



Tarrant County College District
Quality Enhancement Plan, 2013
PowerOn: Critical Thinking
On-site Review: November 19-21, 2013

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List of Acronyms

ACCT 2301	Principles of Financial Accounting (course)
AOA	Administrative Office Assistant
ARTS 1301	Art Appreciation (course)
ARTS 1316	Drawing I (course)
ATD	Achieving the Dream
BCIS 1405	Business Computer Applications (course)
BIOL 1406	Biology for Science Majors I (course)
BIOL 1408	Biology for Non-Science Majors I (course)
BIOL 1409	Biology for Non-Science Majors II (course)
BIOL 2401	Anatomy and Physiology I (course)
BIOL 2402	Anatomy and Physiology II (course)
BMGT	Communications in Management (course)
BUSI 1301	Business Principles (course)
CAAP-CT	Collegiate Assessment of Academic Proficiency Critical Thinking test
CCSSE	Community College Survey of Student Engagement
CCTST	California Critical Thinking Test
CELT	Chancellor's Executive Leadership Team
CHEM1406	Introductory Chemistry I (Allied Health Emphasis) (course)
COSC1401	Introduction to Computing (course)
CT	Critical Thinking
DL	Distance Learning
DRAM1310	Introduction to Theatre (course)
DSS	Disability Support Services
ECON 2301	Principles of Macroeconomics (course)
ECON 2302	Principles of Microeconomics (course)
ENGL 1301	English Composition I (course)
ENGL 1302	English Composition II (course)
F	Fall (semester)
FLC	Faculty Learning Community
FT	Full-time (faculty)
FTIC	First-Time-in-College
GEOL 1403	Physical Geology (course)
GOVT 2305	Federal Government (course)
GOVT 2306	Texas Government (course)
HIST 1301	United States History I to 1876
HIST 1302	United States History II since 1876
ICAT	International Critical Thinking Essay Test
ILSHE	Information Literacy Standards for Higher Education
IR	Institutional Research

IRPE	Institutional Research, Planning and Effectiveness
LibGuides	Library Guides
MRKG	Principles of Marketing (course)
MUSI 1306	Music Appreciation (course)
NE	Northeast Campus of TCCD
NW	Northwest Campus of TCCD
PF	<i>PowerOn</i> Faculty
PHED 1164	Introduction to Physical Fitness and Sport (course)
PHIL 1301	Introduction Philosophy (course)
PSYC 2314	General Psychology (course)
PT	Part-time (faculty; also known as adjuncts)
QEP	Quality Enhancement Plan
S	Spring (semester)
SE	Southeast Campus of TCCD
SENSE	Survey of Entering Student Engagement
SLO(s)	Student learning outcome(s)
SO	South Campus of TCCD
SOCI 1301	Introduction to Sociology (course)
SPAN 1411	Beginning Spanish I (course)
SPCH 1311	Introduction to Speech Communication (course)
SPCH 1321	Business and Professional Communication (course)
SU	Summer (semester)
TCC	Tarrant County College
TCCD	Tarrant County College District
TFA	The Faculty Academy
THECB	Texas Higher Education Coordinating Board
TR	Trinity River Campus of TCCD

Executive Summary

PowerOn: Critical Thinking is Tarrant County College District's (TCCD) comprehensive plan to enhance the quality of student learning. The plan targets the development and improvement of critical thinking skills in students taking key Core Curriculum courses. Intensive learning experiences provided by faculty members focused on pedagogy that increases the explicit use of critical thinking in the classroom is vital to the success of this plan. Campus support systems in academic laboratories, tutoring centers, libraries and other support services will supplement the key efforts of faculty members. The broad-based efforts of this plan align with TCCD's mission and goals of emphasizing student learning, as established during the planning process of the District that revisited the mission and developed the strategic plan, *Vision 2015*.

TCCD is a large urban multi-campus community college receiving a high percentage of incoming students who need developmental course work; success in those courses has an impact on success in college-level courses. With efforts already in place to improve student learning at the developmental level, faculty members showed a keen interest in improving student learning in college-level courses. The following courses form the foundation for the QEP because they are high-enrollment courses taken by students beginning their college work: English Composition I, Federal Government, General Psychology, Introduction to Speech Communication and United States History I to 1876. As the five-year plan is implemented, more courses will be added with more than 400 faculty members expected to participate.

TCCD developed the fundamental components of the Quality Enhancement Plan (QEP) through a process that involved students, faculty members, staff and administration. Essential to the plan was the development of an operational definition of critical thinking as *an active, explicit process involving (a) the effective use of knowledge or techniques, (b) a deliberate examination of the elements of information, (c) the logical formulation of sound judgments and (d) the purposeful synthesis of information*. From this definition, TCCD identified four student learning outcomes: (a) apply, (b) analyze, (c) evaluate and (d) create.

The overall objectives of *PowerOn: Critical Thinking* are to (a) enhance students' ability to use critical thinking skills, (b) provide a foundation and locus of sustainable development that empowers faculty members to strengthen students' critical thinking skills and (c) employ effective assessment measures to fortify the plan.

Student learning outcomes will be assessed using direct and indirect measures. Direct methods include the California Critical Thinking Skills Test, given to targeted sections of Introduction to Sociology, and course-level assessment of student artifacts using faculty-created rubrics. Indirect methods of assessment include select questions from the *Community College Survey of Student Engagement* and the TCCD graduate survey. Other locally-created surveys of students, faculty members, staff and administration will be given at specific times throughout the plan.

With an enrollment of approximately 50,000 students and more than 1,800 faculty members, the District devised a plan that is fiscally responsive to (a) state reductions in financial assistance, (b) the economy, (c) the needs of the faculty members and students, (d) TCCD's resources and (e) the requirements of a QEP. TCCD demonstrated support for the QEP by allocating \$249,750 of new funds and more than \$600,000 in personnel costs toward the first year of implementation.

Beginning the QEP Development Process

To develop its first QEP, *PowerOn: Critical Thinking* (hereafter known as *PowerOn*), TCCD began reviewing the primary components of its identity, student body and place in the larger scope of higher education.

Understanding the Tarrant County College District Identity

With the desire to provide a local source for a quality, affordable higher education and workforce training, Tarrant County residents voted in 1965 to create the Tarrant County Junior College District. South Campus (SO) opened for classes in fall 1967 and enrolled 4,772 students its first semester, the largest opening-day enrollment for any community college in the country up to that time. The District's name changed to Tarrant County College District in 1999. Since 1967, four additional campuses have opened: Northeast (NE) in 1968, Northwest (NW) in 1976, Southeast (SE) in 1996 and Trinity River (TR) in 2009. In fall 2011, the TR East complex for Health Professions opened. In 2013, a new leadership structure, TCC Connect, began the transition process toward centralized supervision of three District programs: (a) Weekend College, (b) dual credit and (c) Distance Learning. TCCD enrolled 50,765 students in the fall 2013 semester.

Governing the District. A seven-member Board of Trustees, elected to six-year terms, governs the District. The Board appoints a chancellor, the District's chief executive officer, charged with providing vision and leadership for the District as well as building collaborative relationships with internal and external partners (*Chancellor's Job Description*, 2012). The Chancellor's Executive Leadership Team (CELT) is composed of seven vice chancellors, charged with departmentalized District operations, such as academic affairs and finance; additional members include the campus presidents, each supported by vice presidents for academic affairs, student development services and continuing education services.

Moving to a data-driven institution. In spring 2010, TCCD joined Achieving the Dream (ATD), a national education reform movement committed to helping community colleges increase student success. Vision 2015 set the goal for student success, and ATD has been the catalyst for establishing a student success and completion agenda at TCCD. It has transformed the institutional focus to one that is data-driven to help in its decision-making. ATD also garners broad engagement to gather support for institutional change. In fall 2010, TCCD received its first Title III: *Strengthening the Institution* grant; the grant proposal was written to parallel the District's work in ATD. In 2011, the District also received a grant from the Sid Richardson Foundation to create an Academic Enrichment Program designed to improve the success of developmental education students. As a result of these efforts, TCCD began to see increases in student engagement, success and retention as well as increases in graduation and transfer rates. Achieving these increases in just three years earned TCCD a nomination for the American Association of Community Colleges' 2013 Excellence Award for Student Success and selection as a 2013 ATD Leader College.

Supporting the Mission and Strategic Plan. As the QEP developed, certain goals and values became linked. TCCD's mission is to *provide affordable and open access to quality teaching and learning*, and the QEP by its very nature supports quality teaching and learning. TCCD offers four degrees: (a) Associate of Arts (including an optional Cornerstone Honors Program Associate of Arts), (b) Associate of Arts in Teaching, (c) Associate of Science and (d) Associate of Applied Science. TCCD also offers many certificates of completion related to the Associate of Applied Science degrees. In total, TCCD offers 74 Associate degrees and more than 90 certificates. To further the District's mission, a five-year strategic plan adopted by the Board of Trustees in 2010 in collaboration with the community, students, faculty members, staff

and administrators, culminating in the *Vision 2015* Strategic Plan Goals, as shown in the box below.

***Vision 2015* Strategic Plan Goals**

- **Support student learning and success** through excellence in teaching and learning, support services, flexible instructional delivery systems, student engagement, learning outcomes assessment and dynamic curricula.
- **Ensure affordability, accessibility and diversity** reflective of the community.
- **Promote institutional effectiveness** through continuous improvement, collaboration with and service to the community, employee engagement, professional development and optimal environment conducive to quality teaching and learning.

One purpose of a QEP is to create transformative change within an institution, and the purpose of *PowerOn* is to transform TCCD's students by developing their critical thinking skills. This purpose directly relates to the first and third goals of the *Vision 2015* Strategic Plan. Thus, the QEP supports the first *Vision 2015* Strategic Plan Goal of student learning and success by:

- enhancing District **teaching** through focused professional development,
- improving student **learning** with increased course rigor through educational enhancements,
- providing professional development **support services** to reinforce the transformative elements of student learning outside of class,
- increasing **student engagement** by enhancing the educational process,
- **assessing** the QEP's **learning outcomes** throughout the five-year plan to measure the impact of professional development and the success of the program through increases in student learning, making adjustments as needed and
- engaging external critical thinking professionals to assist in the development of a **dynamic** learning community-focused **curricula** that will transform the culture of our institution.

In addition, the QEP supports the third goal of the *Vision 2015* Strategic Plan by:

- establishing a commitment to **continuously improve** teaching and learning through a comprehensive assessment program,
- involving the **community** in selecting the topic and in seeking their input for a District-wide marketing campaign,
- **engaging employees** in the planning and implementation of the Plan,
- designing and leading dynamic **professional development** and
- providing an **optimal environment conducive to quality teaching and learning** by empowering faculty members to enhance their curriculum and measure its success.

Incorporating the District's Student Learning Outcomes (SLOs). The QEP aligns with the District's student learning outcomes:

- **Communication Skills** to include effective written, oral and visual communication,
- **Critical Thinking Skills** to include creative thinking, innovation and inquiry as well as analysis, evaluation and synthesis of information,

- **Empirical and Quantitative Skills** to include applications of scientific and mathematical concepts,
- **Personal Responsibility** to include the ability to connect choices, actions and consequences to ethical decision making,
- **Social Responsibility** to include intercultural competency, civic knowledge and the ability to engage effectively in regional, national and global communities and
- **Teamwork** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

Integrating the Statement of Values. Another component of TCCD's *Vision 2015* Strategic Plan is its *Statement of Values*. The QEP directly addresses the first and third values:

- **Student Success:** belief in providing quality instruction, resources and support services to assist students in achieving their lifelong goals,
- **Access:** belief in providing educational opportunities for all members of the community.
- **Excellence:** belief in providing outstanding quality in educational programs, administrative support and services to its students, faculty members and staff,
- **Services to Community:** belief in the importance of engaging with the community to enhance economic vitality and quality of life,
- **Diversity:** belief that the District should reflect the diversity of the community and
- **Innovation and Creativity:** belief in cultivating a learning environment that evaluates and incorporates emerging technologies and methodologies to enhance the quality of instruction and administrative support for our students, faculty members and staff.

Studying the Students

Prior to determining an appropriate topic for the QEP, the District reviewed its students' characteristics.

Analyzing Survey of Entering Student Engagement (SENSE) data. TCCD uses multiple measures to gather data about incoming students. According to data from the 2012 SENSE, only 34.2% of the District's FTIC students attend full-time (defined as 12 or more semester credit hours), with 65.8% attending part-time. The average age of a TCCD student is 26. Twelve percent of students are married, 31% have children who live with them, 27% speak English as a second language and 46% are first-generation college students.

SENSE data also indicate that the majority of the District's FTIC students are employed. Students report that 36% work 21 or more hours per week (21% work 30+ hours per week and 15% work 21-30 hours per week) and another 13% work 11-20 hours per week. Nine percent work 1-5 hours weekly, while 35% do not work. According to the 2012 SENSE data, working full-time is a consideration in withdrawing from one or all classes. Thirty-nine percent of District students indicated they were *likely* or *very likely* to withdraw from a class or withdraw entirely due to employment issues, while 22% responded that it is *somewhat likely*.

As the QEP was developed, various student characteristics informed the topic selection and implementation plans. QEP personnel were mindful of the many elements competing for the students' time, attention and resources, including matters related to employment and developmental course requirements. For example, because of the amount of hours students work, they spend minimal time on campus after classes. This informed the method of gathering data for the QEP. To address this, QEP personnel met with students during established club meeting times.

Analyzing students in developmental education. Many of TCCD's incoming FTIC students must take developmental courses in math, reading and/or writing. As shown in Table 1,

the number of entering students from fall 2008 to fall 2012 requiring developmental courses is significant, and the five-year trend shows an increase in enrollments in developmental education.

Table 1. Developmental Education Enrollments					
	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012
Percent of Entering Students in at Least One Developmental Course	53.1%	55.5%	63.4%	63.7%	63.1%

As indicated in the table above, substantial increases appear in fall 2010, when TCCD initiated mandatory remediation for students whose scores fell below credit-level requirements in math, reading and/or writing.

Learning about students through financial aid information. According to the Texas Higher Education Coordinating Board’s (THECB) *Online Resume for Legislators and Other Policymakers*, a substantial number of 2011 TCCD students received financial aid. Thirty-one percent received federal (Pell) grants, while 43% received federal, state, institutional or other grants. Nine percent of students received federal student loans.

Defining TCCD’s Identity within the Higher Education Community

Before beginning the QEP, TCCD identified its place within the larger higher education community. The Carnegie Classification lists TCCD as a *very large, multi-campus, urban-serving two-year public institution*. THECB categorizes TCCD as one of Texas’ *Very Large community colleges* due to the size of its student population. TCCD is an open access District that serves a diverse population of students from in and around the Dallas-Fort Worth Metroplex.

Potential QEP topics also needed to align with the THECB’s Core Curriculum and Core Objectives of (a) critical thinking skills, (b) communication skills, (c) empirical and quantitative skills, (d) teamwork, (e) social responsibility and (f) personal responsibility. The QEP personnel also took into account the THECB’s nine Foundational Component Areas, to which the Core Objectives are applied: (a) communication, (b) mathematics, (c) life and physical sciences, (d) language, (e) philosophy and culture, (f) creative arts, (g) American history, (h) government/political science and (i) social and behavioral sciences.

Developing the QEP

To develop the QEP, TCCD followed a methodical process to ensure involvement of appropriate campus constituencies. It began with the thorough review of the SACSCOC requirements along with the District's history, identity and demographics. Guiding principles for strategic initiatives were used during the process. These principles included:

- **Strategy/Activity:** What strategy and/or activity will the District implement?
- **Specific Goals:** What are the goals (or aspects of professional development) for this strategy/activity?
- **Tactics for Implementation/Evaluation:** What is the best way to implement the strategy? How will the District evaluate its effectiveness?
- **Faculty Member Deployment Plan/Timeline:** What aspect of the deployment plan does this strategy/activity address? What is the timeline for completing the activity?
- **Barriers:** What are the potential barriers to proper implementation? How can the barriers be overcome?
- **Estimated costs:** What are the anticipated costs?

Selecting a Theme

The District's QEP topic selection process began Friday, April 29, 2011, with a SACSCOC Kickoff meeting. More than 100 people attended this meeting that included faculty members, staff, administrators, members of the board of trustees and the chancellor. Attendees viewed a PowerPoint presentation that included accreditation requirements and TCCD's timeline for completion of the QEP. Administrators initiated QEP discussions, emphasizing faculty members' involvement.

Recommending themes. The next step in the topic selection process began August 22, 2011, at an all-day, District-wide Chancellor's Employee Appreciation Breakfast and Professional Development Day for all full-time employees, including faculty. At the faculty professional development event, faculty were asked to recommend topics for the QEP by completing a questionnaire. The questionnaire included (a) a summarized SACSCOC definition of a QEP, (b) TCCD's parameters for the QEP, (c) information regarding TCCD's approach to institutional changes and (d) instructions for completing the activity. In addition to the questionnaire, faculty members received *Ideas for QEP Topics*, a handout listing other institutions' QEP topics that complemented TCCD's *Vision 2015* and ATD initiatives created at faculty/staff meetings.

Instructions on the questionnaire asked participants to (a) review the materials, (b) discuss the information with colleagues at their tables and (c) brainstorm possible QEP themes. Participants then individually listed their top three themes on the questionnaire.

Institutional Research (IR) personnel reviewed, compiled, and categorized the 509 completed questionnaires with an eye toward SACSCOC QEP requirements. Twenty-three distinct themes (each with five or more responses) emerged.

Various suggested themes were disqualified based on the SACSCOC criteria listed below. Note that the corresponding reasons for exclusion listed here are identified in Table 2 below.

Exclusion Reason 1: Did not meet a SACSCOC QEP mandatory requirement to:

- (a) Focus on Student Learning Outcomes (SLOs) (includes topics that are too general to have specific, measurable SLOs).
- (b) Have "institutional capability for the initiation, implementation and completion of the QEP," including financial support, support of registration and advising/counseling offices, etc.

- (c) Include “broad-based involvement of institutional constituencies in the development and proposed implementation of the QEP. In other words, the topic is too specific to one campus, program, course, etc., or the topic is primarily a delivery method, such as collaborative learning.

Exclusion Reason 2: Theme was already implemented or was in development for implementation when survey was taken.

Exclusion Reason 3: Theme would have difficulty in broad-based implementation.

Exclusion Reason 4: Theme would have difficulty implementing as a stand-alone concept.

A full discussion of excluded themes appears in Appendix A. Table 2 below lists the 23 suggested themes listed in rank order, the number of responses for each theme and the reasons for exclusion. This table does not include themes that received less than five responses.

Table 2. Suggested QEP Themes							
Themes	Number Of Responses	Reasons for Exclusion					
		1a	1b	1c	2	3	4
Refresher Course Prior to Testing	51			X			
One-hour Orientation Course	44				X		
Early Alert	34				X		
Collaborative Learning	30			X			
General Development Courses	30				X		
Orientation	30				X		
Triage	30				X		
Three-hour Orientation Course	29				X		
Faculty Professional Development	24	X			X		
Learning Communities	22			X	X	X	
Critical Thinking	19						
Orientation Online	18				X		
Writing	16						
Developmental Math	15						
Supplemental Instruction	14						X
Advising	13	X			X		
Global Studies	11		X				
Math Curriculum	8			X			
Changing Students' Lives	5	X					
Orientation of Family	5			X			
Reading	5						
Technology	5		X				X
Whole Student Development	5	X					

Four themes emerged from this survey, and critical thinking was the first theme in the ranked list that contained an appropriate amount of qualifying characteristics. Other themes that met SACSCOC criteria were writing, developmental math and reading, but they received fewer votes.

Establishing a QEP Topic Selection Committee. The *QEP Data and Discussion* report showed evidence that critical thinking was a prevalent theme choice when the majority of faculty members were polled; however, IR committee organizers held a forum for focused topic selection that gave faculty members an opportunity to learn more about SACSCOC

requirements and to allow for more collaboration and discussion. They also wanted to allow for possibility that the group dynamic could possibly affect the topic choice.

To that end, in December 2011, campus presidents submitted names of academic leaders, a representative group of faculty members from a wide-ranging cross section of disciplines, who met to collaborate on topic selection, thus forming the QEP Topic Selection Committee. IR invited nineteen faculty members, representing thirteen disciplines, to join the Committee and meet to discuss QEP topics. Committee members are in Table 3 below.

Name	Title/Rank	Discipline	Campus	Attended
Jerry Barton	Assistant Professor	Biology	SO	Y
Anita Biber	Instructor	Reading	NW	N
Robin Birt	Instructor	Reading	TR	Y
Lisette Blanco-Cerda	Instructor	English	NE	N
Tonya Blivens	Instructor	Speech	SE	Y
Ola Disu	Assistant Professor	Math	NE	Y
Carol Fieser	Associate Professor	Health and Phys. Ed.	NE	Y
Sophia Garcia	Instructor	Biology	TR	Y
Gary Garland	Instructor	Math	NW	N
Earline Green	Instructor	Art	SO	Y
Jinnell Killingsworth	Instructor	Government	TR	N
Triesha Light	Associate Professor	Psychology	SO	Y
John Martin	Assistant Professor	English	SE	N
Nilanjana Rahman	Instructor	Math	TR	Y
Isaac Rivera	Assistant Professor	Spanish	NW	Y
Eric Salas	Instructor	History	SE	N
Elizabeth Self	Assistant Professor	Child Development	NE	Y
Joshua Tarbay	Assistant Professor	Health and Phys. Ed.	NW	Y
Xueyan Wu	Associate Professor	Math/Physics	SE	Y

The sole task of the QEP Topic Selection Committee was to propose a QEP topic. The Committee received (a) a short list of QEP titles from other institutions (the *Ideas for QEP Topic* handout), (b) the IR *QEP Data and Discussion* report and (c) an *Annotated Bibliography of Critical Thinking Resources*, prepared by Beth Mullins, NE Campus Librarian. Although these documents were available for the Committee, they spent minimal time discussing the contents, as the meeting organizers wanted faculty members to have an open mind, free of information that could influence the Committee’s discussion.

After working in small groups and then reconvening as a large group, the QEP Topic Selection Committee discussed several possible topics, brainstorming about their efficacy and assessment potential. They discussed potential topics based on their observation of student skill areas that would benefit from an enhanced focus. By the end of the meeting, the Committee selected critical thinking as the best fit for the QEP due to its (a) broad-based application in all disciplines, (b) pervasiveness in higher education, (c) sustained prevalence as an educational topic over the last several decades and (d) ability to increase student success. The Committee felt that because most TCCD instructors currently incorporated some level of critical thinking strategies in their curriculum, the topic would be favorably received. The Committee determined that the primary components of the critical thinking topic would be students’ ability to gain knowledge, solve problems and present their learning for assessment. The Committee’s report detailed that the assessment of all potential topics resulted in critical thinking being a good fit for

TCCD. The Committee disbanded, having fulfilled its charge. The report was given to other QEP personnel to determine the specific focus for the critical thinking theme.

Forming the Core Team. The Core Team, composed of a coordinator from each campus and a District-level director, was formed during late summer and early fall 2012. Jill Pool, former Associate Professor of Allied Health, was selected as the District QEP director, and one full-time faculty member from each of the five campuses was selected as QEP campus coordinator (hereafter known as coordinator) to round out the Core Team. The Team's positions and campus affiliations are in Table 4.

Name	Position	Campus
Tramaine Anderson	Coordinator; Instructor of History	NE
Angela Chilton	Coordinator; Associate Professor of English	NW
Maureen Hockenberger	Coordinator; Instructor of Sociology	SO
Des Robinson	Coordinator; Associate Professor of Psychology	SE
Macario Ben Romero	Coordinator; Assistant Professor of English	TR
Jill Pool	Director	District

The coordinators' primary functions are to assist the QEP director with the (a) creation, (b) implementation, (c) management and (d) assessment of the District's QEP. The job descriptions for the director and coordinator positions are in Appendices B and C. The coordinators act as liaisons between the director and the individual campus administration, faculty, staff and students. They remain classified as faculty members but receive a 100% teaching reduction while assigned to the QEP; however, they must teach a minimum of one section per academic year to maintain their faculty member status. The coordinators receive a 9-month contract for the academic year and an additional 12-week contract for summer. They report to the director but remain housed on their respective campuses and under the supervision of their department chairs. The director reports to the executive director of IRPE.

The Core Team received the aforementioned documentation from the Topic Selection Committee, concurred with the initial suggestion of the critical thinking topic and began the process of topic refinement and clarification, planning and development.

The Core Team (a) researched multiple QEP proposals from other colleges and universities, (b) visited with various QEP consultants and directors from area colleges and universities, (c) received advice from a consultant, (d) attended SACSCOC conferences and (e) participated in other activities to equip themselves to guide TCCD through the development and implementation of its first QEP. Through these activities, the Core Team determined that the critical thinking theme needed additional refinement through increased participation of students, faculty members, staff and administrators by using (a) surveys, (b) faculty member and student focus groups and (c) community advisory panels.

Forming the Expanded Development Committee. To ensure that the QEP involved participants from a wide ranging and representative cross-section of the TCCD constituencies, the director asked for additional volunteers from across the District to help with planning and development; campus administration facilitated this task. This action led to the formation of the Expanded Development Committee. Members of this committee included 27 invited members, comprising (a) 5 students, (b) 13 faculty members, (c) 5 staff members and (d) 4 administrators. The Core Team established subcommittees from this group (each subcommittee's contribution appears later in the narrative). Subcommittees were assigned tasks related to the following components: (a) assessment, (b) critical thinking applications, (c) critical thinking terms, (d) marketing, (e) professional development, (f) proposal review, (g) research design support, (h)

SLOs and (i) topic focus. Names, positions, campus affiliations and designated subcommittees are shown below in Table 5.

Table 5. Expanded Development Committee			
Name	Position	Campus	Subcommittee
Alex Alatorre	Student (alumni)	NE	Critical Thinking (CT) Terms/SLOs, Marketing
Tramaine Anderson	Instructor of History, Core Team	NE	Subcommittee Lead: Marketing Subcommittee Lead: Critical Thinking Terms/SLOs
Robert Boughner	Associate Professor of Psychology	SE	Research Design Support
Glo Calhoun	Instructor Management	SO	Professional Development
Carolyn Carney	Assistant Professor of History	SO	Proposal Review
Angela Chilton	Associate Professor of English Core Team	NW	Subcommittee Lead: Proposal Writing/ Revising Assessment
Kihyoung Choi	Associate Professor of Dance	NE	CT Terms/SLOs
Heather Cohen	Instructor of English	SE	Topic Focus
Terri Day	Exec Director, IRPE	District	Research Design Support
Mike Eke	Director of Process Improvement	District	Research Design Support
Laurie Ertle	Instructor of Biology	SE	CT Applications
Jocelyn Galindo	Student, Reading/Writing Center Peer Tutor	NW	Marketing
Diane Glowacki	Assistant Professor of Accounting	NE	CT Terms/SLOs
Ayesha Hawkins	Coordinator of Community Outreach	SO	Assessment
Jack Harred	Research Analyst, IRPE	District	Research Design Support
Maureen Hockenberger	Instructor of Sociology Core Team	SO	Proposal Review Implementation Subcommittee Lead: Assessment
Christine Hubbard	Division Dean, Humanities (now Director of Academic Operations)	NW	Research Design Support
Everett Jackson	Student, President of Student Government Association	SO	Marketing
Cindy Mask	Instructor of Surgical Technology	TR	Marketing
Sandra McCurdy	Director of Library Services	NW	Professional Development
Tracey Minzenmayer	Assistant Director of Library Services	SE	Marketing

Sharon Moore	Academic Advisor	TR	CT Applications
Amy Mullen	Associate Professor of Biology	NW	CT Terms/SLOs
Husney Naqvi	Associate Professor of Natural Science	SO	CT Applications
Darryl Norris	Student	SE	Marketing
Charles Overstreet	Professor of Psychology	SO	Research Design Support
Jill Pool	Director, Quality Enhancement Plan	District	Subcommittee Lead: Research Design Support
Nila Rahman	Instructor of Math	TR	Professional Development
Mark Reed	Instructor of Philosophy	NE	Research Design Support
Twyla Reese-Hornsby	Public Services Librarian	NE	SLOs/ CT Definitions
Des Robinson	Associate Professor of Psychology Core Team	SE	Subcommittee Lead: CT Applications Professional Development Research Design Support
Macario Ben Romero	Associate Professor of English Core Team	TR	Subcommittee Lead: Topic Focus, Focus Statement, and Definition of CT

Involving students. To ensure that students and student-related data were included in the District's topic selection process, the Core Team conducted student focus groups and analyzed student data from the Community College Survey of Student Engagement (CCSSE) and the Survey of Entering Student Engagement (SENSE).

Conducting student focus groups. To begin building student involvement in determining the viability of critical thinking as a topic, the Core Team conducted student focus groups. To assess students' current understanding of critical thinking, ten focus groups were held across the District, two on each of the five campuses. The full analysis of student responses is included in Appendix D, and an abbreviated analysis and conclusions are presented below.

An open call for student participation was made through faculty advisors to various student organizations. Six questions were asked in each focus group with permission for moderators to ask probing questions for the purpose of clarifying student responses. The data indicate that more than 50% of students understand that critical thinking is related to (a) analyzing information, (b) being unbiased and open toward differing ideas and perspectives and (c) giving effort to collect empirical evidence. Additionally, students were able to identify critical thinking as (a) a metacognitive process, (b) the synthesis of information and (c) a skill necessary for problem solving through application.

When asked about the importance of critical thinking and its impact on an individual's life, students most frequently responded that critical thinking was important because it is necessary for good decision-making and it contributes to intellectual and personal development. Students also noted with relative frequency that, although critical thinking is related to school success, its value applies to other areas of their lives, enhancing efficiency as well as decision-making. Students believe that critical thinking impacts an individual's life by (a) improving decision-making, (b) contributing to personal growth, (c) making them more successful and (d) providing a broader perspective.

Data analysis of student responses shows that across three components of critical thought (analyze, evaluate and synthesize) only 38.2% of the comments clearly expressed an accurate understanding of each component’s definition. An additional 30.3% of the comments were ambiguous in either the students’ statement or the statement’s interpretation. The remaining 31.6% of the comments were determined to be inaccurate. The highest category of performance was “evaluate” with 50% of the students correctly explaining the concept. Another significant finding was that an almost equal proportion of the comments in the “analyze” category were determined to be an incorrect explanation of the concept. This data is particularly crucial in that 8 of the 10 student organizations participating in the focus groups have academic standards for membership and, hence, are not representative of the general student population.

The conclusion from the student focus group data was that participating students had a good conceptual understanding of the definition of critical thinking. They were able to identify it as a process that involves analysis, synthesis and evaluation. They understand that it (a) requires openness to diversity of ideas; (b) involves metacognition; (c) is useful for problem-solving, decision-making and personal and intellectual development and (d) can lead to a better life. Students also understand that it requires effort and is a form of thought grounded in empirical evidence. However, students were less adept at distinguishing the various components of the process. These data indicate that TCCD faculty members may currently teach students about critical thinking, but the need for instructors to be more explicit and more directed in their efforts appears to be warranted.

Community College Survey of Student Engagement (CCSSE) data. A review of TCCD’s student responses on the 2012 CCSSE seems to indicate a need for critical thinking growth. According to the students’ responses, TCCD is incorporating the elements of critical thought into their course experiences. However, the question arises as to whether or not the exposure to critical thinking is occurring at the level that it should for college-level courses. Table 6 shows TCCD’s student responses to questions about human cognition that align with Bloom’s Taxonomy of Levels of Intellectual Behavior: (a) memorization, (b) analysis, (c) synthesis (represented by “create” in the revised version of Bloom), (d) evaluation and (e) application. Tables showing District percentages for each of these questions are in Appendix E.

Table 6.
Distribution of Student Responses to Prevalence of Levels of Intellectual Behaviors Required Across their TCCD Course Experiences (District-Level Data, 2012)

<i>Level of Intellectual Behavior</i>	<i>Count/Percent</i>	<i>1 – Very little</i>	<i>2 - Some</i>	<i>3 – Quite a bit</i>	<i>4- Very Much</i>	<i>Total</i>
Memorization	Count	89	426	615	471	1,601
	%	5.6%	26.6%	38.4%	29.4%	
Analysis	Count	64	421	663	449	1,597
	%	4.0%	26.4%	41.5%	28.1%	
Synthesis	Count	125	464	624	367	1,580
	%	7.9%	29.4%	39.5%	23.2%	
Evaluation	Count	187	555	521	329	1,592
	%	11.7%	34.9%	32.7%	20.7%	
Application	Count	168	531	541	355	1,595
	%	10.5%	33.3%	33.9%	22.3%	

Across the District, 67.8% of the students report that *memorization of facts, ideas or methods to be reproduced in their same form* occur within their classes either *quite a bit* or *very much*. Those responses indicate a strong focus on the lowest level of Bloom’s taxonomy across the

students' course experiences although "analysis" has a strong focus at the course-level. More than 69% of student respondents stated that analyzing the basic elements of an idea, experience or theory occurs *quite a bit* or *very much* within their classes. The data appears to shift and lessen in the measures of frequency of occurrence when addressing the levels of synthesis, evaluation and application. This change indicates a decline in the frequency of classroom experiences with these levels of cognition. Worth noting here again is that data from student focus groups indicated students might lack the ability to distinguish between the levels of intellectual behavior.

Surveying faculty members during fall 2012. On September 21, 2012, at a faculty member event sponsored by Instructional Assessment Director Karen Kusler, the Core Team surveyed primarily full-time faculty members by asking the open-ended survey question: *Ideally, how can we improve students' critical thinking above the current levels?* Analysis of the data placed faculty members' responses into four main categories: (a) modifying classroom presentation techniques and teacher/student interactions (47%), (b) increasing both the quantity and quality of critical thinking assignments and assessments (25%), (c) changing the infrastructure of the course or adding courses specifically targeting the development of critical thinking skills (15%) and (d) keeping students aware of global and multicultural issues (13%). Collectively, these data suggest that faculty members believe improvements in students' critical thinking skills must be classroom-based. The data also help inform the planning of professional development that will support their ability to enhance curriculum by (a) developing delivery methods that are specific to critical thinking and (b) creating assessments and assignments that emphasize critical thinking.

Further analysis revealed that the instructors were interested in organizational- and classroom-level changes. Their suggestions included (a) developing a critical thinking course, (b) creating critical thinking activities applicable across the District, (c) offering smaller class sizes, (d) focusing faculty member professional development on critical thinking and (e) forming research-based labs. These changes indicate that faculty members would like to see organizational support from the District to aid the classroom-level changes.

Conducting campus-based Coordinator Chats. Faculty members, administration and support staff attended chat sessions during October and November 2012. During the chats, Core Team members met with their respective campus personnel to (a) discuss the purpose and scope of a QEP, (b) share TCCD's developments thus far, (c) answer their questions and (d) ask them to complete a survey. The survey asked the participants to rank the importance of the various components of critical thinking as delineated by the Information Literacy Standards for Higher Education (ILSHE). The respondents were asked the importance of each component on a 7-point Likert scale. While faculty members, staff and administrators all put favorable value on every component, four items were more frequently ranked as important for students to demonstrate. The highest percentage of components that respondents marked as *extremely important* were (a) draw conclusions (88%), (b) synthesize (83%), (c) evaluate (83%) and (d) recognize prejudice (80%). The component of application was not included in the survey because it is not part of the ILSHE's documentation. However, the survey also asked for open-ended comments, and application was a frequently cited suggestion.

Surveying at Assessment Day. After the Coordinator Chats with faculty members, administrators and support staff, the Core Team surveyed faculty members once again at an Assessment Day event on November 9, 2012, hosted by Instructional Assessment. For this survey, the Core Team created critical thinking categories based on the ILSHE components shown in Table 7 below. This survey asked faculty members to identify the top five critical thinking skills they believed students lacked.

Table 7. Faculty Members Perspectives on Student Deficiencies in Critical Thinking	
From my perspective, students lack ability to:	n
Draw conclusions based upon information and determine the reasonableness of the conclusions.	52
Synthesize main ideas of information to construct new concepts (creativity).	44
Evaluate reliability and validity of information.	41
Analyze the structure and logic of supporting arguments or methods of information.	37
Evaluate accuracy of information.	30

Surveying at Connections Day. On January 9, 2013, faculty members completed an additional survey at the District’s Connections Day, a day-long gathering of all District employees that includes various breakout sessions. During this meeting, the majority of non-faculty member employees attended other professional development activities during a QEP presentation by the director. Following the presentation, the Core Team distributed a survey asking faculty members to choose, given a list of critical thinking components, those in which students could make improvements and guide the focus of the QEP. Of the 800 surveys distributed, 508 were completed. Participation percentages according to employment classification were as follows: (a) 82.5% full-time faculty members, (b) 3.3% part-time faculty members, (c) 5.9% campus administration, (d) 2.2% District administration and (e) 2% support staff.

For consistency, the survey components were the same as those from the Assessment Day survey. Faculty members were asked only to identify the top 5 areas, not to rank the top 5. Results showing the five most frequently identified areas are below in Table 8.

Table 8. Faculty Members Perspectives on Student Deficiencies in Critical Thinking	
From my perspective, students could make improvements on:	n
Draw conclusions based upon information and determine the reasonableness of the conclusions.	358
Evaluate reliability and validity of information.	303
Synthesize main ideas of information to construct new concepts (creativity).	303
Evaluate accuracy of information.	241
Analyze the structure and logic of supporting arguments or methods of information.	215

Comparing results of the surveys. Table 9 below shows the comparative rankings between the Assessment Day survey on November 9, 2012, and the Connections Day survey on January 9, 2013. The two surveys showed strong agreement regarding the instructors’ perceptions of the skills students lack and what instructors believe need to be emphasized in the QEP.

Table 9. Rank Order Comparison of Critical Thinking Components Needing Improvement in Students: Assessment Day: Connections Day				
Component	Assessment Day (Top Five CT Areas in which our Students Lack)		Connections Day (Top Five Areas for Improving CT Among our Students)	
	N	Rank	n	Rank
Draw conclusions based upon information and determine the reasonableness of the conclusions.	52	1	358	1
Synthesize main ideas of information to construct new concepts (creativity).	44	2	303	2
Evaluate reliability and validity of information.	41	3	303	2
Analyze the structure and logic of supporting arguments or methods of information.	37	4	215	4
Evaluate accuracy of information.	30	5	241	3
Evaluate the impact of context on interpreting information.	25	6	159	7
Evaluate inferences and implications in information.	24	7	161	6
Evaluate deception or manipulation in information.	20	8	135	9
Evaluate whether new knowledge has an impact on the individual's value system.	15	9	107	11
Detect bias or prejudice in information.	14	10	205	5
Evaluate assumptions in information.	11	11	131	10
Identify point of view in information and evaluate its impact on the information's message.	10	12	147	8
Evaluate the timeliness of information.	4	13	42	12

Based on the survey data, the Core Team concluded that faculty members supported a QEP that focuses on the five previously mentioned components of critical thought. The Core Team deduced that faculty members had consensus regarding the critical thinking components in which students needed improvement. The Core Team also concluded that the high consistency between two survey findings (administered on two separate dates) showed the data to be reliable, and the number of responses received suggested that faculty members gave a strong effort and were diligent in responding to the questionnaires.

The information gathered from the first survey in response to the question, “How can we improve students’ critical thinking skills above current levels?” shows that faculty members support District-, campus- and course-level changes to improve critical thinking. Particular emphasis should be placed on changing assignments and assessments to focus on critical thinking skill development.

Conducting faculty member focus groups. During February and March, 2013, coordinators conducted focus groups to gather additional input from faculty members. Approximately 20 full-time faculty members from each campus, for a total of approximately 100, were randomly selected to participate. Faculty member responses were confidentially recorded and transcribed for use by the Core Team. Representative excerpts from the instructor responses, found in Appendix F, indicated clear support for a critical thinking topic.

Each focus group was asked a series of seven questions. The first five questions asked them about classroom practices that they either use or suggest using to help students develop these five skills related to critical thinking: (a) draw conclusions based upon information, (b) synthesize main ideas of information to construct new concepts, (c) evaluate reliability and validity of information, (d) analyze the structure or logic of supporting arguments or information and (e) evaluate accuracy of information. The sixth question asked the faculty what they thought the district could do to support their efforts to incorporate more critical thinking into their courses. The final question was a logistical one, asking about preferred communication methods to update faculty members on the events and progress of the QEP implementation. The analysis of questions one through six follows.

Review of the focus group data for the first five questions revealed that faculty members use a broad range of creative and innovative techniques in their classrooms to teach critical thinking skills. Examples reported by faculty members include, but are not limited to, case studies, scenarios, the use of reverse logic, simulations, a variety of media (video, print, and digital), group work, discussion, hands-on activities, experiments, word problems, friendly competitions, discussion boards and the Socratic method. In addition, coding of the data by components and level of critical thinking showed that within any given assignment or activity, multiple skills and levels of thought were being required of the students. Other patterns that emerged were frustration with trying to motivate students to function at this level and the perception that students' desire to just be told the answer or told what to do. Interestingly, very few respondents indicated that they thought the students were incapable of meeting the challenge of the assignments. Across the focus groups, response to this series of questions was prolific and the enthusiasm that they hold for what they do in the classroom was evident.

When asked about what the District could do to support them in their efforts to increase critical thinking in the classroom, faculty members responses included (a) return to a classroom size of no more than 25 students, (b) provide better access to technology – software, hardware, and IT support, (c) reduce obligations on faculty members outside of the classroom to free up more time for course planning, (d) provide opportunities for more interaction among faculty to share best practices, (e) provide mentorship for adjuncts, (f) strengthen connections with universities both in terms of on-campus speakers and contact with real research labs, (g) implement course pre-requisites, (h) provide discipline-specific critical thinking professional development and (j) promote use of peer review, team teaching and learning communities.

Surveying support services staff. In April 2013, 236 District support services staff from all campuses completed a survey in which they ranked what they believe are the most important skill areas for student success. Support staff areas included (a) registrar, (b) disability support services, (c) student career/employment, (d) health services, (e) student activities, (f) academic support services, (g) business services, (h) financial aid, (i) police, (j) advisement/counseling, (k) library and (l) continuing education. Table 10 below identifies the top four support staff choices.

Student Success Area	First Choice	Second Choice	Third Choice	Fourth Choice
Critical Thinking	111	52	57	16
Writing	13	91	104	28
Global Awareness/ Citizenship	23	19	23	171
Reading	89	74	52	21

The survey results showed that support staff also agreed that the most important area for student success was critical thinking. Reading, global awareness/citizenship and writing ranked second, third and fourth respectively. Their agreement with critical thinking further solidified

TCCD's choice of QEP topic. The assistance of support services staff was deemed vital to the success of the QEP if we are to affect the transformative change required by SACSCOC and desired by the District. This data indicated that they were in agreement that student success is dependent upon developing their critical thinking skills.

Incorporating Biology and Allied Health Program data. As part of data gathering, the Core Team sought information from any department that had conducted studies, surveys or other research involving critical thinking. The biology department shared data they compiled and analyzed from a survey of allied health and nursing faculty members. According to the biology faculty members, the data "indicated that incoming [allied health and nursing] students were consistently expected to possess a [degree of knowledge determined to be] Bloom's Taxonomy Level 3 and above when they entered these programs" (Lindsey, 2011). To meet this expectation, a committee of Biology 2401 (Anatomy and Physiology I) and Biology 2402 (Anatomy and Physiology II) instructors revised the district syllabi. This change was made for two reasons: (a) "to better reflect expectations of both faculty members and students" and guidelines established by the Human Anatomy & Physiology Society" and (b) "to better reflect the higher order thinking skills necessary for success in the course and other programs" (Lindsey, 2011). The revised syllabi were implemented in fall 2012. The biology faculty members also created an extensive guide that allows students to understand the level of learning expected of them in both Anatomy and Physiology courses. This effort by a large group of cross-discipline faculty members created another level of support for critical thinking as an important topic for the QEP.

Using a logic model. The Core Team created a logic model that facilitated the planning and development of certain components of the QEP. (See Appendix H for QEP Logic Model).

Connecting to the Curriculum Development Office. The Core Team established a line of communication with Dr. Sheryl Harris, Director of Curriculum Development and International Initiatives, especially apprising her of the QEP course involvement, SLOs and alignment with core competencies.

Identifying the Topic

At this point in the process, a broad base of District constituencies was involved in planning and developing the QEP topic. The information gained from the aforementioned groups led directly into the task of the Expanded Development Committee's topic focus subcommittee. Their charge was to develop a more narrow and creative focus and/or definition of critical thinking to help contextualize its value to TCCD and work towards the long-term improvement of critical thinking in the District. The Expanded Development Committee and the Core Team reviewed other QEP proposal focus statements to evaluate the following characteristics:

- adherence to SACSCOC requirements,
- clarity of purpose,
- accuracy and adherence to the complete proposal,
- measurability of their student learning outcomes (SLO)s,
- emphasis on students instead of faculty members and staff and
- narrowness of focus while maintaining flexibility for implementation.

The Core Team also worked with the SLO subcommittee on their charge of developing preliminary SLOs. In preparation, they reviewed data from faculty member surveys conducted on Connections Day and Assessment Day, which asked faculty members and administrators to identify five components of critical thinking judged as needing improvement in students.

The SLO subcommittee developed a list of preliminary student outcomes. Upon a suggestion from the QEP Consultant, Ms. D. J. Henry, the Core Team truncated the SLOs to allow more refined, discipline-specific SLOs to be created later by faculty members working collaboratively within their disciplines. This method of SLO development promotes a faculty-driven process and buy-in of the program. The creation of fully developed, discipline-specific SLOs and rubrics is discussed on pages 51-52. Further, shorter SLOs would also improve the process of comparing data on student learning improvements across disciplines.

As a tandem project, the SLO Committee created a glossary of critical thinking terms (Appendix G) to establish a nomenclature for the QEP proposal and implementation at TCCD.

Engaging Students through the QEP Marketing Campaign Creation

The Expanded Development Committee and the Core Team determined that tapping into the creativity of the student body for elements of the marketing campaign would be a productive initiative to engage students, making them more aware of the District-wide program and giving them a real-world application of their course-based SLOs. Further, their marketing ideas would have greater potential to resonate with the student body than would a faculty member or staff created campaign. Dr. Alicia Lupinacci, Trinity River (TR) Campus marketing department chair, identified three face-to-face sections that could accommodate a class project to create a QEP marketing campaign: two sections of Communications in Management (BMGT 1305), taught by adjunct instructor Timothy Parks, and one section of Principles of Marketing (MRKG 1311), taught by adjunct instructor Tina Landes. Combined, these three sections offered approximately 50 students the opportunity to participate.

The SLOs in the course syllabi for Principles of Marketing and Communications in Management created the opportunity for these courses to be the best fit for the QEP marketing project. In MRKG 1311, the SLOs include (a) explaining the role of marketing, (b) understanding the basic elements of a marketing plan and (c) evaluating the roles of products/services and promotion in the marketing mix. In Communications Management, the SLOs include (a) demonstrating the importance of communication, (b) understanding communication across cultures and (c) communicating information in oral presentations.

Students met during their class sessions with Jill Pool; Dr. Lupinacci; Arturo Martinez, District Director of Graphic Services and Marco Rosales, Publications Manager of Graphic Services, to learn about the (a) QEP, (b) guidelines for the project, (c) standard marketing campaign components and (d) the District's *Graphics Identity Standards*. Both instructors provided extra credit for their students' participation. All project leaders emphasized to the students that the QEP marketing campaign was a real-world project, not just a classroom scenario, and they learned this project's vital role in the reaccreditation process.

Selecting a campaign. Students in the classes formed small groups, created marketing campaigns and presented them during class to their peers, Core Team members and the District graphics personnel. Additionally, the PowerPoint presentations created by the student groups were submitted to the Business Advisory Council members and District graphics personnel, who voted to help determine first, second and third place for the best overall campaign that met the project guidelines. After the votes were tallied, Jill Pool visited each class, along with various members of the Core Team, to present certificates to all students participating in the marketing campaign. The certificates, signed by Chancellor Erma C. Johnson Hadley and Ms. Pool, provide documentation of participation for the students' portfolios for future scholarship or employment purposes. First, second and third place winners received Target gift cards with the following denominations (a) \$45 for first, (b) \$35 for second and (c) \$25 for third place winners.

Voting throughout the District. The logos and slogans from the marketing projects were reviewed in isolation—separate from other marketing campaign materials—for the sole purpose of finding the concepts with the most potential for being fully developed into the QEP's logo and slogan. Several themes stood out from the student projects. The District graphics personnel polished and refined the logos, verifying that they met the District's *Graphics Identity Standard* protocols. They presented five graphic concepts that were inspired by the student designs, and the Core Team selected the two that best reflected the concept of critical thinking and the spirit of the QEP. This marketing campaign culminated in creating a logo and slogan, as well as generating other ideas for advertising the QEP to students.

Broad-based involvement was furthered during the voting process for the logo and slogan. The final two designs, labeled *Flip It On* and *PowerOn*, were presented for online voting in April and May 2013 to all enrolled students and District employees. The students and employees both overwhelmingly selected the *PowerOn* logo and slogan. In the student voting, 2,233 respondents voted 65% for *PowerOn* and 35% for *Flip It On*. In the faculty/staff voting, 1,178 respondents voted 63% for *PowerOn* and 37% for *Flip It On*.

With the *PowerOn* logo and slogan selection complete in May 2013, the District graphics department created a teaser campaign that ran on the intranet from June through August 20, 2013, the date of the Chancellor's Breakfast District meeting and kickoff of the QEP campaign. Each week featured a different concept of the *PowerOn: Critical Thinking* logo, designed to pique faculty member and staff interest in the QEP kickoff.

This marketing campaign was informed by the contributions of the marketing subcommittee, which included one faculty member, one staff and five students (four of the five students could not participate due to work and class schedules), and its leads were two faculty members from the Core Team.

Summarizing Key Planning, Development and Pre-Implementation Activities

Table 11 below lists key events previously discussed along with others significant to the process.

Table 11. QEP Planning, Development and Pre-Implementation Key Events	
Date	Key Event
Spring 2011	SACSCOC kickoff meeting QEP introduction to personnel
Fall 2011	Initial survey of faculty members and campus administrators at Chancellor's Breakfast for suggesting QEP topic
Fall 2011	Topic selection committee formed and met
Late Summer 2012	Core Team formed: (a) director hired and (b) campus coordinators appointed
Late Summer 2012	Director Jill Pool and Coordinator Angela Chilton attended the <i>31st International Conference on Critical Thinking</i> , hosted by The Foundation for Critical Thinking, Berkeley, CA
Late Summer 2012	Director Jill Pool attended <i>The Institute on Quality Enhancement and Accreditation</i> , hosted by SACSCOC, Atlanta, GA
Fall 2012 and ongoing	Weekly Core Team meetings along with additional every other week meeting as needed
Fall 2012	Assessment Day #1, QEP presentations and faculty member survey
Fall 2012	Campus-based coordinator chats
Fall 2012	Assessment Day #2, QEP survey
Fall 2012	Core Team attended the North Texas Community College Consortium <i>7th Annual Outcomes and Assessment Conference</i> , Collin College, TX
Fall 2012	On-site QEP discussion with consultant Dr. Margaret Sullivan
Late Fall 2012	Core Team attended the SACSCOC Annual Meeting, Dallas, TX
Spring 2013	Expanded Development Committee formed, subcommittees populated and met
Spring 2013	Academics Day, QEP presentation and survey
Spring 2013	Faculty member focus groups
Spring 2013	Student focus groups
Spring 2013	Connections Day, QEP presentation & survey
Spring 2013	Assessment Day #3, faculty member survey
Spring 2013	Support services staff survey (online)
Spring 2013	Marketing subcommittee meeting with Business Advisory Council
Spring 2013	Students created marketing campaign presentations
Spring 2013	On-site QEP review by consultant Ms. D. J. Henry
Spring 2013	District voted on final marketing campaign (online)
Summer 2013	Core Team members Maureen Hockenberger and Des Robinson attended the <i>The Institute on Quality Enhancement and Accreditation</i> , hosted by SACSCOC, Atlanta, GA
Summer 2013	Core Team member Macario Ben Romero attended the <i>32nd International Conference on Critical Thinking</i> hosted by The Foundation for Critical Thinking, Berkeley, CA
Summer 2013	Professional development: Dr. Peter Doolittle gave presentation on critical thinking to faculty members
Summer 2013	SACSCOC/QEP Information Sessions presented at each campus; coordinator presented QEP portion of session
Early Fall 2013	Chancellor's Breakfast event, Dr. Stephen Brookfield gave presentations to faculty member, staff and administration
Early Fall 2013	Coordinators distributed <i>PowerOn</i> marketing materials around campuses and <i>The Essential QEP Guide for the SACSCOC On-Site Visit</i>
Early Fall 2013	<i>PowerOn</i> faculty member recruitment began
Early Fall 2013	On-site QEP review by consultant Ms. D. J. Henry

Defining Critical Thinking and Stating the Desired Student Learning Outcomes

After a thorough review of data gathered from TCCD students, faculty members, staff, administrators and external constituencies, the Core Team designated critical thinking as a relevant and vital topic for TCCD's QEP. This analysis, along with a comprehensive literature review, led to the operational definition of critical thinking as *an active, explicit process involving good use of knowledge or techniques, examination of the elements of information, formulation of sound judgments and purposeful synthesis of information.*

PowerOn: Critical Thinking supports the overall educational plan of TCCD. It addresses two *Vision 2015* Strategic Plan goals: *to support student learning and success* and *to promote institutional effectiveness*. It also supports two of TCCD's Institutional Learning Outcomes, namely *critical thinking* and *empirical and quantitative skills*.

Furthermore, *PowerOn* directly supports two of the District's Statements of Value, specifically *student success* and *excellence*. Finally, the implementation of the plan supports one of the Texas Higher Education Coordinating Board (THECB) Core Objectives, critical thinking, and involves the majority of the Foundational Component Areas of its core curriculum in the *PowerOn* implementation plan.

Establishing Student Learning Outcomes (SLOs)

Analysis of data from faculty, staff and students and a review of relevant literature led to the identification of four student learning outcomes.

To demonstrate critical thinking, students will:

- Apply,
- Analyze,
- Evaluate and
- Create.

These truncated SLOs, which align with Bloom's Revised Taxonomy, give ownership to faculty members to create discipline-specific SLOs and assessment criteria upon which to judge improvements in critical thinking. Through the *PowerOn* Faculty Learning Communities (FLCs), each discipline will interpret the SLOs as they best apply to their professional field. Using SLO stems promotes a faculty-driven process and fosters an acceptance of the program. The Core Team, as FLC facilitators, will meet regularly with the FLCs to ensure that rubrics and other assessments have adequate uniformity to allow data analysis across the disciplines while preserving the faculty's ownership of the creation process. Further discussion of FLCs and development of faculty-created rubrics and discipline-specific SLOs begins on page 51-52.

Reviewing Literature and Identifying Best Practices

This section provides a summary of the literature that influenced various stages of the QEP proposal development. It will show that although other options may have been available in the construction of the proposal, the options chosen are grounded in the literature surrounding a particular topic. A review of the literature across five content areas related to the development of the QEP are (a) critical thinking—general literature, (b) definitions of critical thinking, (c) best practices, (d) professional development and (e) assessment.

Examining the Critical Thinking Literature

One of the first tasks for the Core Team was to familiarize itself with the general literature base pertaining to critical thinking. What is critical thinking? Who is influencing the understanding of the concept? What are central areas of contention and agreement within the literature? The review of the literature revealed that three main disciplines influence the understanding of critical thinking: (a) philosophy, (b) psychology and (c) education (Lai, 2011).

Reviewing Philosophical Approaches. Core works from the philosophical perspective come from the American Philosophical Association's Delphi Research Report (Facione, 1990). The Delphi method brings together a panel of experts to achieve consensus on a particular topic or area of interest. Facione convened a panel of 46 experts in the area of critical thinking, across a variety of disciplines, beginning in November 1988 and ending in March 1989. The experts responded to six rounds of thought provoking questions regarding critical thinking with the ultimate goal of reaching consensus as to what it is and affective domains that influence its development.

The conclusion of this panel of experts was that critical thinking involves cognitive abilities in six areas: (a) interpretation, (b) analysis, (c) evaluation, (d) inference, (e) explanation and (f) self-regulation (Facione, 1990). In addition, the panel was able to reach consensus regarding dispositional characteristics of effective critical thinkers. They identified 19 affective characteristics of critical thinkers across two domains, approaches to life and living in general and approaches to specific issues, questions or problems. Capturing the essence of their consensus, without the specific details of their 19 findings, is the following list: (a) propensity for critical thinkers to possess open and fair-mindedness, (b) inquisitiveness, (c) flexibility, (d) a propensity to seek reason, (e) a desire to be well-informed and (f) a respect for and willingness to entertain diverse viewpoints (Lai, 2011).

A second major influence from the philosophical perspective is the works of Richard Paul and Michael Scriven from the Foundation for Critical Thinking. Paul and Scriven (2005) define critical thinking as the following:

...that mode of thinking—about any subject, content or problem—in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing and reconstructing it. Critical thinking is self-directed, self-disciplined, self-monitored and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities, as well as a commitment to overcome our native egocentrism and sociocentrism.... (2005, ¶10).

They also, much like the Delphi Report, identify dispositional characteristics of critical thinkers.

In both of these examples from the philosophical perspective, a model is constructed as to what constitutes good critical thinking and the personal characteristics that a good critical thinker should possess. Thus, there is a valuation of the importance of critical thinking as a personal developmental process, as well as its significance to the workings of the larger world. Richard

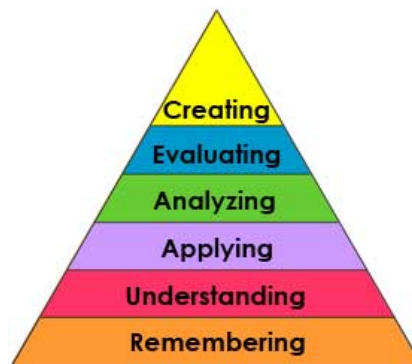
Paul responds in an interview transcript recorded on the website for the Foundation for Critical Thinking:

The fundamental characteristic of the world students now enter is ever-accelerating change; a world in which information is multiplying even as it is swiftly becoming obsolete and out of date; a world in which ideas are continually restructured, retested and rethought; where one cannot survive with simply one way of thinking; where one must continually adapt one's thinking to the thinking of others; where one must respect the need for accuracy and precision and meticulousness; a world in which job skills must continually be upgraded and perfected—even transformed. We have never had to face such a world before. Education has never before had to prepare students for such dynamic flux, unpredictability and complexity for such ferment, tumult and disarray (2013, ¶40).

Reviewing psychological approaches. Although the focus of the philosophical perspective on critical thinking is centered on its value both in terms of personal growth and functioning for the good of the larger world, cognitive psychologists are more focused on how individuals learn to cognitively process information and how learning theory can be used to enhance students' critical thinking skills. Cognitive psychologists focus on the actions and behaviors of the critical thinker and delineate a list of skills or behaviors that critical thinkers perform (Lai, 2011). Definitions from this disciplinary perspective include Diane Halpern's definition: "the use of those cognitive skills or strategies that increase the probability of a desirable outcome" (cited in Lai, 2011, p. 450). Another psychological perspective is Sternberg (1986), who defines critical thinking as "the mental processes, strategies and representations people use to solve problems, make decisions and learn new concepts" (cited in Lai, 2011, p.3).

Reviewing educational approaches. The literature from education tends to be more pragmatically-based, focused on levels of information processing and drawn from classroom experiences of observing large numbers of student learners (Lai, 2011). Benjamin Bloom's taxonomy of intellectual levels dominates this literature base. Bloom identified six levels of cognition ranging from lower order to higher order thinking skills. It is generally accepted that the four highest levels of the taxonomy—(a) applying, (b) analyzing, (c) evaluating and (d) creating—represent the components of critical thought. The figure below delineates the levels. The revised version of Bloom's Taxonomy, created by Anderson and Krathwohl (2001), is used here in Figure 1 because it is the version directing TCCD's QEP.

Figure 1. Bloom's Taxonomy of Intellectual Levels



http://ww2.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm

Another voice from the educational perspective is Stephen Brookfield. Dr. Brookfield holds a Ph.D. in adult education from the University of Leicester, United Kingdom. His work in the area

of critical thinking is significantly influenced by his background in theoretical sociology at the masters level and the influence of culture and media at the baccalaureate level.

In an interview with the Whitman Institute in 1993, Dr. Brookfield was asked if his work in critical thinking emphasized its open-ended process. He replied:

I think the major point of difference between my approach to it and probably the majority approach is that most people working in the field, I would say, see themselves as philosophers or logicians – they interpret critical thinking in a highly cognitive way in terms of argument analysis, modes of reasoning and so on. I think that’s part of what critical thinking is but I see it also as very personally grounded in experience with a very strong emotional component to it. I think that if you treat critical thinking as an abstracted, intellectual phenomenon, it’s a sterile and distorted way of looking at it (Brookfield).

The significance of this section of the literature review is that it outlines the various influences on the critical thinking literature base. Each of these perspectives is based on the acceptance of underlying assumptions about (a) what constitutes critical thinking, (b) how it is expressed, (c) how it should be taught and assessed and (d) what is the significance of the process for students. Even within the context of a disciplinary perspective, variation occurs regarding the focus of a critical thinking curriculum as evidenced by Dr. Brookfield’s comment.

Analyzing Critical Thinking Definitions

In the reading of many other QEPs’ literature reviews on the definitions of critical thinking, the common format used is to list various definitions and acknowledge the proliferation of definitions. For this section of the literature review an analysis of 30 definitions of critical thinking was completed to determine the most frequently included components and then to demonstrate how TCCD’s QEP definition aligns with the literature.

The analysis revealed that great variation exists in the complexity of the definitions ranging from the identification of one component, that critical thinking was good thinking, to the identification of nine components in the definition used by Georgia State University in their QEP. The Georgia State definition of critical thinking is the following:

...a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, [and] 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 (2013, ¶2).

The frequency of cited components is shown in Table 12 in order of occurrence.

Component	<i>n</i>
Evaluation	14
Analysis	11
Problem-solving skills	10
Sound decision-making	11
Good thinking	9
Effective communication	6
Integration/synthesis	6
Reflection	6
Active and systemic process	5

Cognitive skills	5
Questioning	5
Identify personal bias	4
Curiosity	3
Intellectual disposition	3
Inferences/deductive/inductive reasoning	2
Create	2
Evidence-based	2
Identification	1

Based on this analysis, TCCD’s QEP defines critical thinking as *an active, explicit process involving (a) effective use of knowledge or techniques, (b) a deliberate examination of the elements of information, (c) the logical formulation of sound judgments and (d) the purposeful synthesis of information.* This definition aligns with the categories of (a) active and systemic process ($n=5$), (b) cognitive skills ($n=5$), (c) analysis ($n=11$), (d) problem-solving skills ($n=10$), (e) sound decision-making ($n=11$) and (f) synthesis ($n=6$).

Identifying Best Practices: Instructional Methods and Change Agents

Paul, et al. (1997), found that 89% of faculty members he interviewed reported that critical thinking was one of their primary teaching goals; however, only 19% could provide a definition of critical thinking and only 8% were actually teaching critical thinking. This statistic calls for a need to help faculty members reach a consensus in understanding what constitutes critical thinking, as well as how to incorporate it effectively into their classrooms. Paul (1995) suggests five basic components in the teaching of critical thinking:

1. The ability to reduce big questions or problems into approachable tasks, contextualize learning, help students focus their thinking, require students to integrate and synthesize information, require that students teach each other difficult concepts and teach students how to find, evaluate and access learning resources.
2. The use of Socratic questioning to introduce basic issues, encourage students to think deeper, focus on topics that the students struggle with and develop skills related to sensitivity, clarity, accuracy and relevance.
3. The use of role-playing and reconstruction of opposing views.
4. The requirement that students reflect and analyze their own experiences within a global context.
5. The ability to teach the difference between fact, opinion and reasoned judgment.

The question remains for the instructor as to what are the most effective ways to accomplish the goals set out by Paul. Bowers (2004) writes that, “Designing and integrating instructional activities to teach students critical thinking can be hard, especially when lectures, rote memorization and the use of multiple choice tests are easy” (p.20). In addition, Diane Halpern (1999) writes that, “Critical thinking is more than the successful use of the right skill in the appropriate context. It is also an attitude or disposition to recognize when a skill is needed and the willingness to exert the mental effort needed to apply it” (p. 72). Halpern’s quote is significant in that it identifies that effort is not just required of the instructor, but also on the part of the student.

Delivering critical thinking in the classroom. Through the literature review, the Core Team found that Instructors have many ways to organize the teaching of critical thinking skills that promote student learning more effectively and at a deeper level. Instructors may make the process explicit to the student and provide multiple and ample opportunities to practice the skills. They may also provide opportunities across subject areas to encourage transferability of

the skills from one setting to another and be persistent over time in the expectation of the academic standard.

A major component of critical thinking pedagogy is the need to make the process explicit to the student so that they understand its standards and the language used to convey its expression. Further, students must be able to delineate the differences between such things as (a) logical deconstruction of an argument, (b) validation and assessment of source materials and (c) the ability to be unbiased and open to opposing viewpoints. Bowers (2004) identifies a number of classroom activities that can aid in the development of critical thinking skills, including (a) guided discussion, (b) debate, (c) role-playing, (d) problem solving, (e) case studies, (f) group projects, (g) simulations, (h) model building, (i) project design, (j) performances, (k) presentations, (l) experiments, (m) research and (n) interviews. She also stresses the importance of making the purpose of the exercise explicit to the student. All of these activities require the active engagement of the student in the learning process.

With respect to providing multiple and ample opportunities to engage the processes of critical thought, the literature is somewhat divided as to its delivery. Some believe a special course in critical thinking provides better outcomes; others believe incorporating the process of critical thought into a content specific course yields better results. Donald L. Hatcher (2006) reports on a longitudinal study conducted at Baker University in Baldwin City, Kansas. At this university, they offered a two-semester first-year course that connected the teaching of argument analysis with two writing courses. In addition, they also offered a senior-level capstone course: science, technology and human values. As part of the course requirement, the students must complete an independent research project in an area of their choosing.

Over a period of 15 years, and using various standardized critical thinking tests, the students in the two-semester first-year courses outperformed both comparison groups from other universities and the national mean for value-added critical thinking skills. Baker University attributes its success to the intense focus of their program on the following components: (a) a specific component of critical thought-argument analysis, (b) the length of a two-semester exposure and (c) multiple opportunities to practice the skills. In addition, measures of critical thinking abilities in their senior-level capstone course indicate a higher level of value-added critical thinking skills across their undergraduate experience than comparison institutions.

Another study, cited within Hatcher (2006), conducted by Tom Solan (2006), infused 10 hours of critical thinking instruction into one section of general psychology and none in a control section. Solan used chapters 4 – 7 of Diane Halpern's *Thought and Knowledge* (2003) for the content providing for (a) rigorous coverage of deduction, (b) argument analysis, (c) hypothesis testing, (d) probable inferences and (e) informal fallacies. He also provided multiple opportunities for repeated applications of the knowledge.

Using the Cornell Level Z Critical Thinking Test to measure improvement in a pretest/posttest design, the experimental group showed an effect-size gain of 0.87. The corresponding effect-size gain for the control group was 0.10. These results even outperform the results of the Baker study. The conclusion from review of these studies is that making the critical thinking process explicit for the student is key. Additional factors that lead to increases in critical thinking skills are giving students many opportunities to apply the skills in a meaningful way and to emphasize critical thinking pervasively across the institution. Therefore, the organization of the course is not the determining factor, whether it is a specialized critical thinking course or a content-specific course that purposefully integrates critical thinking. Instead, the course must be explicit and provide ample opportunities for practice of the skills. In addition, the focus across the curriculum and institution must be on building students' critical thinking skills.

Young and Aoun (2008) propose that teaching students critical thinking skills can help them to cope with the requirements and expectations of college and help reduce failure rates without lowering standards. Thomas (2011) promotes an early interventionist approach where critical thinking is taught during the first year of college because that initiation will help students become aware of their need for critical thinking skills. That awareness will enable them to integrate the skills into their further studies and their work afterwards. This teaches students that they need these skills to be successful. This method has the potential to increase student buy-in to the importance of critical thinking early in their academic careers.

TCCD's QEP is focused on making the processes of critical thought explicit to students. *PowerOn's* organizational design is to expose the student early in their college career by targeting high enrollment courses first. Further, *PowerOn's* faculty development program will expose participating faculty members to the literature showing the importance of rigor and the need for multiple opportunities for students to practice the skills during the course of a semester. Tools to support this program include (a) Library Guides (LibGuides, online information guides created by library support staff), (b) Blackboard discussion boards, (c) workshops with critical thinking experts and (d) the collegiality of a Faculty Learning Community.

Applying the Literature to QEP Faculty Development

If Richard Paul (2005) is correct when he states that only 19% of the faculty members he interviewed could correctly define critical thinking and only 8% are actually teaching it, in spite of their self-reports that it is a learning objective in their classroom, then the challenges for faculty member professional development are daunting. Bowers (2004) tells us that designing and integrating instructional activities to teach students critical thinking can be demanding, especially when lectures, rote memorization and the use of multiple-choice tests are easy (p. 20).

Further, Halpern (2000) claims that critical thinking is hard work and requires motivation to exert mental effort on the part of the student. Therefore, the challenge to this QEP's faculty development program is to (a) garner buy-in from faculty members and (b) get faculty members to assume responsibility for challenging students to buy into the value and necessity for critical thinking. To this end, much deliberation and consideration was given to the structure and organization of the *PowerOn* faculty development program.

Elder (2004) proposes an ideal type of an effective professional development model for institutional efforts to increase students' critical thinking skills. Elder suggests that a faculty professional development program designed to enhance students' critical thinking skills across the breadth of the institution should be conscious of the following characteristics and issues:

1. Identify the gap between the ideal and the real.
2. Foster a critical thinking climate.
3. Understand the importance of administrative commitment to critical thinking.
4. Establish an advisory team to guide the process.
5. Take a long-term approach. Although the efforts will be more intense during the first few years of the program, for the effort to be transformational, it must become embedded within all areas of the institution to an extent that it can withstand the stress of administrative change.
6. Provide ongoing faculty member and staff workshops.
7. Provide activities and opportunities throughout the year that foster critical thinking. Elder suggests activities such as (a) a monthly newsletter inviting faculty members to share thoughts and insights about critical thinking, (b) a web forum where faculty members and staff can engage in a dialogue on critical thinking and (c) round table

- discussions where faculty members and staff can discuss evolving topics on critical thinking and related issues.
8. Link critical thinking to assessment, accreditation and the institution's mission.
 9. Sufficiently fund the program.
 10. Keep the focus on a substantive concept of critical thinking. Remember that the goal is to create deep thinkers and the selection of faculty professional development materials, speakers, workshops and initiatives must be made with a commitment to this core concept.
 11. Avoid political problems.
 12. Beware of intellectual arrogance. Faculty members may be resistant to the information because of their belief that they already understand and teach critical thinking.
 13. Avoid elitism. Be inclusive from the start.

Finding the appropriate model for QEP faculty development. The 13 previously mentioned points have helped drive the initiative of TCCD's QEP faculty development program. Informed by these points, the Core Team sought an effective organizational method to use for the program. Several concerns, cited above and based upon the Core Team's campus and District experiences, led to a conscious decision that success of the QEP faculty development program would be significantly related to District faculty member buy-in. The Core Team needed to find a faculty development model that would allow faculty members a high degree of flexibility over content and organization while ensuring that the program would give them the greatest chances of meeting the QEP's goal, a course that utilizes critical thinking as the pedagogical lens.

A 1983 study found that within the K-12 system, staff development sessions were ineffective in changing classroom practices (Joyce and Showers, 1983). This model of a one-time event, bringing everyone into the room, delivering large quantities of information and then sending them forth to produce was ineffective in transforming the activities of the classroom. Literature on student learning supports the ideas that learning is most enhanced when students actively engage the material, experience a sense of community in the classroom and have increased peer and instructor interaction (Bromwell & Swaner, 2009). Building on the student learning knowledge base, particularly the literature on student learning communities, Cox (2004) developed the concept of faculty learning communities (FLCs) (Cox).

The FLC topic-based model is advantageous for our purposes because it (a) has structured outcomes, (b) is intensive and (c) is focused on completing a specific outcome, such as designing a critical thinking enhanced course. This model also emphasizes (a) building a community, (b) researching the scholarship on teaching and learning and (c) orienting its activities for a team while also developing individual projects (Beach & Cox, 2009).

A well-executed FLC is seen as the QEP's best method for engaging faculty members in a process that will require them to own the training and to transform their courses and will discourage them from making superficial modifications. This model also respects the disciplinary expertise of individual faculty members and the value they place on classroom autonomy.

Assessing Students' Critical Thinking Skills

Assessing students' critical thinking skills is challenging. In part, the challenge comes from the lack of a consensus within the academic community as to what constitutes critical thinking. An elusive concept is difficult to measure operationally. This issue has been addressed by many colleges and universities in Texas through triangulation of a variety of measures, described in a study by the Accountability Peer Group Meetings among Texas Public Colleges and Universities

during 2009-2010 and the General Education Practices Survey. These multiple assessments were then evaluated for consistency among the measures as to the direction and size of change over time. In addition, as the accountability movement has gained momentum, post-secondary institutions have a greater need to demonstrate the “value-added” component by their institution at the course, program and institutional level (Brooks, 2012).

Assessment in a community college setting presents some unique challenges because of the characteristics of the student population. Because community colleges are open admission institutions, students come with varying levels of academic preparedness. As noted in the student demographics section of this report, during fall 2012, 63% of TCCD’s entering students were enrolled in at least one remedial course. This presents a significant issue when selecting a standardized test to assess critical thinking skills, as reading ability would affect test performance (Farley and Elmore, 1992).

Another problem faced in designing a research project to assess students’ critical thinking skills in a community college environment is the issue of sampling. Students at community colleges tend to be older, work a significant number of hours outside of school and often have families for which they are responsible. These factors make participation in out-of-class testing a barrier to obtain a significant sample size, even when incentives for taking the test are provided. Additionally, students often enter the community college for reasons other than pursuing an associate degree and often create their own informal academic plan based upon their career, transfer or personal objectives (Bers, 2005).

Studying standardized critical thinking tests. Several standardized tests (mainly multiple-choice format) have been developed to assess critical thinking, including the (a) California Critical Thinking Skills Test, (b) Cornell Critical Thinking Test, (c) Level X, (d) Collegiate Assessment of Academic Proficiency Critical Thinking Test (CAAP-CT), (e) James Madison Test of Critical Thinking, (f) Measure of Academic Proficiency and Progress, (g) New Jersey Test of Reasoning Skills, (h) The Test of Everyday Reasoning, (i) Test of Inference Ability in Reading Comprehension-multiple choice version and (j) the Watson-Glaser Critical Thinking Appraisal. A few require written responses, including (a) Assessment of Reasoning and Communication, (b) Collegiate Learning Assessment, (c) The Ennis-Weir Critical Thinking Essay Test, (d) International Critical Thinking Essay (ICAT) and (e) the Test of Inference Ability in Reading Comprehension-Constructed Response Version (Ennis, 2009).

Some of the advantages of using a standardized critical thinking exam include the company’s ability to provide norming data for a particular institution’s student population, telling the institution how its students perform relative to other similar institutions. Because these tests are used on a large population of students over time, a second advantage is that reliability and validity statistics for the exam can be calculated and published for public review. Third, multiple choice exams are more time efficient to score, resulting in lower institutional costs.

However, standardized critical thinking tests do have limitations. Tests vary as to which aspects of critical thinking they are measuring. Test makers tend to include only questions that have the lowest possibility of the answer being contested, a choice that results in a higher than expected proliferation of deductive logic questions. The risk also exists for interpreting students’ performance at a particular institution as the result of bad or good teaching. In empirical reality, test administrators do not know why students perform at a given level on the test. The test score only gives a measure of students’ critical thinking abilities, not the factors influencing the test score. Further, institutions and other entities may expect test scores to improve too quickly, not considering the extended time it takes to develop critical thinking skills (Ennis, 1993).

Using course-embedded assessments. Another empirical measure used by many colleges and universities is a course-level assessment of students’ critical thinking abilities

through (a) identified assignments, (b) projects, (c) test questions and/or (d) an exam. Schools vary in their processes of employing this method, with some using a common rubric for the assessment and others merely asking professors to self-report the number of students who met the SLO. Schools also vary regarding the number of programs, disciplines or sections of a course into which the assessment is implemented (2009-2010 Accountability Peer Group Meetings Report).

Course-level assessments are advantageous over standardized exams because they provide data on students' abilities to engage in applying critical thought in a more meaningful way. In addition, they are not as dependent upon the students' reading abilities. These assessments have the advantage of providing direct feedback, to both the faculty member and the student, as to strengths and weaknesses in the students' performance. If assessment is conducted at various points across the semester or program, they have the potential to gauge growth in the students' critical thinking abilities over time. They also provide a way to monitor the development of critical thinking skills in individual students. Finally, course-level assessments of critical thinking skills bring the importance of critical thinking to the forefront of the classroom experience for both the teacher and the student. (Hanover Research, 2011)

The disadvantages of course-level assessments are variations in rubrics used to grade assignments or projects. The rubric must be common in its assessment across sections to provide meaningful data. In addition, inter-rater reliability must be established so that the rubric is applied consistently and faculty members need training in applying the rubric.

Using indirect measures. Standardized critical thinking tests and course-level assessments are both direct measures of students' critical thinking abilities. In the process of triangulating data to enhance reliability of assessment findings, schools often combine direct measures of critical thinking with indirect measures. Common sources for these indirect measures are the (a) Community College Survey of Student Engagement , (b) National Survey of Student Engagement (for four-year institutions), (c) Survey of Entering Student Engagement , (d) graduate surveys, (e) employer surveys and (f) faculty and student focus groups (2009-2010 Accountability Peer Group Meetings Report).

These indirect measures are often a subjective assessment of the student, graduate or employer experience with critical thinking while (a) attending the college, (b) experiencing life choices after leaving the college or (c) working with graduates of the institution. For example, on the CCSSE, a series of questions ask students about the frequency of their classroom experiences with each level of Bloom's Taxonomy. This data can provide insight into what students perceive to be the academic expectations for student success. A possible response to this data is for individual faculty members to pause and assess what proportion of their class requirements are challenging students at each level of Bloom's taxonomy. In addition, it may indicate the need to be more explicit with students about the critical thinking goals of the classroom activities. Another interpretation is that faculty members are not promoting the importance of critical thinking well enough to their students if students perceive that faculty members are not spending much time at the higher levels of the taxonomy in the classroom. Data such as this can inform classroom-level changes as well as institution-level initiatives.

The assessment design for *PowerOn* aligns with the activities of other institutions across Texas and in other parts of the country. *PowerOn* will triangulate its data using direct measures such as the CCTST and classroom-based assessments of student artifacts, and indirect measures such as the CCSSE and the graduate survey used by the District. *PowerOn* has (a) conducted faculty members and student focus groups, (b) surveyed a breadth of stakeholder groups across the District and (c) held numerous formally scheduled chat sessions to gather data to drive the development of the QEP. In addition, the District has been, and remains, committed to

assessing and evaluating the processes developed to execute this plan. The plan is evidence-based at every step, and the QEP intends to maintain that posture throughout the five-year plan.

Implementing the QEP

TCCD's QEP is dedicated to improving student learning through explicit exposures to the processes of critical thought, an objective supported by professional development and measured by assessment. The professional development plan supports the QEP by utilizing a Faculty Learning Community (FLC) model to create critical thinking enhanced courses—labeled *PowerOn* courses—and ultimately bring about transformative change toward emphasizing explicit critical thinking in the classroom. Secondly, through assessment, the District will measure anticipated student improvement over the 5-year implementation period through (a) California Critical Thinking Skills Test (CCTST) scores, (b) Instructional Assessment measures and (c) indirect measures of student and graduate perceptions.

Implementing the Plan

Year 1: Fall 2013-Spring 2014. During fall 2013, the first semester of Year 1, the Core Team coordinated with (a) campus faculty members, (b) department chairs, (c) division deans, (d) vice presidents for academic affairs and (e) presidents to recruit the first cohort of full-time instructors from throughout the District to participate in the *PowerOn* faculty member professional development program. Year 1 of the *PowerOn* program prioritizes faculty who teach high enrollment credit courses that FTIC students tend to take during a six-semester period, as shown in Table 13 below. For a detailed view of the faculty deployment schedule, see Appendix I. Full-time faculty from the following Texas Higher Education Coordinating Board (THECB) Foundational Component Areas (Core Curriculum) courses will comprise the first *PowerOn* faculty member cohort:

- ENGL 1301, English Composition I,
- HIST 1301, United States History I to 1876,
- GOVT 2305, Federal Government,
- PSYC 2301, General Psychology and
- SPCH 1311, Introduction to Speech Communication.

Developmental courses are excluded because (a) they are deeply involved with *Achieving the Dream* initiatives and (b) the THECB Core Curriculum includes only credit courses.

PowerOn prioritizes THECB Core Curriculum courses with traditionally higher enrollment numbers of FTIC students. Thus, this plan will allow the critical thinking curriculum to reach the greatest number of students possible in the shortest amount of time. Targeting high-enrollment courses taken early in the students' college experience increases the probability that students will have the necessary critical thinking skills to be successful in later semesters. This early focus aligns *PowerOn* with the literature discussed in the literature review and best practices section of the proposal. It is worth noting that the course registration system will not indicate which courses are *PowerOn* to prevent students from perceiving these instructors and/or courses as special or more difficult, possibly resulting in lowered enrollments.

During fall 2013, the first cohort of *PowerOn* faculty members will receive specialized professional development toward the goal of transforming their courses to enhance explicit critical thinking pedagogy. During spring 2014, the first cohort will teach the initial offering of *PowerOn* courses. Each instructor will teach at least one section of the course developed during the semester of professional development. Conservatively, using the minimum of one section per faculty member, the anticipated number of seats available in *PowerOn* courses during Year 1 is 990 (33 faculty members x average of 30 students/section). Faculty members may implement these curriculum changes regardless of the delivery method, such as face-to-face or Distance Learning (DL) sections.

To support student learning outside the classroom, staff in areas such as academic laboratories, tutoring centers, libraries and other support services will have the opportunity to join in the faculty development workshop provided each fall. The director will ask campus administrators to submit staff names from these areas to fill seats left open for this purpose.

Year 2: Fall 2014-Spring 2015. In Year 2 of implementation, TCCD will increase the number of full-time *PowerOn* faculty members from 33 to 90. Following the previous year's patterns, faculty members will be recruited with fair distribution throughout the five campuses. The QEP will expand the targeted courses to include additional Core Curriculum courses taken by FTIC students. Table 13 shows the top 30 courses that the 2009 FTIC cohort completed over a six-semester term, excluding developmental education.

1	ENGL1301	5,897	11	BCIS1405	2,037	21	CHEM1406	582
2	HIST1301	4,108	12	ARTS1301	2,031	22	SPAN1411	539
3	SPCH1311	3,671	13	COSC1401	1,668	23	PSYC2314	495
4	GOVT2305	3,589	14	MUSI1306	1,213	24	BIOL1409	382
5	ENGL1302	3,465	15	BIOL1408	1,158	25	ECON2302	298
6	PSYC2301	3,215	16	PHIL1301	1,133	26	DRAM1310	293
7	HIST1302	3,133	17	ECON2301	1,125	27	ACCT2301	280
8	GOVT2306	2,760	18	BIOL2401	1,074	28	BIOL2402	259
9	SOCI1301	2,340	19	SPCH1321	890	29	BUSI1301	258
10	PHED1164	2,254	20	GEOL1403	630	30	BIOL1406	215

The second group entering the *PowerOn* faculty development program during fall 2014 will develop enhancements for their courses to emphasize critical thinking practices. During spring 2015, that group will also teach at least one section of a *PowerOn* course, resulting in an anticipated 90 new critical thinking sections from this FLC.

See Table 14 for the projected number of *PowerOn* faculty members who will participate in the plan along with the projected number of **seats** available in *PowerOn* courses over the five-year plan.

Years 3-5, Fall 2015-Spring 2018. One hundred new faculty members will create a new cohort during each of the next three years of QEP implementation. Starting in Year 3, adjunct faculty members will join the FLCs and receive training to offer *PowerOn* courses. Adjunct faculty members join in Year 3 so that an adequate number of full-time faculty members are trained and prepared to mentor the adjuncts through their professional development program. In each of these three years, at least 100 new sections will be available. The projected yearly totals of faculty members, sections and *PowerOn* seats for students during the five-year plan are shown in Table 14.

	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
New <i>PowerOn</i> faculty	33	90	100	100	100	423
Previous <i>PowerOn</i> faculty	0	33	123	223	323	n/a
<i>PowerOn</i> sections/year for new faculty	33	90	100	100	100	n/a
<i>PowerOn</i> sections/year for previous faculty	0	66	246	446	646	n/a
Total <i>PowerOn</i> sections/year for all faculty	33	156	346	546	746	1,827
SEATS in all <i>PowerOn</i> courses (averaging 30 students/section with faculty teaching 1 section)	990	4,680	10,380	16,380	22,380	54,810
SEATS in all <i>PowerOn</i> courses (averaging 30 students/section with faculty teaching 3 sections)	2,970	14,040	31,140	49,140	67,140	164,430

In Table 14 above, the total numbers of potential **seats** available in *PowerOn* courses are broken down into two scenarios: (a) the faculty member teaches only one section of their *PowerOn* course and (b) the faculty member teaches three sections of their *PowerOn* course. Until actual enrollments for each year of the plan are determined, the total number of **students** who enroll in at least one *PowerOn* course over the course of five years is unpredictable. The actual number of students who complete one *PowerOn* courses and the total number of *PowerOn* courses each student completes will be reported in the end-of-year report and in the Fifth-Year Report.

PowerOn Faculty Development Program

A foundational and necessary element of any QEP is professional development. For TCCD, the QEP faculty development plan will support faculty members in increasing student critical thinking skills through an explicit process, delivered not as a separate course but embedded within the content of discipline-specific courses. With this goal in mind, the QEP will model its faculty development program for identified faculty members on Faculty Learning Communities (FLCs), which will (a) empower instructors, (b) allow for content and course specific flexibility and (c) embed assessment.

PowerOn FLC, Year 1. During initial FLC sessions, the 33 faculty members will learn about the desired outcomes for the FLC. Specifically, each faculty member will enhance curriculum to make the language and processes of critical thinking explicit in their course. Participants will become familiar with TCCD's definition of critical thinking and the QEP's SLOs. Beginning group work will center on elements for transformative course redesign within a framework of established expectations, goals and standards. The faculty members will be familiar with these elements, as they were included in the initial faculty members' invitation to join the QEP initiative. Faculty members will choose the best methods to incorporate critical thinking into their specific disciplines by (a) participating in the activities, (b) sharing in group discussions and (c) interacting with various speakers and consultants. The FLC cohort will meet for organized sessions, with campus and/or discipline cohorts opting for additional meetings.

The Core Team will help plan and facilitate the initial semester-long professional development program deployment for the first FLC cohort in preparation to implement their critical thinking enhanced courses the following spring semester. The Core Team will propose to the first FLC cohort an agenda of meeting times, activities, outside speakers and deadlines. While the Core

Team will emphasize the FLC model's parameters, the cohort may modify the plan within those parameters. The cohort may suggest keeping, modifying, deleting or replacing any of the activities or speakers, while still maintaining the high standards for their outcomes—the redesigned courses. Faculty members are encouraged to make suggestion on restructuring the faculty development program in which they are currently participating and for the next cohort that they will help facilitate. For example, Dr. Enoch Hale will lead an educational session during fall 2013; the first cohort will help determine, if and when, he will lead future FLC sessions for TCCD. Part of their FLC training will include the processes and best practices for facilitating the next critical thinking FLC.

PowerOn FLC, Years 2-5. During Year 2, the first FLC cohort of 33 faculty members will return as facilitators for the second cohort of 90 faculty members and 10 support staff. Faculty members will develop an enhanced critical thinking course; staff, such as tutors and librarians, will learn critical thinking methods so they may support students outside the classroom. During Years 3-5, 100 faculty members will participate in each FLC and facilitators will be selected through an application process from among those who have completed a *PowerOn* FLC. Faculty members may repeat as facilitators.

Establishing procedures for faculty members to create additional *PowerOn* courses. A course may only be officially identified as a *PowerOn* course when instructors develop a course as part their FLC experience. Faculty members may develop only one *PowerOn* course during any FLC. During a faculty member's initial FLC in Years 1-5, he or she will develop one critical thinking enhanced course in fall semester and deploy that course during the spring semester. In Year 2, facilitators from fall 2013 FLC will focus entirely on deploying the second phase of the FLC, specifically transitioning from member to facilitator; facilitators will not develop additional courses during Year 2. In Years 3-5, FLC completers may create additional *PowerOn* courses by one of two methods: (a) becoming an FLC facilitator or (b) repeating as an FLC participant, with preference given to new participants.

This practice does not imply that faculty members cannot use the critical thinking techniques in other courses they teach, but they will not be official *PowerOn* courses. Designation as a *PowerOn* course indicates that an instructor has transformed a specific course through the FLC process and meets standards for certification through peer review. However, the spirit of the QEP is to create transformative change within classrooms across the District. A primary objective of the Core Team has always been to develop a QEP that fosters critical thinking as a pervasive element across the District. It is understood that some instances of expressing critical thinking in the curriculum will not be officially assessed. The Core Team anticipates that as the classroom focus on critical thinking increases throughout the five-year plan, whether or not those skills are directly related to taking *PowerOn* courses, that the student scores on the CCTST will improve and that improvement will eventually be irrespective of the students' completing *PowerOn* courses. At this juncture, evidence will support the assertion that critical thinking has become embedded in TCCD's culture.

Supporting the faculty members. To support faculty members, the Core Team has created various electronic resources. First, the District's Distance Learning support staff generated a community in Blackboard, the District learning management system. In this community, the cohorts and facilitators may share resources relevant to professional development and course redesign. In addition, the District's library personnel developed a LibGuide, an online site for storing and organizing critical thinking resources for faculty members, separate from the student Critical Thinking Library Guide (LibGuide). FLC members are encouraged to suggest additional support services.

Supporting the faculty development program. The QEP faculty development program benefits—both in logistics and institutional support—by officially collaborating with The Faculty Academy (TFA), under direction of Dr. Theresa Stewart Mouchayleh. TFA personnel will assist in procuring related professional development resources, such as webinars, speakers and workshops. TFA will create the online registration portals for our activities in *TCC LearnCenter*, TCCD's professional development registration system, allowing the cohort to register for events and create a transcript. Further, as dean of TFA, Dr. Mouchayleh will consult on best practices for faculty development topics, activities and paradigms. The QEP will also collaborate with TFA to suggest professional development activities related to critical thinking for non-QEP faculty and support staff. Additional professional development for Core Team members will include attending SACSCOC and QEP-related conferences and team-building workshops.

Assessing the faculty development program and support elements. Ongoing assessment protocols built into the QEP's faculty development program will ensure a pattern of continual improvement. First, as noted above, FLC members will assess each faculty development activity using a Class Climate evaluation written specifically for that event. Further, they will assess the FLC model during and at the end of the semester of faculty development to determine if it is the appropriate model for revising curriculum. The evaluation will also ask participating instructors to rate and comment on the effectiveness of faculty development activities based on the practices they are still using six months after completing the program. The Core Team and the members of the first FLCs will analyze and apply the results of the formative assessments to make changes as needed during the semester. The cohort will primarily use the summative assessments as they plan Year 2's faculty development activities and choose an appropriate faculty development model.

Effectiveness of the LibGuide and Blackboard community will be assessed by quantitative usage numbers and an FLC-created rubric, potentially including qualitative surveys of its use and effectiveness for faculty members.

The redesigned courses will undergo multiple evaluations. First, instructors will share course materials with cohorts for peer reviews. Second, they will present a sample class activity or assignment to their peers toward the end of the faculty development semester. Third, FLC peers will visit classrooms and review each other using a cohort-created classroom visit rubric.

The Core Team's responsibility regarding assessment of the Faculty Development Plan is to guide the faculty members in creating the curriculum and assessment tools. For consistency in assessment, every effort will be made to use the assessments created by the first cohort throughout the five-year implementation.

Establishing a method for student assessment of *PowerOn* courses. The first FLC cohort will create a student course evaluation rubric to examine the effectiveness of the critical thinking curriculum, which students will complete at the semester's end. It will focus specifically on the critical thinking aspects of the course.

Using the FLC model for faculty development provides an organizational framework to create critical thinking enhanced courses. Faculty members (a) choose the training method and the content, (b) determine the best methods to infuse critical thinking into their courses and (c) evaluate the outcome of the revised course. Through their participation in faculty development activities, they become the experts and in turn train the next group of faculty members. They are empowered at each step of the process.

Establishing a Timeline

Table 15 below details the QEP activities planned for implementation Years 1-5; activities are grouped by categories. Page numbers are given to guide the reader back to the associated section of the proposal.

Please note than many QEP implementation activities repeat each year; therefore, only one table of activities is provided. Where activities differ in a particular year, a notation is made within that activity.

Key Abbreviations: Fall (F), Spring (S) and Summer (SU); Administrative Office Assistant of director (AOA); *PowerOn* faculty (PF); Public Relations (PR).

Table 15. Timeline for Implementation: Fall 2013 - Spring 2018				
F	S	SU	Activity	Initiated by / Involved
x			Begin Pre-Implementation of QEP. <ul style="list-style-type: none"> Year 1: fall 2013 	Director, coordinators
PowerOn Student and Faculty Member Engagement and Communications; pages 18				
x	x	x	Create and distribute <i>PowerOn</i> marketing materials: flyers, posters, badges, lanyards, quick-look cards, carabiners, student critical thinking cards and <i>Essential QEP Guide to SACSCOC Visit</i> . <ul style="list-style-type: none"> Years 2-5: <i>Essential Guide</i> will be revised to remove SACSCOC visit information. 	Core Team, AOA, district graphics personnel, PR/Marketing personnel, PF, students, staff
x	x	x	Regularly (monthly, at minimum) update QEP Internet and Intranet sites.	Director, IRPE, AOA, Web communication personnel, PR/Marketing, district graphics personnel; coordinators
x	x	x	Conduct events to promote student engagement in QEP with campus student organizations; at least 2/semester; create report of events and post on QEP Internet site; contact District photographer as needed.	Coordinators, AOA, director
x	x	x	Conduct campus-based coordinator chats targeting faculty members, staff and administration; at least 2/semester; use appropriate survey tool; create report and post on QEP Internet site.	Coordinators, AOA
x	x	x	Enlist local employers to facilitate discussions on campus about application of critical thinking skills on the job (once a semester on each campus). <ul style="list-style-type: none"> Enlist in fall for spring; spring for summer; summer for fall. 	Director, PF, coordinators
x	x	x	Ask for opportunities to spread the <i>PowerOn</i> message to advisory, student organization and departmental meetings; conduct presentations; post presentations on QEP Internet site.	Director, coordinators, deans, chairs, advisors

x	x		Survey TCCD constituents on awareness of QEP and best ways to promote critical thinking across the District; use appropriate survey tool; compile report and post on QEP Internet site.	Director, AOA, Coordinators
PowerOn Faculty (PF) Recruitment; page 32-33				
x	x		Ask department chairs of targeted courses across District to request 2-3 faculty member volunteers from each targeted course; approvals by campus administration occur before names are submitted to coordinators; coordinators submit names to director. <ul style="list-style-type: none"> • Year 1: early fall 2013. • Years 2-5: process will begin preceding spring. 	Director, coordinators
x			Survey faculty members, chairs, deans, vice presidents for academic affairs and presidents on recruitment process; analyze data and create report; send back for comment and redistribute.	Director, AOA
PF Faculty Development; page 33-36				
x			Conduct orientation meeting for PF by week three of semester; assign coordinators to FLC group; direct coordinators to begin FLC discussions.	Director, facilitated by coordinators
x	x		Organize and facilitate FLC meetings and deadlines.	Coordinators
x	x		Ask campus presidents to submit names of staff to attend the formal critical thinking workshop with faculty. <ul style="list-style-type: none"> • Year 1: early fall 2013. • Years 2-5: process will begin in preceding spring. 	Director
x		x	Inform faculty members and staff of the main critical thinking workshop dates/times; provide workshop by end of September. <ul style="list-style-type: none"> • Year 1: early fall 2013. • Years 2-5: process will occur in preceding summer. 	Director, TFA dean
x			Assess faculty members on effectiveness of orientation meeting and formal workshop within 2 weeks of professional development; use appropriate survey tool; create report and send back to faculty members for comment; post on QEP Intranet page.	Director, TFA dean
x	x		Inform PF of upcoming faculty development events such as webinars; request from PF: titles of books to purchase for library and ideas/speakers for faculty development activities; collaborate with TFA to provide appropriate faculty development activities.	Director, TFA dean, campus librarian
x	x		Assess PF perception of effectiveness of faculty development activities at the end of the year-long program and six months after completing the program; use appropriate survey tool; create report and send back to faculty members for comment; post results on QEP Internet site.	Director, AOA, coordinators
	x	x	Assess PF perception of involvement in QEP process; use appropriate survey tool; create report and send back to faculty members for comment; post results on QEP Intranet site.	Director, AOA, coordinators
x	x		Conduct PF peer reviews of course development and implementation; PF and Core Team will create rubric for FLC to self-score; create report and send to PF and Core Team for comment; post final report on QEP Intranet site.	PF, coordinators, director

Assessment of Student Learning Using CCTST; page 49-51				
x	x		<p>Baseline Testing</p> <ul style="list-style-type: none"> Year 1: fall 2013 and spring 2014 <p>Ongoing Testing</p> <ul style="list-style-type: none"> Years 2-5: spring 2015-spring 2018 	PF, Director, Coordinators, AOA, DSS personnel, faculty volunteers
x	x		<p>Notify department chairs and SOCI 1301 faculty members in select sections of upcoming administration of CCTST in their classroom; Instruct faculty members to give coordinator 4 days advance notice of exam administration date and need for any Disability Support Services (DSS) accommodation; Alert DSS of upcoming testing.</p> <ul style="list-style-type: none"> Year 1: early fall 2013; for spring 2014, will occur mid-October 2013. Years 2-5; will occur in preceding semester. 	Director, coordinators, DSS personnel
x	x		<p>Request one faculty member volunteer per campus to assist coordinators with CCTST distribution/collection and other QEP events.</p> <ul style="list-style-type: none"> Year 1: fall 2013 mid fall. Years 2-5: will occur in preceding spring. 	Director, coordinators
x	x		<p>Deliver CCTST testing packets to faculty members at least two week-days before exam administration. Packets will include: exams, response forms, exam verification form, pencils and instruction sheet for faculty members.</p>	Coordinators, AOA, faculty volunteers
x	x		<p>SOCI faculty members will administer CCTST to students in select sections during weeks 1-3.</p>	PF
x	x		<p>Collect CCTST exam material from faculty members within 48 hours of test administration; ensure receipt of all testing materials; ensure student names and IDs are legible; box and mail response forms for grading within three weeks of test administration; destroy/recycle used exams; secure left-over exam materials.</p>	Coordinators, AOA, faculty volunteers, director
x	x		<p>Submit electronic CCTST data (received from exam company) to IRPE for processing and analysis; ask IRPE to analyze data; create report and post aggregate data on QEP Internet site.</p>	Director, coordinators, IRPE, instructional assessment director
x	x		<p>Survey SOCI faculty members about CCTST administration process within two weeks of test administration; create report and send back to SOCI faculty members for comment.</p>	Director, AOA
x	x		<p>Assess student perception of CCTST within 2 weeks of taking exam; use appropriate survey tool; create report and post on QEP Intranet page.</p>	Director, AOA, coordinators

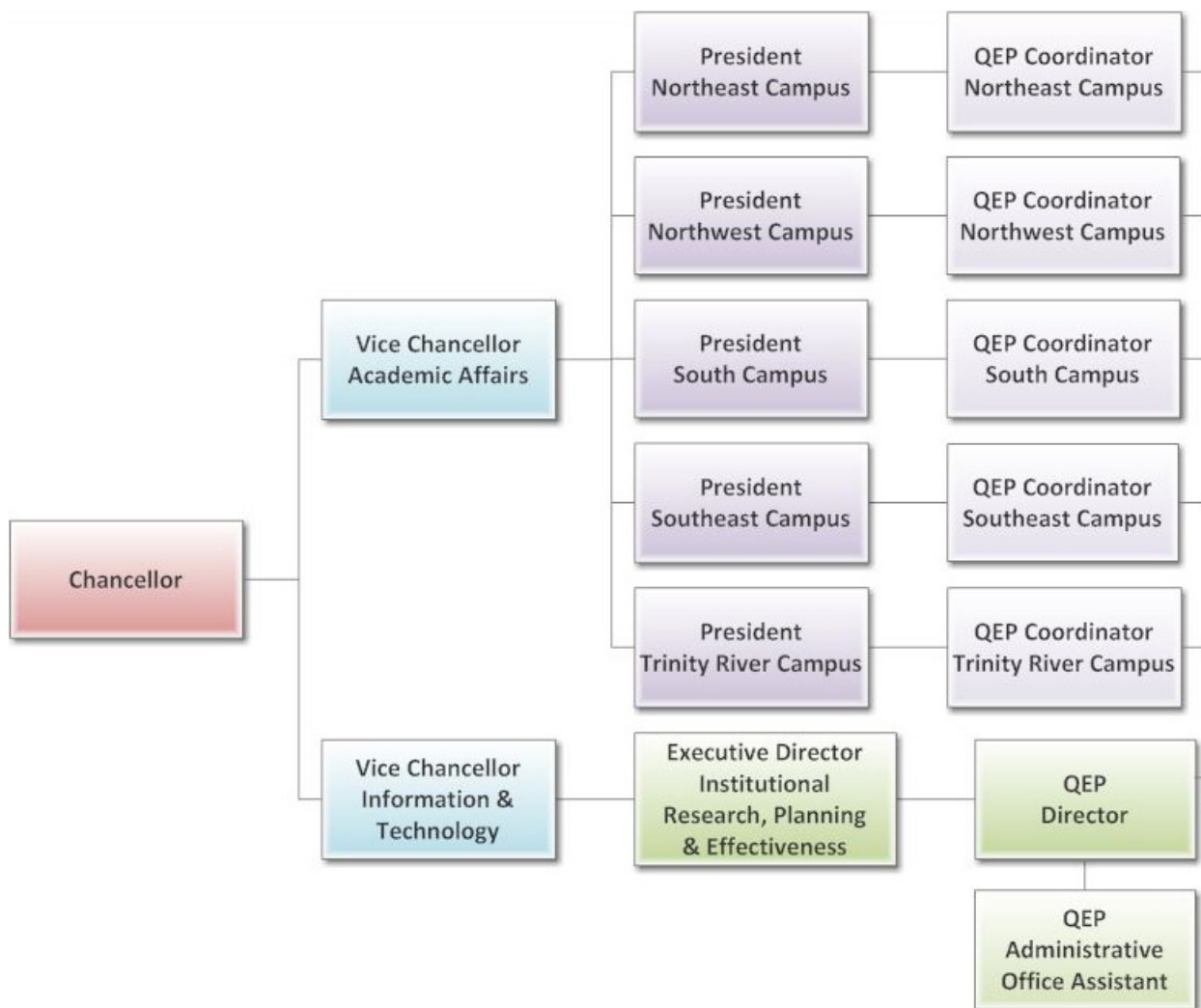
Assessment of Student Learning Using Faculty-Created Rubrics; page 51-52				
x	x		<p>Baseline Testing</p> <ul style="list-style-type: none"> Year 1: spring 2014 and fall 2014 <p>Ongoing Testing</p> <ul style="list-style-type: none"> Years 2-5: spring 2015 – spring 2018 	PF, director, coordinators, instructional assessment director, external consultant
x	x		<p>Hire external consultant to conduct rubric training and norming workshop for PF; survey attendees within 2 weeks of event; create report and post on QEP Intranet site.</p> <ul style="list-style-type: none"> Rubric training in fall, during weeks 3-5 	Director, AOA, director of instructional assessment, dean of TFA, PF, coordinators
x	x		<p>PF administer (a) early assignment (during weeks 1-3) and (b) late assignment (during weeks 13-16) for purposes of rubric assessment.</p> <ul style="list-style-type: none"> Year 1: spring 2013 Years 2-5: fall and spring 	PF
x	x		<p>Hire external consultant to conduct rubric inter-rater reliability sessions for PF during weeks 4-6 of each spring (to assess early assignment) and during weeks 2-5 of succeeding fall (to assess late assignment).</p>	Director, AOA, director of instructional assessment director, dean of TFA, PF, coordinators
x	x		<p>Collect rubric scores; ask IRPE to analyze data; create report and post aggregate scores on QEP Internet site.</p>	PF, coordinators, AOA, director, IRPE
x	x		<p>Assess student perception of <i>PowerOn</i> course in week 15 of semester; use appropriate survey tool; create report and post on QEP Internet page.</p>	Director, AOA, coordinators
Other Assessments; pages 53-54				
		x	<p>Analyze CCSSE, graduate survey and other student survey related to improvements in critical thinking, testing instruments and classroom experiences; create report and post on QEP Internet site.</p>	Director, AOA, coordinators, IRPE
x	x	x	<p>Conduct end-of-semester meetings with coordinators to assess plan processes and evaluate data received from all sources; devise plans for revision; present to administration for approval as needed.</p>	Director, AOA, coordinators, PF, administration
	x	x	<p>Hire external consultant to assist with end-of-year and Fifth Year report; in spring, search for consultant to hire for summer.</p> <ul style="list-style-type: none"> Years 1 and 3: End-of-year report Year 5: Fifth Year report 	Director, AOA, coordinators, PF

Other Professional Development Activities (non-PF); page 36				
x	x	x	Collaborate with TFA to suggest critical thinking workshops/seminars for non- <i>PowerOn</i> faculty members.	Director, coordinators, TFA dean, PF
x	x	x	Attend SACSCOC and QEP-related conferences.	Director, coordinators

Contextualizing the QEP into the District’s Organizational Structure

Personnel are crucial to any QEP’s success, and TCCD has shown strong support by creating one position and reassigning five instructors and one support staff, as shown in the organizational chart below in Figure 2. The District added the permanent position of QEP director, a District-level administrator within the Institutional Research, Planning and Effectiveness (IRPE) office who reports directly to the IRPE executive director. A full-time administrative office assistant, reallocated from TR Campus Continuing Education, supports the QEP director. The IRPE executive director reports to the vice chancellor for information and technology, who reports to the chancellor. Also, five faculty members received a 100% reduction from teaching responsibilities to work full-time toward QEP planning, implementation and assessment. Each QEP campus coordinator completes QEP-related assignments under the director’s supervision yet maintains faculty member status and officially reports to the respective campus president.

Figure 2. Organizational Chart



Ensuring Institutional Capability

TCCD has a sound financial base and demonstrates financial stability to support the mission of the institution and the scope of its programs and services. Its financial strength is such that the District was able to keep its overall tax rate unchanged for six consecutive years from 2005 to 2010. The District has also been able to maintain the same rate on in-District student tuition for five consecutive years until the 2011-2012 school year when the Board of Trustees raised the rate from \$50 to \$52 per semester credit hour.

Significant factors that have contributed to TCCD's favorable financial position are (a) sound budget planning, (b) careful execution of District budget operations through budgetary controls and accounting on a fund basis and (c) the District's "pay-as-you-go" method of financing capital outlay expenditures.

The institution fully supports the (a) initiation, (b) planning and development and (c) implementation as evidenced by allocation of funds for the QEP. Although not a separate line item in the District budget, the QEP has allocated funds within the Institutional Research, Planning and Effectiveness (IRPE) department budget. The District budget is approved annually by the Board of Trustees. To begin planning and development of the QEP, the budget for IRPE (which includes the SACSCOC budget) was increased by \$50,000 for the 2012-2013 budget period. For the budget year 2013-2014, the Board of Trustees approved the QEP projected costs (\$249,750) on August 19, 2013. Further indication of support for the QEP was shown by the approval of the five-year projected plan by the chancellor and the Chancellor's Executive Leadership Team (CELT) on September 30, 2013.

Creating Positions, Reallocating Personnel and Creating Partnerships

To manage planning, development and implementation of the QEP, a full-time director was hired in July 2012. In August 2012, five full-time faculty members (one from each of the five campuses) were temporarily reassigned as coordinators receiving a 100% reduction in their teaching load. Their teaching loads are backfilled by adjunct instructors. The job description of both positions are in Appendices B and C. In April 2013, a full-time administrative office assistant was provided to the director.

The QEP also requires staff time from personnel not linked financially to the QEP including the (a) director and an administrative office assistant (AOA) of instructional assessment, (b) the executive director, administrative assistant, research analysts and others from IRPE and (c) and the dean and assistants in TFA. The budget shown below does not include salaries for these personnel.

Providing Physical Spaces

Sufficient physical space for the director and AOA are provided at the Trinity River (TR) campus in an area where other District employees work. The coordinators retain their existing campus offices. Spaces for meetings or workshops are adequate. Once such location is the Tarrant County College Opportunity Center, an off-campus District location centrally located between all five campuses. This facility can accommodate small- to medium-sized meetings or workshops. In addition, each campus has sufficient space for small- to medium-sized meetings. Large meeting or workshop space is generally found on the Northeast (NE), South (SO) and TR campuses.

Budgeting for Faculty Member Stipends and Faculty Development

In addition to dedicated and reassigned personnel, the District shows great support for the implementation of the QEP by providing stipends to full-time faculty members who volunteer to become *PowerOn* faculty members and who will receive significant faculty development during

their course development and implementation phases. They will also receive full credit for the 24 hours of required yearly professional development activities. Note that the term *professional development* is used by the District to mean activities such as workshops or presentations that are approved by one's supervisor and that are required by the District. These typically are offered through TFA. In the context of the QEP, the term *faculty development* is used to distinguish between the two program.

TFA will provide funds for approved professional development for all *PowerOn* faculty members. Adjuncts who become *PowerOn* faculty members starting in Year 3 will receive training that fits within the currently required eight hours of professional development for adjuncts; in addition, they will continue to be paid for these hours out of The Faculty Academy (TFA) budget.

Note that QEP budget below does not reflect funds for faculty development or adjunct stipends paid out of TFA budget; as the TFA dean will fund all appropriate professional development activities related to the QEP. Evidence of support for faculty development in Fall 2013 includes (a) \$6,000 for Dr. Stephen Brookfield's presentations on critical thinking to all faculty members, staff and administration; (b) \$900 for Ms. D. J. Henry's rubric workshop; (c) \$4,000 for Dr. Enoch Hale's 2-day workshop on critical thinking for *PowerOn* faculty members and (d) \$4,000 earmarked for QEP-related webinars throughout the 2013-2014 school year.

Funding the Direct Assessment

The QEP will use the California Critical Thinking Skills Test (CCTST) as one of its direct measures of critical thinking improvements. TCCD shows support for the research element within the QEP by providing funds for the purchase of an external testing instrument in quantities that can provide statistically significant data in potential student improvement. The IRPE department will also give *in kind* support by providing a means of QEP data storage, analysis and reporting.

Funding Other Expenses

Other areas well-supported by the budget are (a) travel to conferences related to the QEP topic, assessment and those provided by SACSCOC, (b) marketing, (c) local travel for personnel and faculty members, (d) student and employee engagement activities, (e) office supply costs and meeting expenses and (e) contingency funds for unexpected expenses during the year.

Viewing the Overall Budget

Table 16 below provides a summary view of the yearly projected QEP budget. Note: *In kind* funds for faculty members faculty development, adjunct stipends and non-QEP staff are not identified in this budget. *In kind* funds for the director, AOA, coordinators and the adjunct faculty members used as their course backfill are included. For the detailed projected budget, see Appendix J.

Table 16. Summary View of Projected Yearly QEP Budget						
Budget Category	2013-14	2014-15	2015-16	2016-17	2017-18	Totals
Personnel (amount of <i>in kind</i> funding included)	685,234 (612,984)	783,132 (632,982)	750,331 (657,081)	764,943 (674,693)	787,084 (692,834)	3,770,724 (3,270,574)
Faculty Development	30,700	26,900	29,000	28,000	20,800	135,400
Local Travel	23,500	47,100	51,800	51,800	51,800	226,000
Marketing	30,000	20,000	20,000	20,000	20,000	110,000
Student/Employee Engagement	16,640	26,000	26,100	26,100	26,100	120,940
Assessment	33,500	34,500	35,000	35,000	35,000	78,500
Miscellaneous	19,100	29,700	32,600	32,600	35,200	149,200
Contingency	24,060	20,000	20,000	10,000	10,000	84,060
Yearly Total (includes <i>in kind</i> personnel):	\$862,734	\$987,332	\$964,831	\$968,443	\$985,984	\$4,769,324
Yearly Total (without <i>in kind</i> personnel)	\$249,750	\$354,350	\$307,750	\$293,750	\$293,150	\$1,498,750

Assessing *PowerOn*

PowerOn seeks to transform student learning and is committed to the assessment of student learning outcomes (SLOs) and program effectiveness. This five-year plan will initially touch select students from across the District, eventually reaching a substantial percentage of the students, by presenting them with significant exposures to critical thinking processes and language. To assist in determining to what extent the curriculum changes are bringing about the desired improvement in student learning, the Core Team will gather data through the methods outlined in Table 17 below. Karen Kusler, Director of Instructional Assessment, collaborated with the Core Team to develop the assessment plan and its implementation. Throughout the five-year plan, the Core Team will use multiple measures to assess (a) student improvement in critical thinking skills, (b) effectiveness of the QEP faculty development program and (c) the impact and effectiveness of the *PowerOn* courses. The data gathered across these components will provide a summative assessment of the effectiveness of the *PowerOn* plan.

Table 17. QEP Assessment Target Goals				
Instrument	Frequency & Timing	Annual Target	5-Yr Target	Initiated By
Direct Measures				
CCTST: (a) Baseline (b) Ongoing Average score among approximately 3000 students in targeted sections of SOCI 1301.	Annually: (a) Baseline: fall 2013 and spring 2014 (b) Ongoing: every spring starting 2015	(a) Baseline: Average score will meet or exceed average score of other community colleges. (b) Ongoing: Yearly scores will improve above baseline.	Average score will increase by 10% over baseline scores.	QEP
CT Rubrics using Classroom Artifacts: (a) Baseline: Early and Late Artifact (b) Ongoing: Early and Late Artifact	Biannually: (a) Baseline: spring 2014 (b) Ongoing: each fall and spring starting in fall 2014	(a) Baseline: At least 50% of the sampled artifacts will meet or exceed acceptable ratings. (b) Ongoing: 5% more of the sampled artifacts compared to previous year will meet or exceed acceptable rating.	70% of the sampled <i>late artifacts</i> will meet or exceed acceptable ratings.	QEP

Indirect Measures				
<p>CCSSE: (a) Baseline: Existing 2010-2012 Aggregate Data for District. (b) Ongoing</p> <p>Target questions: (a) 5a: Memorize (b) 5b: Analyze (c) 5c: Synthesize (d) 5d: Evaluate (e) 5e: Applying (f) 12e: Thinking Critically and Analytically</p>	<p>Regularly</p>	<p>(a) Ongoing: Target questions: (a) 5a: combined 5% decrease in ratings of 3 - <i>quite a bit</i> and 4 - <i>very much</i>. (b) 5b through 5e and 12e: combined 5% increase in ratings of 3 - <i>quite a bit</i> and 4 - <i>very much</i>.</p> <p>Note that percent change will be used rather than a raw increase in percentage distribution.</p>	<p>Target questions: (a) 5a: combined 25% decrease in rating of 3 - <i>quite a bit</i> and 4 - <i>very much</i>. (b) 5b-e and 12e: combined 25% increase in rating of 3 - <i>quite a bit</i> and 4 - <i>very much</i>.</p>	<p>Student Success</p>
<p>Graduate Survey: (a) Baseline: existing data from Aug 2013 (b) Ongoing</p> <p>Target questions: (a) solve analytical problems (b) ask probing questions about the information around me (c) analyze a concept, experience, or theory into its basic parts (d) synthesize information in constructing new ideas (e) judge information or ideas based on a set of criteria (f) draw logical conclusions</p>	<p>Annually: Summer</p>	<p>Ongoing: 5% increase in ratings of <i>strongly agree</i>.</p> <p>Note: this score will be based on a raw increase of 5 percentage points to the previous year's percentage (i.e., 30% becomes 35%)</p>	<p>25% increase overall in ratings of <i>strongly agree</i>.</p>	<p>IRPE</p>

<p>Faculty Member Survey: Effectiveness of Professional Development Program (a) Baseline (b) Ongoing</p>	<p>Annually: (a) Baseline: 1. Fall after formal workshop and 2. Six months after completion of program (b) Ongoing: same schedule</p>	<p>(a) Baseline: 1. 70% of <i>PowerOn</i> faculty members will <i>agree or strongly agree</i> the formal workshop was effective. 2. 70% of <i>PowerOn</i> faculty members will <i>agree or strongly agree</i> the professional development program was effective. (b) Ongoing: 1. 3% increase in rating of <i>agree</i> or <i>strongly agree</i>. 2. 3% increase in rating <i>agree or strongly agree</i>.</p>	<p>1. 85% will <i>agree or strongly agree</i> the formal workshop was effective. 2. 85% will <i>agree or strongly agree</i> the professional development program was effective.</p>	<p>QEP</p>
<p>Student Survey: Perception of <i>PowerOn</i> Course (a) Baseline (b) Ongoing</p>	<p>Annually: (a) Baseline: spring 2014, week 14-15 (b) Ongoing: Every spring starting 2015, week 14-15</p>	<p>(a) Baseline: 1. 50% of students <i>agree or strongly agree</i> that the faculty members incorporated <i>quite a bit</i> of critical thinking activities into the course. 2. 50% of students will <i>agree or strongly agree</i> that the faculty members expectations to think critically were high (in classroom discussions, activities, assignments and exams). (b) Ongoing: 1. 5% increase in rating of <i>agree or strongly agree</i>. 2. 5% increase in rating of <i>agree or strongly agree</i>.</p>	<p>1. 75% of students will <i>agree or strongly agree</i> that the faculty incorporated <i>quite a bit</i> of critical thinking activities into the course. 2. 75% of students will <i>agree or strongly agree</i> that the faculty expectations to think critically were <i>high</i> (in classroom discussions, activities, assignments and exams.)</p>	<p>QEP</p>

Conducting Baseline Direct Assessment: External Standardized Exam

To measure students' critical thinking levels—for both baseline scores as well as ongoing scores over the next five years of implementation—the Core Team researched nationally recognized exams appropriate for matched pretests and posttests. After an exhaustive search of the various critical thinking assessments, the Core Team selected the California Critical Thinking Skills Test (CCTST), published by Insight Assessment, as the primary direct assessment measure. It is a well-established, robust test used frequently in higher education research (Behar-Hornstein & Niu, 2011). Many other college and university QEPs utilized the CCTST, such as El Centro College, Northwest Florida State, Palm Beach State College and South Georgia College. Further, it was the best match for the District's student demographics regarding (a) reading level requirement, (b) level of difficulty, (c) room to measure improvements in students' scores over time and (d) reliability and validity of the instrument. In addition, the CCTST can be normed for a community college population. Using a commonly administered instrument not only provides an opportunity for direct comparison to other institutions.

Considering Option 1: Pretest/Posttest research design. The Core Team considered two research designs for administering the CCTST exam. Option 1 was a pretest/posttest research design. A literature review showed that student scores on standardized critical thinking exams do not significantly improve during a single semester (Behar-Horenstein & Niu 2011). However, a significant increase is more likely over multiple semesters and exposures to critical thinking practices. The expectation is that it will take multiple semesters before students achieve any measurable improvement in critical thinking skills.

In using this research method, administering enough pretests to assure a sufficient number of posttests after two years would be particularly costly. Furthermore, high attrition rates were a factor. For first-time-in-college (FTIC) students enrolled in fall 2009 courses, only about 35% were still enrolled at TCCD in fall 2011. Because the District cannot identify which students will persist, virtually all incoming students would be required to take the test. For the aforementioned reasons, Option 1's pretest/posttest research design was rejected because it lacked fiscal responsibility and logistical feasibility.

Considering Option 2: Representative student samples. To study how to enact the design of Option 2, a multiple one-shot case study design, the Core Team searched for a method of selecting a representative student sample to obtain baseline critical thinking scores without testing all students. This configuration called for a course that best reflected the distribution by earned semester credit hours and student demographics (race/ethnicity, age and gender) of the overall TCCD population. Employing this sampling methodology would require administering the test only once a year and identifying the *index scores* (number of *PowerOn* courses completed) of each tested student.

An index score is a numeric representation of an individual or group's exposure to some occurrence. The social sciences commonly use index scores as a measurement technique. For example, if one were doing a study of high school student drug use and one hypothesized that children with family problems are more likely to use drugs, the researcher could create an index of family problems. A series of questions would be written assessing the student's exposure to a variety of family problems, such as violence in the home, incarceration and unemployment of a family wage-earner. If a student answered yes to a question, the researcher would record a score of one to the dataset. If the student answered *no*, it would be assigned a value of zero. By summing the values of the *ones*, or the *yes* answers, researchers can get a measure of the overall burden of family problems for a particular student. The data can then be analyzed to see if students who have higher index scores (multiple family problems) are more likely to use drugs.

Index scores will be a primary method of calculating student exposures to *PowerOn* courses. A *PowerOn* course has an explicit emphasis and enhanced exposure to critical thinking. These courses are taught by faculty members who have completed the QEP faculty development program, and the courses have been certified through peer review. For each *PowerOn* course that a student completes, he or she will receive a value of one in the dataset. By using an index score designed to calculate students' exposure to *PowerOn* courses, the Core Team will be able to address the basic research question: Do students with higher exposures to the change agent, *PowerOn* courses, have higher scores on the CCTST? Students' CCTST baseline levels will be established before the QEP is implemented; then over the five years of implementation, students will receive an index score for each *PowerOn* course they complete with a grade of C or better. It is expected that the more *PowerOn* courses students complete and the higher their index scores become, the higher their CCTST scores will be.

The Core Team selected Option 2 because it captures a picture of a sample at various points in time, but the sample is not inclusive of the same students. In this design, the Core Team is not tracking the critical thinking of individual students over time, but rather the development of critical thinking skills in representative samples of students over time.

Additionally, students will complete formative assessments during their *PowerOn* courses to assess curriculum and critical thinking practices. The data from these assessments will be collected so that, over time, a summative assessment of the *PowerOn* program and student critical thinking levels may be made. Last, TCCD students will complete various surveys to measure their perception of critical thinking involvement during their coursework at TCCD. All of these assessments will be used, both individually and collectively, as formative and summative assessments to measure student critical thinking levels and program effectiveness.

Deploying Option 2: To deploy Option 2, the Core Team will merge QEP needs with student needs. Wide-scale testing is needed, but the success rate for testing outside of a class setting is very low, as demonstrated by in an experiment of in-class versus out-of-class testing methods. Forty students were invited by their instructors to take critical thinking exams in the testing center, with the reward of a \$15 Subway Restaurant gift card; only two students participated. This understanding of TCCD students' need to spend minimal time on campus outside of class due to work and family obligations underscored the Core Team's necessity to find a course within which to administer the test.

The Core Team needed to identify a course with significant enrollment for sufficient samples but small enough not cause undue financial burden to the institution. Further discussion led to selecting Sociology 1301 (SOCL 1301) as the best fit. The distribution of earned semester credit hours for SOCL 1301 and the District compared over four semesters is comparable, as shown in Appendix K. The Core Team compared multiple semesters (fall 2010-spring 2013) to assure that the trend was consistent. Psychology 2301 has similar enrollment numbers, but it did not mirror the District population as well as SOCL 1301. (See Appendix K for Psychology 2301 enrollments.) The Core Team also compared demographic data to ensure that SOCL 1301 best mirrored the District's ethnic composition. (See Appendix K for percentage of ethnicities.)

In addition, the exam needed to be administered in a discipline with instructors willing to proctor the exam during class time within the first three weeks of the semester. Core Team members met with their respective campus sociology instructors and department chairs to respectfully request one class period per academic year for the next five years for testing. The Team explained the rationale behind selecting this course, and they informed the instructors and chairs about the QEP's need to assess students' critical thinking skills for a five-year period.

The sociology instructors affected by the testing process across the District agreed to administer the exam in their courses and give up an hour of instructional time. Their decision to support the

PowerOn testing process allowed the District to implement a direct assessment measure using an external standardized exam that benefited the students' schedules and fulfilled the QEP's need to gather data related to students' critical thinking skills.

Students enrolled in traditional sections of SOCI 1301 (excluding Distance Learning, dual credit and weekend college) will take the CCTST every spring semester during week two or three (the day will be determined by the individual sociology faculty members). The Core Team will compare data between each year's cohort, mainly analyzing the relationship between CCTST scores and index scores. Certain populations, primarily Sociology 1301 courses part of TCC Connect (Tarrant County College) are excluded from the CCTST due to logistical and test security concerns. Distance Learning (DL) students are excluded at this time because the exam is given in paper/pencil form and not all DL students are required to take exams on campus. In addition, logistics of testing the high number of DL students at one time in our five District testing centers is a barrier. Dual credit and Weekend College courses are excluded due to transition issues related to the start-up of TCC Connect.

Given all of the factors discussed here—student population, demographics, fiscal responsibility and compelling literature on critical thinking improvements—Option 2 appears to be the most efficient method of gaining an understanding of improvements in student outcomes related to critical thinking over the five-year implementation period.

Providing Ongoing Direct Assessment

Baseline CCTST scores are gathered in fall 2013 and spring 2014 (Year 1). The Core Team will then test SOCI 1301 students every spring semester during Years 2-5 as the ongoing direct assessment measure. Each year, the Core Team will compare CCTST scores between the baseline group and the students tested.

Overall, even without a curriculum that enhances critical thinking skills, it is reasonable to expect critical thinking test scores should improve as students continue their education at TCCD. For example, students with 45 semester credit hours should have higher critical thinking scores than students with zero credit hours. Student groups will be formed by total number of earned credit hours, and only within these groups will testing scores be compared. Test scores from a student with 45 earned credits hours in Year 3 of *PowerOn* will be compared to test scores from students with 45 earned credit hours tested during the CCTST baseline.

The Core Team expects that students with several exposures to *PowerOn* classes will have higher mean scores on the CCTST than those who have not taken *PowerOn* classes but have the same credit hours. Students will receive an index score based on the number of *PowerOn* classes they pass with a C or better as they progress through their education at TCCD. Each time a student completes a *PowerOn* class, he/she will increase his/her index score by *one*. Research indicates that students will show a marked improvement in critical thinking scores when they have multiple exposures (Behar-Hornstein & Niu, 2011).

Using Direct Assessment: Artifact-Based Measures

TCCD's QEP will also include artifact-based formative assessments to measure students' critical thinking levels at the beginning and end of each semester. These scores will also be part of the five-year program analysis as a summative measure, which will help determine the cumulative effect of the curriculum changes.

Creating the course-based assessments. The course-based critical thinking assessments include rubrics and assignments. Year 1 *PowerOn* faculty members will create course-specific rubrics, populated with discipline- and course-specific definitions of the student learning outcome (SLO) stems of (a) apply, (b) analyze, (c) evaluate and (d) create. Each

discipline will use the same rating scale to simplify the reporting structure and subsequent data analysis. During Years 2-5, *PowerOn* faculty members whose courses are new to the program will create new rubrics using the same parameters; *PowerOn* faculty members whose courses are not new to the program will refine the previous FLC's rubric. The five-year goal is to create fully vetted and refined critical thinking rubrics for all *PowerOn* courses.

All *PowerOn* faculty members will identify individual course-specific assignments for the assessment. For example, Government 2305 instructors will use the same rubric but not necessarily the same assignment. Primarily, all assignments will be similar enough in scope to maintain validity of the assessment process. Additionally, each discipline will agree upon a method of administering the assignment, such as in-class or take-home. Because the *PowerOn* faculty members and the Core Team are evaluating the application of the rubric, identical assignments are unnecessary. Ultimately, TCCD's Instructional Assessment office will utilize the critical thinking rubrics and assessments created by the *PowerOn* faculty members.

Conducting the course-based assessments. During weeks 1-3, *PowerOn* faculty members will proctor an *early* assessment, and they will grade their students' artifacts with the course-specific critical thinking rubric, recording scores on a QEP provided score sheet. Then, faculty members will send all artifacts to the QEP director's administrative office assistant (AOA). During weeks 4-6, the FLCs will conduct an inter-rater reliability session, using five artifacts per section that the Core Team randomly selects. Faculty members will report rubric scores from this secondary assessment to the AOA. Once inter-rater reliability has been established, all artifacts will be assessed by a second instructor. Instructors will give all score sheets to the AOA who will compile the data.

During weeks 13-16, *PowerOn* faculty members will follow similar processes and conduct a *late* assessment. They will identify an assignment similar in scope within their Faculty Learning Communities (FLCs) and administer it uniformly as an in-class or take-home assignment. They will grade their students' artifacts using the course-specific critical thinking rubric, recording scores on a QEP provided score sheet. The inter-rater reliability and secondary assessment session will take place during the next long semester by the original faculty members. Again, after inter-rater reliability has been established, a second instructor will assess all artifacts. The Core Team will complete a preliminary assessment during the summer to prepare for the fall assessment session with faculty members.

For both the *early* and *late* assessments, students will receive their evaluated rubric, evaluated by their instructor, so that they may understand their progress regarding the SLOs. *PowerOn* faculty members will determine if students receive a completion grade, bonus points, a graded score or other kind of grade for completing the assessment.

PowerOn faculty members and the Core Team will analyze the *early* and *late* artifact scores. Annually, the early and late rubric scores will be compared to determine the effectiveness of the *PowerOn* courses in developing students' critical thinking skills. In addition, within the five-year program, all scores will be analyzed from year-to-year to determine if early rubric scores improve over time as students' index scores increase. Further, at the end of the five-year program, each year's data will be analyzed to determine if students' early artifact scores increased, subsequently determining if TCCD elevated the level of critical thought as *PowerOn* courses became more prevalent throughout the curriculum.

Including Indirect Measures

Indirect measures of student learning will be assessed using the (a) Community College Survey of Student Engagement (CCSSE) and (b) in-house developed TCCD graduate survey.

Studying the CCSSE data. The District began administering the CCSSE in 2010, and 2012 data was used for QEP baseline data. The District plans to continue administering the CCSSE on a regularly scheduled basis. The QEP will use data from CCSSE to measure students' perception of the critical thinking enhancements in the classroom. It is hoped that the data will suggest a relationship exists between exposure to more explicit critical thinking in the classroom and survey scores on select questions, including those listed below.

- Questions 5a-e and 12e from the CCSSE relate to students' perception of the amount of critical thinking done in classrooms: *During the current school year, how much has your coursework at this college emphasized the following mental activities?*
 - (5a) Memorize: Memorizing facts, ideas or methods from your courses and readings so you can repeat them in pretty much the same form.
 - (5b)Analyze: Analyzing the basic elements of an idea, experience or theory.
 - (5c) Synthesize: Synthesizing and organizing ideas, information or experiences in new ways.
 - (5d) Evaluate: Making judgments about the values or soundness of information, arguments or methods.
 - (5e) Apply: Applying theories or concepts to practical problems or in new situations.
 - (12e) Thinking Critically and Analytically.

Using a graduate survey. The Core Team will use data from an emailed graduate survey created by IRPE to measure students' perception of the critical thinking emphasis at TCCD. The Core Team hopes data will suggest that a relationship exists between more explicit critical thinking in the classroom and survey scores. The graduate survey asks students to rate how well TCCD did to enhance the four *PowerOn* SLOs of apply, analyze, evaluate and create on a 5-point Likert scale, ranging from *strongly agree* to *no opinion/don't know* of excellent, good, fair, poor, N/A. The graduate survey questions related to the *PowerOn* student learning outcomes (SLOs) are listed in Table 18.

Table 18. Graduate Survey	
My experience at TCCD has enhanced my ability to:	
Question	PowerOn SLOs
Solve analytical problems	Apply
Think critically about information around me	Apply, Analyze, Evaluate, Create
Analyze a concept, experience or theory	Analyze
Synthesize information in constructing new ideas	Create
Evaluate the truth and accuracy of information	Evaluate
Draw logical conclusions	Analyze

May 2013 graduates were the first to complete the survey with critical thinking questions and their scores will serve as a baseline measurement. Graduates will be invited to complete this survey each summer throughout the five-year implementation plan and their responses will be analyzed to determine the perceived effectiveness of TCCD's critical thinking curriculum.

Including an Annual and Fifth-Year Assessment

While the primary assessment goal is to measure anticipated increases in CCTST scores for students with increased index scores, the Core Team also anticipates other relevant results from comparing all of the components of the program. The Core Team will complete a

summative assessment of the *PowerOn* program annually and at the end of the five-year program by making comparisons among the following data:

- Calculated index scores,
- CCTST scores,
- Classroom artifact scores using faculty-created rubrics (on early and late assignments),
- CCSSE,
- TCCD graduate survey,
- Survey of student perception of the CCTST
- Survey of student perception of *PowerOn* course,
- Survey of faculty perception on *PowerOn* faculty development program and involvement in the implementation process,
- Survey of sociology faculty on perception of CCTST administration process,
- Survey of discipline chairs and administration perception on *PowerOn* faculty recruitment process,
- *PowerOn Faculty* peer review of *PowerOn* courses,
- Survey of TCCD constituents on awareness of and participation in the QEP and
- Survey of Core Team perception of *PowerOn* implementation and processes.

For more details on timing of assessments, refer to the Timeline for Implementation, Table 15.

In Conclusion

The *PowerOn: Critical Thinking* plan demonstrates that TCCD has significant resources to develop, implement and complete the QEP as evidenced by the plan's (a) budgetary support, (b) personnel appointments, (c) collaboration and support from various institutional departments and the (d) support of faculty members participating in the *PowerOn* plan. The plan also demonstrates that students, faculty, staff and administration were involved in the planning and development phase and will be involved in the implementation phase. The plan identifies a variety of assessment methods, using both direct and indirect measures that will guide improvements in the plan's ability to (a) enhance students' critical thinking skills, (b) offer effective *PowerOn* courses and (c) facilitate a robust faculty development program.

Therefore, TCCD has developed a sound QEP that meets SACSCOC requirements to (a) demonstrate institutional capability for the initiation, implementation and completion of the plan, (b) include broad-based involvement of institutional constituencies in the development and proposed implementation of the QEP and (c) identify goals and a plan to assess the achievement of the goals.

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Appendix A: Page 7***Discussion of Exclusion of Themes***

In December 2011, all topics recommended at the Chancellor's breakfast were reviewed according to the SACSCOC requirements for a QEP. Of the 23 topics received, only 4 met all of the criteria: critical thinking, writing, developmental math and reading. Discussion of the disqualified topics is below.

- *Refresher Course Prior to Testing:* By taking a refresher course or viewing instructional videos before taking the placement exams, many students place in a higher level of developmental students. However, this topic focuses only on in-coming students who may need developmental courses and thus lacks a broad-based component.
- *One-hour Orientation Course:* TCCD began the process of requiring students to enroll in a 1-hour Student Success course, STSC 0111, Transition to College Success, in 2009.
- *Early Alert:* A study regarding an early alert system is already in place. Students are notified by their instructors or advisors if they have excessive absences or missing assignments.
- *Collaborative Learning:* While this topic could be a component of a QEP, it lacks the broad-based component necessary to create a change in the culture of the District. Further, it is a delivery method, not a specific topic with clear SLOs.
- *General Development Courses:* It is unclear whether this suggested topic focuses on the orientation/STSC course or developmental courses in reading, writing and math. However, both components were already in place in December 2011.
- *Orientation:* See "One-Hour Orientation Course" above.
- *Triage:* Plans for academic triaging had already begun through the Student Success course, the Early Alert system and developmental courses in reading, writing and math.
- *Three-hour Orientation Course:* a one-hour orientation course is currently being offered and studies are on-going for its expansion to a 3-hour course.
- *Professional Development for Faculty Members:* TCCD already has a robust faculty professional development program. Further, a program focusing on faculty development does not directly connect to SLOs and thus is inappropriate for a QEP.
- *Learning Communities:* Learning communities are considered a delivery method and thus inappropriate for a stand-alone QEP topic. Additionally, learning communities currently exist within the limited programs of Pathways and Voyages in Education (PAVE), Access to College Courses for Every Student's Success (ACCESS) and Women in New Roles (WINR). A learning communities program was also viewed as a difficult QEP to implement due to our urban location with a large commuter population.
- *Orientation Online:* This topic is being planned by the New Student Orientation committee.
- *Supplemental Instruction:* This topic is a worthwhile component of a college, supporting the student through tutoring labs, online resources and other components; however, its implementation lacks the broad-based component necessary for a successful QEP.
- *Advising:* TCCD's advising processes maintain a constant review process to make sure they are meeting the students' needs. Recently they have implemented new elements, such as the Intrusive/Intensive advising methods, faculty member advising and online advising.
- *Global Studies:* TCCD does not have the resources allocated to implement a global studies program throughout the curriculum.
- *Math Curriculum:* A math-based QEP is not the broadest implementation that TCCD could undertake.

- *Changing Students Lives:* This topic has many components, but is currently too broad for the specific SLOs required for a QEP.
- *Orientation for Family of TCCD Students:* A specific demographic of students would benefit from a family orientation program; however, many would not need or desire it. The focus would be too limited to a small segment of our population, thus precluding a broad-based implementation. It would also be difficult to measure SLOs based on this topic.
- *Technology:* Technology would be a good element of a QEP; however, it lacks the ability to have broad-based implementation. Further, the resources needed to support a technology-based QEP are unclear and currently unbudgeted.
- *Whole Student Development:* This topic is a good approach to a QEP, but it needs further refinement. The SLOs and specific institutional implementations are unclear.

Appendix B: Page 9

Director of the Quality Enhancement Plan Job Description

FLSA Status: Exempt

Class Code: 12

Job Code: Administrative, Professional and Technical

Closing Date: April 15, 2012

Job Summary: The primary function of the Director of the Quality Enhancement Plan (QEP) position is to facilitate and oversee the implementation of the College's QEP. The QEP Director works with administrators, faculty and support staff to achieve and assess the desired outcomes outlined in the QEP. This position reports to the Executive Director of Institutional Research, Planning and Development.

Essential Duties and Responsibilities including but not limited to: Coordinates the QEP topic selection; develops and manages the QEP budget and implementation timelines; implements QEP initiatives and objectives; provides leadership for the QEP Leadership Team; promotes the inclusion of quality enhancement into the curriculum and other fabrics of the college; collaborates with faculty and staff to identify and collect data related to SLOs and the use of said data for the improvement of teaching and learning; manages information and artifacts generated during the implementation of the QEP; conducts the necessary and applicable research related to the QEP; participates in professional development related to the QEP topic and provides related professional development for TCC faculty and staff; works with web editors to create and maintain the QEP website; assesses/disseminates QEP results to appropriate individuals; performs administrative activities, including setting and monitoring budgets and the preparation of special and periodic reports, including the QEP Impact Report; uses interpersonal skills, thinks, reasons and makes sound judgments to decide how duties and responsibilities are completed; completes all required training and professional development sessions sponsored through the Tarrant County College (TCC) Institute; supports the values of the College: diversity, teaching excellence, student success, innovation and creativity and service to the College; performs other duties as assigned.

Required Education and Experience: A Master's degree; a broad educational background and experience which demonstrates knowledge of the principles of teaching and assessment; the ability to build strong working relationships; excellent communication skills (written and oral); strong presentation and team facilitation skills.

Preferred Qualifications: A doctorate; a good understanding of accreditation processes; experience editing and proofreading, with the ability to produce high-quality materials, while adhering to multiple deadlines; project management skills.

Certificates and Licensures: None required

Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. The employee must occasionally lift and/or move up to 45 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, texture perception, and the ability to adjust focus. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is regularly required to talk or hear. The employee frequently is required to sit; use hands to finger, handle, or feel objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to stand; walk; climb or balance; stoop, kneel, crouch, or crawl; and taste or smell.

Work Environment: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. While performing the duties of this job, the employee occasionally works near moving mechanical parts and is occasionally exposed to risk of electrical shock. The noise level in the work environment is usually moderate. The duties listed are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position. The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Notes: The duties listed are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position. The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties and responsibilities.

Appendix C: Page 9**Campus Coordinator for the Quality Enhancement Plan Job Description**

Job Code: Administrative, Professional and Technical; **Who Can Apply:** Current full-time faculty members willing to teach 3 SCH per semester via overload format; **Job Summary:** The primary function of the Campus Coordinator for the Quality Enhancement Plan (QEP) position is to assist the QEP Director with the implementation of the College's QEP. The Campus Coordinator will work with administrators, faculty and support staff to achieve and assess the desired outcomes outlined in the QEP. This position is a 12-month, full-time position that reports to the QEP Director who reports to the Office of Institutional Research, Planning and Effectiveness. The Campus Coordinator will be housed on the campus it represents.

Essential Duties and Responsibilities including but not limited to: serves as a liaison between campus constituents and the QEP Director; assists in the coordination of the QEP topic selection; assists in the development of the QEP implementation timeline; supports the implementation of QEP initiatives and objectives; promotes the inclusion of quality enhancement into the curriculum and other fabrics of the college; collaborates with faculty and staff to identify and collect data related to SLOs and the use of said data for the improvement of teaching and learning; manages information and artifacts generated during the implementation of the QEP; assists with the assessment of the QEP; provides feedback to faculty on the effects of the QEP in their courses; disseminates and explains QEP results to appropriate individuals; collaborates with the Office of Public Relations and Marketing to market the QEP; performs administrative activities, including the preparation of special and periodic reports; participates in QEP-related professional development and shares learned information with campus constituents; stays current on critical thinking best practices; uses interpersonal skills, thinks, reasons and makes sound judgments to decide how duties and responsibilities are completed; completes all required training and professional development sessions sponsored through the Tarrant County College (TCC) Institute; supports the values of the College: diversity, teaching excellence, student success, innovation and creativity and service to the College; performs other duties as assigned.

Required Education and Experience: A Master's degree; knowledge of the principles of critical thinking; a broad educational background and experience which demonstrates knowledge of the principles of teaching and assessment; excellent communication skills (written and oral); the ability to build consensus and broad-based involvement among key constituency groups; strong presentation and team facilitation skills; working knowledge of technology (Blackboard, Power Point, etc.) and how it enhances student learning; a genuine care, concern and sense of responsibility for student success and student learning; the ability to embed the QEP into the College's ongoing, integrated institution-wide planning and evaluation processes; proficiency with the assessment of SLOs; knowledge of course- and program-level assessment; an understanding of accreditation processes; familiarity with qualitative and quantitative research design and assessment; experience editing and proofreading, with the ability to produce high-quality materials, while adhering to multiple deadlines; project management skills.

Certificates and Licensures: None required

Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. The employee must occasionally lift and/or move up to 45 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, texture perception, and the ability to adjust focus. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is regularly required to talk or hear. The employee frequently is required to sit; use hands to finger, handle, or feel objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to stand; walk; climb or balance; stoop, kneel, crouch, or crawl; and taste or smell.

Work Environment: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. While performing the duties of this job, the employee occasionally works near moving mechanical parts and is occasionally exposed to risk of electrical shock. The noise level in the work environment is usually moderate. The duties listed are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position. The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Notes: The duties listed are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position. The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties and responsibilities.

Appendix D: Page 11**Spring 2013 Student Focus Group Analysis**

To assess our students current understanding of critical thinking, a series of ten focus groups were held across the five campuses; two for each campus. The students came from various student organizations with the core team coordinators choosing which organizations to invite from their campus. Table 19 shows the organizations that participated by campus, as well as the number of student participants. An open call for participation was made through the faculty members advisor for each group with a restriction of no more than ten participants.

Campus	Student Organization	Number of Student Participants
Northeast	Phi Theta Kappa	7
	Dental Hygiene	7
Northwest	Cornerstone Honors Program, Chess Club, Phi Theta Kappa	9
	Philosophy Club	5
South	Latin American Student Success Organization	10
	Spectrum	6
Southeast	Phi Theta Kappa	7
	Phi Theta Kappa	2
Trinity River	Phi Theta Kappa	5
	Trinity River Equality in Education	6

A series of six questions were asked in each focus group with permission for the moderators to ask probing questions for the purpose of clarification of the student responses. The six questions were:

1. What is critical thinking?
2. Importance of critical thinking:
 - a. Why is critical thinking important?
 - b. In what ways do you think the ability to think critically affects a person's life?
3. What does it mean when you are asked to analyze information?
4. What does it mean when you are asked to synthesize information?
5. What does it mean when you are asked to evaluate information?
6. Instruct students to read the description of each level of Bloom's hierarchy as presented in the flipchart. Give them a few minutes to process the information, and then ask the students, "In most of your classes, what level of thought is required of you?"

Student responses to Question 1, "What is Critical Thinking," were coded for thematic frequency. A total of 66 responses were recorded with 7 or the responses being uncodable either because they were conversational in nature or unrelated to the question. Of the 59 usable responses, 5 responses were inclusive of multiple categories yielding a total of 64 student comments. Table 20, on the next page, shows the frequencies of the categorical responses, as well as, the percent of overall responses and the cumulative percentages in ascending order. The Ns for this table represent the number of responses in a category with a singular student comment having the potential to be coded in multiple categories. The following student response would be an example of a comment that received multiple codes:

“Having to draw conclusions from info directly given and use those conclusions to get a better conclusion. Critical thinking is something that needs to be done in class.”

This comment received credit under two thematic categories: analysis and create/synthesis and is counted as two separate responses in calculating the number of responses to this question.

The data indicate that more than 50% of the responses show the students' understanding of critical thinking to be related to analyzing information, being unbiased and open toward differing ideas and perspectives, and requiring effort in the collection of empirical evidence. Additionally, they were able to identify critical thinking as a metacognitive process, the synthesis of information, and necessary for problem solving through application.

Comment Category	Frequency	Percent	Cumulative Percent
Analysis	14	21.88	21.88
Unbiased/Open	12	18.75	40.62
Effort Evidence	9	14.06	54.68
Metacognition	9	14.06	68.75
Create/Synthesis	8	12.50	81.25
Problem Solving/Application	7	10.93	92.18
Process	3	4.68	96.87
Ethics	1	1.56	98.43
Evaluation	1	1.56	100
Total	64	100	

When asked about the importance of critical thinking and how it impacts an individual's life, Questions 2a and 2b, the students most frequently responded that critical thinking was important because **it is necessary for good decision making and it contributes to intellectual and personal development**. They also noted with relative frequency that, although it was related to school success, its value was generalizable to other areas of an individual's life, enhancing efficiency as well as decision making. Additionally, they believed that critical thinking impacts an individual's life by **improving their decision making**, contributing to personal growth, making them more successful, and **providing them with a broader perspective**.

For Questions 3, 4, and 5, which assessed student understanding of the meaning of analyze, synthesize, and evaluate, core team rater sheets were formatted that included student responses by campus for each question. Each coordinator was asked to rate each of the student responses as either demonstrating or not demonstrating an understanding of the terms represented by a response of yes or no. Responses that were not applicable to the question were highlighted in the coding sheets and the coordinators were instructed not to evaluate those responses. As a note, students were asked these questions before they had exposure to the flip charts of Bloom's Taxonomy which were used for Question 6.

The data from the coordinator coding sheets was then merged into a document in which the number of positive responses could be tallied. Positive, i.e. yes, responses received a credit of one on the tally sheet. “No” responses received zero credit. The possible range for this analysis is zero (all QEP coordinators were in agreement that the student response did not indicate an understanding of the respective concept) to five (perfect consensus among all coordinators that the student comment indicates an understanding of the concept). To keep the raters focused in their evaluation, the definition for the concept was provided at the top of each of the rater sheets.

Table 21 shows the frequency distribution of coordinator consensus pertaining to the student responses for each of the three concepts. Scores of 4 and 5 indicate a high level of consensus that the students understood the meaning of the respective concept. Scores of 2 and 3 indicate that the coordinators lacked consensus as to their interpretation of the student comment. Scores of 0 and 1 indicate that the coordinators had a high level of consensus that the student comment did not reflect an understanding of the concept. The Ns next to each concept represent the number of student comments, not the number of students.

Table 21. Frequency Distribution of Coordinator Consensus			
Concept	Frequency Totals of 4 and 5	Frequency Totals of 2 and 3	Frequency Totals of 0 and 1
Analyze (N=49)	13 (26.5%)	14 (28.6%)	22 (44.9%)
Evaluate (N=54)	27 (50%)	14 (25.9%)	13 (24.1%)
Synthesis (N=49)	18 (36.7%)	18 (36.7%)	13 (26.5%)
Total Comments (152)	58 (38.2%)	46 (30.3%)	48 (31.6%)

The data from Table 21 shows that across the three components of critical thought, only 38.2% of the comments clearly expressed an accurate understanding of what each component meant. An additional 30.3% of the comments were ambiguous in either the students' statement or the coders' interpretation of the statement. The remaining 31.6% of the comments were determined to be inaccurate across a consensus of five raters, all of whom are full time faculty members at the college. The highest category of performance was *evaluate* with 50% of the students correctly explaining what it meant to evaluate something. Another significant finding is that an almost equal proportion of the comments in the analyze category were determined to be an incorrect explanation of the concept. This data is particularly disturbing in that 8 of the 10 student organizations that participated in the focus groups were academically oriented clubs that have academic standards for membership and hence are not representative of the general student population.

The conclusion from the student focus group data is that, at least for the students who participated in the focus groups, they have a good conceptual understanding of what is critical thinking. They were able to identify it as a process that involves analysis, synthesis, and evaluation. They seem to understand that it requires openness to diversity of ideas, that it involves metacognition and that it is useful for problem-solving, decision-making, personal and intellectual development and can lead to a better life. They also appear to understand that it requires effort and that it is a form of thought grounded to empirical evidence. However, they were less adept at distinguishing the various components of the process; explaining what it means to analyze as opposed to evaluate as opposed to synthesize. These data indicate that yes, TCCD does teach students about critical thinking, but the methodology needs to be more explicit and directed.

Appendix E: Page 12

2012 CCSSE District Percentages for Questions 5a-3 and 12e.

Question 5: During the current school year, how much has your coursework at this college emphasized the following mental activities?

5a **MEMORIZE**, Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form

Campus	Year	Count/Percent Within Year	1 – Very little	2 - Some	3 – Quite a bit	4- Very Much	Total
District	2012	Count	89	426	615	471	1601
		% within Year	5.6%	26.6%	38.4%	29.4%	

5b **ANALYZE**, Analyzing the basic elements of an idea, experience, or theory

Campus	Year	Count/Percent Within Year	1 – Very little	2 - Some	3 – Quite a bit	4- Very Much	Total
District	2012	Count	64	421	663	449	1597
		% within Year	4.0%	26.4%	41.5%	28.1%	

5c **SYNTHESIZE**, Synthesizing and organizing ideas, information, or experiences in new ways

Campus	Year	Count/Percent Within Year	1 – Very little	2 - Some	3 – Quite a bit	4- Very Much	Total
District	2012	Count	125	464	624	367	1580
		% within Year	7.9%	29.4%	39.5%	23.2%	

5d **EVALUATE**, Making judgments about the value or soundness of information, arguments, or methods

Campus	Year	Count/Percent Within Year	1 – Very little	2 - Some	3 – Quite a bit	4- Very Much	Total
District	2012	Count	187	555	521	329	1592
		% within Year	11.7%	34.9%	32.7%	20.7%	

5e **APPLYING**, Applying theories or concepts to practical problems or in new situations

Campus	Year	Count/Percent Within Year	1 – Very little	2 - Some	3 – Quite a bit	4- Very Much	Total
District	2012	Count	168	531	541	355	1595
		% within Year	10.5%	33.3%	33.9%	22.3%	

Question 12: How much as your experience at this college contributed to your knowledge, skills and person development in the following areas?

12e. **Thinking critically and analytically**

Campus	Year	Count/Percent Within Year	1 – Very little	2 - Some	3 – Quite a bit	4- Very Much	Total
District	2012	Count	90	390	615	471	1554
		% within Year	5.8%	25.1%	39.7%	29.4%	

Appendix F: Page 15

Representative Excerpts from Faculty Member Focus Groups, February/March 2013

During the discussion, some faculty members noted that students initially (don't like to) think critically or that they lack the preparation, but they value it once it is explained to them. One respondent stated the following:

- "My opinion [...] is it's really not what they want, it's what they need and I think this is what they need. That's the only way they can really navigate in any profession. If they don't know how to do critical thinking and writing, of course...I tell them, even if you know something and that's all you know, but you don't really critically think about it, you may kill a patient, if you're a doctor. Or even if you critically think, but you don't know how to communicate that, it becomes irrelevant. Nobody is going to hear or know about it. So that is why I use the word "force". I am going to force you here...one way or another, you are going to think." (NW February 28th, 2013 R 5 , page 9)

Another noted a perception that students frequently seem to lack the appropriate preparation for critical thinking:

- "I think, unfortunately, they have never been required to really learn, beyond simple knowledge and recognition and memorization. And that's where we have the difference in expectation. They don't know how. We need to be doing these types of activities that we are discussing [critical thinking] and teach them to do that. How can we be frustrated when they don't know how to do what we're asking them to do?" (NW-February 28th, 2013, R 8, page 4)

An instructor noted that (SE, 2/20/12, p. 1) "Students don't like to be asked to think; they would like to see an example of an activity and be asked to develop something like it."

Further, one instructor noted a perceived reluctance in students to approach the learning process with creativity:

- (SE, 2/20/12, p. 1) p. 2: "They want to do everything by the rules and I encourage them to get out of the box. Just get out of the rule thing...They think going to school is just following the rules."

Students may also believe that higher order critical thinking is unnecessary in their first- and second-year courses:

- "I teach A&P and they have to apply why that organ is designed as it is and what happens/what problems can occur if this or that doesn't work right and how the body responds. Had one class that came in and said 'we don't have to think critically at this level' and I am telling them 'what do you mean?' 'you are asking us to take info & apply it, we are not ready for that' b/c this is a course leading out into a field... those in the allied field said 'you don't have enough info yet, you have to wait until you are done with the program and then you will be prepared to think critically.' My response to them, 'Have you ever bought a car and thought about what that entails? Well, you just thought critically!'" (NE February 27, 2013 R5 - Pg 2):

Many faculty members support the transformation that a critical thinking curriculum could bring to TCCD:

- (SE, 2/20/12, p. 1) "Critical thinking should be in every aspect of college instruction. CT should be incorporated in tutoring lessons across campus."

Faculty members also noted that the environment of the classroom is important for successful implementation of a CT curriculum:

- "Students need to be comfortable with us (in order to foster CT). ...Class environment is very important." (NE February 27, 2013 R5 - Pg 2):

Critical Thinking Terms

Achieve: Master the skills necessary to obtain a desired result.

Acquire/acquisition – Obtainment of a skill by one’s own effort.

Analyze: To examine something in great detail in order to understand it better or discover more about it. Break something down into components. Express different relationships or functions.

Argument: A reason addressed for or against something.

Articulate: Communicate thoughts, ideas, or feelings coherently.

Assess: To examine information in order to judge or evaluate it. To calculate a value based on various factors.

Assumption: A statement accepted or supposed as true without proof or demonstration. The belief that something is true without having proof. Something taken as a starting point of a logical proof rather than a given as a premise.

Bias: An unfair preference for or dislike of something. A preference or a mental inclination.

Challenge: to call something into question by requiring an explanation, justification, or proof. To stimulate somebody by making demands on the intellect.

Cohesiveness: Characteristics of well established, integrated and structured.

Connection: Recognition of the relationship between learning and/or acceptance of new material and one’s life experiences.

Construct: To create something such as a theory as a result of systematic thought.

Contemplate: To ponder, to look at things deeply and thoughtfully at length.

Deception: The practice of deliberately making somebody believe things are not true. An act, trick, or device intended to deceive or mislead somebody. An act of trick or misleading to intentionally make someone believe false information.

Detect: To discover or find facts, to demonstrate something hidden.

Differentiate: The ability to distinguish between valuable and minor information.

Evaluate: Present or defend ideas by making judgments about information.

Identify: To ascertain the origin, nature, or definitive characteristic. To recognize characteristics and origins of certain thing or person.

Imperative: Necessary for students to achieve specific learning behaviors.

Inference: To draw a conclusion from evidence or reasoning.

Interpret: To put one’s own idea, concept, experience and point of view.

Key concepts: Essential ideas or thoughts derived from gathering specific information.

Knowledge: Range of information or understanding gained through experience or study.

Main facts: Important events that are true and verifiable.

Manipulation: To control or influence somebody or something in a devious way; an act of influencing or managing something or someone in an unfair and devious manner.

Passive: Not participating actively in the learning process.

Random data: Non-essential ideas or thoughts derived from gathering specific information.

Social Context: Relating to human society and how it is organized. Allowing people to meet and interact with others. Relating to human welfare and the organized welfare services that a community provides.

Synthesis/Synthesize: The process of analyzing information from various sources, combining it with current knowledge and creating something new and combining information as to form a new, complex idea or concept. To form by bringing together separate parts. Combine two or more things to create something more complex.

Validate: To prove and to give evidence that argument is true.

Sources of Terms

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Appendix H: Page 17

QEP Logic Model

Program: PowerOn: Critical Thinking QEP Logic Model

Situation: The focus of the QEP is enhancing critical thinking (CT) skills in students in the Tarrant County College District (TCCD).

Goals of the QEP (abbreviated): (a) Enhance students' ability to use critical thinking skills, (b) provide a foundation and locus of sustainable development that empowers faculty members to strengthen student's critical thinking skills and (c) employ effective assessment measures to fortify the plan.

What are the conditions addressed by the QEP? Data indicate a need for students to improve four particular components of CT: apply, analyze, evaluate and create. These are truncated student learning outcomes (SLO).

What differences will the QEP make once implemented? The goal is that students will show: (a) effective use of knowledge or techniques, (b) deliberate examination of the elements of information, (c) logical formulation of sound judgments and (d) purposeful synthesis of information (i.e. create). Faculty will enhance instructional pedagogies.

Inputs: What we will invest.	Outputs		Outcomes – Impact—What difference will we make?	
	Activities: What will we do?	Participation: Who will we reach?	Short	Long
(a) Students (b) Faculty (c) Institutional Goals/Vision 2015 (d) Staff (e) Environment for student learning and quality teaching (f) Funding (g) Marketing & Promotional Strategies (h) Critical Thinking Curriculum (i) Time (j) expendables such as paper	(a) Develop transformative CT measures in classrooms (b) Use direct and indirect assessment of students, participating faculty and TCCD. (c) Provide faculty professional development (d) Offer CT enhanced courses (e) Create LibGuides for CT (f) Include student support service personnel in professional development (g) Create FLCs and discipline-based assessment rubrics. (h) Market and communicate QEP activities (i) Stay mindful of institutional mission and goals with QEP activities.	(a) Students: Conservative estimates project more than 20,000 seats in <i>PowerOn</i> courses will be offered over the span of five years. (b) Faculty Recruited: Year 1: 33 Full-time (FT); Year 2: 90 FT; Year 3: 100 FT/Part-time (PT); Year 4: 100 FT/PT Year 5: 100 FT/PT. (c) Staff: The plan encourages collaboration between faculty and staff, especially staff in areas where student learning is affected. (d) Administration: Key to the plan is sustained administrative support for implementation over five years.	(a) Increase in student scores using CT rubrics applied to student artifacts from the classroom; compare early and late assignments for improvements in CT in a semester. (b) Increase awareness of CT being important part of teaching and learning. (c) Increase engagement of faculty and staff in CT activities. (d) Demonstrate that students who take more <i>PowerOn</i> courses score higher on the CCTST. (e) <i>PowerOn</i> faculty will state that belief that the offered professional development program provided them with the necessary tools to make CT explicit and prolific in their classroom.	(a) Increase in student scores using CT rubrics applied student artifacts from the classroom; look for trends of score increases over the five years. (b) Increase awareness of CT being important part of teaching and learning. Compare aggregate data yearly. (c) Increase engagement of faculty and staff in the implementation of the QEP. (d) Demonstrate that students who take more <i>PowerOn</i> courses score higher on the CCTST. (e) Enhance faculty instructional pedagogy and assessment. (f) Compare baseline CCSSE data to new data to show an increase in classroom activities related to the QEP SLOs. (g) Compare baseline graduate survey data to new data to show that students perceive more of an emphasis on CT at TCCD.
Assumptions (a) students need to improve CT skills, (b) students perceive they need or want to improve CT skills, (c) faculty already do a good job reinforcing CT in the classroom, (d) faculty may feel they do not need to do more in the classroom, (e) resources for QEP will be adequate, (f) faculty professional development program will be effective, (g) faculty will volunteer to become <i>PowerOn</i> faculty, (h) TCC employees will remain engaged in the QEP for five years and (i) <i>PowerOn</i> faculty will complete the full term of development and implementation.			External Factors That Could Impact Success (a) workload already high for faculty and staff (eg. committees, student clubs, etc), (b) institutional funding cuts could trickle down to QEP budget, (c) change in QEP personnel, (d) discovery that assessment processes or instruments are/are not effective, (e) students refuse to take exam in the classroom, (f) students put forth little to no effort on the CCTST, (g) faculty and staff choose to/not to participate in implementation, (h) administration does/does not provide adequate resources, (i) burnout of faculty and staff with initiative and (j) good/poor marketing and communications.	

Appendix I: Page 32

Table 22. Faculty Member Deployment Schedule with Stipends			
	Fall Semester: Course Development	Spring Semester: Course Implementation and Workshop Development	Stipend Totals
YR 1 2013- 2014	<ul style="list-style-type: none"> • 30 FT Faculty recruited from 5 courses x \$1000 = \$30,000 • 5 FT QEP Coordinators (no stipend) • Semester total: 30 x \$1000 = \$30,000 	<ul style="list-style-type: none"> • 30 FT Faculty x \$1000 = \$30,000 	\$60,000
YR 2 2014- 2015	<ul style="list-style-type: none"> • 90 FT Faculty (from 15 available courses) • 60 FT Faculty (10 FLC) from 10 new courses (priority) x \$1000 = \$60,000 • 30 FT Faculty (5 groups) from 5 previously developed courses x \$750 = \$22,500 • (30 FT Faculty Trainers x \$200 = \$6,000) • Semester total: \$88,500 	<ul style="list-style-type: none"> • 60 FT Faculty x \$1000 = 60,000 	\$148,500
YR 3 2015- 2016	<ul style="list-style-type: none"> • 102 Faculty (from 20 available courses): 42 FT Faculty and 60 PT Faculty • 30 FT Faculty (5 FLC) from 5 new courses (priority) x \$1000 = \$30,000 • 12 FT Faculty (2 FLC) from 15 previously developed courses x \$750 = \$9,000 • 60 PT Faculty (10 FLC) from 15 previously developed courses: \$0 • (40 FT Faculty Trainers x \$200 = \$8,000) • Semester total: \$47,000 	<ul style="list-style-type: none"> • 42 FT Faculty x \$1000 = \$42,000 • 60 PT Faculty x \$0 = \$0 (PT faculty will receive training within current 8 hours required) • Semester total: \$42,000 	\$89,000
YR 4 2016- 2017	<ul style="list-style-type: none"> • 102 Faculty (from 25 available courses): 42 FT Faculty and 60 PT Faculty • 30 FT Faculty (5 groups) from 5 new courses (priority) x \$1000 = \$30,000 • 12 FT Faculty (2 groups) from 20 previously developed courses x \$750 = \$9,000 • 60 PT Faculty (8 groups) from 20 previously developed courses: \$0 • (40 FT Faculty Trainers x \$200 = \$8,000) • Semester total: \$47,000 	<ul style="list-style-type: none"> • 42 FT Faculty x \$1000 = \$42,000 • 60 PT Faculty x \$0 = \$0 (PT faculty will receive training within current 8 hours required) • Semester total: \$42,000 	\$89,000
YR 5 2017- 2018	<ul style="list-style-type: none"> • 102 Faculty (from 30 available courses): 42 FT Faculty and 48 PT Faculty • 30 FT Faculty (5 groups) from 5 new courses (priority) x \$1000 = \$30,000 • 12 FT Faculty (2 groups) from 25 previously developed courses x \$750 = \$9,000 • 48 PT Faculty (8 groups) from 25 previously developed courses: \$0 • 40 FT Faculty Trainers x \$200 = \$8,000 • Semester total: \$47,000 	<ul style="list-style-type: none"> • 42 FT Faculty x \$1000 = \$42,000 • 60 PT Faculty x \$0 = \$0 (PT faculty will receive training within current 8 hours required) • Semester total: \$42,000 	\$89,000

Appendix J: Page 44
Detailed View of Projected Yearly QEP Budget

Note: *In kind* funds for faculty members professional development, adjunct stipends or non-QEP staff are not identified in this budget. *In kind* funds for the director, AOA, coordinators and adjunct faculty members used as coordinator backfill are identified in gray.

Academic/Fiscal 2013-2014 – Year One

Category	Description	Amounts
Personnel	QEP director (Budgeted, 12-month administrative contract, salary and benefits; funded by IRPE budget)	115,000
	Administrative Office Assistant (AOA); (for director; budgeted, 12-month contract, includes benefits; funded by District office of Continuing Education budget)	41,148
	Coordinators (Budgeted; five full-time faculty member, one from each five campuses, includes benefits; faculty members have 100% course release but must teach one course section per year; no release of office hour requirement; funded by their respective campus)	395,836
	Adjunct faculty members (backfill for 5 campus coordinators); 34 sections total for Fall and Spring; using mean adjunct rate; funded by respective campus)	61,000
	<i>PowerOn</i> faculty member stipend (32 full-time faculty member, \$1000 for each Fall and Spring semester)	64,000
	Implementation Assistants (5 faculty member volunteers; one per campus to assist coordinator with CCTST assessment distribution/gathering, FLC needs, forums/chats; \$125/person for each Fall and Spring semester)	1,250
	External QEP consultant (Ms. DJ Henry; honorarium, travel expenses; 5 total days at TCC as consultant)	3,000
	External consultant for end-of-year QEP plan assessment; honorarium, travel expenses)	4,000
	Total:	\$685,234
Professional Development	Funds for director and one coordinator to attend SACSCOC Annual Meeting, Dec 2013, Atlanta GA; registration/ travel	4,000
	Funds for two Core Team member to attend the International Critical Thinking Conference, Berkeley, CA; summer 2014; registration/travel	6,000
	Funds for two Core Team members to attend the SACSCOC Summer Institute, 2014; registration/ travel	4,000
	Expanded library of books or other materials (e.g. critical thinking, teaching and learning, metacognition) for Core Team, Libraries, or Tutoring Centers; additionally, some materials will be purchased through the library cost center)	2,500
	Funds for Core Team to attend the Annual Outcomes and Assessment Conference; Plano, TX; hosted by Collin College and the North Texas Community College Consortium; registration/travel	700
	FLC meetings – food/beverages	2,000
	Funds for director and one coordinator to attend Texas A&M's Annual Assessment Conference, Feb 2014; registration/travel	2,500

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	Funds for two coordinators to attend the Lilly Conference on FLCs, Teaching and Learning, Newport, CA; Feb 2014; registration/travel	4,000
	Critical thinking mentoring videos for <i>PowerOn</i> faculty members; presenter honorarium, travel	4,000
	End of year team building event for Core Team	1,000
	Total:	\$30,700
Local Travel (Expenses for campus to campus meetings or other events)	Core Team	8,000
	AOA for director	1,500
	Five implementation assistants	1,000
	32 <i>PowerOn</i> faculty members (approximately \$400/year)	13,000
	Total:	\$23,500
Marketing and Student, Faculty Member, Staff Engagement in QEP	<i>PowerOn</i> campaign items for faculty members, staff and students (such as posters, T-shirts, pencils, pens, lanyards, QEP Information Booklets, USB drives, badge-holders, key chains, students critical thinking flashcards)	30,000
	Student and Faculty Member Engagement Activities: a. Best student <i>PowerOn</i> pumpkin-carving contest. b. Best 3-D version representations of <i>PowerOn</i> Gearhead made by students in ARTS 2326 and 2327 sculpture courses. c. Best student videos how to think more critically (less than 4 min). d. Faculty member contest on tips for students to think more critically (less than 4 min). e. QEP information booth to encourage critical thinking. f. Campus-based Coordinator Chats for faculty members and staff on all five campuses (four in fall; two in spring); tot \$1500. g. Food/beverages for student engagement events at each campus; tot \$3000.	
	Total:	\$46,640
Assessment	<i>California Critical Thinking Skills Test (CCTST)</i> ; Spring 2014 baseline testing; approx 3000 students @ \$11 each	33,000
	FLC rubric grading and norming session; meal/beverages	500
	Total:	\$33,500
Misc	Printing/Copying/Mailing	6,000
	Office supplies for director, AOA, coordinators (5) and <i>PowerOn</i> faculty members (32); approx. \$200 each	8,000
	<i>PowerOn</i> faculty member orientation meeting with meal/beverages	400
	Post-submission of QEP proposal event for Expanded Development Committee	1,200
	Post-SACSCOC visit event for Core Team	500
	Core Team assessment meetings (fall, spring, summer); meal/beverages	1000
	End of year assessment event to report QEP findings to TCCD; meal/beverages	2,000
	Total:	\$19,100
Contingency	Funds for retraining, unexpected costs	24,060
	Total:	\$24,060
Yearly Total:	With <i>in kind</i> costs	\$862,764
Yearly Total:	Without <i>in kind</i> costs	\$249,750

Academic/Fiscal 2014-2015 – Year Two

Category	Description	Amounts
Personnel	QEP Director (Budgeted, 12-month administrative contract; salary, benefits and potential 3% raise; funded by IRPE budget)	119,600
	Administrative Office Assistant (AOA); (for director; budgeted, 12-month contract, includes benefits and potential 3% raise; projected funding through IRPE budget)	42,671
	QEP Campus Coordinators (Budgeted; five full-time faculty members, one from each five campuses, salary, benefits and potential 3% raise; each have 100% course release but must teach one course section per year as overload; no release of office hour requirement; funded by their respective campus budget)	407,711
	Adjunct faculty members (backfill for 5 campus coordinators); 34 sections total for Fall and Spring; using mean adjunct rate; funded by their respective campus budget)	63,000
	<i>PowerOn</i> faculty member stipends (90 full-time faculty members in total): a. 60 faculty members from 10 new courses; \$2000 ea for work in Fall/Spring semesters; tot \$120,000 b. 30 faculty members from any 5 previously developed courses; \$750 ea for work in fall/spring semesters; tot \$22,500	142,500
	<i>PowerOn</i> faculty trainer stipends (32 faculty members from previous year will provide mentoring and a one-hour workshop for new FLCs; \$200 each)	6,400
	Implementation Assistants (5 faculty member volunteers; one per campus to assist coordinator with CCTST assessment distribution/gathering, FLC needs, forums/chats; \$125/person for each fall and spring semester)	1,250
	Total:	\$783,132
Professional Development	Funds for QEP director and one coordinator to attend SACSCOC Annual Meeting, Dec 2014, Atlanta GA; registration and travel	4,000
	Funds for one Core Team member to attend the International Critical Thinking Conference, Berkeley, CA; summer 2015; registration/travel	3,000
	Funds for one to two Core Team members to attend the SACSCOC Summer Institute, 2015; registration/travel	4,000
	Expanded library of books or other materials (e.g. critical thinking, teaching and learning, metacognition) for Core Team, Libraries, or Tutoring Centers; additionally, some materials will be purchased through the library cost center	1,500
	Funds for Core Team to attend the Annual Outcomes and Assessment Conference; Plano, TX; hosted by Collin College and the North Texas Community College Consortium; registration/travel	700
	Funds for one Core Team member to attend an FLC or Teaching and Learning conference	2,200
	FLC meetings and presentations (projected 10-12 FLCs) - food/beverages	4,000
	Funds for director and one coordinator to attend Texas A&M's	

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	Annual Assessment Conference, Feb 2014; registration/ travel	2,500
	Critical thinking mentoring videos for <i>PowerOn</i> faculty members; presenter honorarium, travel	4,000
	End of year team building event for Core Team	1,000
	Total:	\$26,900
Local Travel (Expenses for campus to campus meetings or other events)	QEP director and five coordinators	8,500
	AOA for director	1,600
	Five implementation assistants	1,000
	90 <i>PowerOn</i> faculty members (approx. \$400/year)	36,000
	Total:	\$47,100
Marketing and Student, Faculty Members, Staff Engagement in QEP	<i>PowerOn</i> campaign items for faculty members, staff and students (such as posters, T-shirts, pencils, lanyards, QEP Information Booklets, USB drives, badge-holders, key chains, student critical thinking flashcards)	20,000
	Campus-based Coordinator Chats (two fall; two spring) – snacks/beverages; \$50/session	1,000
	Items for TCCD engagement in QEP	25,000
	Total:	\$46,000
Assessment	<i>CCTST</i> ; Spring 2015 testing; approx 3000 students @ \$11 each	33,000
	FLC rubric grading and norming sessions; meal/beverages	1,500
	Total:	\$34,500
Misc	Printing/Copying/Mailing	5,000
	Office supplies for director, AOA, Core Team (5) and <i>PowerOn</i> faculty members (90)	20,000
	<i>PowerOn</i> faculty member orientation meeting with meal	1,200
	<i>PowerOn</i> trainers (32) pre-workshop session; meal/beverages	500
	Core Team Assessment meetings (fall, spring, summer); meal/beverages	1,000
	End of year assessment event to report QEP findings to TCCD; meal/beverages	2,000
	Total:	\$29,700
Contingency	Funds for retraining, unexpected costs.	20,000
	Total:	\$20,000
Yearly Total:	Includes <i>in kind</i> costs	\$987,332
Yearly Total:	Without <i>in kind</i> costs	\$354,350

Academic/Fiscal 2015-2016 – Year Three

Category	Description	Amounts
Personnel	QEP director (Budgeted, 12-month administrative contract; salary, benefits and potential 3% raise; funded by IRPE budget)	123,188
	Administrative Office Assistant (AOA); (for director; budgeted, 12-month contract, includes benefits and potential 3% raise; projected funding by IRPE budget)	43,951
	QEP Campus Coordinators (Budgeted; five full-time faculty members, one from each five campuses, salary, benefits and potential 3% raise; each have 100% course release but must teach one course section per year as overload; no release of office hour requirement; funded by their respective campus)	419,942
	Adjunct faculty members (backfill for 5 campus coordinators); 34	

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	sections total for fall and spring; using mean adjunct rate; funded by their respective budget)	70,000
	<i>PowerOn</i> faculty member stipends (102 faculty members in total) a. 30 full-time faculty members from 5 new courses; \$2000 for fall/spring semesters; tot \$60,000 b. 12 full-time faculty members from any 20 previously developed courses; \$750 for fall and \$1000 for spring semesters; tot \$21,000 c. 60 part-time faculty members from any 15 previously developed courses; no additional stipend beyond that already paid by TFA	81,000
	<i>PowerOn</i> faculty trainers (40 from previous year will provide mentoring and a one-hour workshop for new FLCs; \$200 each)	8,000
	Implementation Assistants (5 faculty member volunteers; one per campus to assist coordinator with CCTST assessment, distribution & gathering, FLC needs, forums/chats; \$125/person for each fall and spring semester)	1,250
	External consultant for 3 rd year report; honorarium and travel	3,000
	Total:	\$750,331
Professional Development	Funds for QEP Director and one coordinator to attend SACSCOC Annual Meeting, Dec 2015, Atlanta GA; registration/travel	4,400
	Funds for director to attend the International Critical Thinking Conference, Berkeley, CA; summer 2016; registration/travel	3,000
	Funds for two Core Team members to attend the SACSCOC Summer Institute, 2016; registration/travel	4,200
	Funds for director and one coordinator to attend Texas A&M's Annual Assessment Conference, spring 2016; registration/travel	2,500
	Funds for one Core Team member to attend FLC or Teaching and Learning Conference; registration/travel	2,200
	Expanded library of books or other materials (e.g. critical thinking, teaching and learning, metacognition) for Core Team, Libraries, or Tutoring Centers; additionally, some materials will be purchased through the library cost center)	1,000
	Funds for Core Team to attend the Annual Outcomes and Assessment Conference; Plano, TX; hosted by Collin College and the North Texas Community College Consortium; registration/travel	700
	FLC meetings and presentations (projected 15-17 FLCs) – food/beverages	6,000
	Critical thinking mentoring videos for <i>PowerOn</i> Faculty; presenter honorarium, travel	4,000
	End of year team building event for Core Team	1,000
	Total:	\$29,000
Local Travel (Expenses for campus to campus meetings or other events)	QEP director and five coordinators	9,000
	AOA for director	1,700
	Five implementation assistants	1,100
	102 <i>PowerOn</i> faculty members	40,000
	Total:	\$51,800
Marketing and Student, Faculty	<i>PowerOn</i> campaign items for faculty members, staff and students (such as posters, T-shirts, pencils, lanyards, QEP Information Booklets, USB drives, badge-holders, key chains, student critical	

Members, Staff Engagement in QEP	thinking flashcards)	20,000
	Campus-based Coordinator Chats (two fall; two spring); snacks/beverages; \$50/session	1,100
	Items for TCCD engagement in QEP	25,000
	Total:	\$46,100
Assessment	CCTST; Spring 2016 testing; approx. 3000 students @ \$11 each	33,000
	FLC rubric grading and norming sessions; meal/beverages	2,000
	Total:	\$35,000
Misc	Printing/Copying/Mailing	5,500
	Office supplies for director, AOA, coordinators (5) and <i>PowerOn</i> faculty members (102)	22,000
	<i>PowerOn</i> faculty member orientation meeting with meal/beverages	2,000
	<i>PowerOn</i> trainers (40) pre-workshop session; meal/beverages	500
	Core Team assessment meetings (fall, spring); meal/beverages	600
	End of year assessment event to report QEP findings to TCCD; meal/beverages	2,000
	Total:	\$33,600
Contingency	Funds for retraining, unexpected costs	20,000
	Total:	\$20,000
Yearly Total:	Includes <i>in kind</i> costs	\$964,831
Yearly Total:	Without <i>in kind</i> costs	\$307,750

Academic/Fiscal 2016-2017 – Year Four

Category	Description	Amounts
Personnel	QEP Director (Budgeted, 12-month administrative contract; salary, benefits and potential 3% raise; funded by IRPE budget)	126,882
	Administrative Office Assistant (AOA); (for director; budgeted, 12-month contract, includes benefits and potential 3% raise; projected funding by IRPE budget)	45,270
	QEP Campus Coordinators (Budgeted; five full-time faculty members, one from each five campuses, salary, benefits and potential 3% raise; each have 100% course release but must teach one course section per year as overload; no release of office hour requirement; funded by their respective campus budget)	432,541
	Adjunct faculty members (backfill for 5 campus coordinators); 34 sections total for fall and spring; using mean adjunct rate; funded by their respective campus budget)	70,000
	<i>PowerOn</i> faculty member stipends (102 faculty members in total) a. 30 full-time faculty members from 5 new courses; \$2000 for Fall/Spring semesters; tot \$60,000 b. 12 full-time faculty members from any 20 previously developed courses; \$750 for Fall and \$1000 for spring semesters; tot \$21,000 c. 60 part-time faculty members from any 20 previously developed courses; no additional stipend beyond that already paid by TFA	81,000
	<i>PowerOn</i> faculty trainers (40 from previous year will provide mentoring and a one-hour workshop for new FLCs; \$200 stipend each)	8,000
	Implementation Assistants (5 faculty member volunteers; one per campus to assist coordinator with CCTST assessment distribution/gathering, FLC needs, forums/chats; \$125/person for	

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	each fall and spring semester)	1,250
	Total:	\$764,943
Professional Development	Funds for QEP director and one coordinator to attend SACSCOC Annual Meeting, Dec 2016, Atlanta GA; registration and travel.	4,400
	Funds for two Core Team members to attend the International Critical Thinking Conference, Berkeley, CA; summer 2017; registration and travel.	3,000
	Funds for one Core Team members to attend the SACSCOC Summer Institute, 2017; registration and travel.	4,200
	Funds for director and one coordinator to attend Texas A&M's Annual Assessment Conference, spring 2017; registration and travel	2,500
	Funds for one Core Team member to attend FLC or Teaching and Learning Conference	2,200
	Expanded library of books or other materials (e.g. critical thinking, teaching and learning, metacognition) for Core Team, Libraries, or Tutoring Centers; additionally, some materials will be purchased through the library cost center).	1,000
	Funds for Core Team to attend the Annual Outcomes and Assessment Conference; Plano, TX; hosted by Collin College and the North Texas Community College Consortium; registration and travel.	700
	FLC meetings and presentations (projected 12-15 FLCs) – food/beverages.	5,000
	Critical thinking mentoring videos for all faculty members; presenter honorarium, travel	4,000
	End of year team building event for Core Team	1,000
	Total:	\$28,000
	Local Travel (Expenses for campus to campus meetings or other events)	QEP director and five coordinators
AOA for director		1,700
Five implementation assistants		1,100
102 <i>PowerOn</i> faculty members		40,000
Total:		\$51,800
Marketing and Student, Faculty Members, Staff Engagement in QEP	<i>PowerOn</i> campaign items for faculty members, staff and students (such as posters, T-shirts, pencils, lanyards, QEP Information Booklets, USB drives, badge-holders, key chains, critical thinking flashcards for students)	20,000
	Campus-based Coordinator Chats (two fall; two spring) – snacks/beverages; \$50/session	1,100
	Items for TCCD engagement in QEP.	25,000
	Total:	\$46,100
Assessment	<i>CCTST</i> ; Spring 2017 testing; approx 3000 students @ \$11 each	33,000
	FLC rubric grading and norming sessions; meal/beverages	2,000
	Total:	\$35,000
Misc	Printing/Copying/Mailing	5,500
	Office supplies for director, AOA, coordinators (5) and <i>PowerOn</i> faculty members (102)	22,000
	<i>PowerOn</i> faculty member orientation meeting with meal	2,000
	<i>PowerOn</i> Trainers (40) pre-workshop session; meal/beverages	500

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	Core Team Assessment meetings (fall, spring); meal/beverages	600
	End of year event to report QEP findings to TCCD; snacks/beverages	2,000
	Total:	\$32,600
Contingency	Funds for retraining, unexpected costs.	10,000
	Total:	\$10,000
Yearly Total:	Includes <i>in kind</i> costs	\$968,443
Yearly Total:	Without <i>in kind</i> costs	\$293,750

Academic/Fiscal 2017-2018 – Year Five

Category	Description	Amounts
Personnel	QEP Director (Budgeted, 12-month administrative contract; salary, benefits and potential 3% raise; paid by IRPE budget)	130,689
	Administrative Office Assistant (AOA); (for director; budgeted, 12-month contract, includes benefits and potential 3% raise; paid by IRPE budget)	46,628
	QEP Campus Coordinators (Budgeted; five full-time faculty members, one from each five campuses, salary, benefits and potential 3% raise; each have 100% course release but must teach one course section per year as overload; no release of office hour requirement; funded by their respective campus budget)	445,517
	Adjunct faculty members (backfill for 5 campus coordinators); 34 sections total for Fall and Spring; using mean adjunct rate; funded by their respective campus budget)	70,000
	<i>PowerOn</i> faculty member stipends (102 faculty members in total) a. 30 full-time faculty members from 5 new courses; \$2000 for fall/spring semesters; tot \$60,000 b. 12 full-time faculty members from any 25 previously developed courses; \$750 for fall and \$1000 for spring semesters; tot \$21,000 c. 60 part-time faculty members from any 25 previously developed courses; no additional stipend beyond that already paid by TFA	81,000
	<i>PowerOn</i> Faculty Trainers (40 from previous year will provide mentoring and a one-hour workshop for new FLCs; \$200 stipend each)	8,000
	Implementation Assistants (5 faculty member volunteers; one per campus to assist coordinator with CCTST assessment distribution/gathering, FLC needs, forums/chats; \$125/person for each fall and spring semester)	1,250
	External consultant to assist with fifth-year report	4,000
	Total:	\$787,084
	Professional Development	Funds for QEP director to attend SACSCOC Annual Meeting, Dec 2017, Atlanta GA; registration and travel
Funds for one Core Team member to attend the International Critical Thinking Conference, Berkeley, CA; summer 2018; registration/ travel		3,000
Funds for one to two Core Team members to attend the SACSCOC Summer Institute, 2018; registration/travel		4,200
Funds for director and one coordinator to attend Texas A&M's Annual Assessment Conference, spring 2018; registration/travel		2,500
Funds for one Core Team member to attend FLC or Teaching and		

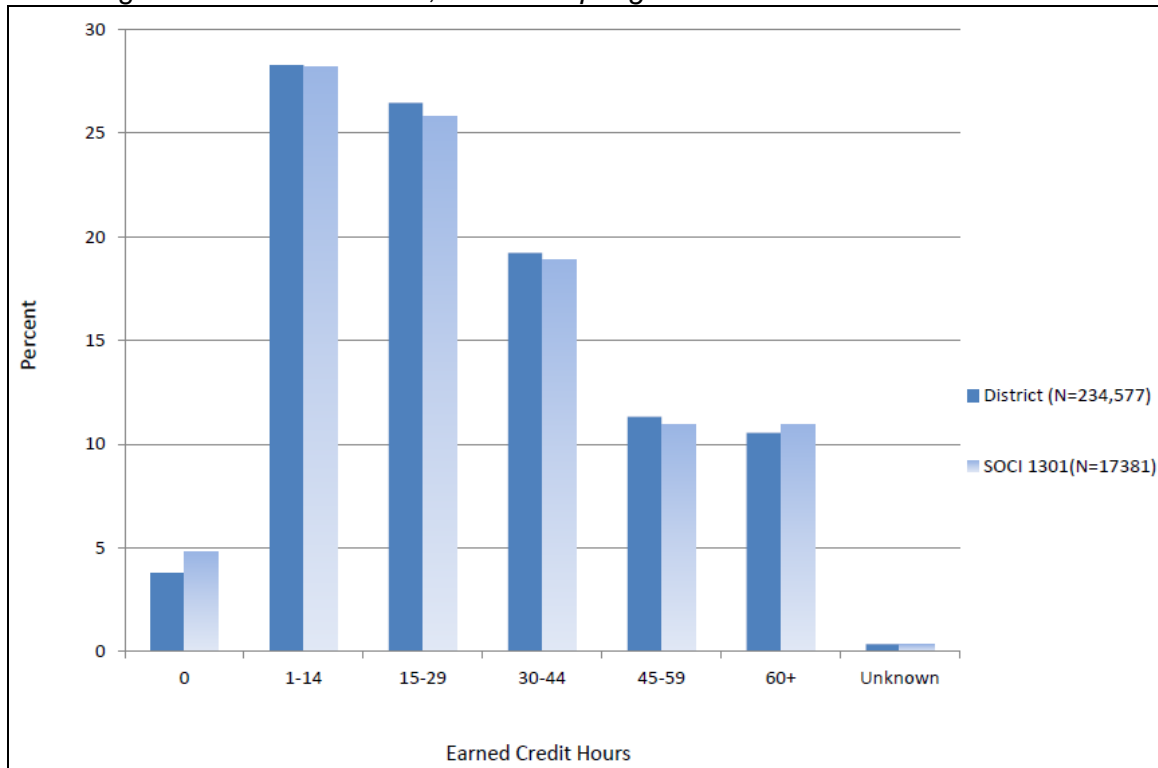
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	Learning Conference; registration/travel	2,200
	Expanded library of books or other materials (e.g. critical thinking, teaching and learning, metacognition) for Core Team, Libraries, or Tutoring Centers; additionally, some materials will be purchased through the library cost center)	1,000
	Funds for Core Team to attend the Annual Outcomes and Assessment Conference; Plano, TX; hosted by Collin College and the North Texas Community College Consortium; registration/travel	700
	FLC meetings and presentations (projected 12-15 FLCs) – food/beverages; tot \$5000	5,000
	Total:	\$20,800
Local Travel (Expenses for campus to campus meetings or other events)	QEP director and five coordinators	9,000
	AOA for director	1,700
	Five implementation assistants	1,100
	102 <i>PowerOn</i> faculty members	40,000
	Total:	\$51,800
Marketing and Student, Faculty Members, Staff Engagement in QEP	<i>PowerOn</i> campaign items for faculty members, staff and students (such as posters, T-shirts, pencils, lanyards, QEP Information Booklets, USB drives, badge-holders, key chains, student critical thinking flashcards)	20,000
	Campus-based Coordinator Chats (two fall; two spring) – snacks/beverages; \$50/session	1,100
	Items for TCCD engagement in QEP.	25,000
	Total:	\$46,100
Assessment	<i>CCTST</i> ; Spring 2017 Baseline testing; approx 3000 students @ \$11 each	33,000
	FLC rubric grading and norming sessions; meal/beverages	2,000
	Total:	\$35,000
Misc	Printing/Copying/Mailing	5,500
	Office supplies for director, AOA, coordinators (5), and <i>PowerOn</i> faculty members (102)	22,000
	<i>PowerOn</i> faculty member orientation meeting with meal/beverages	2,000
	<i>PowerOn</i> trainers (40) pre-workshop session; meal/beverages	500
	Core Team Assessment meetings (fall, spring, summer); meal/beverages	1,200
	Year-long events to create the 5 ^h Year Report of QEP findings for SACSCOC and TCCD; meals/beverages	4,000
	Total:	\$35,200
Contingency	Funds for retraining, unexpected costs	10,000
	Total:	\$10,000
Yearly Total:	Includes <i>in kind</i> costs	\$985,984
Yearly Total:	Without <i>in kind</i> costs	\$293,150

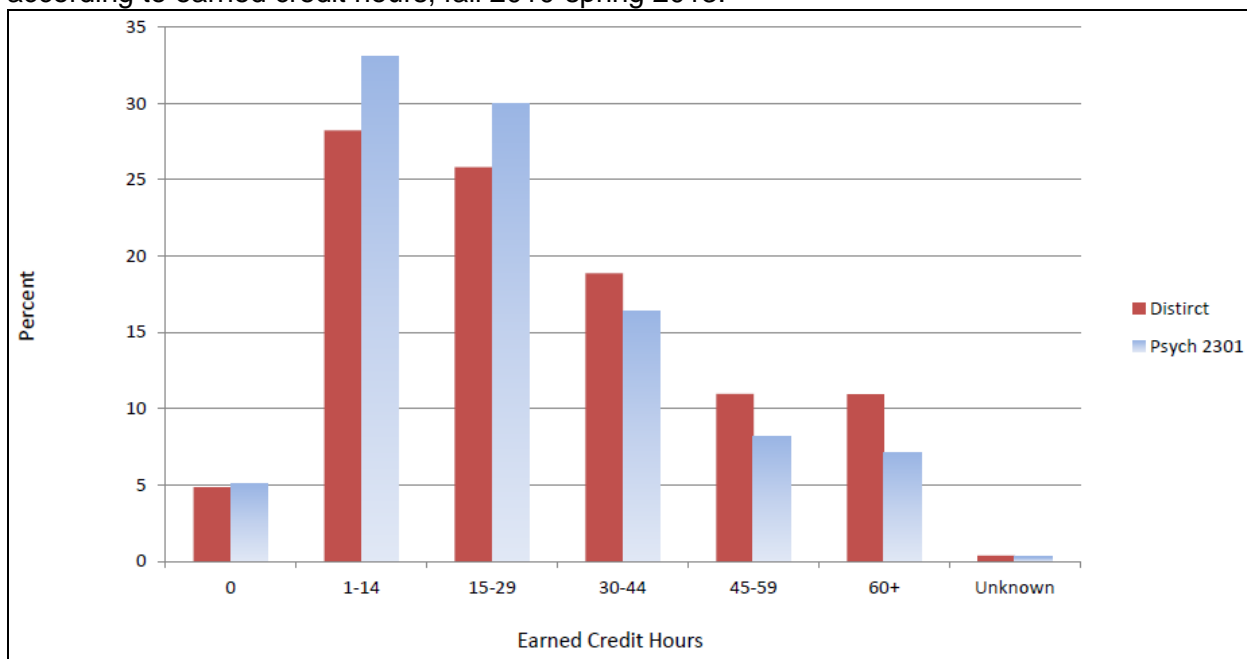
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Sociology Enrollment Comparisons

Percentage of Sociology 1301 students compared to District enrollments of students in groups according to earned credit hours, *fall 2010-spring 2013*.



Percentage of Psychology 2301 students compared to district enrollments of students in groups according to earned credit hours, *fall 2010-spring 2013*.



Percentage of Sociology 1301 students compared to overall District enrollments grouped by ethnicity, fall 2010-spring 2013.

