability	0	1	0	1
Building relationships	1	0	3	4
Higher standards	1	1	0	2

Table 7: Weighted scores of preferred topics in forums and online polls

Weighted scores of all votes (3 pts if a 1 st choice, 2 pts if a 2 nd choice, 1 pt if 3 rd choice)	January Online Poll	Forums: Paper Ballot	Forums: Electronic Vote	February Online Poll	Total Score	Rank
Critical thinking (across the disciplines)	1127	243	215	733	2318	1
Instruction and instructional support	996	191	195	746	2128	(tie) 2
Communication (across the disciplines)	1014	266	252	596	2128	(tie) 2
Placement	990	229	197	710	2126	3
Higher standards	955	170	150	649	1924	4
Student intentionality and accountability	897	183	188	580	1848	5
Building relationships	956	92	90	621	1759	6

Verifying the need with internal data

As institutional data were reviewed during the topic selection process, information from four areas provided evidence to support a QEP focus on *critical thinking*: career programs, general education assessment, graduating student surveys, and conversations with faculty.

Career programs

The use of critical thinking is inherent in career programs. For example, automotive students must analyze engine trouble to perform a diagnosis and criminal justice students must evaluate circumstances to respond appropriately. The nursing program has recently added specific curriculum components to teach critical thinking skills. However, employer surveys in some programs indicate that student skills related to critical thinking are not as strong as job-related skills.

In the radiography and dental programs, employers were highly satisfied with graduate performance on job-specific skills. Although skills related to critical thinking were satisfactory, ratings on these skills were not as high as ratings on job-related skills. The radiography survey (Appendix J) asks employers to rate graduates' competencies in specific skills, including one related to critical thinking. Sixty-nine percent of the ratings on job-related skills were "excellent." However, seventy percent of ratings for critical thinking skills were less than excellent. Dental program survey results (Appendix K) were similar. A QEP focus on *critical thinking* would provide a favorable context to enhance the ability of students in career programs to develop and apply critical thinking skills.

General education assessment

In the general education program, critical thinking is assessed as a student learning outcome using two instruments: a standardized assessment (*ETS Proficiency Profile*, formerly the *Measure of Academic Proficiency and Progress* or MAPP) and faculty-developed "scenarios" which require open-ended responses. These instruments are administered once per year to students in randomly selected courses. Courses are selected from those with enrolled students who have earned an average of at least 45 credits. There have been two iterations of

assessment using these tools. Results for the first assessment cycle became available and were reviewed as *critical thinking* was being considered for the QEP. The second report became available during plan development. Students are meeting the standards (scoring average on both assessments), but the College is not satisfied with these results and viewed a QEP focus on *critical thinking* as an opportunity to help students improve critical thinking skills. Relevant results are summarized in Table 8. Full reports are available online as cited in the reference list (Palm Beach State College, 2010b, 2010c).

Table 8: Critical thinking assessed as a student learning outcome

Measurement	Term	Performance Standard or Benchmark	Results
MAPP	Fall 2009	National norms provided by ETS: 50 th percentile = 110	111
Scenario	Fall 2009	Average score = 2.5 on a 5-point rubric	2.95
Proficiency Profile	Fall 2010	National norms provided by ETS: 50 th percentile = 110	110
Scenario	Fall 2010	Average score = 2.5 on a 5-point rubric	2.69

Graduating student survevs

Graduating students participate in an exit survey each semester, and the results are provided in the *Report for Graduating Student Survey* (Palm Beach State College, 2009a, 2010e). Students are asked to indicate how well prepared they are to think critically as a result of their education. Less than half of respondents indicated a maximum level of preparedness. Because the College views critical thinking as an essential skill for all graduates, this result is deemed inadequate. As this was considered, it was expected that a QEP focus on *critical thinking* would lead to improved results.

Conversations with faculty

Other evidence was prevalent in faculty conversations that occurred in the previously described College-wide activities. The perceived problem that related directly to student learning was that students were not typically demonstrating the ability to think critically. Examples of such evidence came from professors in multiple disciplines. Science instructors expressed concern about students who did not transfer what they learned about solving equations in a mathematics course to balancing equations in chemistry. Professors reported minimal application of skills learned in English and communication courses as students prepared written work, speeches, or presentations in non-English courses. Mathematics professors indicated that students struggled to read and follow directions, and seemed unable to think about the applications of the calculations they had learned. Instructional staff saw the QEP as an opportunity to develop a plan to help students acquire the critical thinking skills needed to make connections between disciplines.

Final rationale to focus on critical thinking as the QEP topic

A Quality Enhancement Plan that focuses on critical thinking was supported by College constituents, internal data, and the external community. In addition to its broad support among faculty, instructors, staff, and students, critical thinking was selected for the following reasons:

- A focus on critical thinking would very clearly support the institutional mission to prepare "students to contribute and compete ethically and successfully in a diverse global community" and to "create and sustain a dynamic teaching and learning environment that provides a high-quality...education."
- Co-curricular strategies that support critical thinking would provide a long-term vehicle to continue the efforts of current strategic planning goals related to sustainability and ethics.
- A preliminary review of scholarly literature supported a need for higher education to implement strategies that will encourage the development of critical thinking skills.
- A focus on critical thinking would inherently require a focus on communication skills and simultaneously provide opportunities to address communication issues, a need identified by many constituents.
- The learning outcomes that would undoubtedly be associated with a critical thinking focus would help students identify what they are expected to learn, helping them become more self-directed and responsible for their learning.
- Initiatives that had been suggested for a QEP with this focus topic would do much to address additional concerns of the College community. Addressing other issues in relation to critical thinking would also maximize continued support for and participation in the final development and implementation of the QEP. Examples of suggestions include the following:
 - Faculty development and collaborative teams would help build relationships and sustain improved instructional support.
 - Projects and co-curricular opportunities would encourage faculty to participate in efforts that would raise the standards for student participation and performance.
- Developing critical thinking skills was the focus believed to have the greatest potential to unify faculty, staff, and students and to stir the academic creativity and enthusiasm that must be generated and documented in the final development phase and during implementation.
- This topic would have far-reaching implications and potential to produce individuals who
 will make significant contributions to the community as students and graduates of Palm
 Beach State College.

After careful consideration of data from many perspectives, the QEP Development Team drafted proposals focused on *critical thinking*, *communication*, *and placement*. The proposals for these topics and the recommendation to select *critical thinking* were submitted to the Executive

Leadership Council in April 2010. The Council also preferred *critical thinking*. At a subsequent meeting with the QEP faculty chair and the vice-president of academic affairs, the College president agreed the topic was a good fit for the College. The proposal was presented to the District Board of Trustees in May 2010, and the topic of *critical thinking* was approved by the Board at the June 2010 meeting.

When final approval was granted by the Board, the effort to involve as many stakeholders as possible in the topic *selection* concluded. The QEP Development Team succeeded in engaging the College community as a whole in the selection process. This level of activity remained constant during QEP development and will continue throughout implementation as indicated in Section IV of this document.

Review of the literature

The focus on critical thinking throughout the College will significantly impact the way Palm Beach State views and practices teaching and learning. However, to develop a specific plan to focus on critical thinking, an institution must first learn from others who have studied, practiced, and written about critical thinking. After reviewing the literature, the College will be better able to make informed decisions concerning the opportunities and challenges critical thinking offers, and these decisions will provide a foundation upon which to build a critical thinking focus.

The literature on critical thinking includes a broad range of perspectives, making it difficult to identify a single definition of critical thinking. However, there is strong consensus that critical thinking is an important skill, that it should be taught across the disciplines, and that students should have opportunities to practice thinking critically. Wide variations of critical thinking activities, both in and out of the classroom, support the educational and professional value of critical thinking.

The College will better integrate critical thinking into curricular and co-curricular activities by investigating the scope of critical thinking literature. What follows are topical discussions based on a survey of literature concerning critical thinking: definitions, integration into the curricula, best practices, transferability, professional development, and assessment.

Definition

In all sources reviewed, the definition and process of critical thinking included intentional examination and questioning of, as well as a response to, information, evidence, or a situation.

A review spanning more than 100 years may do little to define this topic, but a great deal of information *about* critical thinking is available and helpful to narrow the QEP focus on critical thinking. Philosopher William Sumner (1906) says simply that critical thinking is "a way of taking up the problems of life" (p. 633). Dewey (1910) calls it *reflective* thinking and describes it as "active, persistent, and careful consideration" of beliefs or knowledge to support conclusions (p. 18). Some thirty years later, Glaser (1941) writes that it is an "attitude of being disposed to consider" and it is the "knowledge of the methods of logical inquiry and reasoning and...skill in applying those methods." Shurter and Pierce (1966) explain critical thinking as the examination of what is presented, an objective determination of the validity of or options for that information, and the arrival at a position or decision for action. Paul (1990) defines it as that "which exemplifies the perfections of thinking appropriate to a particular mode or domain of thinking" (p. 51). Paul and Elder (2008d) characterize it as thinking that is "self-directed, self-disciplined, self-monitored, and self-corrective."

More recently, a number of authors attempt to define critical thinking by describing the traits and results of critical thinking skills. For example, Petress (2004) writes that one must consider the "sufficiency, relevance, reliability, consistency, recency, and access of information" (pp. 461-462). Petress also indicates that critical thinkers ask questions that are "direct, clear, relevant, and as unbiased as possible" (p. 462). Paul and Elder (2008a), acknowledging that context may impact how a student thinks, purport some "universal" characteristics and requirements, namely, "clarity, precision, accuracy, relevance, depth, breadth, and logic." Facione (2010) says the skills are those which lead to "interpretation, analysis, evaluation, inference, explanation, and self-regulation" (pp. 4-6).

Other contemporary researchers and educators focus on critical thinking as a process of reasoning which leads to a course of action (Hendrickson, St. Amant, Hawk, O'Meara, & Flage, 2008). Critical thinking is often associated with the movement from lower-order to higher-order thinking. Heer (2009), explaining Anderson and Krathwohl's 2001 revision of Bloom's taxonomy, models the process of moving from concrete to abstract thinking within the "knowledge dimension," and the process of advancing from lower-order skills, such as remembering and understanding, to higher-order skills, which include evaluating and creating. For others, the process of thinking critically leads to an ability to find argument that is based on logic, deduction, syllogism, enthymemes, induction, causal relationships, and the examination of fallacy (Cavender & Kahane, 2010; Hendrickson, et.al., 2008; Porter, 2002; Shurter & Pierce, 1966; Vire, 1996). By means of judgment, query, and experience, critical thinking then leads to meaning for the thinker (Buchler, 1955). Some argue that critical thinking leads to ethical thinking (Fowler, 2008; Paul, 1990, p. 60).

Integration into the curricula

In general, critical thinking means investigating, questioning, and responding to assumptions, information, problems, issues, and situations. The next concern that scholars address is the integration of critical thinking into curricula and teaching.

Teachers should model and supply opportunities for critical thinking as a way to question beliefs and assumptions. Dewey asserts that content should be "supplied by stimulus, not with dogmatic finality and rigidity" (p.198). Shurter and Pierce (1966) write that a college education will be spent learning how to think critically, and thus professors must continually teach those skills. Brookfield (1987) reinforces the notion of a broad and thorough focus on the teaching of critical thinking with his suggestion that multiple tasks are required of those who wish to encourage critical thinking. Paul (1990) recommends that a general education course be one in which the educator promotes questioning, diverse and opposing viewpoints, and connections to other disciplines. Quoting a panel of recognized experts in his Delphi Report, Facione (1990) explains the educational aim in even more specific terms than Paul:

The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit. Thus, educating good critical thinkers means working toward this ideal (p. 2).

Teachers should provide opportunities for critical thinking, engage in the intricacies of critical thinking themselves, and help internalize critical thinking into the lives of students. Crenshaw

(2010) says instructors should strive to build in opportunities that will give students freedom to think critically. According to Crenshaw, instructors "should affirm the thinker, listen well, be supportive of the process without immediately calling into question the assumptions, confirm an understanding of the thinker's statements; instructors 'function as catalysts' in discussions that engage students in questioning and reasoning" (p. 4). However, Paul (1990) warns that educators must first consider the "basic cognitive and affective tendencies of the human mind in its normal, uncritical state" (p. 60). This means institutions must provide opportunities for discourse that reveal and respect opposing viewpoints. Van Gelder (2005), emphasizing steps based on cognitive science, suggests this be accomplished by first recognizing that critical thinking is hard and unnatural. Van Gelder adds that students will only learn to think critically when they engage in it and learn to transfer that thinking to circumstances outside of the classroom; just learning about it is not enough. Black (2004) maintains that students must be taught to take their thoughts apart, examining closely what they are learning, so they can summarize concepts and issues to formulate opinions and conclusions. Elder and Paul (2008) equate this to the internalization and application of concepts.

Teachers and students should go beyond the methodology of critical thinking to uncover and critically examine their own long-held beliefs and ideological assumptions. Although Paul (1990) and Van Gelder (2005) state clearly that critical thinking must be learned, Sloane (2010) expresses a different opinion. He suggests that when the human mind approaches a long-held belief, the inclination is to approach the belief critically to find evidence to support the belief as fact. However, Sloane also warns that when given opposing information, the inclination may be to examine it more simplistically, considering only what is wrong with other opinions. Van Gelder refers to this as "belief preservation" and adds that students must be taught to avoid these "cognitive biases and blind spots" (p. 45).

With fair warning about the complexities and challenges, the scholars seem to agree that critical thinking can and should be taught.

Best Practices

While the College concludes that to integrate critical thinking into curriculum is a strategic move to improve student learning, the question as to *how* to do that remains. Best practices must be investigated as a partial answer to that question. Specific strategies are readily available in the research.

Question and response is one method. Truppe (1999) provides a series of *Newsweek* articles followed by questions that force critical thinking with strategic direction. By answering questions, students identify points of view and differentiate between fact and opinion. Answering questions also helps students use the process of problem-solving to find logical solutions, to analyze information, and to make valid generalizations and predictions using inference. Similar pedagogy is found in English, reading, and writing curricula.

Much is said also about Socratic questioning, the process of getting students to look for questions and not just answers. The Critical Thinking Community, Foundation for Critical Thinking (2009) says that "thinking is not driven by answers but by questions." In fact, a number of sources focus on the importance of asking questions that move students beyond memorization. Paul and Elder (1997) argue that these ancient questioning techniques are still relevant: "We can inquire into whether or not we have relevant data and information. We can consider alternative interpretations of the data and information." Paul and Elder (2007a) explain that critical thinking skills provide the "conceptual tools" needed to pursue the "meaning and

truth" that is discovered in the process of Socratic questioning. This type of questioning specifically asks students to challenge the clarity, precision, accuracy, depth, and breadth of issues (Paul & Elder, 2007b). Socratic questioning should be allowed to occur spontaneously but remain focused (Paul & Elder, 2008b).

Asking questions is not the instructor's responsibility alone. The members of the Critical Thinking Community (2009) suggest testing students solely by having them list questions they have and then asking questions about those questions. Laura Greene, an English teacher at Augustana College in Illinois, also argues for students' questions: "Students must feel as though they live in a world of questions not their own" (2005). She laments that students, if they ask questions at all, only ask questions that help clarify a basic understanding of the material. Those are the types of questions that, according to Greene, demonstrate that the students only see "questioning as a process of closing down, rather than opening up" their thinking. Greene concludes, "The idea of questions that...promote deeper understanding and further intellectual inquiry seems not to have occurred to many first-year college students."

While providing specific strategies, however, successful critical thinking requires time and reflection for students to examine their thoughts (Ruggerio,1989), and the intellectual space in the classroom to discuss interpretations, viewpoints, and creativity (Brookfield, 1987; Evans, 1992; Facione, 1990; Gardner, 2005). Evans further specifies that creative thinking eliminates the dissuasion students may face when problem-solving and is therefore central to the process.

Tsui (2000) offers a list of practices that are helpful. She suggests a positive relationship exists between critical thinking and activities such as group projects, class presentations, essay exams, independent research, and instructor feedback. She writes that multiple-choice exams are negatively related to critical thinking. Tsui encourages group exploration, reporting a connection between student collaboration, specifically to explore knowledge and divergent thinking, and the development of critical thinking.

There are many ways to address cooperative exploration and divergent thinking. Group work and collaboration are encouraged as a strategy for peer-assessment and discussion of new concepts (Elder & Paul, 2008) and of student ability to speak and listen (Paul & Elder, 2008c). Divergent thinking can be encouraged by helping students shift perspective and consider opposing viewpoints. As part of helping students shift perspectives, De Bono (1982) advocates a scanning method he calls "PMI" – categorizing anything about a topic as a plus, a minus, or an interesting point for discussion. Role-playing and scenario-based problem-solving allow students to practice their thinking skills. Criminal justice classes often use the SARA model to teach prospective law enforcement officers to scan, analyze, respond to a situation, and assess personal response to determine whether or not it solved the problem (FDLE, 2009).

Critical thinking may be a natural result of methods described previously, or it may be used as a separate innovation. Nonetheless, students should be encouraged to ask and answer openended questions to learn how and why things happen and to learn what other possibilities exist in order to stimulate and provoke new thought (Sloane, 2010).

In addition to questioning and collaborating, as well as open-minded, innovative thinking, some emphasis on fair-minded and ethical thinking should be considered. Fair-mindedness is noted as a characteristic of critical thinking (Facione, 1990; Paul, 1990). Further, in a three-part series, Paul and Elder (2009a; 2009b; 2010) describe the natural link between ethical reasoning and fair-minded thinking. They, as well as Fowler (2008), agree that educators should not separate

ethical thinking from critical thinking and that ethical thinking should be integrated as a means to foster critical thinking skills.

Most of the research indicates that the best approach to teaching critical thinking skills is to infuse it into the curriculum and provide opportunities for students to practice the skills.

Transferability

Scholars agree that embedding critical thinking strategies into course work helps students develop critical thinking skills. However, employers see critical thinking too rarely in employees, and some have taken steps of their own to correct the perceived deficiency, such as making training available to help employees develop critical thinking skills. Colleges should find and implement instructional strategies to help students *transfer* these learned skills to life outside the classroom and to employment.

Amidst devastating unemployment rates in the United States, employers in some industries still report difficulty in finding job candidates who possess the necessary skills, including critical thinking. A January 2010 survey conducted by Hart Research Associates found 84 percent of employers indicated that colleges should expect students to "complete a significant project before graduation that demonstrates their depth of knowledge in their major *and* their acquisition of analytical, problem-solving, and communication skills." If these expectations were met by college students, 62 percent of the employers said job performance would improve. The Association for Career and Technical Education (ACTE) is beginning to redefine "career readiness" to include the ability to think critically (Gewertz, 2010).

Despite the stated need to hire and promote graduates who are able to think critically, employers find that skill in short supply. In 2010, the *Wall Street Journal* reports that employers are finding increasing numbers of newly hired college students who lack necessary critical thinking skills (Taylor). In the article, Taylor writes that Sara Holoubek of Luminary Labs in New York says employees are held back in presentations because they are unable to "assert opinions." Taylor also quotes Todd Davis of Warner Brothers Entertainment (California) as saying new college graduates are "making assumptions without doing any significant research."

Because students are unable to transfer critical thinking skills to life beyond the classroom, groups outside of education are assuming the role of teaching students and employees how to think critically. For instance, in 2008, PR Newswire reported that an Australian company had introduced software to teach critical thinking skills to management consultants. Taylor (2010) also discusses the Springboard Project by the Business Roundtable, an initiative to create a free online series (JobSTART101) to help college students improve job skills. She cites Chief Executive William Green, who says the project is an attempt to help students improve "analytical skills, the critical thinking skills, the communication skills that are necessary for really almost every job in today's economy."

Employers dissatisfied with newly hired employees' critical thinking skills look outside academia to teach critical thinking to employees, which reinforces the need for colleges to teach critical thinking and to make sure students understand that these skills are relevant beyond the classroom. Van Gelder (2005) emphasizes this need for transfer and states that transferability can only be achieved with hands-on practice.

Professional Development

The research suggests that critical thinking should be incorporated into general education courses by including many strategies and practices: problem-based learning, case studies, role-playing, deeper questioning, opportunities for discussion and reflection, and chances to consider ethics and remove bias. Scholarly literature makes it clear that faculty and staff at most colleges struggle with how to adjust pedagogy to effectively integrate these strategies.

In 1997, Carter and Alfred called for transformational change among two-year institutions, suggesting colleges move from "leadership to stewardship" and develop a "college-wide focus on learning" (p. 16-17). They emphasize the importance of identifying the needs of all stakeholders to equip them to implement desired change. Engaging conversation that allows for the articulation and translation of new ideas and ventures is encouraged (p. 20-26).

The idea of broad-based conversation is echoed by Huber and Hutchings (2006). They acknowledge that "teaching is a private activity for most faculty, taking place behind doors that are both metaphorically and physically closed to colleagues" (p. 26). However, in their article about "teaching commons," they discuss the necessity – and current movement – for professors to share pedagogical practices and develop quality standards for teaching and learning. Warning that it takes "energy, time, and money," they write that a good teaching commons allows for quality exchange of best practices and innovations (p. 31).

Teaching commons may, in fact, be another word for peer collaboration, a topic found often in research. Parkison and Bartek (2010) studied the impact of peer reflective collaboration within the curriculum of a dental hygiene program and found that regular collaborative groups positively influenced communication and confidence and resulted in the fruition of a team approach. Tgielaar, Dolmans, Meijer, DeGrave, and Van Der Vleuten (2008) add that peer collaboration helps instructors achieve a role of "teacher trainer," and that in doing so, they are able to increase technical skills and abilities for teaching, addressing multiple issues, and developing "new insights and fostering gains in understanding" (p.304). Continued College-wide conversation and peer reflective collaborative groups can help unite faculty and staff and prepare them to collaborate on projects that enhance the quality of instruction and assessment.

Conversation and collaboration can result in institutional modeling of critical thinking. Brookfield (1987) challenges educators to model critical thinking behavior. Halx and Reybold (2005) say that faculty must know "and counter their own biases" if modeling is to be accomplished. They add that while most instructors have a desire to teach critical thinking, most are "never trained to teach, much less...trained to teach critical thinking" and further, that "few are prepared." Hobaugh (2010) agrees. She found the current state of assessment-based critical thinking among military medical educators and administrators not to be uniformly better than the students they taught (in some cases, results were worse).

Black (2004) contends that successful implementation of an initiative to teach critical thinking is highly dependent upon the effectiveness of an accompanying professional development program. Such a program must help faculty practice high-level thinking strategies and teach them how to assess a student's ability to think critically (p. 44). Aronson, Chittenden, and O'Sullivan (2009) note that a three-hour workshop that stresses the need for reflective thinking provides awareness of the need but little else. Institutions should create time for reflective collaboration in addition to instructive workshops.

Critical thinking should be modeled and taught, yet few instructors are trained in its use and its effective teaching. To address these issues, Paul (1990) explains the need to develop, among instructors and students, a "working knowledge" of terms commonly related to critical thinking, indicating a need for colleges to develop a common vocabulary that must begin with faculty. Paul and Elder (2000) indicate that teaching critical thinking requires focusing on the topic across the disciplines, applying skills to life outside the classroom, developing stages of thinkers, and planning for self-improvement and intellectual development. They also write that long-term development, even for instructors, is a vital component to successfully teach students to think critically. Crenshaw (2010) also notes that it is a long-term process and that administrators "have a responsibility" to students to offer professional development that will afford faculty and staff the time and resources to learn and transfer necessary concepts and teaching skills.

Elder (2004) agrees with Crenshaw that a long-term approach is needed and the commitment of administrators is critical. She advocates for an advisory team, ongoing faculty and staff workshops, and regular and frequent opportunities year-round that will foster critical thinking. She also stresses the need to incorporate assessment. She says that critical thinking should not be an "angle" for professional development but should be the "guiding force" behind it. An important institutional goal is to prepare students for the workplace. In fact, the institutional mission at Palm Beach State College specifically addresses such an endeavor. A college is more likely to reach this goal if faculty are supported in their efforts to first develop their own critical thinking skills and then develop the ability to teach those skills to students. Chong, Lai, Ong, Tan, and Lan (2008) conclude that when faculty are trained in critical thinking skills, students leave with greater career possibilities.

Assessment

Several researchers have addressed the need to assess critical thinking skills but recognize that assessment must have clear purposes which do not and cannot meet sometimes conflicting needs. Shavelson (2007) summarizes several standardized tests and discusses the nature and history of each test in relation to critical thinking. He admonishes institutions to carefully delineate and assess achievement ("snapshot of performance at one point in time") and student learning (over time) and suggests that assessments such as the Collegiate Learning Assessment (CLA) are perhaps the most valuable types of measures to provide information about students' abilities to think critically, reason, and communicate.

Shulman (2007) cautions institutions to balance assessment of the *institution* with that of the *student*, suggesting that colleges should compare information obtained by tests such as the CLA to the insights provided by assessments such as the National Survey of Student Engagement (NSSE), adding that many institutions use both. He reminds institutions to "weigh carefully" both external measures for accountability and internal self-evaluation for the purpose of improvement.

Standardized tests are available for both skills-based assessment of critical thinking and also affective dispositions. Insight assessment, for example, offers multiple products to measure both skills and volition. The *California Critical Thinking Skills Test* is an example of a skills-based assessment. The *California Critical Thinking Disposition Inventory* is an example of an assessment of dispositions. The test measures dispositions that predict with some accuracy the application of reasoning that forms a "reflective judgment" about beliefs in a given context or situation (Insight Assessment, 2010). Tests are based on a landmark study previously referenced, "Critical Thinking: A Statement of Expert Consensus for Purposes of Educational

Assessment and Instruction," conducted by Peter Facione in 1990. The tests that resulted from the data collected are predictive of critical thinking:

Different questions progressively invite test-takers to analyze or to interpret information presented in text, charts, or images; to draw accurate and warranted inferences; to evaluate inferences and explain why they represent strong reasoning or weak reasoning; or to explain why a given evaluation of an inference is strong or weak (Insight Assessment, 2010).

The series of tests are used by educators from elementary schools to higher education, by scientists and Ph.D. candidates, and by business and health care professionals including the American Dental Education Association (Williams, Schmidt, Tilliss, Wilkins, & Glasnapp, 2006). The test of dispositions in its various forms has been an effective tool for many sectors.

Additionally, scholars are mindful of the need to assess critical thinking in discipline-specific settings. That is, assessments must also be designed to assess content *and* critical thinking in the classroom (Bissell & Lemons, 2006; Greenlaw & DeLoach, 2003; Snyder & Snyder, 2008).

Significance of the research

The literature demonstrates a complex understanding and conversation about critical thinking. All agree critical thinking is an important goal that is not always readily identified or demonstrated by students, teachers, employees, or employers. As a community-based college that serves and shares in the cultural and physical lives of the citizens of Palm Beach County, the College must focus on enhancing critical thinking. Professional development must occur that helps all employees understand and create curricular and co-curricular critical thinking activities, learn and model critical thinking, expand assessment measures that reach across the curriculum, and share pedagogies. Equally important are the institutional challenges to provide the resources and willingness for institutional change as a result of adding critical thinking to a long list of worthy institutional goals. Institutional willingness to change will result in budgetary priority and in the patience and time required to develop a strong program to improve student learning by focusing on critical thinking.

II. Focus of the plan

The key issue identified by constituents is that students are not demonstrating critical thinking as a result of student learning. By addressing this issue within the QEP, there are benefits to both the students and the institution.

- Student learning will be promoted and improved as students develop and use the skills
 associated with critical thinking. They will consider critical thinking a necessary life skill,
 and they will practice critical thinking in ways that encourage its utilization outside of the
 institution.
- The QEP will provide a mechanism to integrate the instruction and assessment of critical thinking across the disciplines and in programs. This will allow for review, adaptation, or adoption of relevant strategies and outcomes.
- QEP implementation will result in a cultural shift as faculty are given opportunities to engage in a unified effort focused on teaching and assessing critical thinking. This shift will redefine and broaden the definition of learning throughout the College to include critical thinking as a significant classroom focus.

With the key issue and listed benefits in mind, the QEP is written with one goal: *Students will develop and apply critical thinking skills*. The focus of the plan is to reach this goal by integrating critical thinking into the classroom. Such integration will be accomplished through professional development. The definitions of both critical thinking and student learning are integral to the plan.

Defining critical thinking

In all cases reviewed, the definition and process of critical thinking include intentional examination and questioning of, as well as a response to, information, evidence, or a situation. As it relates to a college environment, critical thinking must be considered in the context of educating students and preparing them for employment. Based on scholarly review and College-wide discussions and surveys, Palm Beach State College operationally defines critical thinking this way: *Critical thinking is using the skills to explore, evaluate, express, and engage in purposeful reasoning to reach sound conclusions, decisions, positions, and/or solutions.*

Defining student learning

In general, learning is a demonstration of new knowledge, skills, behaviors, and/or values. However, the College recognizes that student learning is not only a change in knowledge and skills, but also in the ability of students to reflectively consider and apply the acquired skills. As it pertains to the College QEP, and specifically to critical thinking, the institution defines student learning as student demonstration of the development and application of critical thinking skills.

Student learning outcomes

Based on the College definition of critical thinking, the writing team, with assistance from Institutional Research and Effectiveness staff and consensus of the QEP Advisory Council, developed several learning outcomes to determine to what extent students are "exploring, evaluating, expressing, and engaging in purposeful reasoning to reach sound conclusions, decisions, positions, and/or solutions." The outcomes were streamlined to support a single goal for this revised version of the QEP as follows:

- QEP goal: Students will develop and apply critical thinking skills.
- QEP student learning outcomes
 - 1. Students will analyze and interpret relevant information.
 - 2. Students will reach sound conclusions based on a demonstrated reasoning process.
 - 3. Students will evaluate and explain relevant information.
 - 4. Students will exhibit affective dispositions known to characterize critical thinkers.

Actions to be implemented

The primary strategy of the QEP is a focused integration of critical thinking into the classroom in all academic programs. Integration will occur through professional development and through the development of program-specific critical thinking outcomes in career-oriented programs. Additionally, educational support areas will also identify or develop critical thinking learning outcomes. This action will perpetuate a College-wide focus even outside of the classroom. A final supporting action will include the development of a critical thinking resource center on all campuses and online. Following is a description of the actions to be implemented.

Professional development

Research suggests that classroom strategies must allow students opportunities to practice critical thinking (Brookfield, 1987; Crenshaw, 2010; Evans, 1992; Facione, 1990; Gardner, 2005; Ruggerio, 1989). The literature further says that assessment of critical thinking in the classroom should be integrated into content assessment (Bissell & Lemons, 2006; Greenlaw & DeLoach, 2003; Snyder & Snyder, 2008). Therefore, the purpose of professional development will be to identify, implement, document, and share strategies that provide and assess such critical thinking practice.

Professional development will support curriculum integration through a systematic approach to both long and short term collaboration as well as study of critical thinking. Instructors will be trained to examine course assignments, assessments, and instructional practices using critical thinking literature, the QEP outcomes, and the QEP rubric. This examination will maximize classroom practices that encourage students to develop and practice critical thinking skills.

Workshops will be used to introduce faculty and staff to the QEP outcomes and to engage participants in discussions to identify the skills associated with each outcome. While workshops will not be as in-depth as training, participants will develop a common understanding of what critical thinking is, and they will become more aware of exactly what skills the College expects to improve with QEP implementation.

Two levels of ongoing faculty and staff development will be integrated on a cyclical basis and will be informed by spring 2012 pilots. This tiered level of training will maximize opportunities for the College to develop and sustain a professional development program that focuses on critical thinking strongly enough to seamlessly integrate critical thinking into the curriculum and into other interactions with students. Although the emphasis will necessarily be on critical thinking in the classroom, efforts will made to include educational support staff and other employees on a regular basis.

Level 1: Introductory Training

Introductory training is intended to provide participants an overview of critical thinking, with some study of particular critical thinking topics, the QEP outcomes, rubric, and assessment information. It will occur in workshops, within Development Day activities, and in required orientations for new faculty and adjuncts.

Workshops

Campus workshops will provide the means to reach a large number of faculty and staff who wish to learn more about critical thinking and the QEP outcomes. Workshops will be facilitated by QEP trained faculty and staff (see Level 2) and will focus on varied but relevant critical thinking topics. Participants in campus workshops will do the following:

- discuss QEP outcomes or discuss the relevance of a given critical thinking topic to the QEP outcomes:
- discuss how QEP outcomes are, or the workshop topic is, applicable to classes they teach or interactions they have with students;
- consider how they might apply workshop content to classes they teach or interactions they have with students.

Faculty and staff who complete a campus workshop will receive professional development credit through human resources and will be eligible to be selected for conference participation.

Pilot workshops are scheduled for February 2012. Workshops will be replicated on each campus several times to maximize the number of faculty and staff who can participate and provide feedback. The workshop content will focus on the QEP student learning outcomes, the skills associated with each, and how each outcome applies to various disciplines or staff interactions with students. Pilot workshops will be facilitated by members of the QEP committees who will use the fall term and January 2012 to prepare. All faculty and staff, full-time and part-time, will be invited by email to register for a campus workshop that is convenient.

In subsequent years, campus workshops will be offered every spring term at a minimum, and by the third year of the QEP, workshops will also be made available online.

Development Day

Development Day is a full day set aside by the College every spring and fall semester for professional development for full-time faculty and staff. Beginning in 2012, activities on at least one of these two days will include roundtable discussions, workshops, breakout sessions, or keynote speakers that are specific to critical thinking. These integrated activities will provide full-time faculty and staff additional dedicated time to learn more about critical thinking and its integration into the curriculum.

When this effort is initiated in the spring of 2012, it will be done through both a plenary speaker who will focus on critical thinking and through breakout sessions that will follow. Breakout sessions will be facilitated by members of the QEP committees, but activities offered in subsequent years will be facilitated both by the QEP committee members and by QEP trained faculty and staff (see Level 2).

New faculty and adjunct orientations

All newly hired full-time faculty and instructors participate in a multi-day orientation to become acclimated to College policies and practices. This paid orientation is required and takes place

on campus. Additionally, all adjuncts are required to complete an online training within their first semester of hire. A stipend is paid upon completion. Level 1 training will be integrated into the campus orientation for all new faculty and instructors and into the online adjunct training no later than the fall of 2013.

Level 2: Collaboration Cohorts

Each fall semester, a cohort of faculty and staff will be recruited to participate in training that is specific to critical thinking as defined by the QEP and that is within the context of the QEP student learning outcomes. In a collaborative environment over a full semester and using a critical thinking textbook or scholarly literature and the QEP rubric, these participants will do the following:

- discuss how the critical thinking literature and QEP outcomes are applicable to classes they teach or interactions they have with students;
- identify and adopt measures to teach and assess critical thinking, thus integrating critical thinking into the classroom and into non-classroom interactions with students;
- meet both online and in person regularly throughout one semester;
- develop ways to share their findings with colleagues;
- become trained to facilitate workshops or mentor other faculty and staff in integrating critical thinking into the classroom and into non-classroom interactions with students;
- work with the QEP manager to document their integration of critical thinking into the classroom or other interactions with students.

Faculty and staff who complete a semester of collaboration with their peers will receive professional development credit through human resources and will be eligible to be selected for conference participation.

A pilot cohort will be facilitated in the spring 2012 semester on the Lake Worth campus by the QEP manager. Participants will include approximately 25 volunteers from the QEP and assessment committees and other interested faculty or staff. The pilot will be assessed to inform the development of subsequent cohorts of up to 20 members per year who will participate on the various campuses. Faculty members of the QEP implementation team (see Section III: Institutional capability) will participate in the fall cohorts, filling the first seven seats each year. Additional cohort participants will be recruited from other committees who will have interactions with QEP efforts and from other interested faculty and staff.

Identifying and assessing critical thinking outcomes in career programs

Program directors and associate deans will participate in a review of QEP outcomes and the QEP rubric. Beginning spring 2012, this review will be integrated into existing assessment training and will become an ongoing part of the training as needed. This review will equip program directors to work with their faculty and instructors to align program outcomes, assessment, and instructional strategies with critical thinking as it is understood by the College. Likewise, associate deans will be better positioned to have conversations with faculty regarding the QEP, critical thinking, and assessment, and to encourage faculty to participate in professional development opportunities that are offered through the QEP.

By the fall semester in 2012, all career programs will identify outcomes that are specific to critical thinking and will report the outcomes to the IRE office. By spring of 2013, programs will also report the assessments and benchmarks for success for their critical thinking outcomes.

This reporting process is already an existing part of the institutional assessment cycle, but the added focus on critical thinking outcome(s), will now ensure the integration of critical thinking in all career programs. IRE will provide annual results to the QEP manager for inclusion in the annual QEP report.

The combination of faculty participation in Level 2 training and the documentation of critical thinking outcomes in all career programs will help the College know the extent to which critical thinking is being integrated into the curriculum. Annual assessment will help the College know to what extent the QEP student learning outcomes are being accomplished because of that integration.

Fostering critical thinking in educational support services

In addition to integrating critical thinking into curricular instruction, scholarly literature encourages institutions to provide opportunities for students to apply critical thinking outside of the classroom (Elder & Paul, 2008; Facione, 1990; Fowler, 2008; Greene, 2005; Sloane, 2010). In light of this advice, educational support areas will also participate in identifying or developing critical thinking outcomes that can be assessed and measured with existing institutional processes. Identification or development of outcomes in these areas will be completed by the spring semester of 2013 or sooner.

Educational support services include Library Learning and Resource Centers (LLRC), Student Learning Centers (SLC), the Honors College, and Student Services. Student Services includes multiple areas: admissions and registration, advising and orientation, athletics, career centers, disabilities services, financial aid, outreach, recruitment and dual enrollment, student life, and testing centers.

In initial discussions about possible QEP initiatives (2009-2010), constituents expressed support for actions such as developing student workshops, campus events, and a peer-mentoring program, and for offering project opportunities to students. As educational support services develop critical thinking outcomes, they will also identify strategies such as the ones listed to accomplish those outcomes. The strategies will be developed and implemented by educational support program staff. Strategies will function separately and apart from, but will be supported by, the QEP office and budget.

Supervisors and staff in various areas of educational support services will have the flexibility to develop annual strategies deemed appropriate for their specific programs. Examples of currently planned strategies include the following:

- an annual common reader program for first-year students in partnership with LLRC to begin in 2012;
- training for SLC tutors that emphasizes the integration of critical thinking into student interactions (piloted in 2011, second iteration in February 2012);
- a peer mentoring program for first-year and Honors College students, both with an
 integration of critical thinking (Honors College program was piloted in 2011-2012,
 second iteration will begin in 2012-2013; program being developed in 2012-2103 for firstyear students).

As supervisors in these areas of educational support services identify and develop outcomes and assessment measures, they will report the outcomes and measures to IRE. The inclusion of outcomes and measures for educational support services is already part of the existing

annual assessment cycle, but adding a critical thinking outcome will now create a new focus on critical thinking in these areas of the College. When results are reported to IRE each year, IRE staff will in turn provide results to the QEP manager who will include the results in an annual QEP report.

Critical thinking resource centers

An important benefit of professional development will be the documentation and sharing of high impact practices. As successful strategies are identified that can be supported by data collected internally, such practices will categorized by program, discipline, and/or course, creating an inventory that can be made available College-wide. Categorized by discipline or course, a physical inventory will be housed on each campus. Current plans are to maintain this inventory in the Professional Teaching and Learning Center (PTLC) within each campus library, but the location will be changed if needed to ensure ongoing convenience for faculty and staff access. An inventory of practices will also be developed for online access.

Additionally, as successful strategies are identified, faculty and staff who use them will be featured by name recognition College-wide and, when possible, by live demonstration of the practice during training.

External critical thinking resources that are purchased will be kept on campus in the same locations as the instructional practices inventory. Other resources will include the QEP rubric and literature regarding measures of standard assessment. These will be made available to all faculty and staff through professional development contact, housed on each campus, and accessible online.

III. Institutional capability

The institution is capable of initiating, implementing, and completing the plan which is fully supported by administrators and the District Board of Trustees (DBOT). Financial, physical, and human resources have been identified and provided for professional development, curriculum integration, educational support strategies, and assessment.

Financial need and commitment

In estimating the full cost to fund the QEP, the College considered three phases over six full years:

- Preliminary phase, fall 2011 on site accreditation visit, selection of material for and development of spring workshops and Level 2 training, coordination of professional development credit through Human Resources, final selection and purchase of assessment instruments for QEP student learning outcomes
- Pilot phase, spring 2012 final baseline assessment, pilot workshops and cohort, training for program directors and managers
- Implementation phase, 2012-2013 through 2016-2017

Total costs are projected to be \$785,010, for an average of \$130,835 per year. This estimate includes personnel costs and benefits, as well as supplies and materials to initiate, sustain, and complete the plan. The College has committed to making these funds available. The manager's salary and benefits will become part of the overall College budget, and other costs will be funded directly by the QEP budget and allocated through the office of the vice president of academic affairs (VPAA). The College budget is approved annually by the Board of Trustees. The budget for 2011-2012 includes the QEP projected costs and was approved by the Board on June 14, 2011. A further indication of long-term support was offered by the Board when on August 9, 2011, it unanimously approved the plan to implement with the anticipated costs for the full five years. Copies of applicable pages from the DBOT meeting minutes are included as Appendices L and M.

Human resources: dedicated position

A dedicated position to manage the QEP is required. To this end, the College created the position of a full-time QEP manager. The manager reports to the VPAA. The position overview and organizational chart with the approved position are included as Appendices N and O.

The QEP faculty chair was appointed to fill the new position. The chair moved from a full-time faculty position to accept the position of QEP manager, effective July 1, 2011. In addition to two years of experience directly related to the College QEP, the manager holds a master's degree in math education and a bachelor's degree in mathematics. She has experience in research, program evaluation and project management as an academic coordinator for a Title III initiative, has seven years college teaching experience, and is a doctoral candidate for a degree in leadership. A full curriculum vita is available on site in Human Resources.

The QEP manager will be responsible to oversee all aspects of the QEP. Expectations of the manager include the following:

- · develop or coordinate faculty and staff training
- plan and initiate integration of critical thinking into the curriculum
- coordinate and lead efforts to develop assessment instruments

- collaborate with research staff and program directors and managers to develop learning outcomes that are specific to critical thinking in all career and educational support programs
- communicate QEP efforts to the constituency
- collaborate with faculty, staff, and committees to develop improvement strategies and revisions as needed throughout implementation based upon annual assessment results
- evaluate results and write reports

Institutional capability for this position has already been demonstrated. It was filled prior to implementation of the plan, and physical space for the QEP office has been provided on the Lake Worth campus. Required office equipment and supplies have been procured.

Human resources: "in kind" support from other positions

In addition to the named QEP manager position, implementation will require staff time from the Institutional Research and Effectiveness (IRE) office. Dedicated time will be required and offered as "in-kind" service by both the manager of outcomes assessment and the director of IRE. During the pilot phase, these positions will oversee the administration of baseline data collection through both standardized testing and a re-scoring of student work collected prior to QEP discussions. Time will be also required of these positions during 2012 to assist the QEP manager, and possibly program directors and managers, with documentation of program outcomes related to critical thinking.

Additionally, significant time from both of these positions will be necessary during the summer months when the QEP progress will be evaluated. Frequent collaboration with the QEP manager will be ongoing. It is estimated that up to seven percent of the outcomes manager and IRE director positions may be required to support and sustain QEP implementation. The QEP work that will be done by the manager and director will integrate well into existing assessment processes rather than becoming additional and separate work. These positions report to the VPAA who has approved the re-allocation of time.

Human resources: faculty and staff support

Implementation team

The QEP budget provides for faculty leadership to serve on the QEP implementation team. Seven faculty will be released from one class per semester, receiving a total of nine points per term to serve as a faculty leaders on this QEP committee. Other representation will come from program areas including educational support services to ensure at least 10 persons on this team every fall and spring semester who will meet on a regular basis to complete training and facilitate College-wide professional development.

An implementation team will continue its role, with faculty getting release time, for at least two years until 2014. During this time, some members will be added in the spring and some in the fall, and others will rotate off the committee. This staggered membership will maximize continuity. The team will create a culture and practice of "training the trainer" as more faculty and staff becomes "QEP trained" for the purposes of facilitating workshops, roundtable discussions, and breakout sessions for professional development. Faculty leadership will move to a service-based role if there is enough volunteer support for the QEP manager to successfully continue implementation without a designated faculty team by 2014. However, the College has committed to sustaining this leadership team with release time for the duration of

implementation if necessary for success of the QEP. This commitment is reflected in budget projections.

Advisory Council

A QEP Advisory Council will be in place representing all campuses and multiple areas of the College. This Council will provide additional persons to be trained to help facilitate professional development. Council members will be comprised of faculty and staff and will meet one to three times per semester. Faculty participants will not receive release time for membership on this committee.

Assessment committee

The assessment committee is a standing institutional committee comprised of approximately 12 faculty and additional members. This committee is chaired by the manager of outcomes assessment and functions apart from the QEP to assist with the administration of general education outcomes assessment. Members of this committee will participate in and assist with some of the professional development activities that will be implemented with the QEP. Additionally, because one of the general education learning outcomes is related to critical thinking, members of this committee will likewise be involved with QEP assessment. Faculty members on this committee receive one class release time (nine points) per semester, but since this is not funded through the QEP, it is not reflected in the QEP budget.

Physical space

In addition to the physical space required for the QEP office, space will be needed on each campus to host workshops for faculty and staff, and for other collaborative meetings. However, events such as these are not new to the College, only newly developed to focus on critical thinking. Classrooms will be available and scheduled as needed to implement these activities.

To accommodate larger groups, many large meeting spaces, both indoors and outdoors, are available on each campus. The QEP manager will work closely with other constituents to schedule training events for orientations, Development Day activities, or student functions at times when large spaces are available to be used for QEP purposes.

Capability and timeline

The College has already begun to demonstrate capability of initiating, implementing, and sustaining the QEP as it has supported initiatives to develop the plan. The institution funded significant release time for faculty in 2010 and 2011, and for the creation of the QEP office and manager position in 2011. The re-allocation of human resources has been approved, and the required physical space to implement administrative tasks related to the QEP has been provided. Long-term funding of the QEP budget has been projected and will be distributed from the office of VPAA.

Table 9 provides a summary of all projected costs. Tables 10 through 12 provide a timeline of actions during each phase of the QEP to demonstrate that human resources to carry out necessary activities have been considered and tasks have been delegated appropriately.

Table 9: Projected budget

Expense	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	Total
Faculty and staff cohort training (20 per year @ \$70 per person for binder and resources)	1,400	1,400	1,400	1,400	1,400	1,400	8,400
Faculty and staff workshops	1,500	500	500	500	500	500	4,000
Resources (instructional practices inventory binder and other selections for each campus)	1,500	500	500	500	500	500	4,000
Assessment (250 each, skills test and disposition inventory for baseline, January 2011 and 100 each fall thereafter)	6,435	1,855	1,945	2,035	2,125	2,215	16,610
Faculty Leadership Team*	35,285	35,285	35,285	35,285	35,285	35,285	211,710
Online Workshops	0	0	10,000	5,000	5,000	5,000	25,000
Conference Participation	0	6,400	6,400	6,400	6,400	6,400	32,000
Educational support material	3,000	3,000	3,000	3,000	3,000	3,000	18,000
QEP Manager*	71,340	71,340	71,340	71,340	71,340	71,340	428,040
QEP Office (supplies, printing)	7,250	6,000	6,000	6,000	6,000	6,000	37,250
Total	127,710	126,280	136,370	131,460	131,550	131,640	785,010

^{*}expenses include salaries and all applicable benefits

Table 10: QEP preliminary phase timeline (summer and fall 2011)

QEP PRELIMINARY PHASE TIMELINE Summer and Fall Terms 2011					
Summer 2011 Activity – completed	Person(s) responsible				
Hire QEP manager.	VPAA, HR				
Establish QEP office.	QEP mgr				
Contact faculty leaders to confirm meeting schedule for fall 2011. Review feedback from external readers.	VPAA, QEP mgr, dean curriculum & planning, IRE director, outcomes assessment mgr				
Fall 2011 Activity – completed	Person(s) responsible				
Develop faculty/staff workshops (Level 1 training, described on page 25):	QEP implementation team faculty and staff, QEP mgr				
 Establish pilot cohort for training (Level 2, described on page 26): Select materials. Purchase materials and resources (or obtain by donation). Select criteria for participation. Establish Blackboard course. Select participants. 	QEP implementation team faculty and staff, QEP mgr				
Meet with library directors or appropriate personnel on each campus to discuss and confirm feasible locations for critical thinking resources within these areas (Critical thinking resource centers, described on page 28): • Professional Teaching and Learning Centers • Faculty lounges • Library resource areas	QEP mgr				
Revise assessment plan:	QEP mgr, IRE director, outcomes assessment mgr				

Table 11: QEP pilot phase timeline (spring and summer 2012)

Spring 2012 Activity	Person(s) responsible
January 2012	
Baseline data collection	QEP mgr, IRE director,
 Administer California Critical Thinking Skills Test (CCTST) in randomly 	outcomes assessment
selected ENC1101 sections.	mgr, QEP and
 Administer California Critical Thinking Disposition Inventory (CCTDI) in 	assessment committees
randomly selected sections taught by faculty who are in training cohort.	
Submit score sheets to Insight Assessment for scoring and evaluation.	
Finalize revision of QEP rubric to measure QEP outcomes by scoring	
scenario responses.	
 Begin to score student responses to critical thinking scenarios from 2009 and 2010 using revised QEP rubric. 	
 Document baseline data from previous administration of <i>Proficiency</i> 	
Profile, Graduating Student Survey, and Community College Survey of	
Student Engagement (CCSSE).	
	QEP mgr, VPAA, HR
All-user email to announce registration for QEP Introductory Workshops	
January-February 2012	
Online registration for QEP workshops (see page 25) in February	enrolling participants
January-March 2012	
Begin identification of critical thinking outcomes, assessments, and	career program
benchmarks in career and educational support services (Critical thinking	directors,
outcomes in career programs and educational support services, pages 26-28):	educational support
Offer QEP outcome review, introduction to QEP rubric within	program managers,
assessment training for program directors and supervisors.	QEP mgr, IRE director, outcomes assessment
 Schedule time to work with directors and supervisors who need assistance. 	mgr
 Use existing IRE templates and processes to support documentation. 	
	faculty/staff on QEP and
Continue and complete scoring of student responses to critical thinking	assessment committees,
scenarios from 2009 and 2010 using revised QEP rubric.	QEP mgr
January-April 2012	
Pilot Level 2 faculty/staff training cohort (see page 26)	selected faculty/staff,
Source: Peter Facione's <i>Think Critically</i> Online discussions twice monthly.	QEP mgr
Online discussions twice monthly Compute most increase times.	
Campus meetings three timesDiscussions regarding the use of QEP rubric	
 Selection of assignments/assessments that are believed to contribute 	
to or measure students' abilities to think critically (faculty)	
Collection of average student scores on selected	
assignment/assessment and provide samples of student work (faculty)	
 Discussions regarding the use of an ePortfolio to document changes in 	
course outcomes, strategies, assignments, or assessments, and to	
track assessment results	
February 2012	
Faculty and staff workshops (see page 25)	QEP mgr and committee
QEP team members facilitate	members
Exit survey with clickers	

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Table 12: QEP implementation phase timeline (2012-2017)

Year 1: 2012-2013				
Fall 2012 Activity	Person(s) responsible			
Schedule fall meetings for implementation committee. Discuss initial QEP report and make additional recommendations for revisions	QEP mgr, committee members			
Advisory Council meeting (review initial QEP report, discuss recommendations for training and workshop revisions)	Advisory Council members			
Present initial QEP report to DBOT and request feedback.	QEP mgr, VPAA			
Prepare final version of initial QEP report and make available to constituents by end of semester.	QEP mgr			
Select conference participants, based on criteria established by committee in previous spring term – attendance may be in the fall or spring semester (see pages 25-26)	QEP mgr, committee members			
Meet with educational support supervisors and staff to discuss strategies planned and critical thinking outcomes assessments for 2012-2013 (page 27).	educational support program managers, QEP mgr			
Fall meetings and Level 2 training (from page 26) – activity from spring 2012 will be repeated and revised as informed by pilot evaluation	implementation committee and training cohort			
Schedule and prepare content for spring workshops (Level 1 training, page 25) – use surveys, baseline assessment, and spring 2012 recommendations to inform planning and decisions.	QEP trained faculty			
Fall assessment: select samples for CCTST and CCTDI	IRE staff			
Fall assessment: administration of CCTST, CCTDI, scenarios and scoring of critical thinking scenarios	implementation and assessment committees			
Fall assessment: programs	career program directors			
Fall assessment: Proficiency Profile, Graduating student survey	assessment committee, IRE staff			
If not yet complete, continue development of Level 1 training integration into new faculty orientation and online adjunct training; include meetings with HR, associate deans, and department chairs to ensure successful tracking (see page 25-26).	QEP mgr, VPAA, HR generalists, associate deans, department chairs			
 Document newly identified strategies and make available to constituents (see page 28). Certify Level 2 training completers as QEP trained faculty and staff (see page 26). Recruit mentors for next training and workshop facilitators. 	QEP mgr			

Spring 2013 Activity	Person(s) responsible
Schedule spring meetings for implementation committee. Discuss implementation and revisions of upcoming spring workshops as informed by pilot workshop surveys (2012), the initial QEP report and fall 2012 assessment.	QEP mgr, committee members
All-user email to announce registration for 2013 Level 1 QEP workshops (see page 25)	QEP mgr, VPAA, HR
Online registration for workshops (see page 25)	enrolling participants
Level 1 faculty and staff workshops (see page 25)	QEP trained faculty and staff, committee members
Continue to offer QEP outcome review and introduction to QEP rubric within assessment training for program directors and educational support supervisors and schedule time to work with directors and managers who need assistance (see pages 26-28).	QEP mgr
Complete identification of critical thinking outcomes, assessments, and benchmarks in career and educational support programs using existing IRE templates and processes to support documentation (see pages 26-28).	career program directors and educational support program managers
Submit outcomes assessment report to IRE if not already done for 2012-2013.	career program directors educational support supervisors
Prepare for upcoming summer and fall terms: Recruit and confirm members of 2013-2014 QEP committee. Recruit and confirm volunteer participants for fall training cohort. Recruit and confirm members of 2013-2014 Advisory Council. Submit updated 2013-2014 budget proposal and request inclusion in DBOT final approval of College budget in June meeting.	QEP mgr, VPAA
Complete written plan to integrate Level 1 training into new faculty orientation and online adjunct training; include meetings with HR, associate deans, and department chairs to ensure successful tracking. If integration occurred for either new faculty or adjuncts, review and revise as needed (see pages 25-26).	QEP mgr, VPAA, HR generalists, associate deans, department chairs
Spring assessment: Graduating student survey	IRE staff
Summer 2013 Activity	Person(s) responsible
Document newly added strategies and make available to constituents (see page 28).	QEP mgr
Evaluate results of assessment and make recommendations for implementation and revisions.	QEP mgr
Write 2012-2013 Annual QEP Report.	QEP mgr
Submit request to present QEP report to DBOT in October or November.	

YEAR 2: 2013-2014			
Fall 2013 Activity	Person(s) responsible		
Schedule fall meetings for implementation committee. Discuss 2012-2013 QEP Report and make additional recommendations for revisions.	QEP mgr, committee members		
Advisory Council meeting (review initial QEP report, discuss recommendations for training and workshop revisions)	Advisory Council members		
Present 2012-2013 QEP report to District Board of Trustees (DBOT) and request feedback.	QEP mgr, VPAA		
Prepare final version of 2012-2013 QEP report and make available to constituents by end of semester.	QEP mgr		
Select conference participants, based on criteria established by committee in previous spring term – attendance may be in the fall or spring semester (see pages 25-26)	QEP mgr, committee members		
Meet with educational support supervisors and staff to discuss strategies planned and critical thinking outcomes assessments for 2013-2014 (see pages 27-28).	Educational support program managers, QEP mgr		
Fall meetings Level 2 training (from page 26) – previous fall schedule will be repeated with revisions as deemed necessary through assessment and evaluation	implementation committee and training cohort		
Schedule and prepare content for spring workshops (Level 1 training, page 25) – use spring 2012 workshop surveys and 2012-2013 QEP report to inform planning and decisions.	QEP trained faculty		
Fall assessment: select samples for CCTST and CCTDI	IRE staff		
Fall assessment: administration of CCTST, CCTDI, scenarios and scoring of critical thinking scenarios	implementation and assessment committees		
Fall assessment: programs	career program directors		
Fall assessment: Proficiency Profile, Graduating student survey	assessment committee, IRE staff		
Level 1 training into new faculty orientation and online adjunct training (see pages 25-26)	QEP mgr, VPAA		
 Document strategies and make available to constituents (see page 28). Certify Level 2 training completers as QEP trained faculty and staff (see page 26). Recruit mentors for next training and workshop facilitators. 	QEP mgr, VPAA		
Meet to assess viability of volunteer base with assessment committee to assist QEP manager with continued implementation of QEP without faculty release time. Phase out in spring 2014 if volunteer base and assessment committee are deemed sufficient for QEP success; continue dedicated faculty participation with release time otherwise.	QEP mgr, VPAA, IRE director, outcomes assessment mgr		

Spring 2014 Activity	Person(s) responsible
Schedule spring meetings for implementation committee or QEP trained faculty/staff volunteers. Discuss implementation and revisions of upcoming spring workshops as informed by QEP assessment completed in previous semester and year.	QEP mgr, committee members
All-user email to announce registration for 2014 Level 1 QEP workshops (see page 25)	QEP mgr, VPAA, HR
Online registration for Level 1 workshops (see page 25)	Enrolling participants
Level 1 faculty and staff workshops (see page 25)	QEP trained faculty and staff, committee members
Continue to offer QEP outcome review and introduction to QEP rubric within assessment training for program directors and educational support supervisors and schedule time to work with directors and managers who need assistance (see pages 26-28).	QEP mgr
Submit outcomes assessment report to IRE if not already done for 2013-2014.	career program directors educational support supervisors
Prepare for upcoming summer and fall terms: Recruit and confirm members of 2014-2015 QEP committee (if need still exists). Recruit and confirm volunteer participants for fall training cohort. Recruit and confirm members of 2014-2015 Advisory Council. Submit updated 2014-2015 budget proposal and request inclusion in DBOT final approval of College budget in June meeting.	QEP mgr, VPAA
Review fall 2013 integration of Level 1 training into new faculty orientation and online adjunct training, including the success of tracking; revise as needed (see pages 25-26).	QEP mgr, VPAA, HR generalists, associate deans, department chairs
Spring assessment: Graduating student survey, CCSSE	IRE staff
Summer 2014 Activity	Person(s) responsible
Document newly added strategies and make available to constituents (see page 28).	QEP mgr
Evaluate results of assessment and make recommendations for implementation and revisions.	QEP mgr, IRE director, outcomes assessment mgr
Write 2013-2014 Annual QEP Report.	QEP mgr
Submit request to present QEP report to DBOT in October or November.	QEP mgr

YEAR 3: 2014-2015			
Fall 2014 Activity	Person(s) responsible		
Schedule fall meetings for implementation committee. Discuss 2013-2014 QEP Report and make additional recommendations for revisions.	QEP mgr, committee members		
Advisory Council meeting (review initial QEP report, discuss recommendations for training and workshop revisions)	Advisory Council members		
Present 2013-2014 QEP report to District Board of Trustees (DBOT) and request feedback.	QEP mgr, VPAA		
Prepare final version of 2013-2014 QEP report and make available to constituents by end of semester.	QEP mgr		
Select conference participants, based on criteria established by committee in previous spring term – attendance may be in the fall or spring semester	QEP mgr, committee members		
Meet with educational support supervisors and staff to discuss strategies planned and critical thinking outcomes assessments for 2014-2015 (see pages 27-28).	ed. support program managers, QEP mgr		
Fall meetings and Level 2 training (see page 26) – previous fall schedule will be repeated with revisions as deemed necessary through assessment and evaluation	implementation committee and training cohort		
Schedule and prepare content for spring workshops (Level 1 training, page 25) – use spring 2013 workshop surveys and 2013-2014 QEP report to inform planning and decisions.	QEP trained faculty		
Fall assessment: select samples for CCTST and CCTDI	IRE staff		
Fall assessment: administration of CCTST, CCTDI, scenarios and scoring of critical thinking scenarios	implementation and assessment committees		
Fall assessment: programs	career program directors		
Fall assessment: Proficiency Profile, Graduating student survey	assessment committee, IRE staff		
Level 1 training – new faculty orientation and online adjunct training (see pages 25-26)	QEP mgr, VPAA		
 Document strategies and make available to constituents (see page 28). Certify Level 2 training completers as QEP trained faculty and staff (see page 26). Recruit mentors for next training and workshop facilitators. 	QEP mgr, VPAA		
If implementation committee still includes faculty getting release time, meet to assess viability of volunteer base with assessment committee to assist QEP manager with continued implementation of QEP without faculty release time. Phase out in spring 2014 if volunteer base and assessment committee are deemed sufficient for QEP success; continue dedicated faculty participation with release time otherwise.	QEP mgr, VPAA, IRE director, outcomes assessment mgr		

Spring 2015 Activity	Person(s) responsible
Schedule spring meetings for implementation committee or QEP trained faculty/staff volunteers. Discuss implementation and revisions of upcoming spring workshops as informed by QEP assessment completed in previous semester and year.	QEP mgr, committee members
All-user email to announce registration for 2015 Level 1 QEP workshops (see page 25)	QEP mgr, VPAA, HR
Online registration for Level 1 workshops (see page 25)	enrolling participants
Level 1 faculty and staff workshops (see page 25)	QEP trained faculty and staff, committee members
Continue to offer QEP outcome review and introduction to QEP rubric within assessment training for program directors and supervisors and schedule time to work with directors and managers who need assistance (see pages 26-28).	QEP mgr
Submit outcomes assessment report to IRE if not already done for 2014-2015.	career program directors educational support supervisors
 Prepare for upcoming summer and fall terms: Recruit and confirm members of 2015-2016 QEP committee (if need still exists). Recruit and confirm volunteer participants for fall training cohort. Recruit and confirm members of 2015-2016 Advisory Council. Submit updated 2015-2016 budget proposal and request inclusion in DBOT final approval of College budget in June meeting. 	QEP mgr, VPAA
Review fall 2014 integration of Level 1 training into new faculty orientation and online adjunct training, including the success of tracking; revise as needed (see pages 25-26).	QEP mgr, VPAA, HR generalist(s), associate deans, department chairs
Spring assessment: Graduating student survey	IRE staff
Summer 2015 Activity	Person(s) responsible
Document newly added strategies and make available to constituents (see page 28).	QEP mgr
Evaluate results of assessment and make recommendations for implementation and revisions.	QEP mgr, IRE director, outcomes assessment mgr
Write 2014-2015 Annual QEP Report.	QEP mgr
Submit request to present QEP report to DBOT in October or November.	QEP mgr

YEAR 4: 2015-2016				
Activity	Person(s) responsible			
By year four, all QEP actions (except CCSSE administration) will be well-established via a cycle of implementation, assessment, evaluation, review, and revision. Actions will be repeated in this and the next academic years (fall 2015 through and including summer 2017), with changes as needed based on assessment, and with additional year-end activities as indicated below.	(as previously stated)			
May 2016 Evaluate QEP impact to determine the following: • percentage of full-time and part-time faculty and staff who have been trained with respect to the QEP and critical thinking • quality of resources available on each campus as those resources relate to strategies for teaching and assessing critical thinking • actual budget expended and projected requirement for institutionalization of QEP	QEP mgr, IRE director, outcomes assessment mgr, VPAA			
Prepare the following items for the 2015-2016 report: • statement of overall impact of QEP to date, with projection for end of 5 th year (May 2017), including the degree to which QEP outcomes have been accomplished • recommendations for revisions required to adjust for and accommodate continuation of QEP actions as institutional practices (recommendations for institutionalization)	QEP mgr			
Write 2015-2016 Annual QEP Report and the QEP impact report to be included in 5 th Year Interim Report (due to SACS by 10/15/16).	QEP mgr			
June-July 2016 Review and edit QEP impact report as necessary.	VPAA, SACS leadership team, steering cmte.			
July 2016 Submit item agenda request for DBOT approval to institutionalize QEP actions.	QEP mgr			
August 2016 Submit QEP impact report with institution's 5 th Year Interim Report to SACS.	VPAA			

YEAR 5: 2016-2017	
Activity	Person(s) responsible
Pending SACS review of 5-year Impact Report, institutionalize QEP actions during this academic year, making adjustments and revisions as needed.	QEP mgr will oversee

IV. Broad-based involvement in development and implementation

Developing the plan

Recognizing that implementation of the QEP in 2012 will require broad-based support, a wide variety of constituents were included in the plan development. In the spring semester 2010, before critical thinking was selected as the focus topic, the internal College community was given the opportunity to consider what plan strategies and innovations might be included if critical thinking became the focus topic. Additional opportunities followed in the 2010-2011 academic year.

Supporting evidence of the broad-based process of plan development includes representation on QEP committees and the Advisory Council, announcements made in all-user emails and on the College home page and social media, meeting minutes, sign-in sheets, email and web responses, as well as forum and focus group worksheets. This evidence is maintained by the QEP manager and is available to view on site. Samples are presented in appendices F-I.

Early opportunity to suggest actionable strategies

At the campus forums held in February 2010, participants were asked to consider goals, outcomes, and strategies to develop a plan to focus on assigned topics, including critical thinking. Table facilitators made notes regarding the conversation. When critical thinking was selected and approved, these ideas were revisited, giving voice to those constituents who had discussed critical thinking at the campus forums.

All employees and staff were given an additional opportunity in March 2010 when they were asked to suggest a single action that might be implemented for each of a few particular topics, including critical thinking. There were 39 actions suggested that were related to critical thinking and all were considered in fall 2010 when plan development was formally initiated.

Opportunity to participate in developing a College definition of critical thinking

At fall convocation 2010, it was announced that critical thinking would be the focus topic. To promote awareness of the newly selected topic, painters' caps imprinted with "Palm Beach State College, QEP, Critical Thinking" were distributed to approximately 250 attendees at the fall welcome session. Several members of the QEP team and the Advisory Council took part in the announcement to faculty and staff. Those present were asked to participate in the first College-wide activity for the fall term which was to define critical thinking for the purposes of writing the QEP.

An online survey was developed to obtain feedback, and an email was sent to all employees and students with a link to the survey and an invitation to provide input (Appendix I). Respondents had the choice to indicate preference for one of six definitions or to write in a response. The six definitions on the survey were obtained and selected by the QEP writing team. Definitions were found in the literature and in other institutional plans that focus on critical thinking. Survey participants numbered 691 faculty, students, and staff.

Two definitions surfaced as most preferred with 61 percent of respondents voting for one or the other. The QEP writing team evaluated the two preferred definitions and derived the previously discussed operational definition at a meeting on September 10, 2010. The operational definition was presented to the College on the QEP Web page and was the cornerstone of discussion in subsequent campus focus groups.

Campus focus groups

The next opportunity to participate in development came during September and October 2010. In addition to multiple discussions within an Advisory Council meeting on September 17, 2010, nine focus groups were facilitated by QEP writing team faculty. Campus provosts sent emails to all employees and staff announcing the opportunities to participate in these groups and discuss possibilities for the plan. The schedule of groups was posted on the QEP Web page and announced in a College-wide newsletter for SACS updates. Focus group discussion centered on ideas for instructional practices, assignments, assessments, and co-curricular or community activities. One-hundred and twenty constituents participated in this round of discussion.

Representation on the QEP committees in developing goals, outcomes, and strategies

Three separate committees formed during the process of developing the QEP. The QEP *development* team met regularly in spring 2010 to develop the topic, categorizing and narrowing down suggested topics and actionable strategies. That committee evolved into the QEP *writing* team during fall 2010, meeting regularly throughout the semester. This team served as a steering committee to guide the process of developing the written plan. A *QEP Advisory Council* was created in fall 2010 to offer feedback, to suggest alternatives when needed, and to continue in an advisory capacity in subsequent semester throughout QEP development and implementation.

Each committee included College-wide and broad-based representation. Faculty from math, science, English, speech and communication, aeronautical sciences, architecture, and massage therapy were on at least one of the committees. Staff on the committees represented the Student Learning Centers, Library Learning Resource Centers, Student Activities, Recruitment, Institutional Research and Effectiveness, Human Resources, Finance, and Institute of Teacher Education. Students also served on each committee (see Appendix A). The multiple web interactions, focus groups, and forums allowed for input from constituents of the few areas of the College not represented directly by team members.

External community involvement

Representatives from the neighboring communities (alumni and business partners) participated in the spring forums and their feedback was among that considered in the fall 2010 development. The link to the web response form was kept public during the subsequent spring semester, allowing the external community to participate in suggesting actionable items during that semester. Additionally, in the spring semester 2011, local business partners were invited to review the plan components and provide feedback.

Implementation

The five-year plan will require involvement and support from a wide variety of constituents. Anticipating this necessity, careful planning included a "bottom up" effort from the onset of topic selection. This broad-based level of participation in the QEP development is what will maximize representation from most disciplines and departments throughout implementation.

Involvement of faculty

Professional development will be available to, and therefore involve, all faculty. Documenting the integration of critical thinking strategies into curriculum and building an inventory of resources work will require an increasing number of faculty. Through Level 1 and Level 2 training, faculty will be involved in QEP implementation as they are exposed to and study critical thinking literature and the QEP student learning outcomes assessment.

Additionally, as critical thinking is assessed as a learning outcome in General Education and other programs, QEP efforts will be integrated into College-wide assessment that is managed by the office of Institutional Research and Effectiveness (IRE). The IRE staff will help communicate results to faculty, maintaining an effective cycle of assessment specifically as it applies to QEP initiatives.

Keeping faculty continually involved in curriculum and professional development and in the assessment cycle will increase the probability that successful teaching and assessment of critical thinking will become a foundational part of instruction at the College.

Involvement of staff and administrators

Professional development will also be available to staff College-wide. This will require involvement of those who are not teaching but who have direct involvement with students so that there is an environment to encourage the integration of critical thinking into non-classroom interactions with students.

Career program directors and education support program managers will work closely with the QEP manager throughout the QEP as outcomes, assessments, and benchmarks are identified and reported to Institutional Research and Effectiveness (IRE). Their continual involvement will extend to staff in their programs as plans to accomplish program-specific critical thinking outcomes are developed and implemented.

Involvement of students

As strategies are integrated into curriculum to teach and assess critical thinking, students will be indirectly involved but directly affected. Additionally however, in order to integrate critical thinking into educational support programs, some strategies will include student participation. Examples include those efforts mentioned previously such as common reader programs and peer mentoring, as well as other strategies that will be developed annually by program staff to help accomplish specific critical thinking outcomes that will in turn support the QEP.

V. Assessment plan

Research verifies that assessment must address both the institution and the student (Shavelson, 2007). It must also measure both "snapshot" performance and long-term performance gains (Shulman, 2007). The QEP assessment plan demonstrates this type of balanced approach to assessing the goals and outcomes. It is an approach that includes multiple assessment instruments which make use of both direct and indirect assessments of student learning. Strategies are also monitored and assessed to ensure implementation and improvement occurs as planned.

Overview

Students will be assessed annually to measure attainment of the QEP learning outcomes, and strategies will be assessed as they occur. Results will be reviewed immediately to determine success and to plan subsequent interventions if needed. If revisions are necessary mid-year, members of the QEP implementation committee and Advisory Council will assist in developing the changes.

Annually, the QEP manager will meet regularly during the summer terms with IRE staff to evaluate all assessment data from the previous two semesters. They will determine the degree to which learning outcomes and goals are realized that year and to date. They will also review the effectiveness of professional development as it relates to critical thinking and the QEP outcomes. The QEP manager and IRE staff will also review and evaluate the assessment results provided by career and educational support programs and the practices reported by faculty.

The QEP manager will compile an annual QEP report that will include a summary of QEP implemented actions, assessment results, newly identified successful strategies or a link to them online, and suggested revisions for improvement if applicable. The draft will be shared, revised, and finalized as follows:

- September: first draft available to QEP committee, Advisory Council, and administrators, including deans and program directors and managers, with an invitation for feedback and discussion – comments incorporated into a second draft report
- October/November: second draft available to the District Board of Trustees with an invitation to comment – comments incorporated into final version
- December: final report available to College
- Subsequent spring: implementation of revisions

In addition to annual reporting, strategies will be assessed as they occur, and results will be reported back to relevant committees for immediate discussion and the development of improvement strategies as needed.

The combined processes of annual assessment and frequent review of professional development strategies ensure a feedback loop within a continuous cycle of implementation, assessment, review, evaluation, and improvement.

QEP goal and outcomes to be measured

As a reminder from Section II (Focus of the Plan), this revised version of the QEP has a single goal: Students will develop and apply critical thinking skills.

The QEP goal will be measured by these four student learning outcomes:

- 1. Students will analyze and interpret relevant information.
- Students will reach sound conclusions based on a demonstrated reasoning process.
- 3. Students will evaluate and explain relevant information.
- 4. Students will exhibit affective dispositions known to characterize critical thinkers.

Outcomes one through three will be used to measure specific skills (skills-based), while outcome four will be used to measure student willingness to think critically (disposition-based). Assessment instruments have been selected accordingly. These instruments are described here, and tables will follow to further provide their corresponding outcomes or strategies. baseline and cycle information, and the target results or success indicators.

California Critical Thinking Skills Test (CCTST)

This standardized test provides a measure of student ability to analyze and interpret, evaluate and explain, and infer. Components are reported in scales that will directly measure the three skills-based learning outcomes. Analysis and interpretation are reported together, an inference scale is used to report students' abilities to draw accurate conclusions, and evaluation and explanation are reported together. An overall critical thinking score is also provided. The test is administered in 45 minutes and uses text, charts, and images.

<u>Scenarios</u> Scenarios are faculty-developed assessments designed to help students approach a problem that might occur in a real-world situation. In a scenario, students are asked to respond to a given description of circumstances or events that present an issue to be addressed or a problem to be solved. Critical thinking scenarios are written to measure a student's ability to engage in purposeful reasoning to reach sound conclusions and are already included in existing College-wide assessment for the general education program. Beginning fall 2012, student responses will be scored with an analytic rubric developed specifically to measure the three skills-based QEP outcomes. A draft version of the rubric is shown as Appendix P; this version will be fully developed by the QEP implementation committee by the end of the spring semester 2012.

California Critical Thinking Disposition Inventory (CCTDI)

This test provides a measure of a student's willingness to think critically and will be used to measure the disposition-based QEP outcome. It does this by asking students to "agree or disagree" with statements which express "beliefs, values, attitudes, and intentions that relate to the reflective formation of reasoned judgments" (CCTDI, 2010). The CCTDI includes 75 questions (statements) that are administered in 20 minutes. Scores are based upon seven dimensions of thinking: truth-seeking, open-mindedness, analyticity, systematicity, critical thinking self-confidence, inquisitiveness, and maturity of judgment.

ETS Proficiency Profile (formerly the Measure of Academic Proficiency and Progress, MAPP) The Proficiency Profile is already included in the existing College-wide assessment cycle for General Education Learning Outcomes. This 40-minute exam includes a measure for critical thinking as an overall score. This instrument is administered annually in a random sample of courses in which enrolled students have completed an average of at least 45 credits.

Graduating Student Survey

All graduating students are encouraged to take an online survey which includes one question regarding the degree to which the student feels the College has increased his/her competency in critical thinking. Respondents use a five-point scale where 5 = excellent and 1 = poor.

Students have continual access to this survey, but results will be averaged annually to include as a global measure of the overall impact of the QEP as shown in Table 14..

Community College Survey of Student Engagement (CCSSE)

Palm Beach State College is scheduled to participate in the next statewide CCSSE assessment effort in 2014. CCSSE questions have been identified as relevant measures of critical thinking skills and the results of these questions will be included in QEP reporting. CCSSE results from 2007 will be used as a baseline (results of 2011 CCSSE were still being analyzed as QEP was being developed), and results from 2014 will be included in the annual QEP report for 2013-2014.

Surveys

Surveys will be used to assess the effectiveness of Level 1 and Level 2 training. Response system technology (e.g., "clickers") will be incorporated into workshops for data collection. Faculty and staff will also be surveyed annually regarding the usefulness of resources provided, including the high impact practice inventory. Survey results will help the College evaluate the value of the training approach to professional development as a tool to integrate critical thinking into the curriculum.

Embedded assessment: pre- and post-training course assignments or assessments

Each faculty member who participates in Level 2 training will be asked to identify an existing assessment and report student scores on that assessment prior to the faculty member's participation in training. The faculty member will then report student scores after training for comparison. Samples of student work will also be collected. Expected improvements in student achievement on these selected assignments or assessments will be used to assess the effectiveness of Level 2 training.

Tables 13-16 below detail how specific outcomes will be measured by particular instruments, how and when baseline data is collected, annual and 5-year targets, and success indicators.

Table 13: Direct measures of student learning outcomes

OU.	TCOME(S)	INSTRUMENT	BASELINE	REGULAR CYCLE	ANNUAL TARGET	5-YR TARGET
1.	Students will analyze and	сстѕт	Collect in January 2012 Average score among 225 students in sections of ENC1101	Administered each fall beginning 2012, integrated into general education assessment process, sampling approximately 100 students with an average of at least 45 credits	Average score for each reported component scale will meet or exceed average score for similar institutions and improve annually.	Students assessed will demonstrate a 10% increase over baseline scores on each outcome.
2.	interpret relevant information. Students will reach sound conclusions based on a demonstrated reasoning process. Students will	Scenario	Average score on artifacts retrieved from 2009 and 2010 and graded with QEP rubric	Results reviewed each subsequent spring by QEP and assessment committees to make recommendations for revision to plan Revisions to be implemented during following academic year	Average score for each outcome will meet or exceed 3.0 on a 5-point scale and improve annually.	Students assessed will demonstrate a 10% increase over baseline scores on each outcome.
	evaluate and explain relevant information.	ETS Proficiency Profile	2011 results	Every fall semester as beginning 2012 Existing part of annual general education assessment, sampling approximately 400 students with an average of at least 45 credits	Average overall score for critical thinking will meet or exceed the average score for similar institutions and improve annually.	Students assessed will demonstrate a 10% increase over the ETS baseline score for critical thinking.
4.	Students will exhibit affective dispositions known to characterize critical thinkers.	CCTDI	Collect in January 2012 Average score among students in six sections randomly selected from faculty on QEP committees	Administered near the end of each fall beginning 2012, added to the general education assessment process, sampling approximately 100 students with an average of at least 45 credits	Average score for each scale will improve annually.	Students assessed will demonstrate improvement over baseline scores.

Table 14: Indirect measures of QEP success

INSTRUMENT	BASELINE	REGULAR CYCLE	ANNUAL TARGET	5-YR TARGET
Graduating Student Survey, Question 17	Average rating on responses from 2009- 2010	Surveys completed every semester; results evaluated in summer semesters	Average rating will meet or exceed baseline and improve annually	Average scores will have improved each year
CCSSE, Questions: 4d, 4n, 4r, 5b, 5c, 5d, 5e, 5f, 12e)	2007 results	n/a (during QEP, institution is only scheduled to participate in 2014)	Average results on selected questions in 2014 will meet or exceed national benchmark for similar institutions and will exceed College baseline results.	n/a (during QEP, institution is only scheduled to participate in 2014)

Table 15: Measuring the effectiveness of professional development

STRATEGY	INSTRUMENT	BASELINE OR COMPARISON	REGULAR CYCLE	SUCCESS INDICATORS
Level 1 training (workshops)	Surveys	n/a	Survey will be administered to all participants every time workshops or other Level 1 training is offered	At least 80% of faculty and staff participants will agree that the workshops Increased their knowledge and understanding of QEP outcomes Increased their knowledge and understanding of critical thinking Increased their desire to learn more about teaching or assessing critical thinking
	Participation	Number of faculty and staff participants in pilot workshops, February 2012	Number and percentage of faculty and staff participants in Level 1 training will be tracked annually	100% of incoming new faculty and adjuncts will participate in Level 1 training by fall 2013. The number of faculty and staff participants in Level 1 training will increase annually.
				By 2017, at least 50% of all instructional staff will have participated in Level 1 training. By 2017, the number of participating non-instructional staff will have increased
Level 2 training (cohort	Critical thinking scenario	Average score on College-wide sample	Sample will consist of three randomly selected sections taught by QEP trained faculty	annually. Average score among students taught by trained faculty will exceed average score(s) of College-wide sample
study)	CCTST	Average scale scores on College-wide sample	and administration of tests will occur near the end of the fall semester in these sections	
	Faculty- selected embedded assessments or assignments	As identified – faculty participants will report average student scores on selected assessments or assignments, and they will collect sample artifacts, both from "before training"	All trained faculty will report average scores and submit student work the semester following training; faculty will be selected annually at random to report scores and submit student work in subsequent semesters for longitudinal tracking	Student work completed by students taught by QEP trained faculty will improve after the faculty have been trained and had a chance to revise or improve classroom strategies.
	Post-training surveys	n/a	Survey will be administered to all participants of Level 2 training	At least 80% of participants will agree that the workshops Increased their knowledge and understanding of QEP outcomes Increased their knowledge and understanding of critical thinking Increased their desire to learn more about teaching or assessing critical thinking
	Participation	n/a (critical thinking professional development did not exist before the QEP)	Number and percentage of faculty and staff participants in Level 2 training will be tracked annually	A minimum number of faculty and/or staff will be trained annually: • 2012 – at least 45 • 2013-2017 – at least 10 more per year • by 2017: at least 95 faculty and/or staff will be QEP trained.

Table 16: Measuring the effectiveness of supporting strategies

STRATEGY	REGULAR CYCLE	SUCCESS INDICATORS
Inclusion of critical thinking outcome(s) in career programs	Annual (July to June) Results reported to IRE in spring semesters, included in annual QEP report that is prepared in June and July	By 2013, critical thinking learning outcomes will be documented, measured, and reported annually in 100% of career programs
Addition of critical thinking outcome(s) in educational support services	Annual (July to June) Results reported to IRE in spring semesters, included in annual QEP report that is prepared in June and July	By 2013, critical thinking learning outcomes will be documented and will be measured annually in these identified education support service areas: Library Learning and Resource Centers Student Learning Centers Honors College Student Services including admissions and registration, advising and orientation, athletics, career centers, disabilities services, financial aid, outreach, recruitment and dual enrollment, student life, and testing centers.
Development of resource centers to include an inventory of high impact practices	Inventory will be collected continually; made available College-wide as collected or compiled in summer to become available in the fall semester	Inventory will increase annually 80% of respondents on annual faculty/staff surveys will strongly agree or agree that the resources are useful.

The assessment plan allows the College to capture short-term and long-term performance gains. A balanced plan includes both direct and indirect assessment of the outcomes and the overall impact of the QEP. Strategies are also assessed. A continual process of implementing, assessing, evaluating, and revising strategies as needed is assured. The Quality Enhancement Plan is carefully designed and assessment is integrated throughout the plan.

Conclusion: Expected impact of the QEP

During the five years of the QEP, the awareness of how critical thinking is taught and assessed will become a defining characteristic of a new culture at Palm Beach State, a collaborative culture that contributes to a learning environment in which students are better able and more willing to think critically.

This new culture will result as professional development becomes increasingly focused on critical thinking and as many faculty and staff participate in Level 1 and Level 2 training as follows.

- All existing full-time faculty and staff will have Level 1 opportunities at least twice a year through workshops or Development Day activities.
- By fall 2013, all new and existing adjuncts and all newly hired full-time faculty and instructors will participate in Level 1 training.
- Approximately 45 faculty and staff (full-time and part-time) will participate in Level 2 training in 2012, establishing a cadre of faculty and staff that are QEP trained.
- At least 10 but as many as 20 additional faculty and staff will be added annually to the cadre of those who are QEP trained through Level 2 training.

By the end of the five years, it is expected that because of the focus on critical thinking among faculty and instructors, critical thinking will become an integral part of instruction throughout the College. It is also expected that all educational support program staff will have a common understanding of what is happening in the classroom, and on a regular basis, program managers and staff will seek ways to support learning as it relates to their own critical thinking outcomes, to the general education critical thinking learning outcome, and to the overall QEP goal to help students develop and apply critical thinking.

As the QEP nears completion and the College prepares to institutionalize the effort, the critical thinking focus within professional development and the integration of critical thinking into the classroom will be inescapable at Palm Beach State. With the anticipated wide-spread emphasis on critical thinking, the expected impact is that by the fifth year of the QEP, students will be more willing and able to think critically as demonstrated by assessment results.

College constituents – faculty, staff, students, administrators, members of the District Board of Trustees, and neighboring community members – fully support the QEP, and the institution is well-prepared with necessary financial, human, and physical resources to carry out the plan. The College has stated clearly what it will do and what it expects will result. The assessment plan provides the means by which the College can measure the impact of the plan on student learning. It is worth repeating: Palm Beach State College looks forward to implementing its Quality Enhancement Plan to improve student learning by focusing on critical thinking.

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Dr. David Pena Director, Library Learning Resource
Dr. Syeda Qadri Senior Research Analyst (IRE)

Diane Ramos Studer

Helen Shub Manager, Learning Outcomes Melissa Solla Generalist, Human Resources

Lynn Trezise Faculty, Architecture

Mindy Yale PSAV Instructor, Massage Therapy

Advisory Council - Fall 2010 and/or Spring 2011

Sandra Barrett Program Manager, Adj. Faculty
Marilyn Becker Adjunct Faculty, Art
Jacquelynn Berg Faculty, English
Jeanne Boone Faculty, Nutrition

Dr. Jennifer Campbell Director, Institutional Research

Joanne Cameron Faculty, Library

Thomas Caughman Student

Marg Chauvin Faculty, Computer Science
Carleton Chernekoff Faculty, Developmental English
David Childers Faculty, Communication
Lyam Christopher Learning Specialist
Dr. Eugenia Cox Faculty, Mathematics

Jacques De Beaufort Faculty, Art

Yuki Ebihara Adj. Faculty, Math; Learn. Spec.

Dr. Tod Fairbanks Faculty, Biology
Steve Gibson Faculty, English
Dr. Alexandra Gorgevska Faculty, Biotechnology

Dr. Descent ladvide.

Dr. Doreen Jadwick
Jody Johnson
Dr. Lilian Jordan

Career Advisor
Student
Faculty, Physics

Dr. Jay Matteson Director, Sustainability Institute
Judy Maxwell Faculty, Aeronautical Science

Dr. Daniel McGavin Faculty, Actorization

Joseph Millas Faculty, Communication
Jeanne Murcia Faculty, Comp. App; Dev. Math

Gerald O'Brien Faculty, Science
Marcie Pachter Faculty, Communication
Lois Pasapane Faculty, Social Science

Edwin Peck Faculty, English

David Pena Director, Library Learning
Karen Pain, Chair Faculty, Developmental Math
Dr. Anthony Piccolino Faculty, Mathematics

John Pierson Learning Specialist

Diane Ramos Student Lisa Rappa Administrative Assistant

Dr. Magdala Ray Faculty, Strategies

Eileen Robinson Program Manager, Adj. Faculty

Dr. Matilda Roig-Watnik Faculty, Science Yelena Rudayeva Faculty, Science

Cathy Seyler Manager, Student Learning Ctr. Helen Shub Manager, Learning Outcomes

Patrick Tierney Faculty, English
Lynn Trezise Faculty, Architecture

Elizabeth Wilber Adjunct Faculty, Developmental Van Williams Director, TRIO Support Services

Rose Wilson Faculty, Mathematics
Bobette Wolesensky Faculty, Communication

William Wood Student

Appendix B: Sample meeting minutes

(all minutes in QEP office or online: http://www.palmbeachstate.edu/x19440.xml)

MEETING MINUTES
Quality Enhancement Plan Development Team
Friday, February 26, 2010
12:30 pm – 2:30 pm
ETA 101, Lake Worth

Attendance:				
	☑ Gail Burkett	☑ Carleton Chernekoff		
	☑ Dana Hamadeh	⊠ Robin Johnson		
☑ Jason Major	☑ Judy Maxwell	☑ Joe Millas		
☑ Marcella Montesinos	☑ Jeanne Murcia	☑ Karen Pain		
☑ David Pena	☑ Diane Ramos	☑ Melissa Stonecipher		
☑ Lynn Trezise	⊠ Mindy Yale	☑ Patrick Tierney		

ITEM 1. Forum feedback

Discussion: Almost all feedback from campus forums was positive. Input was received from faculty, staff, provosts and external

community.

Data/source: Forum worksheets

Action: n

ITEM 2. Fall term – QEP Writing Team / schedule and responsibilities

Discussion: Full-time faculty present who would like to stay on or be added to the team to write QEP: Gail Burkett, Carleton

Chernekoff, Judy Maxwell, Jeanne Murcia, and Lynn Trezise. Joe Millas and Melissa Stonecipher will remain on the Assessment Committee. Non-faculty present who also wish to remain on team: Jason Major (student), Marcella Montesinos (Honors College). Dana Hamadeh (Student Learning Center) and David Pena (Library Learning Resource

Center) will confirm at a later date.

Meeting dates for fall were provided as 8/27, 9/10, 9/24, 10/1, 10/15, 11/5, and 11/19. A December meeting will be held if needed. Full-time faculty will assume responsibility of working during non-meeting weeks to run sub-committees as

needed and to write sections of the QEP as delegated.

Data/source: n/a

Action: Karen Pain will update list of faculty to submit to Dr. Sass for confirmation of release time.

ITEM 3. Results of "voting": campus and college-wide preferences

Discussion: Data summary was shared and Karen Pain offered to provide any detailed reports of the campus forum and online polls

votes by request. Overlapping support for QEP focus topics of communication, critical thinking, and placement were evident. Although there was some concern about enough content to propose a plan for placement, because of strong

college-wide interest, all agreed that we should and will submit a proposal to administration for each topic.

Data/source: Raw data and summaries from Institutional Research and Effectiveness, worksheets and voting results from forums

Action: The committee will proceed a OFR focus on communication, critical thinking, or placement.

Action: The committee will propose a QEP focus on communication, critical thinking, or placement.

Writing proposals - additional feedback, brainstorming and delegating sections
 The committee discussed best options to collectively present a formal proposal in one document. All present wish to

solicit one more round of feedback from the College regarding exactly what individuals would like to see included in any

one of the three topics.

Data/source: n/a

Action:

Gail Burkett, David Pena, and Melissa Stonecipher will develop and write initiatives – to include goals and assessments – for the topic of communication. Judy Maxwell will write a 'faculty-development' initiative for the topic of critical thinking. Dana Hamadeh will write an initiative related to getting students to "just think". Karen Pain will write a suggested proposal to send out to the team for feedback; she will also write an overall justification of the three topic choices, and an individual rationale for each topic selected.

Karen Pain will ask for all-user emails to be sent. Any feedback received will be collected, sorted, and added to proposals as appropriate as sections should are completed before the 3/19 meeting.

The committee will continue to discuss the feasibility of proposals at the next meeting. Changes and edits will occur between the 19th and 26th. Proposals will be finalized on March 26 to the extent possible in an effort to submit to administration by 3/31/10.

Meeting was adjourned at 2:30 p.m. Submitted by: Karen Pain, Chair

MINUTES Quality Enhancement Plan Writing Team Friday, September 10, 2010, 10:00 am – 12:00 pm ETA 101, Lake Worth

Attendance:					
☑ Jackie Berg	☑ Diane Bifano	☑ Gail Burkett			
☑ Jennifer Campbell	☑ Joanne Cameron	☑ Thomas Caughman			
☑ Carleton Chernekoff	☑ Jim Duffie	☑ Brian Findley			
☑ Rob Gingras	☑ Robin Johnson	☑ Judy Maxwell			
☑ Dan McGavin	☑ Sallie Middleton	☑ Marcella Montesinos			
☑ Jeanne Murcia	☑ Karen Pain	☑ David Pena			
☑ Syeda Qadri	☑ Diane Ramos	☑ Cathy Seyler			
▼ Helen Shub	☑ Melissa Solla	☑ Lynn Trezise			
☑ Mindy Yale					

ITEM 1. Advisory Council update

Discussion: Council currently has 33 members; first meeting scheduled for 9/17/10 to discuss broad-based participation in

development and to discuss initiatives in focus groups.

Data/source: Advisory Council roster

Discussion

Action: Karen Pain will include QEP Writing Team on correspondence to Council and on meeting invitations.

ITEM 2: Discuss survey results and define critical thinking

Two of six choices presented surfaced to top, with 61% of respondents choosing one of the two definitions. 39 of 691 respondents wrote in a free-response selection, many of which included similar word choices and meanings. The favored choices were:

- "...the deliberate process of questioning, evaluating, and responding to problems, scenarios, and arguments in order to reach sound solutions, decisions, and positions" (Cape Fear Community College QEP, http://cfcc.edu/SACS/QEP/documents/QEPFinalDraftAug242006 000.pdf) and
 - "...a wide range of skills needed to effectively identify, analyze, evaluate arguments and truth claims; to discover and overcome personal prejudices; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do." (Georgia State University QEP, as adapted from Moore and Parker, and by Bassham, Irwin, Nardone, and Wallace, http://www.gsu.edu/sacs/files/GSU_QEP_CTW.pdf)

After much discussion about specific vocabulary words and a desire to capture the essence of these definitions, the following working definition was agreed upon by consensus of committee members present: Critical thinking is the skills needed to explore, evaluate, express, and engage in purposeful reasoning in order to reach sound conclusions, decisions, positions, or solutions.

Data/source: Action: Raw data and summary reports from IRE

Website will be updated to announce working definition, with a note to indicate that editing may be necessary as initiatives, goals, and the assessment plan are developed. The update will also provide constituents the opportunity to share ideas for in and out of the classroom to help students develop critical thinking skills.

ITEM 3: Discussion:

QEP reviews and best practices discovered

Ideas that work for other institutions or that have been shared by our own instructors that may be considered for "conversation starters" as focus groups are held this month (as reported from committee members who read other QEPs and/or spoke to colleagues):

- Capstone projects these are good for four-year institutions but may not work at Palm Beach State
- Course identification in what courses is critical thinking already "taught" or emphasized? Can we emulate
 those practices in other courses, adapting as needed? Examples: ENC1101, ENC1102, SLS1501
- One faculty per department to be formally trained, then share with others in that area
- Target first-year students or courses or programs
- Integrate into communication curriculum and courses
- Develop a "studio" for students to gather to "think and explore ideas" (as relevant to suggested topics, projects, problems)
- Faculty development: summer institute with paid stipend
- Team teaching
- Peer collaboration
- Assess with essays, case studies
- Reading programs (common books)
- Faculty development required for faculty teaching targeted courses, but open and available to all who are interested
- Include emphasis on information literacy
- Stay as close to mission as possible
- Get students to "think" and to "act"
- Incorporate service learning
- Incorporate learning communities on campus and to serve the community off-campus
- Incorporate student leadership
- Socratic Method (get students to question more)
- "Think Tanks" in class and on campus
- In English course work: deeper examination and discussion of relevant articles and literary works

Data/source:

Previous Web and email submissions: other QEPs

Action:

All committee members are encouraged to review other Quality Enhancement Plans that focus on critical thinking in an effort to become familiar with these and other initiatives. Karen Pain will provide above list to faculty who will facilitate focus groups. Faculty will use these ideas and others to initiate and facilitate discussion regarding what we can do at Palm Beach State to help students develop critical thinking skills.

ITEM 4:

Team brainstorm - what initiatives make sense for Palm Beach State?

Discussion:

Intention was to discuss ideas to present at focus groups but time was too limited; faculty will use the list developed in Item 3.

Data/source:

n/a

Action:

Focus groups will be held as planned; faculty will use list above to start conversation; Karen Pain will send sign-in sheets and guidelines by email.

ITEM 5:

Grant funding

Discussion:

Karen Pain met recently with Dana Zorovich regarding possible grants and learned the best opportunities may reside within initiatives planned for science, technology, engineering, and mathematics.

Data/source:

n/a

Action:

Team will be mindful of any suggestions at focus groups that might fit within these topics and report back at next meeting.

ITEM 6:

Focus Groups - scheduling

Discussion:

Faculty on each campus will work together to coordinate as much as possible the days/times that focus groups are offered. Provosts will be asked to encourage participation; a link to the schedule will be sent to all-users when all groups have been scheduled.

Data/source:

n/a

Action: Faculty should contact Karen as soon as possible with dates, times, and locations. She can help as needed by attending or

scheduling. All groups should be scheduled on or before October 1, 2010.

Meeting was adjourned at 12:00 p.m. Submitted by: Karen Pain, Chair

MINUTES

Quality Enhancement Plan Advisory Council Friday, September 17, 2010, 1:00 pm – 2:00 pm NS 129, Lake Worth

ATTENDANCE: Diane Bressner, Marg Chauvin, Carleton Chernekoff, Lyam Christopher, Eugenia Cox, Jacques de Beaufort, Yuki Ebihara, Tod Fairbanks, Stephen Gibson, Alexandra Gorgevska, Doreen Jadwick, Jody Johnson, Robin Johnson, Lilian Jordan, Jay Matteson, Judy Maxwell, Joseph Millas, Marcella Montesinos, Karen Pain, Lois Pasapane, David Pena, Anthony Piccolino, Diane Ramos, Lisa Rappa, Eileen Robinson, Yelena Rudayeva, Elizabeth Wilber, Bobette Wolesensky, William Wood

ITEM 1. Understanding the QEP and timeline

Discussion: Volunteers gave one-sentence characteristics of what a QEP is; Karen Pain confirmed by clarifying what SACSCOC says

about the QEP and emphasized the opportunity the QEP offers the College to participate in a "bottoms-up" approach to

develop and implement this college-wide initiative.

Data/source: SACSCOC Principles of Accreditation

Action: n/a

ITEM 2: Role of QEP Advisory Council (AC)

Discussion: AC will have the opportunity to provide feedback to the QEP Writing Team before the college (beginning with Item 5 at

this meeting), to comment on the full outline before the first draft is completed, and to preview the first draft before it is

presented to the college.

Data/source: n/a

Action: Advisory Council to participate in Focus Group discussion before conclusion of this meeting.

ITEM 3: Plan for college-wide participation

Discussion: The schedule for Campus Focus Groups was distributed, and all were encouraged to participate as time permits. Other

college-wide participation efforts this semester may include choosing between plan options and the search for a title and

art work to associate with the QEP.

Data/source: QEP Writing Team tasks schedule

Action: n/a

ITEM 4: QEP topic and content

Discussion: All present were reminded that "critical thinking" is the focus topic. The process of deriving the working definition for the

purpose of developing initiatives was explained: 691 respondents on the college-wide survey, feedback by email, an indepth discussion at a 9/10/10 writing team meeting resulted in "... using the skills needed to explore, evaluate, express,

 $and\ engage\ in\ purposeful\ reasoning\ in\ order\ to\ reach\ sound\ conclusions,\ decisions,\ positions,\ and\ solutions.$

Data/source: Raw data and summary reports from IRE

Action: n/a

ITEM 5: Identifying initiatives – Focus Group Discussion

Discussion: Participants from each campus worked in groups to discuss what we are already doing in the classroom to integrate

critical thinking. Many ideas were collected that will be compiled and considered with others that are submitted in upcoming campus focus groups. Some concern was expressed regarding the ability to adequately assess some of the ideas presented. Those concerns will be addressed by the QEP Writing Team with assistance from the Institutional

Research department to ensure we select and frame initiatives that will allow for assessment.

Data/source: n/a

Action: Karen Pain will report discussion results to writing team on 9/24.

ITEM 6: Other

Discussion: Next meeting will be scheduled based on the availability of the majority of Council.

Data/source: n/a

Action: Karen Pain will survey all Council members to determine the best day and time to meet for the QEP draft preview in late

November or early December.

Meeting was adjourned at 2:30 p.m. Submitted by: Karen Pain, Chair

Appendix C: Constituency invited to propose QEP topics

INVITATION TO PROPOSE QEP TOPICS: sent by all-user email and posted on home page

From: Sass, Sharon
To: allusers

Subject: PBCC QEP Webpage - send us your ideas
Date: Thursday, October 29, 2009 12:54:41 PM

Hi Everyone!

How would YOU respond to this question: "What can Palm Beach Community College do to improve student learning or student learning environments?" YOUR ANSWER IS VITAL to the process of our SACS Reaffirmation of Accreditation!

Please take a moment now to think about the ideas you have to help our students succeed in their academic endeavors, and visit the <u>PBCC QEP Webpage</u> to learn how you can submit those ideas as the possible focus of a college-wide, 5-year Quality Enhancement Plan. Browse around – and please don't hesitate to contact me with any questions or suggestions!

I look forward to hearing from you soon.

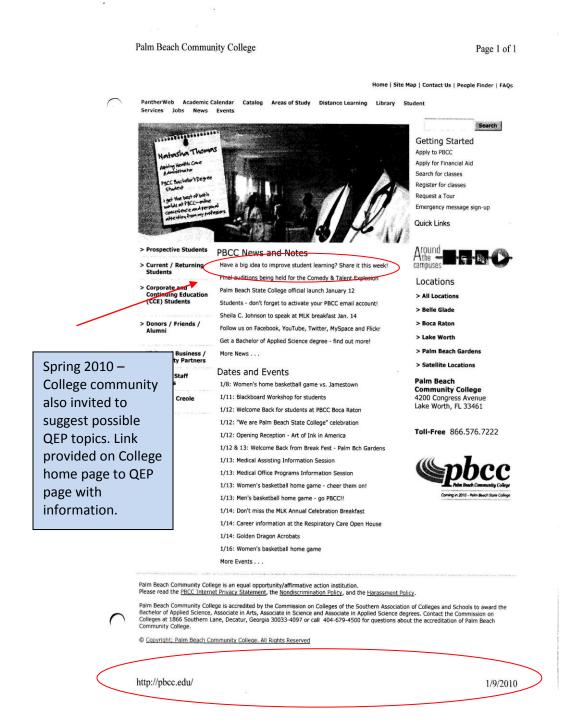
Karen D. Pain

Prep Math Faculty / QEP Development Palm Beach Community College 4200 Congress Avenue MS#12 Lake Worth, FL 33461

561-868-3325 paink@pbcc.edu Fall 2009 – all faculty, staff, and students invited by email to suggest possible QEP topics. Link provided to QEP page with information.

Please note: Due to Florida's broad open records law, most written communication to or from College employees is public record, available to the public and the media upon request. Therefore, this e-mail communication may be subject to public disclosure.

PUBLIC LINK ON HOME PAGE JANUARY 2010; INVITATION TO PROPOSE QEP TOPICS



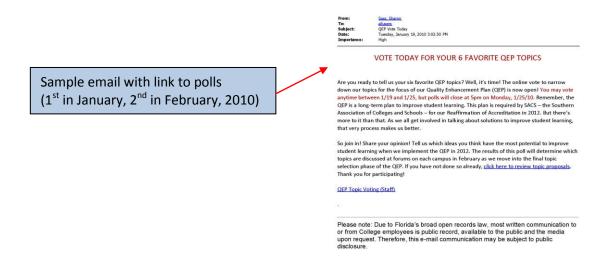
Appendix D: Sample faculty sign-in sheets for topic discussions

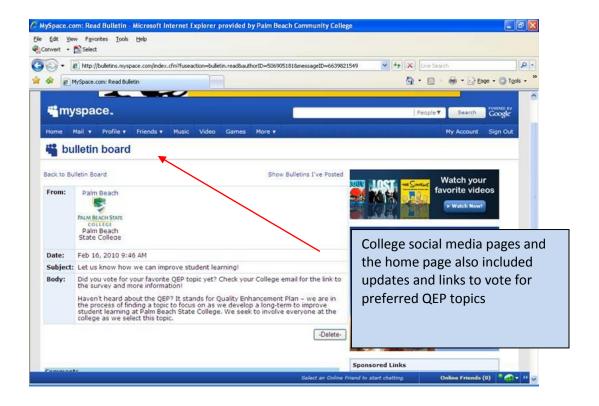
SAMPLE SIGN-IN SHEETS (12 collected – all available for viewing in QEP office on site)

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Appendix E: Constituents surveyed regarding QEP topic

QEP TOPIC SURVEY LINKS SENT THROUGH ALL-USER EMAIL AND POSTED ONLINE

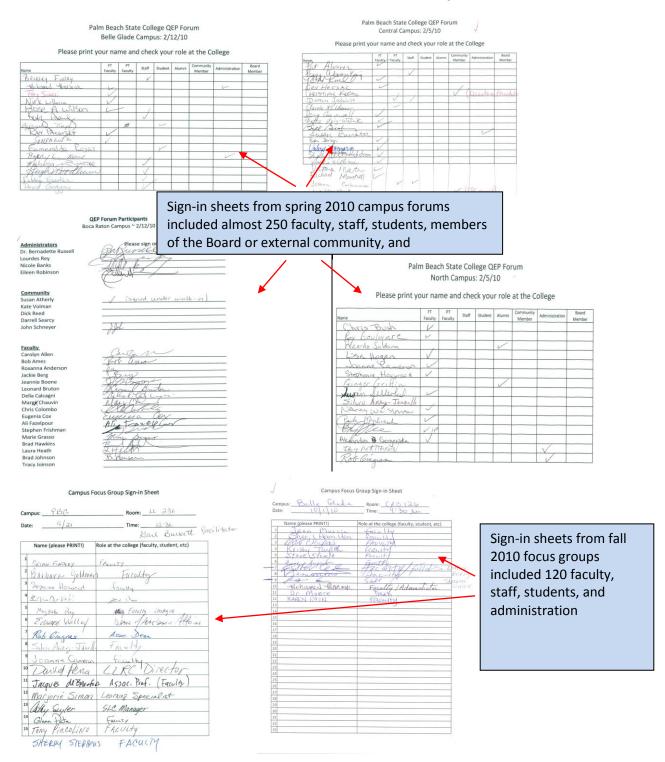




Appendix F: Sample campus forum sign-in sheets

Campus forums February 2010 and focus groups September-October 2010 offered for college community to discuss QEP topics and plan ideas

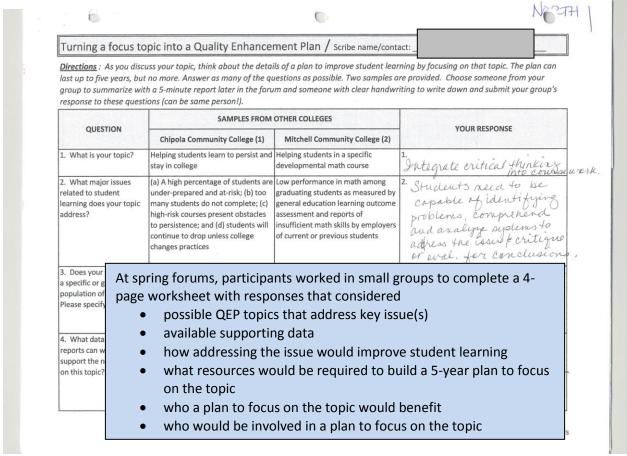
SAMPLE SIGN-IN SHEETS (22 collected – all available for viewing in QEP office on site)



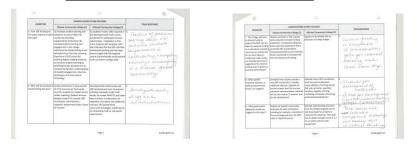
Appendix G: Sample worksheets to solicit topic/plan ideas

49 collected from forums, spring 2010 – all available for viewing in QEP office on site





(...pages 2, 3, and 4)





100 ideas collected from focus groups, fall 2010; 50 worksheets/emails submitted (all available for viewing in QEP office on site)

An electronic version of this form is available by email at <u>QEP@palmbeachstate.edu</u> or responses may be submitted on an interactive response form at http://www.palmbeachstate.edu/x18217.xml. Deadline for all completed responses is 10/1/10.

QEP Call for Innovations

Palm Beach State College will improve student learning by integrating critical courses and co-curricular activities. The goal right now — within focus group activity — is to identify best practices and ideas that will help accomplish this

- For the purpose of developing initiatives, we will use the following w formulated based on college-wide input: "Critical thinking is using the evaluate, express and engage in purposeful reasoning in order to red decisions, positions, or solutions."
- Ideas should support the College mission to: "create and sustain a d learning environment that provides a high-quality, accessible, affora students to contribute and compete ethically and successfully in a di

At fall 2010 focus groups, the College-selected definition was presented, and participants worked alone or in groups to complete a worksheet to suggest ideas for innovations in the classroom or on campus that could be included in the QEP.

This form was also kept available online in September (till 10/1) when focus groups were held on each campus.

Already doing this in class or have

Please share it here, completing as much information as possible.

Please describe the idea, assignment	real life textbook + online) that give parnal "
information + ask who	other into mation you warre need, now do you
obtain this information	n and based on this information what clinical decisions
If this is his a special to the spec	would you make + what
If this is being done now at PBSC, pi	ease tell us where (what course or club): In all ore the an hopse
Your name and contact info (option	al, but requested): Stephanie Harwad - 207-5064
Your role at the Palm Beach State: _	faculty
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riow does triis idea, assignment, pro	ofect, practice, or event help students
explore, evaluate, express, and engage in purposeful reasoning?	Students have to look at current information the decide whather or not they can proceed to a decision or do they need more information? Where should they get this information? Is the source reliable?
reach sound conclusions, decisions, positions, or solutions?	After information gathering (who, what, whys, etc.) what decisions would they make? How do these decisions compare to accepted Standards of practice?

Appendix H: Sample agenda for Board of Trustees meeting

District Board of Trustees invited to give feedback SAMPLE AGENDA (relevant minutes and agendas available for viewing in QEP office on site)

Palm Beach State College District Board of Trustees May 11, 2010 6:00 p.m., Multi-Media Board Room, Lake Worth, Florida

- I. Meeting Call to Order and Pledge of Allegiance by Chairperson
- II. Inspirational Thought and Public Comments
 - A. Inspirational Thought by Mr. Richard Kaplan
- III. Approval of Board Minutes
 - A. Approve Board Minutes of April 13, 2010
- IV. Reports
 - A. Board Members' Report
 - B. President's Report
 - Lake Worth Campus presentation on Trade & Industry Programs
 Dr. Maria M. Vallejo.
 - 2. 2010 Accountability Report by Dr. Ginger Pedersen.
 - Review of the Quality Enhancement Plan (QEP) recommendation by Professor Karen Pain.
 - 4. Legislative Update by Ms. Erin S. McColskey.
- V. Approval of Board Agenda
 - A. Abstentions by Board Members
- VI. Approval of Consent Agenda
 - A. Academic and Student Services None
 - B. Administration and Business Services
 - Accept Financial Review and Analysis for the ten months ending April 30, 2010.
 - 2. Approve Missing Property Report for March 2010.

Reminder: Please turn off all cellular phones, or place on silent. Thank you.

Sample Trustees agenda – QEP faculty chair kept Board member apprised and invited feedback in fall 2009 and spring 2010, and made recommendation for critical thinking focus topic in May 2010.

Survey was based on possible

definitions gathered by QEP Writing Team. A link to vote

Please identify your role at Palm Beach State College.

Appendix I: Constituents invited to help define critical thinking

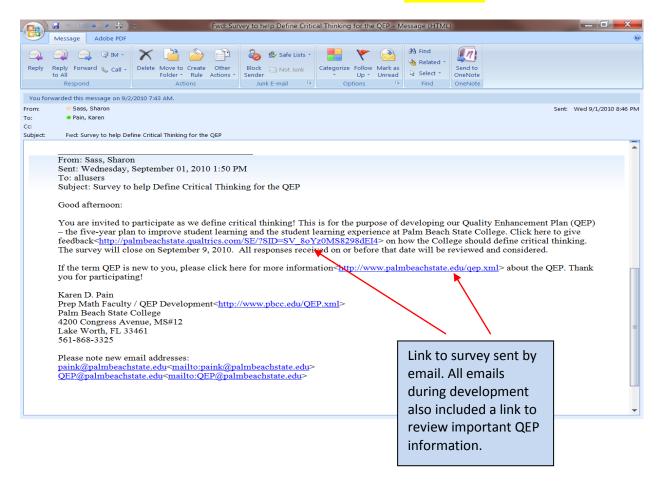
ONLINE POLL TO DERIVE COLLEGE-WIDE DEFINITION OF CRITICAL THINKING

The following survey contains only two questions. As we develop our Quality Enhancement Plan, we will focus on the topic of developing *CRITICAL THINKING*. But first, we must define *CRITICAL THINKING* and invite you to participate in doing so by completing this survey. Below are several definitions for you to consider. They have been gathered from various sources. When the survey closes on 9/9/10, the definitions will be posted online with the original source. If you are interested in the source information before that date, please contact QEP@palmbeachstate.edu.

0 0 0	Faculty/instructor Staff Student External community member	on the definition was sent to all faculty, staff, and students. A link was also provided online on the College home page and social media sites.
	opinion, which definition best describes critical thinking? You may che type in your own response, but only one response will be recorded. C	
the g	active, persistent, and careful consideration of any belief or supposed for counds that support it and the further conclusions to which it tends. the careful, deliberate determination of whether we should accept, reject	
in or	n, and the degree of confidence with which we accept or reject it. the deliberate process of questioning, evaluating, and responding to proder to reach sound solutions, decisions, and positions.	blems, scenarios, and arguments
withi some	(1) an attitude of being disposed to consider in a thoughtful way the proin the range of one's experiences, (2) knowledge of the methods of logical skill in applying those methods. Critical thinking calls for a persistent effects osed form of knowledge in the light of the evidence that supports it and ends.	al inquiry and reasoning, and (3) fort to examine any belief or
0	careful and deliberate determination of whether to accept, reject, or sus	spend judgment.
disco	a wide range of skills needed to effectively identify, analyze, evaluate argover and overcome personal prejudices; to formulate and present convinulusions; and to make reasonable, intelligent decisions about what to beli	cing reasons in support of
belov	none of the above. I believe critical thinking is best defined as (type in your w):	our own response in the text box
Thank you for y	vour feedback!	<u>S</u> ubmit

71

OPPORTUNITY TO HELP DEFINE CRITICAL THINKING: EMAIL LINK SENT TO ALL USERS



OPPORTUNITY TO HELP DEFINE CRITICAL THINKING: LINK POSTED ON SOCIAL SITES



Appendix J: Radiography employer surveys, results

Radiography Program: Employer Survey

Community College Radiography Program. Your responses to this survey will help us provide a satisfaction with our graduates. Please take a few moments to answer the following questions. This survey is for present and past employers of the graduates of the Palm Beach

đ	5	Please rate graduates of the PBCC Radiography Program on the following qualities.	m on the foll	owing qualities.			
		·	Excellent	Satisfactory	Average	Needs Improvement	Unsa
		Displays appropriate knowledge of radiographic procedures.	7	ო	0	0	
		Produces radiographs of diagnostic quality.	, .5 5	ω	0	0	
/	_	Produces the expected volume of procedures for an entry-level RT.	ဖ	ო	_	0	
	T	Demonstrates appropriate overall knowledge in regard to	9	4	0	0	
		his/her performance as a radiologic technologist. Demonstrates the ability to analyze and solve problems.	က	7	0	0	
	-1	Demonstrates the ability to analyze patient needs and give	. 9	4	0	0	
		proper care. Maintains a safe work environment according to the ALARA	7	ო	0	0	
		philosophy. Communicates effectively with patients, coworkers and staff.	o	~	0	0	
		Maintains ethical values outlined by the ASRT Code of Ethics.	10	0	0	0	
		Is reliable with respect to attendance and punctuality.	თ	~	0	0	
		Demonstrates professionalism.	တ	~	0	0	
		Displays potential for promotion.	7	ო	0	0	
		Overall Performance	ဖ	4	0	0	

Rating on critical thinking question is the only result with fewer ratings of excellent than satisfactory.

Appendix K: Dental Health employer surveys, results

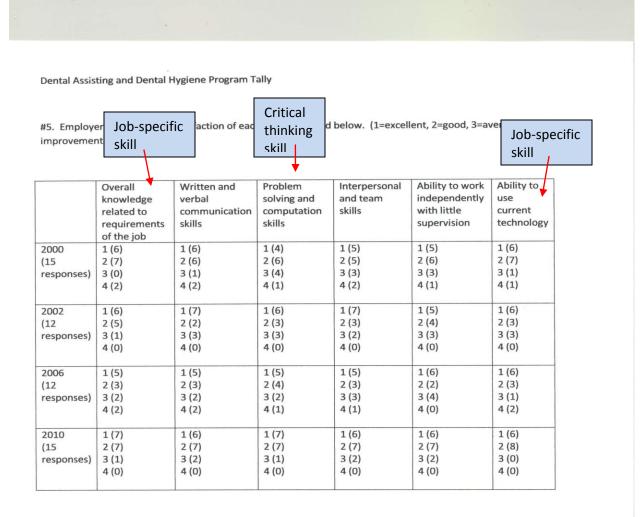
54 surveys collected from 2002 to 2010. Summary reports available in QEP office on site.



Questions to employer regarding graduates' ability to solve problems, adapt to job environment, and to communicate

_	If you indicated that "yes you were satisfied" please rate your level of satisfaction of earth skill area listed below. (Use a scale of 1-4 where 1 = Excellent, 2 = Good, 3 = Average, and 4 = Needs improvement)
	1 2 3 4 5 Overall knowledge related to requirements of the job 1 (5), 2 (5), 3 (1), 4 (0), 5 (0) 1 2 3 4 5 Written and verbal communication skills 1 (7), 2 (1), 3 (3), 4 (0), 5 (0)
	1 2 3 4 5 Problem solving and computation skills
_	1 2 3 4 5 Ability to use current technology 1 (6), 2 (2), 3 (3), 4 (0), 5 (0)
6.	Please list any suggestions or recommendations for improving this program. Longer externship Better verbal skills Better skills in Expanded Functions
7.	I employ (8) Dental Assisting Graduates from PBCC. Name:
	Name:
8.	I employ (13) Dental Hygiene Graduates from PBCC. Name:
	Name:
	Additional comments:
	ease return this survey to: Palm Beach Community College 4200 Congress Avenue ATIN: Beth Kuzmirek MS#32

(results of collected surveys from Dental Health)



Tally of ratings from 2000, 2002, 2006, and 2010

Top responses are higher for job-specific skills than for skills related to critical thinking:

Job-specific skills: 85% of ratings are excellent/good Critical thinking skills: 78% of ratings are excellent/good

Appendix L: First QEP budget year approved by Board, 6/14/11

DISTRICT BOARD OF TRUSTEES PALM BEACH STATE COLLEGE June 14, 2011 6:00 p.m., Multi-Media Board Room (CE 129), Lake Worth, Florida

The District Board of Trustees (DBOT) of Palm Beach State College met in regular session on June 14, 2011, at Palm Beach State College in Lake Worth, Florida. Chairperson William Berger, Esq. called the meeting to order. Mr. Kenneth B. Kirby, board member, led the Pledge of Allegiance. The inspirational thought was provided by Mr. Christopher Foy, Palm Beach State student. Students from the Fire Academy Class 63 were also acknowledged. Ms. Wendy S. Link, Esq. and Ms. Carolyn L. Williams, board members; Ms. Faith L. Proper, student trustee; Dr. Dennis P. Gallon, president; and Ms. Denise Wallace, general counsel; were present. Mr. David H. Talley, vice chairperson, was absent.

<u>Motion to approve the Board Minutes for May 10, 2011.</u> Upon the recommendation of the President and on the motion of Mr. Kirby, seconded by Ms. Williams, the Board unanimously approved the May 10, 2011, Board Minutes.

No public comment requests were received.

Board Members' Report

Mr. Berger acknowledged that this was Ms. Proper's last meeting as student trustee. Her monthly activities included attending the Forum Club Luncheon and participation on the Student Trustee Selection Committee. Mr. Berger offered accolades to Ms. Proper and presented her with an appreciation plaque and mementos in recognition of her outstanding leadership and dedicated service to Palm Beach State College District Board of Trustees.

Mr. Kirby continued his oversight commitment to the Scripps Florida Institute and Max Planck Florida Institute. He attended the League of Cities Installation Luncheon where the Honorable George LeMieux, former U.S. Senator for Florida, and the Honorable Jeff Atwater, Florida's Chief Financial Officer, were the speakers. He said the financial news shared was grim.

Ms. Williams said she participated on the Student Trustee Selection Committee. The interviews has been completed and the second phase needs to be conducted. interviews, Ms. Proper was very helpful with providing insight to the students.

Ms. Link attended the Forum Club Luncheon and a dinner with Mr. Jack Gerard, president and CEO of American Petroleum Institute. Two tables of Palm Beach State College students were present at the luncheon. Mr. Gerald held a one-on-one session with the students following the luncheon. Ms. Link's other activities included attending a seminar hosted by the Economic Council where some Miami Dade lawyers spoke about the Ethics Ordinance. She said the way the ordinance is currently drafted, if any of the Trustees would like to talk with a staff member or Commissioner at the County, they must be registered as a lobbyist in the County. She also had an informal meeting with other trustees across the State and attended a Chamber Trustee Luncheon where The Honorable Mike Haridopolos, president of the Florida Senate, was the speaker.

District Board of Trustees Minutes June 14, 2011 Page 5

Motion to approve Part 2 of the 2010 – 2011 Annual Equity Report. Ms. Juanita T. Benjamin, employment manager and assistant to the president for equity programs, presented Part 2 of the report. Highlights of the report included the progress in student enrollment, First Time in College students, students with disability, employment, and enrollment management. A faculty development program geared toward equipping faculty with an understanding of student learning styles and how to employ strategies that will contribute toward student success has been implemented. The College continues to strive for equity in all student programs by engaging in several initiatives to assist with increasing student success rates and moving the College toward becoming a Hispanic Serving Institution (HSI). The efforts of the HSI initiatives have led to the College being awarded the Kresge Foundation SEMILAS Grant. Additional partnership initiatives to promote diversity have also been created with ASPIRA, Spanish Club, Gay-Straight Alliance, and Foundation for the Children of Haiti, etc. Upon the recommendation of the President and on the motion of Mr. Kirby, seconded by Ms. Williams, the Board unanimously approved the motion.

Motion to approve the Award of Bid #10/11-11, Multiple Vehicles. Dr. Gallon noted the addition of the \$2,500.00 freight charge for delivery of the bus. Dr. Patricia Anderson, vice president of student services, provided an overview of the maintenance cost for the current bus. It was clarified that the bid was for multiple vehicles, but only one bus was being purchased. Dr. Anderson confirmed that the purchase was for a used bus and that the maintenance record would be provided. She addressed questions in reference to the advantage of purchasing a bus versus renting. Upon the recommendation of the President and on the motion Mr. Kirby, seconded by Ms. Link the Board unanimously approved the motion. Link, the Board unanimously approved the motion

Motion to approve 2011-2012 Tuition Fee Schedule and recommendation of the President and on the motion of Ms. V Board unanimously approved the motion.

motion to approve acknowledgement and support of the provided background information regarding the Retiree Association. The association is being modified to include all group regarding the bylaws, membership, benefits and the Board's rounceting to evaluate potential benefit options will be scheduled retirees to remain connected to the College. Since the Board was also clarified that currently there are a the options will be a current employee. Upon the position of the President and on the motion of Ms. Williams, seconded by Ms. Link, the Board unanimously approved the motion.

QEP budget is included in College operating budget which is approved annually. The budget for the preliminary and pilot phases is included in

Motion to approve 2011/2012 Annual Operating Budget. Upon the recommendation of the President and on the motion of Mr. Kirby, seconded by Ms. Williams, the Board unanimously

Appendix M: QEP implementation approved by Board, 8/9/11

DISTRICT BOARD OF TRUSTEES PALM BEACH STATE COLLEGE August 9, 2011

6:00 p.m., Multi-Media Board Room (CE 129), Lake Worth, Florida

The District Board of Trustees of Palm Beach State College met in regular session on August 9, 2011, at Palm Beach State College in Lake Worth, Florida. Chairperson William Berger, Esq. called the meeting to order. Dr. Dennis P. Gallon, president, led the Pledge of Allegiance. Ms. Kaitlyn Hosticka, Palm Beach State student, provided the "inspirational thought." Mr. David H. Talley, vice chairperson; Mr. Kenneth B. Kirby, Ms. Wendy S. Link, Esq., and Ms. Carolyn L. Williams, board members; Ms. Ariella N. Klein, student trustee; and Ms. Denise Wallace, general counsel; were present.

Motion to approve the Board Minutes for June 14, 2011. Upon the recommendation of the President and on the motion of Mr. Kirby, seconded by Mr. Talley, the Board unanimously approved the June 14, 2011, Board Minutes.

Public Comments

No public comment requests were received.

Board Members' Report

Mr. Berger introduced and welcomed Ms. Ariella Klein to the Board. Her monthly activities included attending the Phi Beta Lambda National Leadership Conference in Orlando, and meetings with: Dr. Maria Vallejo, Lake Worth campus provost; Dr. Jean Wihbey, Palm Beach Gardens campus provost; and Dr. Marcia Hardney, Belle Glade campus provost. Ms. Klein has served 150 volunteer hours for the Americorp Students in Service Program and attended the Relay for Life Committee meeting.

District Board of Trustees Minutes August 9, 2011 Page 3

- VI B 3 Accept Construction Status Report dated July 25, 2011.
- VI B 4 Amending the current Architect of Record Agreement with Colome' & Associates by adding the following project: Remodel Ophthalmology Lab, BioScience Building SC 116, Palm Beach Gardens campus.

Architectural Fee:

\$6,811.00

- VI B 6 License Agreement with the Florida Department of Transportation for Bus Bay Restoration, Lake Worth campus.
- VI B 7 Confirm approval of Owner/Construction Manager-at-Risk Standard Form Contract with Amodie Engineering & Construction for the following project: Electrical Switchgear/Transformer Replacement, Lake Worth campus.
- VIB8 Amendment #3 and #4 to transfer funds from General Operating Fund to Unexpended Plant Fund.

 Safety Initiative:
 \$1,500,000.00

 Public Safety Training Center:
 \$1,500,000.00

 New Campus Master Planning:
 \$500,000.00

 Deferred Maintenance:
 \$1,500,000.00

VI B 9 Renewal of Legal Services Contract with Allen, Norton & Blue for the period of July 1, 2011 through June 30, 2012.

Retainer \$500.00 per year Attorney Services \$225.00 per hour Paralegals \$85.00 per hour

Action Agenda

Motion to approve first reading to repeal District Board of Trustees Policies 6Hx-18-2.09, College Level Academic Skills (CLAS), and 6Hx-18-2.10, Waiver of College Level Academic Skills (CLAS) Requirement Eligibility. Upon the recommendation of the President and on the motion of Mr. Talley, seconded by Ms. viiliams, the board unanimously approved the motion.

Motion to approve Quality Enhancement Plan (QEP). Upon the recommendation of the President and on the motion of Mr. Kirby, seconded by Ms. Williams, the Board unanimously approved the motion.

Motion to approve second reading to adopt District Board of Trustees Policy 6Hx-18-1.30, Identity Theft Prevention Program. Upon the recommendation of the President and on the motion of Ms. Williams, seconded by Mr. Talley, the Board unanimously approved the motion.

Motion to approve Surplus Inventory Supplemental Report from 04/20/2011 to 07/13/2011, to authorize the sale of items at auction or transfer items to non-profit organizations as

Appendix N: Job description for QEP manager

Overview and partial description provided here. Full description, including additional activities, educational requirements, and required skills, is available for viewing in QEP office on site.

Palm Beach State College Job Description Position Code 2010

Title: QEP MANAGER Name: PAIN, KAREN, D Revised Date: 07/12/2011 Supervisor: AA0003
Title: VICE PRES, ACADEMIC AFFAIRS
Dept: VP ACADEMIC AFFAIRS T&A
Pay Grade: 61 Ex/Non-Exempt: E

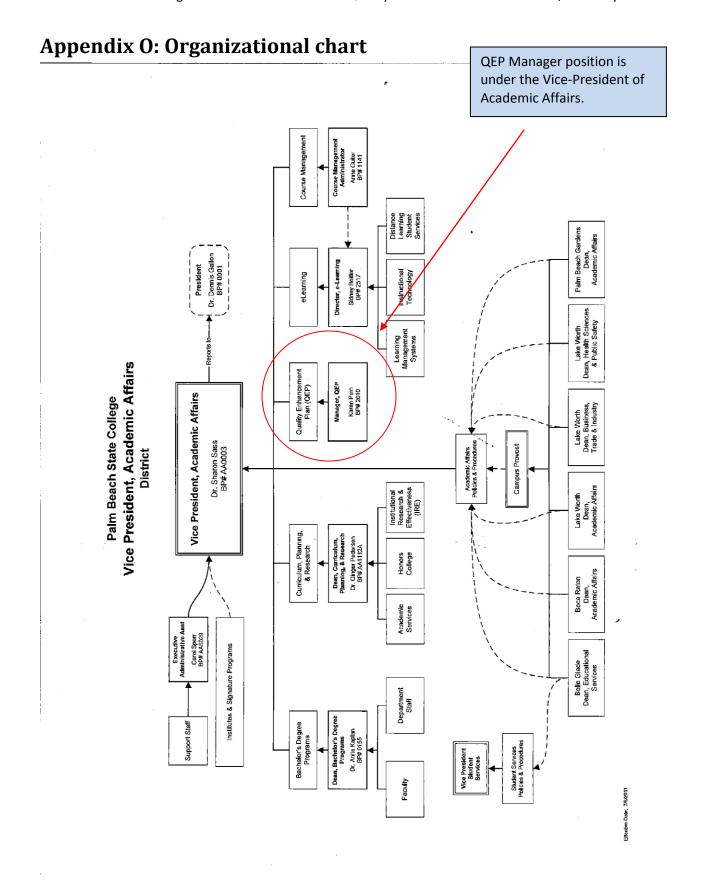
QEP manager position was created in February 2011 and filled in July 2011.

Responsible for the leadership and administration of the college's Quality Enhancement Plan (QEP). Develops, implements, assesses, and evaluates all supporting QEP initiatives. Plans, organizes, communicates and leads integration of critical thinking into curriculum in all programs at the course-level. Develops learning outcomes, assessments, and improvement strategies. Collaborates with the Manager of Outcomes Assessment and Director of Institutional Research and Effectiveness to ensure continuity of assessment college-wide. Monitors accreditation requirements and standards and maintains all necessary documentation to ensure compliance. Plans, develops, and coordinates a variety of supporting activities and events on all campuses. Creates and develops workshops for students, faculty and staff. Communicates QEP efforts, and evaluates, writes and submits reports. Develops publications and maintains the QEP web pages. Plans, organizes communicates, and leads efforts on all campuses to develop revised or new QEP initiatives.

Number	Activity Descriptions Description
2	Plan, direct, and control the work of people who do not report directly to you, but who provide support to the goals and objectives of your organization.
54	Control and monitor projects, oversee administrative details that may include consultant document reviews, contractor billings, building project budgets, consultant and technology contracts.
699	Participate in and manage all phases of a project from concept to system implementation and user training.
11	Monitor various projects to insure maximum effectiveness and compliance.
405	Conduct or assist with conducting a professional development needs analysis in order to determine new or revisions to employee training programs.
539	Participate in the development and implementation of staff development activities.
4	Develop and train staff. Perform needs analysis, arrange, coordinate, deliver, evaluate, and/or monitor staff development.

* Page: 1

Continued *



Appendix P: QEP rubric to assess outcomes using scenarios

Palm Beach State College Quality Enhancement Plan / Analytical Rubric for Grading Scenarios

	1: Not competent	2: Minimally competent	3: Developing	4: Competent	5: Exemplary	Score
Outcome 1 Students are able to analyze and interpret relevant information. Associated Skills • gather information • identify assumptions, reasons given, or claims made • determine meaning in context of given information for the given purpose	Student makes no attempt to use or demonstrate skills associated with outcome.	Student attempts to demonstrate some or all of the associated skills. However, the attempt is inaccurate, incomplete, and information.	Student attempts to demonstrate some or and of the associated skills. However, the attempt is miscerate, incomplete, or importante as applicable to the given information.	Student accurately, completely, and appropriately demonstrates some or all of the associated skills. However, there is nothing to distinguish the response from peer responses.	Student accurately, completely, and appropriately demonstrates some or all of the associated skills. Additionally, the response is easily distinguished from peer responses.	
Outcome 2 Students are able to reach conclusions based on a dudents are able to reach conclusions based on Associated skills • provides reasons or evidence for conclusion • considers various points of view • considers implications or consequences of actions • separates fact from opinion	Student makes no attempt to use or demonstrate skills associated with outcome.	Student attempts to demonstrate some or all of the associated skills. However, the attempt is inaccurate, incomplete, and indopropriate as applicable to the given information.	Student attempts to demonstrates some or all of the associated skills. However, the attempt is inaccurate, incomplete, or inappropriate as applicable to the given information.	Studen accurately, completely, and appropriately and demonstrates some or all of the associated skills. However, there is nothing to distinguish the response from peer responses.	Student accurately, completely, and appropriately and demonstrates some or all of the associated skills. Additionally, the response is easily distinguished from peer responses.	
Students are able to evaluate and explain relevant information. Associated skills associated skills associated skills weaknesses in given information weaknesses in given information in dentify additional information that may be presented in approaching the situation presented identify alternate interpretations, explanations, or solutions	Student makes no attempt to use or demonstrate skills associated with outcome.	Student attempts to demonstrate some or all of the associated skills. However, the attempt is maccured, incomplete, ord importopriate as applicable to the given information.	Student attempts to demonstrate some or all of the associated skills. However, the attempt is inaccurate, incomplete, or inappropriate as applicable to the given information.	Student accurately, completely, and appropriately demonstrates some or all of the associated skills. However, there is nothing to distribusish the response from peer responses.	Student accurately, completely, and appropriately demonstrates some or all of the associated skills. Additionally, the response is easily distinguished from peer responses.	m

TOTAL SCORE FOR OUTCOME SCORES:	RESPONSE SCORE (OUTCOME TOTAL DIVIDED BY 3):	

February 2012

BELLE GLADE
1977 College Drive

BOCA RATON 3000 Saint Lucie Avenue

LAKE WORTH 4200 Congress Avenue

PALM BEACH GARDENS 3160 PGA Boulevard



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