Explore, Evaluate, Express, and Engage
A Quality Enhancement Plan to improve student learning
by focusing on critical thinking

Year 4
Quality Enhancement Plan
Annual Report

PALM BEACH STATE
COLLEGE

October, 2016

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Initial Goal and Intended Outcomes of the QEP

Palm Beach State College (PBSC) chose to focus its QEP on critical thinking, which is defined as using the skills needed to explore, evaluate, express, and engage in purposeful reasoning in order to reach sound conclusions, decisions, positions, and/or solutions. By design, the QEP positioned faculty and staff to help students improve their ability to interpret and analyze, to draw sound and relevant conclusions using a reasoning process, to evaluate and explain information, and to exhibit critical thinking dispositions. The QEP officially launched in the fall of 2012 and continues until the spring of 2017.

Over the four years of its implementation, the success of the QEP has been determined by developing a clearly defined goal and measurable learning outcomes. Towards this end, the Palm Beach State College QEP has established the following goal and learning outcomes:
- 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

To maximize the stated learning outcomes, the College annually dedicates funding to support QEP initiatives. As in preceding years, the 2015-2016 budget allocations covered the cost of resources and staffing necessary to implement the plan as required by SACSCOC.

QEP Implemented Strategies

The primary strategy of the QEP is a focused integration of critical thinking into the classroom in all academic programs. Integration occurs through professional development and through the development of program-specific critical thinking outcomes in career-oriented programs. Additionally, educational support areas have identified and developed critical thinking learning outcomes. This action instills a college-wide focus on critical thinking outside the classroom. A final supporting action includes the development of a critical thinking resource center on all campuses and online. The following is a description of the actions being implemented.

Professional Development: Two levels of ongoing faculty and staff development have been integrated on a cyclical basis and informed by spring 2012 pilots. This tiered level of training maximizes opportunities for the College to develop and sustain a professional development program that focuses on critical thinking in order to seamlessly integrate critical thinking into the curriculum and into other interactions with students. Although the emphasis is on critical thinking in the classroom, efforts have also been made to include educational support staff and other employees on a regular basis. Level 1 introductory training offers participants an overview of critical thinking, with some study of a particular critical thinking topic, the QEP outcomes, rubric, and assessment practices. It occurs in workshops, within the college-wide Development Day activities, Professional Teaching and Learning Center (PTLC) events and in required training for new faculty and adjuncts.

Each fall semester, a cohort of faculty and staff have been 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. However, the collaboration cohorts transitioned to a learning community model called Professional Learning Groups (PLGs) during the 2014-15 academic year.

Assessing Critical Thinking Outcomes: Program directors and associate deans participated in a review of QEP outcomes and the QEP rubric. By the fall semester in 2012, all career programs identified outcomes specific to critical thinking and reported the outcomes to the Instructional Research and Effectiveness (IRE) office. By

spring of 2013, programs also reported the assessments and benchmarks for success of their critical thinking outcomes.

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

<u>Critical Thinking in Educational Support Services</u>: Supervisors and staff in various areas of educational support services have the flexibility to develop annual strategies deemed appropriate for their specific programs. Examples include collaborative project development by faculty and staff through the PLGs and training for SLC tutors that emphasizes the application of critical thinking in effective tutor-student interactions (piloted in 2011, implemented in 2012, 2015, and 2016)

<u>Critical Thinking Resource Centers</u>: An important benefit of professional development has been access to resources that advance faculty and staff understanding and practice of critical thinking instruction and assessment. As successful strategies have been identified, faculty and staff who use them are featured college-wide on the QEP and Panther Online Learning Objects (POLO) webpages and, when possible, by live demonstration of the practice during training. Also, critical thinking resources that are purchased have been kept on each campus in both the Professional Teaching and Learning Center (PTLC) and within each campus library.

During the past four years of the QEP, critical thinking in teaching and assessment has steadily become a defining characteristic of the college culture at Palm Beach State. In particular, a collaborative culture has fostered a learning environment in which student motivation and ability to think critically has increased. This new collaborative culture is an outgrowth of purposeful professional development and assessment of student critical thinking. The QEP professional development initiatives have focused on involving many faculty and staff participation in Level 1 introductory training and Level 2 collaborative cohort training while the assessment initiatives have focused on implementing various direct and indirect measures of critical thinking skills and dispositions.

Changes to the QEP & Reasons for the Changes

The QEP has remained focused on the four strategies, however, some adjustments and modifications to the plan, as described in Table 1 below, have been implemented over the 4 years of the QEP.

<u>Table 1</u>: **Changes to QEP and Reasons for Changes**
Professional Development
The implementation of collaboration cohorts was modified slightly in Year 2 and revised for subsequent years. The original cohort became cohesive as members continually focused on helping each other reach the QEP goal of guiding students to develop and apply critical thinking skills. The original cohort also became very good at developing "exposure" and "education" type activities such as workshops and seminars for colleagues. However, longer-term "engagement" type activities were not as easily developed. Two results manifested during Years 1 and 2 that justify the revision of the collaboration cohort initiative. First the original cohort structure had a "wide but not deep" impact as evidenced by offering 42 different workshops and seminars that reached nearly 300 faculty and staff. This success exposed the college community to critical thinking but did not allow for the structure necessary to expand cohorts and strengthen classroom instruction.

Also, it became evident that there was a "disconnect" between faculty and the QEP assessment plan as made apparent from QEP leadership survey responses such as:

-Assessment has been frustrating because the instruments selected to measure student learning, although appropriate for the QEP outcomes, do not necessarily measure what is being taught in the classroom. Additionally, students who are selected do not have incentive to perform well because assessment is not linked to their course grade. If data are to be useful to faculty in their attempts to improve instruction, the data must be collected in ways that are more relevant to what is being taught in individual classrooms.

- These issues are known to exist with most large-scale assessment processes, but they might be more readily addressed within QEP assessment.

Because of these original cohort structure challenges, <u>collaboration cohorts transitioned to Professional Learning Groups (PLGs)</u> during the 2014-15 academic year (Year 3). Eight existing cohort members completed formal PLG facilitation training just prior to the fall 2014 semester and then six of the eight leaders launched and facilitated six PLGs on their campuses throughout the year (Year 3). In year four, a seventh PLG began meeting and 4 four additional leaders completed PLG facilitation training. Most PLG's membership comprised faculty and instructional staff, but some groups also included academic support and student services staff. PLG membership ranged between six and eight members, but one campus-based group comprised 10 faculty and staff members. Groups met for two hours each a few times in the fall semester and a few times in the spring semesters.

In May 2015, the QEP, in partnership with the Title V Pathways to Success Federal Grant at the college, launched the <u>Title V Summer Institute as an enhancement to the collaboration cohort transition (PLGs)</u>. As written into Faculty Professional Development section of the Title V Grant, the Summer Institute aimed to bring together a select group faculty and staff committed to formulating, planning and implementing a critically thinking focused instructional project. Among the 30 chosen faculty and staff selected to enroll, 25 participants developed new or revised current critically thinking focused instructional strategies, assignments or assessments. In addition, four participants prepared to lead a PLG during the 2015-16 academic year by devoting their Summer Institute efforts to facilitation training.

Due to a shift in Title V focus for the 2015-16 and revision to the Title V grant, faculty and staff were not able to participate in the 2016 Summer Institute. Instead, the QEP leadership implemented a third PLG facilitation training event to support the growth in PLG membership and change in PLG leadership.

Assessing Outcomes

The requirement for sections selected for QEP assessment was that the <u>mean number of credits earned</u> was 35, not 45 as was written in the plan. This revision occurred as a result of changes to the general education assessment process that went into effect during the first year of QEP implementation. The QEP assessment plan was designed to be integrated with the general education process to ensure institutional capability, so this minor change in sample selection was in line with the original intent of the plan.

The original plan stated (page 49) that the <u>California Critical Thinking Disposition Inventory (CCTDI)</u> would be administered annually to randomly selected students during the general education assessment process. Instead, a more accurate description reads, "students are sampled from among those taught by faculty who have been involved with QEP implementation and not the general population of students." This note is to document a correction to the narrative, not a change in the plan.

A college-wide move to <u>embedded assessment</u> for general education outcomes had been anticipated as the QEP was written when critical thinking was a general education learning outcome. However, in 2013, the College revised the general education learning outcomes to align with the general education categories –

Communications, Humanities, Mathematics, Natural Sciences and Social Sciences. The critical thinking learning outcome, along with ethics, global awareness and information literacy, at that time, became defined as Institutional Outcomes which were designed to measure the Associate of Arts degree as well as career-oriented programs, as appropriate. The College's plan to introduce embedded assessment began in fall 2013 with the general education program. Once this was fully integrated, the embedded assessment process expanded to include the Institutional Learning Outcomes, including critical thinking.

Administration of The Community College Survey of Student Engagement (CCSSE) occurred during the Spring 2016 semester after a three year postponement due to a funding shortage. Also, while the intent was to offer classroom assessment as a direct measure early on, it had not been feasible for implementation due to QEP staff changes in 2015. However, during the 2015-16 academic year a few faculty who completed assessment projects during the Title V Summer Institute, began implementation and set the groundwork for additional classroom assessment in the final year of the QEP.

Educational Support Services
No changes or modifications occurred.

Resource Centers
Although resources were well established by the end of Year 2, very few faculty, instructors, and staff actually requested or used the resources. To counteract the limited reach and impact, the QEP leadership, in Year 3, developed a QEP Critical Thinking Quick Guide for distribution to all college employees who work in an instructional or academic support role. At the beginning of Year 4, the QEP leadership distributed over 2,100 newly created QEP Critical Thinking Quick Guides to all full and part-faculty and instructors and also to staff allied to the academic mission of the college. The QEP leadership conducted numerous workshops and presentations through the college Professional Teaching and Learning Center (PTLC), Development Day sessions, and the Student Learning Center (SLC) to support application of Quick Guide to course instruction and tutoring.

Impact on Student Learning

Overview
During the 2015-16 academic year, student learning assessment occurred through the implementation of three direct measures and one indirect measure. The instruments directly measuring student learning included: the *California Critical Thinking Disposition Inventory* (CCTDI) and General Education Scenarios, and Course Assessments. The institution discontinued the *California Critical Skills Test* (CCTST) and the *ETS Proficiency Profile* (ETS) direct measure. The *Graduating Student Survey* and *the Community College Survey of Student Engagement (CCSSE)* were the two instruments used for indirect measurement of student learning. Both the direct and indirect instruments and data collection are described in Table 2 below.

Table 2: Description of Measures and Data Collection				
Direct Measure Instruments	**Year 1: 2012-13**	**Year 2: 2013-14**	**Year 3: 2014-15**	**Year 4: 2015-16**
California Critical Thinking Skills Test CCTST): Multiple-choice test that directly measure three outcomes: analysis and interpretation; inference; evaluation & explanation. Students randomly selected during (1) Gen. Ed. Outcomes Assessment cycle & (2) sections taught by QEP faculty.	(1) 107 Students in five sections. (2) 119 students in six sections	(1) 112 students in five classes. (2) 114 students in four sections selected.	(1) 110 students in five classes. (2) 38 students in two sections taught.	Institution discontinued use of this instrument profile after Fall 2014 assessment.

Scenarios: Faculty-developed situation. Students provide a written response. Scores measure: analysis and interpretation; inference; evaluation and explanation. (1) Students randomly selected during Gen. Ed. Outcomes Assessment cycle and (2) sections taught by QEP faculty. Scored with QEP Critical Thinking rubric.	90 students	80 students	(1) 90 students (2) An additional 112 students selected from 5 sections taught by QEP faculty.	(1) 111 students (2) An additional 63 students selected from 3 sections taught by QEP faculty.
California Critical Thinking Disposition Skills Inventory (CCTDI): Survey of student response to statements that measure willingness to think critically; measures QEP Outcome 4. Students assessed in sections taught by QEP faculty.	136 students in eight classes;	219 students in 12 classes	124 students in nine sections (two dev. writing, two dev. math, three education, and two dental classes).	104 students in five sections (2 natural science, 1 dev. writing, 1 writing, and 1 student life skills).
Course Assessments: QEP faculty designed course assignments that measured the QEP outcomes: analysis and interpretation; inference; evaluation and explanation.	N/A	N/A	N/A	435 students in sixteen sections (12 social science and 4 writing)
Literature Embedded Assessment: Literature facutly assess literature course student's ability to analyze the characteristics of a particular literary work.	N/A	(1) 1146 students (2) # of sections not available	1518 students (2) 45 course sections	(1) 2139 (2) 64 course sections
ETS Proficiency Profile: Multiple-choice test includes total score for student proficiency in critical thinking. Students in sections randomly selected during General Education Outcomes Assessment cycle.	360 students	390 students	Institution discontinued use of this instrument profile after Fall 2013 assessment.	
Indirect Measure Instruments	**Year 1: 2012-13**	**Year 2: 2013-14**	**Year 3: 2014-15**	**Year 4: 2015-16**
Graduating Student Survey Palm Beach State College internal survey; indirect measure of outcomes. Students responded to a question regarding how well the College prepared them to think critically	722 students; collected June 2012 through May 2013	605 students; collected June 2013 through May 2014.	569 students; collected June 2014 through May 2015.	713 students; collected June 2015 through May 2016
Community College Survey of Student Engagement (CCSSE) Provides college specific critical thinking data based on four benchmarks: Active and collaborative learning, student effort, academic challenge, and student-faculty interaction.	N/A			1566 students; collected in Spring 2016 semester

The 2015-2016 results represent the fourth full cycle of implementation for the Scenario and the first cycle of implementation for the course assessments. Results were compared to the baseline data and target or to previous year results as appropriate per the QEP assessment plan. A summary of results for the Scenarios reveals that results continue to fall below the 10% above baseline target.

The course assessments developed by three faculty for their respective sociology, psychology and composition courses offer a more targeted approach to measuring student learning of critical thinking. In contrast to the Scenarios, the course assessments met their benchmark in their initial year. Although, in its initial year, the course assessments were conducted for only three courses, the data provided a much larger sample size for measurement compared to the scenarios.

The QEP continued to measure the fourth QEP learning outcome, critical thinking dispositions, through the administration of the CCTDI. Unlike the previous year, Year 4 results show a significant upswing in open-mindedness, confidence in reasoning, and most notably in inquisitiveness. Not only did the CCTDI results meet the target, but the overall score was the second highest since administration began in spring 2012.

Starting in the fall of 2013, the General Education Assessment Committee developed embedded assessments to measure each general education learning outcome. Within the humanities, the literature faculty developed a 5-point rubric that measures how students "Analyze the characteristics of a particular literary work." which literature faculty adapted from the QEP Outcome #1 "Analysis and interpretation of relevant information." There is continuing upward trend above the target score of 3.0 for the second and third cycle of the literature embedded assessment which demonstrates student's ability to competently apply analytical thinking to literature. The achievement target is 3.0, the score that faculty defined as "competent," and students continually met this target in the literature courses. This is the first year the QEP has reported this literature assessment data as the QEP leadership was only made aware of this adaptation of the QEP outcome 1 in fall 2016. Detailed results for the all direct assessment measurements can be found below in Table 3.

Table 3: QEP Student Learning Outcomes Direct Measure Results						
Measure	**Baseline Spring 2012**	**Year 1 2012-13**	**Year 2 2013-14**	**Year 3 2014-2015**	**Year 4 2015-16**	**Target**
Students will demonstrate a 10% increase over baseline scores on outcomes 1-3						
CCTST (max: 34)	12.33	15.1*	14.0	14.6	Discontinued	13.6
Scenario (5 pt. scale)	3.04	2.51	2.61	2.8	2.70	3.34
Course Assessment (5 pt. scale)	N/A	N/A	N/A	N/A	3.73	3.34
Literature Embedded Assessment (5 pt. scale)	N?A	N/A	4.03	3.75	3.79	3.00
ETS Proficiency Profile	110	110	110	Discontinued	Discontinued	121
Students will exhibit affective dispositions known to characterize critical thinkers						
CCTDI	302.3	304.9 Met	300.9 Not Met	295.2 Not Met	304.5 Met	Annual Improvement
Notes						
CCTST – baseline results reported to two decimal places but one decimal place thereafter. Scenario – original instrument was revised after multiple inter-rater reliability sessions during pilot semester. Course Assessment – target score derived from Scenario target due to use of similar critical thinking outcomes. CCTDI - Score ranges from 10-19 range = Strong Negative; 20-29 = Negative; 30-39 = Inconsistent/Ambivalent; 40 -49 = Positive; 50-60 = Strong Positive (Source: CCTDI Instrument User's Manual, Insight Assessment /The California Academic Press 2016.)						

With regard to indirect measures, results from the GSS in Table 4a indicate that students contend that their Palm Beach State College education has engaged them in "…purposeful reasoning to reach sound conclusions." More specifically, as with each previous year, Year 4 results met their target although the results are a slight reduction in support compared to the previous year. Also, for the first time, the QEP was able to draw critical thinking data from the CCSSE. In aggregate, student perception of how our college addresses critical thinking across the five benchmarks (active and collaborative learning, student effort, academic challenge, student –faculty interaction, and support for student learnings) saw no statistically significant difference in score from our 2011 benchmark or from the 2015 extra-large college average. So, in comparison to both the benchmark and extra-large colleges' ratings, our students indicated that Palm Beach State College is consistent with the ratings of colleges of our size across the country and that we remain flat in student perception of our engagement of critical thinking. Detailed results for can be found below in Table 4b.

Table 4a: Results of Indirect Measures of QEP Success – Graduating Student Survey					
Baseline	**Year 1** **2012 -2013**	**Year 2** **2013-2014**	**Year 3** **2014-2015**	**Year 4** **2014-15**	**Target**
Student ratings on Question 16 from Palm Beach State Graduating Student Survey will meet or exceed baseline and improve annually. **Question 16**: Please rate how you feel Palm Beach State has helped you increase your achievement on the "critical thinking" outcome – "Engage in purposeful reasoning to reach sound conclusions."					
2009-2010: 4.14	4.2 (5 pt. scale)	4.3 (5 pt. scale)	4.4 (5 pt. scale)	4.29 (5 pt. scale)	> 4.14 with repeated annual improvement

Table 4b: Results of Indirect Measures of QEP Success - CCSSE					
Baseline	**Year 1** **2012 -2013**	**Year 2** **2013-2014**	**Year 3** **2014-2015**	**Year 4** **2014-15**	**Target**
Student ratings on selected questions from the Community College Survey of Student Engagement (CCSSE) will meet or exceed baseline and exceed natl. benchmark**.** Avg. on questions related to integration of critical thinking in courses at PBSC. CCSSE items included in average score					
Question 4: In your experiences at this college during the current school year, about how often have you done each of the following: (d) Worked on a paper or project that required integrating ideas or information from various sources (n) Discussed ideas from your readings or classes with instructors outside of class (r) Discussed ideas from your readings or classes with others outside of class					
2011/2.68	Not administered			2.4 (4 pt. scale)	< both 2.68 & > Natl. Benchmark (2.39)
Question 5: During this current school year, how much has your coursework at this college emphasized the following mental activities? (b) Analyzing the basic elements of an idea, experiences, or theory (c) Synthesizing and organizing ideas, information, or experiences in new ways (f) Using information you have read or heard to perform a new skill					
2011/2.68	Not administered			2.86 (4 pt. scale)	= 2.68 & < Natl. Benchmark (2.88)
Question 12e: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas? e: Thinking critically and analytically					
2011/2.68	Not administered			2.99 (4 pt. scale)	> both 2.68 & Natl. Benchmark (2.98)

To address the challenge of maintaining college faculty and staff interest in the various QEP professional development opportunities, the QEP, in Year 4, addressed fresh topics in critical thinking based on faculty and staff assessment and instruction experience. This approach drew on the critical thinking expertise of the growing cadre of QEP leadership and, accordingly, PBSC instructional staff came to learn from their colleagues. Specifically, Level 1 professional development saw the strongest results to date for both instructional and non-instructional staff: as of spring 2016, 66 % of all instructional staff have been engaged in a level one professional development event and included 479 non-instructional staff, which is the highest number of participants to date and the highest year to year participant increase.

To reach the "indicator of success" for participation in Level 2 collaborative cohorts, 95 faculty and staff need to participate in a critical thinking PLGs by 2017. The QEP continues to make steady progress and has reached 79 participants or 83% of its goal. Towards this aim, a total of 63 faculty and staff regularly committed to PLG participation during the second year.

Of further note, PLG participation has led to the cultivation of a critical thinking consciousness among a group of faculty, instructors, and staff many of whom applied their growing expertise in critical thinking instruction through various college professional development forums. In fact, one member presented evidence from his critical thinking course assessment at a national college teaching and learning conference and has submitted his finding

to a scholarly journal and for the 2016 Florida Chancellor's Best Practice Award. However, based on a survey, PLG participants expressed a decrease from previous years in their knowledge and understanding of critical thinking and QEP outcomes while at the same time indicating a continued increase in their desire to learn more about teaching/assessing critical thinking. This data will be discussed with the QEP Support Committee to consider if this decrease is due to ongoing PLG participants reaching a saturation point in their knowledge attainment and if any new strategies can help improve this result. Lastly, there was an unprecedented 50% increase in non-instructional staff participation in QEP led professional development events. This sharp increase in participation may be due to the increase in the number of PTLC and Development Day events offered by QEP leadership on key critical thinking topics, but because of a large number of professional development workshops offered to support the application of the newly published QEP Critical Thinking Quick Guide by academic support staff. Data which more fully describes the professional development progress can be found in Tables 5 & 6 below.

Table 5: Results of Level 1 Professional Development Initiatives				
Desired outcome	**Year 1 2012-2013**	**Year 2 2013-2014**	**Year 3 2014-2015**	**Year 4 2015-2016**
At least 80% of participants will increase knowledge and understanding of critical thinking & increase desire to learn more about teaching & assessing critical thinking.*	Not assessed	N=41; 100% agree	Not applicable	Not applicable
By fall 2013, 100% of incoming new faculty/adjuncts will participate in L1PD.	Not applicable	Implemented; L1PD integrated into new adjunct training & new faculty orientation so that 100% of incoming faculty & adjuncts participate		
By 2017, at least 50% of instructional staff will have participated in L1PD. (*total unduplicated count*)	18.9% to date 224 of 1,188 224 total new	44.1% to date 545 of 1,235 321 total new	62.2% to date 751 of 1207 206 total new	66.5% to date 975 of 1466 224 total new
By 2017, non-instructional staff participating in L1PD will have increased annually.	154	295	306	479
Notes				
*Because of changes beginning in Year 3 (2014-15), QEP team members weren't required to offer CT Workshops (Level 1 PD).				

Table 6: Results of Level 2 Professional Development Initiatives				
Desired outcome	**Year 1 2012-2013**	**Year 2 2013-2014**	**Year 3 2014-2015**	**Year 4 2015-16**
Avg. student scores on CCTST will exceed gen. ed. Sample (max:34)	Gen Ed: 15.1 QEP: 15.8	Gen Ed: 14.0 QEP: 13.2	Gen Ed: 14.3 QEP: 15.6	Not assessed
Avg. student scores on critical thinking scenario will exceed gen. ed. sample*	QEP sections assessed in CCTST only		Gen Ed: 2.9 QEP: 2.7	Gen Ed: 2.9 QEP: 2.7
At least 80% of participants will **agree knowledge & understanding of QEP outcomes increased**	Not assessed	Not assessed	N=29, 93% agree	N=21; 86% agree
At least 80% of participants will agree that participation has **increased their knowledge and understanding of critical thinking**	N=11; 100% agree	N=10; 90% agree	N=20, 93% agree	N=22; 86 % agree
At least 80% of participants will agree that participation has increased desire to learn more about teaching/assessing critical thinking	N=11; 100% Agree	N=10; 90% Agree	N=29, 93% Agree	N=22; 95% agree

By 2017, at least 95 faculty or staff will participate in QEP cohort to improve instruction/ professional practice.	26 total to date	28 total to date	62 total to date	79 total to date
Note				
*While this is a direct measure of student learning, the intent was to see if there is a difference when taught by QEP faculty				

As described in Table 7, a steady annual increase in outcomes beginning with 235 in the first year of the QEP to 364 in the fourth year has been identified among the career program outcomes that align with the QEP critical thinking outcomes. Also, of the outcomes identified, 81% of career program assessed met their targeted benchmark and reflect a continued slight increase over the span of the QEP. Also, a steady increase in educational support outcomes continued for the fourth years of the QEP with an increase from 17 to 19 outcomes that support critical thinking. This increase is due to the outcome revisions that occurred in some areas in an effort to focus more on assessing critical thinking. These revisions resulted in an overall increase in critical thinking outcomes and therefore, there are now more outcomes that support critical thinking in educational support areas. However, there was a significant decrease to 53% of those educational support outcomes that met their targeted benchmark.

Table 7: Results of Supporting Strategies Critical Thinking Outcomes in Career Programs & Educational Support Areas				
Desired outcomes	**Year 1** **2012-2013**	**Year 2** **2013-2014**	**Year 3** **2014-2015**	**Year 4** **2015-2016**
By fall 2012, critical thinking outcomes in programs will be identified, aligned to QEP & assessed in program cycle.	235 outcomes in 100% of programs; 182 assessed	342 outcomes in 100% of programs; 294 assessed	353 outcomes in 100% of programs: 349 assessed	364 outcomes in 100% of programs: 279 assessed
By 2013-2014, critical thinking outcomes will be reported annually.	143 out of 182 assessed (78.57%) met benchmark	237 out of 294 assessed (80.61%) met benchmark	275 out of 349 assessed (78.79%) met benchmark	225 out of 279 assessed (81%) met benchmark
By fall 2013, outcomes will be identified in educational support areas & during assessment cycle.	10 outcomes; 2 assessed[1]	12 outcomes identified; 100% assessed	17 outcomes identified; 100 % assessed	19 outcomes identified; 100% assessed
By 2013-2014, critical thinking outcomes will be reported annually.	2/2 met benchmark	100% met benchmark	64 % met benchmark	53 % met benchmark

Starting in early fall 2015, the QEP distributed over 2100 Critical Thinking Quick Guides as a resource for faculty and staff to stimulate course instruction, assessment, and educational support of the four QEP Critical Thinking learning outcomes. Of the 250 respondents to the QEP Quick Guide Survey, 48% indicated that as of November 2015, they had used the Quick Guide to support course instruction or services to students and 71% indicated have used or plan to use the guide for assessment purposes.

To help faculty and staff infuse critical thinking skills and develop student dispositions through course learning, the QEP offered a variety of training to new adjunct faculty through our online Faculty Development Course, to student learning center staff and tutors, and presentations to faculty and instructors through each campus PTLC and during both the fall and spring college Development Days. Through these efforts, the QEP collected a multitude of sample Quick Guide planning worksheets from participants for dissemination to the college community through the Quick Guide section of the QEP webpage and Panther Online Learning Objects (POLO). In addition, based on math faculty and staff feedback, a request to create a subject specific guide for critical thinking in math was agreed upon and is under development. The various support strategies are described in Table 8 below.

Table 8: Results of Supporting Strategies - Critical Thinking Resources	
Desired outcomes: Inventory will increase annually on campus or online.	
Year 1 2012-2013	3 resources available for check-out on each campus. 1 resource (*A Guide for Educators to Critical Thinking Competency Standards,* Paul & Elder, 2007) distributed to all faculty, instructors, and adjuncts, and some staff. 37 resources added to online repository (POLO[2]) Survey respondents will agree that resources are useful. Not assessed
Year 2 2013-2014	23 additional resources added to each campus inventory. 3 additional resources added to online repository (POLO[2]). 2500 Quick Guides created to distribute to faculty and staff 11 of 16 users returned feedback. All agreed or strongly agreed that resources are useful for improving practice.
Year 3 2014-2015	2500 Quick Guides created to distribute to faculty and staff No surveys conducted
Year 4 2015-2016	2115 Quick Guides distributed to faculty, instructors, and staff. Specialized Math Quick Guide under development. To be distributed in Fall 2016 to Math instructional staff and support staff. 14 discipline-specific Quick Guides created & added to POLO repository. 2 assessment videos created by faculty & added to QEP webpage & POLO repository 48% (119) of survey respondents report using Quick Guide to support course instruction or services to students

SACSCOC Section 4: Reflection on What the Institution has Learned

At the end of four years, critical thinking is becoming an integral part of student learning throughout the College. Relatedly, many educational support program staff have a common understanding of what is happening in the classroom, and on a regular basis, program managers and staff are seeking avenues to support learning related to their 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 enters its final year and the College prepares to institutionalize the QEP projects and initiatives, the critical thinking focus within professional development, course assessment, and the integration of critical thinking into the classroom is becoming inescapable at Palm Beach State. With the anticipated widespread 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 the QEP assessment results.

Professional development
Equipping faculty and staff to help students develop critical thinking skills continues as the primary focus of professional development. During Year 4, the QEP team further offered opportunities to expose and educate the college community about critical thinking as evidenced by: robust participation in several one-time learning opportunities, the updated faculty development course, 7 campus-based PLGs, and the dissemination and utilization of the Critical Thinking Quick Guide by faculty, instructors and staff.

The institution has observed a continuous improvement in faculty and staff professional development that focuses on the integration of best practices for teaching and assessing critical thinking. To ensure professional development remains a priority, an emphasis on expanding PLGs will continue into Year 5. Also, the institution has learned that to make assessment most useful to faculty and students, it needs to continue to grow the number and variety of course assessment processes whereby class specific assignments and embedded assessments like the literature assessment measure student gains in learning consistent with the QEP critical thinking outcomes. To add, it is evident that while faculty are still engaged in their pursuit of teaching critical thinking, there is a need for a robust conversation regarding why student learning of critical thinking exhibits mixed results. As a result of this

finding, the institution will explore why learning gains are not coming to fruition and what change in approach will improve student learning.

Career programs and Educational Support Areas
The QEP has further promulgated a focus on critical thinking by ensuring that all career programs and selected educational support areas include critical thinking outcomes. Career program assessment has advanced through a process that includes: the measurement of critical thinking outcomes and improvement as needed, and the achievement of a relatively steady percentage of critical thinking outcome benchmarks.

Critical Thinking Resources
The institution has learned that a better job must be done to promote the availability of resources and as a result, the new Quick Guide will be promoted and distributed during various fall 2015 semester meetings and events. Also, to reach beyond material critical thinking resources, the QEP leadership has developed the QEP webpage as a launching point for access to a large a variety of critical thinking resources such as instructional videos, samples of faculty and staff assignments and projects, and an electronic version of the Critical Thinking Quick Guide to include samples of faculty and staff application of the guide to various academic topics.

2015-16 Recommendations for Improvement in 2016-17

QEP initiatives will continue into the final year of implementation in 2016-2017 with changes described in this report on pages 12 and 13. The following recommendations for improvement are suggested based upon evaluation and review of year one through four results by the QEP manager, QEP teams, and staff from the Office of Vice President of Academic Affairs.

Work directly with faculty from the PLGs and the QEP Support Committee members to develop additional classroom activities or assignments that can be assessed with the QEP rubric, an adapted version, or another instrument offered by faculty that will measure the QEP outcomes. Also, to demonstrate the full impact of the PLG member's increased capacity to impact student critical thinking, the QEP leadership will request that all PLG participants provide concrete evidence (i.e. assignments, instructional practices, and application of classroom technology) of their involvement. While this report documents a few examples of faculty measurement of the QEP outcomes through course assignments, additional faculty (both PLG members and non-PLG members) and instructors need to be recruited and supported at the outset of the final year to gather the data they collect around critical thinking in student learning. Because only a small number of data sets were collected in the initial year, the year 4 data will only be sufficient baseline data for those faculty who continue to measure and report their critical thinking classroom assessment data. All new faculty and instructors recruited in Year 5 will strictly offer a baseline of results prior to the submission of the QEP Impact report.

The QEP will continue to expand the community of active faculty and staff committed to advancing student critical thinking development by creating a Math Critical Thinking Quick Guide. The guide, which is under development, will be distributed electronically through the QEP webpage, the college learning management system, and possibly as a printed copy through various meetings and events.

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