

Seek Problem Solving Solutions



**Volunteer State Community College
Quality Enhancement Plan
Response to the Report
of the Visiting Committee**

Submitted to
The Southern Association of Colleges and Schools
Commission on Colleges
March 15, 2010

**Volunteer State Community College
1480 Nashville Pike
Gallatin, Tennessee 37066**

Dates of Committee Visit October 13 – 15, 2009
Response to the Report of the On-Site Visiting Committee

March 15, 2010

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Executive Summary

The purpose of Volunteer State Community College's QEP, Seek Problem Solving Solutions, is to improve student problem solving skills in general education courses.

The Volunteer State Community College's (VSCC) Quality Enhancement Plan, Seek Problem Solving Solutions, is a rigorous academic plan that focuses on improving student problem solving skills in general education courses. Two primary initiatives will be implemented to accomplish this purpose. VSCC faculty will be trained in the pedagogy of problem solving and all general education courses will be re-engineered to integrate problem solving methodologies and strategies. Instructors teaching general education courses will learn three instructional strategies related to problem solving: Context-Rich Problem Solving; Faculty-Coached, In-Class Problem Solving; and Problem Solving Method. As a result, general education courses will integrate the pedagogy of problem solving and students will improve their problem solving skills following a defined process. In addition, a faculty mentoring program will be established to ensure that faculty who teach general education courses will become proficient in teaching problem solving skills.

Faculty will use their new skills as part of a systematic implementation plan. After individual sections of each general education course have been piloted during one semester, all sections of those same general education courses taught by full-time faculty will be instructed using the problem solving methodologies the following semester. All general education courses will integrate pedagogy that focuses on the use of problem solving as an instructional strategy by the end of the fourth year of implementation. The remaining year will focus on the review of assessment information and the development of strategies to ensure continuous improvement in the plan resulting in improving student problem solving skills.

VSCC Profile

Volunteer State Community College is a public, two-year community college serving the needs of Middle Tennessee citizens in twelve counties, including Clay, Davidson, Jackson, Macon, Overton, Pickett, Putnam, Robertson, Smith, Sumner, Trousdale and Wilson. It is one of thirteen community colleges governed by the Tennessee Board of Regents and was established in 1970. Volunteer State Community College states its mission as “committed to providing quality innovative educational programs; strengthening community and workforce partnerships; promoting diversity, and cultural and economic development; inspiring lifelong learning; and preparing students for successful careers, university transfer, and meaningful civic participation in a global society.” This commitment to “innovative educational programs” and preparing students for success in life after college by furthering students’ abilities to solve problems, establishes the cornerstone for the Quality Enhancement Plan.

IDENTIFICATION OF THE QEP TOPIC

The Quality Enhancement Plan (QEP) topic of Volunteer State Community College results from extensive broad-based participation of campus employees, students, and community members. Using assessment information, literature reviews, visits to and talking with other colleges, and the identification of best practices, the College selected the topic of “Improving Student Problem Solving Skills in General Education Courses (Seek Problem Solving Solutions).” The topic selection process was a multi-phased process that began Fall 07. The SACS Leadership Team provides for the overall direction of QEP development.

SACS Leadership Team

Warren Nichols	President
Bruce Scism	Vice President of Academic Affairs
Jane McGuire	V P, I E, Research, Planning and Assessment, SACS Liaison
Patty Powell	Vice President of Student Services
Beth Cooksey	Vice President of Business and Finance
Karen Mitchell	Vice President for Resource Development and Executive Director of College Foundation
Ken Lovett	Director of Public Relations
Shanna Jackson	Executive Assistant to the President
Laura Black	QEP Committee Chair

Process Used to Develop QEP

The Vice President for Institutional Effectiveness, Research, Planning, and Assessment introduced the SACS QEP process at the Fall 07 faculty meeting, explaining the process as being faculty-driven and resulting in a plan that would be transformational for the College and enhance student learning. Input on potential QEP topics would be obtained not only from faculty but all employees of the College, students and community members. The introduction was followed by a formal discussion with faculty, staff, and administration (January 7, 2008) during the College’s annual Spring Professional Development Day. All activities related to topic selection are provided in the QEP’s development timeline (page16 or Appendix A).

QEP Topic Selection Committee

The QEP Topic Selection Committee was appointed in Spring 08 by the SACS Leadership Team with representation from the College's five Academic Divisions, Academic Support Services, and Student Support Services. Committee members were requested to review the information gleaned from campus-wide employee and student focus groups and advisory committee meeting discussions to narrow the topic. The committee included the following members:

QEP Topic Selection Committee

Laura Black, Chair	Assistant Professor of English/Director of Language Center
Kay Dayton	Director of NewSkills & Developmental Studies Coordinator
Loretta Calvert	Coordinator of Paralegal Studies – Business
Le-Ellen Dayhuff	Associate Professor of Math & Science – Math & Sciences
Mickey Hall	Professor of English – Humanities
Terri Johnson Crutcher	Clinical Coordinator of Radiology-Allied Health
Emily Short	Director of Retention Student Support Services
Eucretia Walker-Johnson	Instructor of Psychology – Social & Behavioral Sciences

The committee conducted extensive discussions using eighteen campus-wide focus groups, seven student focus groups, and an email discussion on critical academic issues that could be potential QEP topics. The three topics derived from this process were Critical Thinking, College Preparedness, and Fundamental Skills of Reading, Writing and Math.

The Topic Selection Committee also reviewed prior campus climate assessments. Reviews were conducted of the annual Employer Satisfaction Survey, the Community College Survey of Student Engagement (CCSSE), National Community College Benchmark Project, Alumni Satisfaction Survey, Advisory Committee Survey, and focus groups outcomes. From this information it became apparent that the majority of faculty, staff, students and community members believed there was a significant weakness in students' "critical thinking" ability.

After reviewing comments from faculty, staff, students, and community members that “Critical Thinking” was a topic worth investigating, the broad-based committee conducted further research on critical thinking. It was discovered through the review of institutional assessment data that students’ critical thinking skills were weak. The Academic Profile (now the MAPP), an end-of-program general education exam administered to all students who graduate with an Associate Degree shows that student scores on the Critical Thinking subscale of the Academic Profile have continued to decline gradually since 2002-2003 (table 1). A very small percentage of VSCC students have scored at the “Proficient” or “Marginal” levels in the past four assessment cycles.

Table 1: Critical Thinking Sub-scores on the Academic Profile

	N	Mean	VSCC Proficient	VSCC Marginal	VSCC Not Proficient	Associate College’s Mean
2002-03	565	110.57	2%	13%	84%	110.08
2003-04	564	110.28	3%	11%	86%	<i>not avail</i>
2004-05	575	110.21	3%	11%	86%	<i>not avail</i>
2005-06	642	110.18	2%	11%	87%	<i>not avail</i>

In 2005, the College began administering the Community College Survey of Student Engagement (CCSSE). Scores on the CCSSE Academic Challenge subarea indicate that student responses were relatively low even in areas basic to critical thinking—analyzing, synthesizing, organizing, evaluating, and applying information and ideas, and transferring knowledge to new situations (5.b-5.f). The mean scores in Table 2 below indicate that students are not routinely engaged in the kinds of activities that form a solid foundation for critical thinking and problem solving skills.

Table 2: Student Responses to Academic Challenge on the CCSSE

CCSSE Item #	Question	2005 Mean Score	2006 Mean Score	2007 Mean Score	2007 Medium Colleges
How much does your coursework emphasize (1 = very little; 4 = very much)					
5.b	Analyzing the basic elements of an idea, experience, or	2.83	2.84	2.78	2.82

	theory				
5.c	Synthesizing and organizing ideas, information, or experiences in new ways	2.64	2.63	2.67	2.69
5.d	Making judgments about the value of soundness of information	2.51	2.54	2.49	2.53
5.e	Applying theories or concepts to practical problems or in new situations	2.56	2.63	2.58	2.62
5.f	Using information you have read or heard to perform a new skill	2.63	2.65	2.66	2.71

Scores for similar items on the 2007 VSCC Alumni Survey mirror CCSSE scores of current students. Alumni responses for items related to academic challenge were similar to student scores on the CCSSE (table 3). Analyzing and synthesizing information, making informed judgments, applying theories and concepts and transferring knowledge to new situations are areas where the percentage of students and alumni reporting coursework emphasizing these areas as being “quite a bit” or “very much” should be much higher than it is currently.

Table 3: Alumni Responses to Academic Challenge

Alumni Survey Item #	Question	Mean Score (1-4 rating)	% Reporting “Quite a Bit” (3) or “Very Much” (4)
How much did your course work emphasize the following mental activities?			
6a	Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	2.91	73.2%
6b	Analyzing the basic elements of an idea, experience, or theory	2.93	73.2%
6c	Synthesizing and organizing ideas, information, or experiences in new ways	2.67	58.1%
6d	Making judgments about the value of soundness of information	2.66	58.1%

6e	Applying theories or concepts to practical problems or in new situations	2.83	65.7%
6f	Using information you have read or heard to perform a new skill	2.93	72.3%

As a result of campus-wide discussions, literature and best practices research, and review of institutional assessment information conducted by the Topic Selection Committee, “Critical Thinking” was chosen as Volunteer State’s original QEP topic. The faculty, staff, and administration of the College officially adopted the critical thinking topic at a campus-wide forum held on February 4, 2008. In addition, the President’s Cabinet adopted the topic, critical thinking, on February 11, 2008. The QEP Development Committee was appointed to develop the plan.

QEP Development Committee

The SACS Leadership Team appointed the QEP Development Committee in March 2008. The committee was charged with the development of the QEP and to insure broad-based input. The committee met once a week to review assessment information, further study best practices and to develop a plan that would result in assisting students in increasing their critical thinking and problem solving abilities. As part of the committee initiative several members attended conferences to gain insight into critical thinking and problem solving methodologies. This committee presented to faculty, staff, students and community members progress and activities that were being undertaken. In addition, the committee designed and implemented a pilot pedagogy that was piloted fall 2009 (Appendix B) and identified that the QEP would focus on the general education curriculum. The membership was as follows:

QEP Development Committee	
Laura Black	Assistant Professor of English/Director of the Language Center
Mickey Hall	Professor of English (Humanities)
Terri Johnson Crutcher	Clinical Coordinator of Radiology (Allied Health)

Jane McGuire	Vice President, Institutional Effectiveness, Research, Planning and Assessment, SACS Liaison
Teresa Moore	Associate Professor of Business (Business)
Robert Moon	Assistant Professor of Mathematics (Math and Sciences)
Carol Topping	Assistant Prof. /Chair of Psychology (Social Science & Education)

QEP Implementation Committee

The QEP Implementation Committee was appointed by the SACS Leadership Team in April 2009 to respond to a recommendation from the QEP Development Committee that the committee required expansion in order to ensure the necessary expertise in the general education areas. Additional personnel representing student support areas were needed to address student problem solving issues related to the student support functions. Representation from the Livingston campus was also added to provide linkage to this degree granting center. All members of the QEP Development Committee served on this committee in addition to the persons indicated below:

QEP Implementation Committee

Linda Brady	Associate Professor English Online delivery
Terry Bubb	Director of Advising Center
Kim Caldwell (replaced Robert Moon)	Professor of Mathematics/Chair of Math
Charles Hicks	Instructor of Biology
David Johnson	Associate Professor English; Livingston Campus
George Pimentel	Associate Professor of History/Chair of History
Livy Simpson	Instruction Librarian
Cindy Wyatt	Instructor of English
Sue Mulcahy	Professor of Art

The SACS On-Site Committee visited the campus October 13-15, 2009, and, it commended the College for its willingness to identify a challenging topic for its QEP and noted that there was “a climate of support for the project as evidenced through conversations with staff members and students across the College.” However, the On-Site Committee noted that “some components of the Plan would profit significantly by refocusing and refining.” It was clear from the report that the SACS Reaffirmation

Committee felt that the topic of “Critical Thinking” was too broad. As a result, one week after the departure of the SACS Visiting Team, the QEP Implementation Committee was expanded. Three students and two faculty members were added to the committee along with additional representation from Student Support Services and the Business Office.

The additional committee members are:

Additional QEP Implementation Committee Members

Aaron Doyka	Student, SGA Secretary of Treasury, Phi Theta Kappa member
Jessica Anderson	Student, President Ambassador
Kayla Barbee	Student, President Ambassador
Brian Mitchell	Instructor of Mathematics
Peter Johnson	Instructor of History
Chris Vaught	Counselor Retention Support Services
Kathy Y. Johnson	Assistant Vice President for Business and Finance

At the first meeting (October 19, 2009) of the expanded QEP Implementation Committee (post On-Site SACS visit), the committee decided to utilize the College’s October 21, 2009 Professional Development Day to capture additional input on narrowing the topic of critical thinking. The committee held mandatory focus groups with the agenda being a discussion concerning “What does Critical Thinking Mean to You?” and “How Do You View the State of Critical Thinking On Our Campus Today?” All focus group participants completed a survey designed to capture refocused ideas. The survey was compiled (Appendix C) and used by the committee to further refine the topic.

At the October 26th QEP Implementation Committee meeting, the results of the focus group discussions and survey were discussed. The most common theme that arose from all focus groups was that students’ problem solving abilities were weak. This concern was articulated by faculty members from every academic division and staff members ranging from Plant Operations to Student Services. It became clear to the committee that problem solving was a much more focused topic related to the teaching

of critical thinking.

Before problem solving was fully chosen as the topic, it was important for the committee to make sure that it was defensible from a research perspective.

Problem Solving Research

The need to improve practical, complex problem solving has never been more urgent. The National Center for Public Policy and Higher Education (2008) asserts the following:

There is little question that higher education must be among the most important intellectual and creative resources assembled to address an array of critical challenges confronting society—including the sustainability of natural resources; the provision of health care for all in a growing, aging population; and the renewal of economic vitality across a wide demographic range, which entails helping more working adults acquire higher-level skills and knowledge, instilling core human values, and strengthening social structures to ensure that future generations experience lives of justice, equity, and fulfillment. (p. 1)

Clearly, students must be given more challenging opportunities in college education to be able to contribute meaningful solutions to everyday problems. In an April 2008 *New York Times* Letter to the Editor “Does the Internet Make Us Dumber,” Associate Dean of Libraries from the University of Louisville, Suzy Szasz Palmer, writes about a growing concern in higher education: “The Internet has provided the current generation of students a wealth of information, literally at their fingertips. These students' parents might have spent hours gathering resources for a similar assignment, but information is not knowledge. And reading and analyzing material—be it scientific data or literary criticism—take both time and practice.” The solution she offers is a compelling call for all of us in higher education: “Teachers and librarians need to encourage students to spend less time searching and more time thinking about what they have found.” This proclamation addresses the need to bring students together through learning and to help them learn to become independent thinkers who can understand the difference between information and knowledge to solve complex problems. Given the national concern, it is

not surprising that several Quality Enhancement Plans from other U.S. southern two-year colleges, Madisonville, Kentucky; Cape Fear Community College, North Carolina; East Mississippi Community College, Mississippi; Lord Fairfax Community College, Virginia; and Nashville State Community College, Tennessee, have also centered on improving critical thinking and/or problem solving.

Related Tennessee Initiatives

Beginning with its September, 2007, *Assessing Key General Education Competencies in the Tennessee Board of Regents System*, the Tennessee Board of Regents required “every System institution to assess four competencies of vital interest to students, educators, employers and other stakeholders—mathematics, oral communication, writing, and critical thinking” (p. 1). In that document, TBR defined critical thinking as “**the ability to solve problems**, construct and present cogent arguments in support of one’s views, and understand and evaluate arguments presented by others” (p. 5). This emphasis by TBR provided another key reason for VSCC to pursue problem solving as its focus for the QEP.

The Tennessee Board of Regents’ inclusion of “employers and other stakeholders” is also significant. In January 2007, the state of Tennessee joined the American Diploma Project (ADP) Network, a coalition of thirty states dedicated to aligning high school curricula and academic standards with “the demands of college and work” (TBR President’s Council, November 6, 2007). In the summer of 2007, the Tennessee Diploma Project (TDP), with support from the Tennessee Business Roundtable and the Hyde Family Foundations, launched a series of regional roundtable discussions and informal focus groups with prominent employers and institutions of higher education in Tennessee. These meetings initiated by Tennessee Governor Phil Bredesen and held in six markets between June 19 and August 7, 2007 provided

guidance for an ambitious restructuring of Tennessee's standard high school curricula. Among the common refrains voiced at multiple roundtables was a noted deficiency in the "problem solving" skills of Tennessee's high school and college graduates (TBR President's Council, November 6, 2007). By no coincidence, these were the same skills considered most essential in surveys administered to Tennessee's business community, during the same time period. As a result of these surveys and focus groups, the Tennessee Diploma Project Business Outreach Report recommended, among other things, "greater focus on problem solving and teamwork" (TBR President's Council, November 6, 2007). From one Tennessee Business Roundtable Foundation meeting, B. Thad Solomon, General Manager of Nucor Steel Memphis, Inc. asserted, "The challenge is 'not the high-end, high-order equations.' *It's the basic skills and application to solving real-world problems*" (TBR Presidents' Council 2007, p.12).

Link to Strategic Planning: Critical Thinking and Problem Solving at VSCC

The faculty and administration at VSCC have expressed similar concerns related to critical thinking and problem solving for several years. For instance, in the most recent Strategic Plan (2005-2010), Objective 3.4.1 is to "enhance student learning" by monitoring five subscales in the National Community College Benchmark Study. Among those subscales are *Active and Collaborative Learning*, *Student Effort*, and *Academic Challenge*. A focus on problem solving will address these subscales.

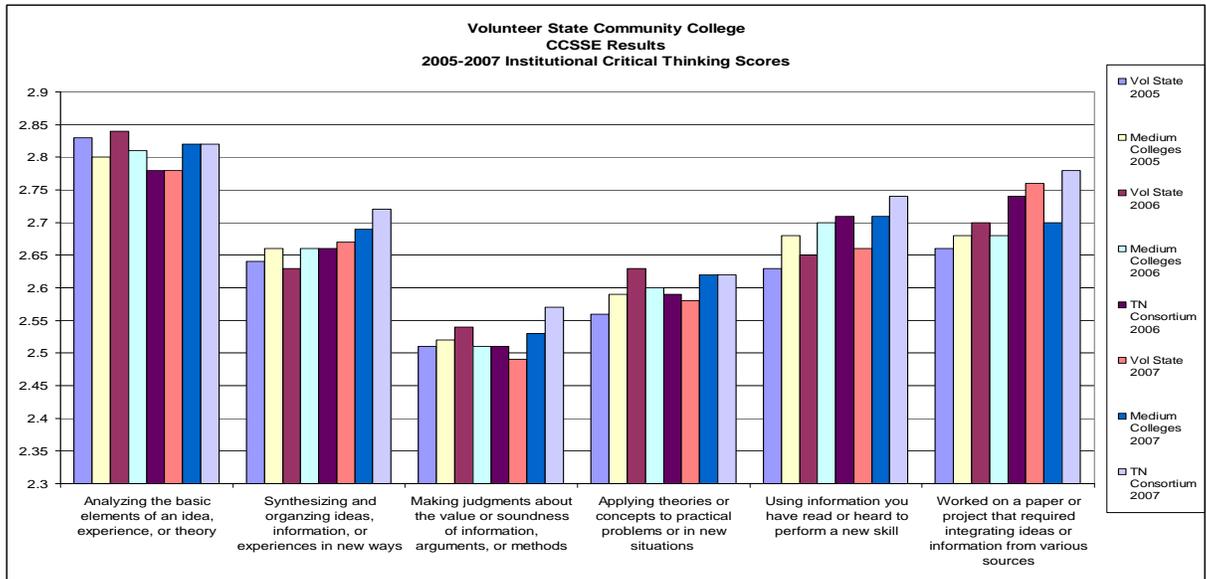
In addition to the College's Strategic Plan, since 2004-2005, VSCC has been conducting Academic Audits at the department and program level. The Academic Audit is a process developed by the Tennessee Board of Regents through which the faculty reviews departmental processes in five focal areas: learning objectives, curriculum and co-curriculum, teaching, student assessment, and quality improvement. The quality principles used to evaluate the five focal areas included defining quality in terms of outcomes, basing decisions on evidence, working collaboratively, striving for coherence,

and learning from best practice. VSCC has been involved with the Academic Audit process since its beginning in 2004 and has completed audits for twenty-one academic departments or programs.

After reviewing the Academic Audits, it is evident that some of them further point to the need for the improvement of problem solving skills. For example, the audit for the History department states that its “primary objective is that our students develop critical thinking skills.” To this end, the department has employed a multiplicity of problem solving skills in order to “go beyond rote memorization to application of the material.” Examples of activities incorporated into the curriculum include: mock trials, role playing, debates, and visits to historical sites. Faculty members in the History department also report that “they are doing the hard work it takes to get students to read effectively, write effectively, and critically think their way through problems.”

Institutional Concerns about Problem Solving

The post-SACS QEP Implementation Committee also reanalyzed student performance data from the Measure of Academic Proficiency (MAPP), Community College Survey of Student Engagement (CCSSE), National Community College Benchmark Project (NCCBP), and the Collegiate Assessment of Academic Proficiency (CAAP). Results of the CCSSE demonstrate that students fall short of the Tennessee Consortium and Medium Colleges in the categories of “synthesizing and organizing ideas, information or experiences in a new way” and in “applying theories to practical problems or in new situations” (Chart Below.) As a result of its analysis, the committee determined that problem solving, a measurable component of critical thinking was indeed justifiable. Therefore, the committee decided that focusing on problem solving would enable the campus to be truly transformed. Enriched experiences could be created not only in the classroom but also in the student support areas.



As a result of the campus-wide passion that was expressed concerning the need for students' problem solving abilities to be improved and multiple data sources pointing to it as a clear weakness, the QEP Implementation Committee unanimously decided on December 13th, 2009, that improving student problem solving skills should be the refocused QEP topic. The committee decided to utilize the campus-wide Professional Development Day to present the findings of the committee and to recommend and obtain confirmation of problem solving skills as the refocused topic.

President Warren Nichols addressed a college-wide assembly of faculty and staff on January 7, 2010, to present the revised QEP topic as problem solving. This announcement was followed by focus groups with participants strategically assigned to talk about student problem solving abilities in their area and to confirm the topic (Appendix D). All focus groups resulted in confirmation of the refocused topic to be problem solving skills.

The QEP Implementation Committee also reviewed results of the Advisory Committee Survey conducted spring 10 (Appendix E). This survey was completed by community members and further substantiated the refocused topic of problem solving.

Once the refocused topic of problem solving was adopted by the QEP Implementation Committee, presented to the College community by President Warren Nichols, substantiated by Advisory Committee members and discussed in focus groups across the College, the QEP Implementation Committee began work on the redesigned QEP Implementation Plan. A revised QEP Purpose Statement was crafted, the design of implementation tasks was undertaken, resources identified, and assessment tools and processes identified. The work of the Implementation Committee is presented in the following sections of this document.

Finally, a special subcommittee, QEP Design Team, was formed to finalize the details of the complete Implementation, Assessment, and Management Plans of the QEP. This is a subcommittee of the QEP Implementation Committee specifically charged to refine and redraft the original QEP after the SACS On-Site visit. The broad-based committee is as follows:

QEP Design Team

Terry Bubb	Co-Chair, Director of Advising Center (Support Services)
Teresa Moore	Co-Chair, Associate Professor of Business (Business)
Laura Black	Assistant Professor of English (English)
Mickey Hall	Professor of English (Humanities)
Jane McGuire	V P, Institutional Effectiveness, Research, Planning and Assessment
Carol Topping	Assistant Prof/Chair of Psychology (Social Sciences & Education)

A summary of the topic selection timeline is provided below.

QEP Topic Selection Timeline

Date(s)	Activity	Impact
Fall 2007	QEP introduced to College by VP McGuire	College oriented to QEP purpose and process
Spring 2008	Topic Selection Committee appointed	Discussion on potential topics begins College wide, potential topics identified
February 2008	Critical Thinking selected as QEP focus	QEP focus on critical thinking presented to administration and faculty
March 2008	QEP Development Committee appointed	Literature and best practices researched, strategy developed
April 2009	QEP Implementation Committee appointed	Refine QEP strategy, prepare for SACS Onsite Team, begin piloting features
Oct. 13-15, 2009	SACS Onsite Committee Visit	External review of QEP
October 19, 2009	QEP Implementation Committee expanded to include students, student support personnel and additional general education faculty.	Expanded involvement into QEP design
October 21, 2009	College Professional Development Day to discuss refocused QEP	Discussion of critical thinking and components, focus on problem solving skills
December 2009	Decision to refocus QEP to Problem Solving Skills as an aspect of Critical Thinking	Problem Solving Skills focus on revised QEP
January 7, 2010	College-wide Professional Development Day to discuss QEP refocus	Problem Solving Skills introduced college wide
February 2010	QEP Design Team appointed as subcommittee of QEP Implementation Committee	QEP refocused and redrafted with detailed implementation plan

QEP PURPOSE STATEMENT, GOALS, OBJECTIVES, AND DEFINITIONS

The purpose of Volunteer State Community College's (VSCC) Quality Enhancement Plan, Seek Problem Solving Solutions, is to improve student problem solving skills in general education courses.

The QEP Implementation Committee and the QEP Design Team identified three goals of the QEP, objectives for each goal, and student learning outcomes. Refer to the assessment plan for details concerning the assessments that are used and the measurable student learning outcomes. All student learning outcomes will be assessed through multiple measures. These multiple assessments will permit measurements to gauge the success of the implementation plan and identify areas on which to focus improvements. It insures there are multiple measurements to assess students' problem solving performance as they progress through the general education curriculum. The goals and objectives of Seek Problem Solving Solutions are:

Goals and Objectives of the Quality Enhancement Plan

Goal 1: Volunteer State Community College faculty and student support personnel will be trained in problem solving skills methodologies.	
Objective 1	Full-time faculty will be trained in the pedagogy of problem solving skills
Objective 2	Full-time general education faculty will demonstrate proficiency (80% or higher on problem solving rubric) in teaching problem solving skills.
Objective 3	General education full time faculty will integrate problem solving pedagogy into course instruction
Objective 4	Full-time and part-time (adjunct) faculty will have the opportunity to participate in problem solving pedagogy professional development activities.
Objective 5	Student support personnel will be trained in facilitating student problem-solving skills.
Goal 2: Volunteer State Community College will establish and implement a Faculty Mentoring Program.	
Objective 1	Faculty will serve as faculty mentors to assist with the integration of problem solving pedagogy into the general education curriculum and professional development.
Objective 2	Faculty mentors will provide professional development training in a formalized fashion
Objective 3	Faculty mentors will assist faculty developers with development of new courses
Objective 4	Faculty mentors will serve as problem solving pedagogy resources

Objective 5	Faculty mentors will be trained in scoring the CAT
Goal 3: Improve student problem solving skills in general education courses by implementing problem solving skills methodologies in general education courses and student support areas.	
Objective 1	Students will identify and define a complex problem
Objective 2	Students will identify and analyze strategies for solving the problem distinguishing relevant from irrelevant information.
Objective 3	Students will demonstrate their understanding of how new information or changing situations alters the problem.
Objective 4	Students will propose solutions to the problem.
Objective 5	Students will select the best solution and develop an implementation plan.
Objective 6	Students will evaluate the solution and its implementation.

General education full-time faculty will be trained in strategies for teaching problem solving skills and will demonstrate proficiency in teaching with those newly-acquired methods . In addition, a faculty mentoring program will be established which will provide for the needed support to faculty developers as they re-engineer general education courses. As a result, general education courses will be re-engineered to integrate problem solving methodologies to assist students with obtaining problem solving skills. Student support staff will also be involved in learning problem solving methodologies applicable to their roles so that the problem solving focus is campus-wide.

Students will improve their problem solving skills by learning and following a defined process. This process will enable them to use skills of problem solving, including:

1. identify and define a complex problem;
2. identify and analyze strategies for solving the problem, distinguishing relevant from irrelevant information;
3. demonstrate their understanding of how new information or a changing situation alters the problem;
4. propose potential solutions to the problem;
5. select the best solution and develop an implementation plan; and
6. evaluate the solution and its implementation.

Students' problem solving skills will be measured by several assessment tools including the Critical Thinking Assessment Test (CAT), the MAPP, CCSSE, the NCCBP, the Employer Survey, and the Alumni Survey which are further explained in the Assessment Plan. The six student learning outcomes are congruent with the following Strategic Goals of the College.

- Strategic Plan Goal 1: The College will ensure academic excellence and institutional quality.
- Strategic Plan Goal 2: The College will improve its image with all constituents.
- Strategic Plan Goal 4: The College will provide and support competitive compensation for all employees, as well as, enhance opportunities for professional development.
- Strategic Plan Goal 5: The College will improve internal and external communication.

Definitions

The College has adopted the following definitions to insure consistency in interpretation of key definitions used in the QEP.

Problem Solving Skills- The process of working through details of a problem of varying complexities to find a logical solution.

General Education- Designated courses which focus on the intellectual, emotional, physical, and cultural environment that are intended to provide students with a base for undertaking the specialized studies in either a transfer or a career program. The overall purpose of general education is to involve students in a mature inquiry into cultural traditions, values, and assumptions and to assist them in developing and refining the basic skills they need to think and communicate effectively in contemporary society.

General Education Courses- Courses that are designed to assist students in attaining the knowledge and outcomes represented by the General Education goals of the College. AA or AS degree-seeking students must take forty-one hours of general education coursework while students pursuing an AAS degree must complete sixteen hours.

Student Learning Outcomes- The knowledge, skills, and abilities that students have attained as a result of their involvement in a particular set of educational experiences.

Faculty Problem Solving Proficiency- Developing and implementing a problem solving activity that is formally evaluated through the use of a problem solving rubric.

Context Rich Problems- A problem solving pedagogy that utilizes short, realistic scenarios within the classroom that are typically more complex than traditional problems.

Faculty-Coached In-Class Problem Solving- A problem solving pedagogy where students work collaboratively to solve problems while the professors provide a guided context.

Problem Solving Method- A problem solving pedagogy that teaches the steps of problem solving by utilizing various problem solving models along with the use of facts, concepts, and principles of content.

LITERATURE REVIEW AND BEST PRACTICES

Problem Solving

Problem Solving evolved as the refocus of the QEP after additional literature review and best practices were conducted. Initially, the QEP Development Committee reviewed literature from numerous sources to craft a master list of literature sources that directly supported the QEP critical thinking focus. Each committee member drafted initial proposals for the QEP that explored emerging themes within critical thinking as revealed by the committee's review of literature and weekly discussions. These initial proposals included topics such as Transference, Communicating Critical Thinking, Experiential Learning, Brain-Based Learning, Interdisciplinary Learning, and Problem Solving and Problem-Based Learning. From this research, the refocus on problem solving skills evolved.

The definition of problem solving has been much discussed, and most educators understand it involves a variety of formal reasoning activities such as analysis, evaluation, synthesis, communication and application. Paul and Elder (2007) define problem solving as entailing effective communication and problem solving abilities and a commitment to overcome our negative egocentrism and social centrism (p. 4). Similarly, Willingham (2007) notes that cognitive scientists have defined critical thinking as "reasoning, making judgments and decisions, and problem solving" (p. 11).

Teaching problem solving has merits beyond the classroom or collegiate experience. In *Teaching for Tomorrow: Teaching Content and Problem-Solving Skills*, Ted McCain (2005) asserts: "it is important to equip students with the useful problem solving skills because being able to think logically and independently is just as critical for solving personal and house-hold problems as it is for solving work-related problems. What we are really talking about here is providing students with life skills" (p. 10). Jonassen (2000) concurs, "... most psychologists and educators regard problem solving

as the most important learning outcome for life. Why? Virtually everyone in their everyday and professional lives regularly solves problems. Few, if any are rewarded for memorizing information . . . Unfortunately, students are rarely, if ever, required to solve meaningful problems as part of their curricula” (p. 63). For this reason, it is essential that problems presented be relevant and grounded in real-life and that they be complex or “ill-structured problems.” Jonassen (2000) explains, “Ill-structured problems . . . are the kinds of problems that are encountered more often in everyday and professional practice so they are typically emergent. . . . [and] their solutions are not predictable or convergent” (p. 67).

Best practices related to the teaching of problem solving were thoroughly researched and discussed by a subcommittee of the QEP Implementation Committee in order to refocus the QEP after the SACS on-site visit. This group consisted of faculty members representing all academic divisions, two staff members from Student Services, and two currently enrolled students.

Research Subcommittee

Livy Simpson	Instruction Librarian (Support Services)
Terry Bubb	Director of Advising Center (Student Support)
Terri Johnson Crutcher	Clinical Coordinator of Radiology (Allied Health)
Teresa Moore	Associate Professor of Business (Business)
David Johnson	Associate Professor English (English Department, Livingston Campus Representative)
Aaron Doyka	Student, SGA Secretary of Treasury, Phi Theta Kappa
Kayla Barbee	Student, President Ambassador
Cindy Wyatt	Instructor of English (English Department Representative)
Brian Mitchell	Instructor of Mathematics (Math)

With pedagogy in mind, the subcommittee reviewed literature on problem solving to determine an appropriate method(s) to integrate into the general education courses. Research supports context rich problems, faculty-coached in-class problem solving, and problem solving method as three methods that when adopted would result in improving

student problem solving skills in general education courses. Each of the three pedagogies is cited as having positive impacts on improving problem solving skills.

Context Rich Problems

One reason students struggle with solving problems in their courses is they cannot personally relate to the information and cannot make a “personal transfer” to the information. If problem solving and learning have not taken place in “real-world contexts,” it is very difficult for students to have the motivation to solve the problem . As Brian Greene of Columbia University writes:

...I am distressed when I meet students who approach math and science with drudgery . I know it doesn't have to be that way. But when science is presented as a collection of facts that need to be memorized, when math is taught as a series of abstract calculations without revealing its power to unravel the mysteries of the universe, it can all seem pointless and boring. (Greene, p. 95)

Context rich problems are short, realistic scenarios that are more complex than traditional problems. Indeed, they reflect the real world and provide students with a personalization that enables them to better connect with the subject matter. As Joann Bangs, assistant professor of economics at the College of St. Catherine writes, they have “a realistic setting with the student at the center of the problem.” (Bangs, p. 8) Professor Bangs was frustrated by students not being able to apply the principles of economics to the real world so she used context-rich problems to improve student's abilities to apply concepts to real world settings. She writes:

One of the most important goals I have in teaching a principles level class is that the students will be able to apply the concepts from class to real world settings. In my experience, this goal can also be very difficult to achieve. Evidence shows that my experience is not unique. Hansen, Salemi and Siegfried (2002) highlight some studies showing that people are not able to apply basic economic concepts even after they have completed a course in economics. Over time I have tried a variety of methods to help with this process with varying degrees of success. (Bangs, p. 4)

Tom Foster, Physics Professor at Southern Illinois University, Edwardsville, also discovered the value of using context rich problems. He states that "...one of the important features of Context Rich Problems is the plausible context; one where the student can envision themselves. By demonstrating the usefulness of physics in a wide variety of situations, it is hoped that the students will see how to transfer these skills to their future endeavors: to be adaptive in their use of physics." (Foster, p. 2) In this methodology, students are actually put into "first person" in order to solve the problem. The use of DVD's and CD-ROM'S are often used to simulate these "real world" situations. By utilizing context rich problems in the classroom, students learn better where and when to use particular strategies as they solve problems. They are thus able to develop the key skill of being able to recognize "...core concepts independent of the varied contexts in which they are presented." (*Pedagogy in Action*)

Faculty Coached In-Class Problem Solving

Faculty coached in-class problem solving method teaches that students should work collaboratively to solve problems while professors provide a guided context. Evidence indicates that the quality of a solution improves when a group works together to solve a problem (Heller et al., 1992). Indeed, there are a large number of successful programs that incorporate students working collaboratively in groups (Heller and Heller, 2004; Heller and Hollobaugh 1992; Treisman, 1992; Wenzel, 2000 ; Williamson and Rowe, 2002).

With this methodology, faculty introduce new concepts and play an active role interacting with each group of students as they work on problems. Problems can be constructed in a way that caters them to a class filled with students who come from a variety of backgrounds. Each class is designed specifically to support students as they apply the new concepts they are learning.

Proponents of this methodology have discovered that supervision and coaching efficiently increases student “time on task.” (*Pedagogy in Action*) As student proficiency with problem solving and content increase during the semester, the problems become more sophisticated, reinforcing earlier course concepts. Research indicates that student learning increases when students are given the opportunity to be actively involved during class (Hake, 1998 ; Knight and Wood, 2005), and when they have the chance to apply a concept that was just presented by the instructor. Further, if students are able to have their misconceptions addressed immediately, their learning intensifies. (Tanner and Allen, 2004). Given the collaborative learning aspect of this methodology, even underprepared students are more likely to succeed. (Gudan, 1994; Boylan, 1999; Jensen, 2005; Tinto,1998). In addition to the fact that students work collaboratively to solve problems of various complexities, the role of the “faculty coach” is also a significant reason for the success of this methodology. Faculty coaches “provide a structured, guided context for solving problems; help students develop problem solving strategies; help students connect new concepts back to a solid base of earlier material; identify and clear up misconceptions; and assess student learning informally.” (*Pedagogy in Action*) As a result, the faculty/student relationship is necessarily much closer than that of a traditional lecture-type course, the rapport that is established necessarily increases the motivation of the student to learn. Further, research shows that grouping students together in order to solve problems allows faculty to interact with more students during each class period (*Pedagogy in Action*).

Problem Solving Method

The problem solving method reflects the commonly-held view that problem solving is a “process that should permeate the entire program and provide the context in which concepts and skills can be learned.” (National Council of Teachers of Mathematics, 1989) This pedagogy teaches the steps of problem solving by utilizing

problem solving models along with the use of facts, concepts, and principles of content. However, it also emphasizes the need for professors to focus their efforts on assisting students in developing the skills used in problem solving and not just learning the “steps” that are necessary to come to a solution. Developing those skills is necessary in order to engage in the problem solving process.

As Eric Jensen presents in *Teaching with the Brain in Mind (2005)*, the process of general problem solving skills includes many components: identifying a problem and its parts, maintaining focus on it, distinguishing between significant and insignificant aspects of the problem or solution, prioritizing resources, organizing ideas, developing and testing a hypothesis, using feedback, and utilizing social interactions for assistance.

In order to teach this process, many different problem solving strategies can be used. To improve one’s problem solving skills, the process must occur with a purpose and not in isolation (Elder & Paul, 2001). In addition, much of the problem solving process should correspond with the context of course content or with that of familiar experiences (Paul, 2000; Glaser, 1984; Jensen, 2005). In order for problem solving skills to be developed and improved, the process must be part of learning in all disciplines that a student is expected to master. Those problem solving processes are then adjusted to the specific discipline that necessarily will have different structures or “schema.” (Glaser, 1984; Jensen, 2005; Elder & Paul, 2002). James Kirkley of Indiana University describes the importance of joining content with application as the problem solving method is utilized:

As education has come under criticism from many sectors, educators have looked for ways to reform teaching, learning, and the curriculum. Many have argued that the divorce of content from application has adversely affected our educational system (Hiebert, 1996.) Learners often learn facts and rote procedures with few ties to the context and application of knowledge. Problem-solving has become the means to rejoin content and application in a learning environment for basic skills as well as their application in various contexts...As educators call for more integrated instruction, problem-solving often serves as a core curriculum strand that joins together various disciplines, rules, concepts, strategies, and skills. (Kirkley, p. 1)

As the problem solving method is utilized in the classroom and linked to course content, it is important that various teaching strategies be utilized as part of this methodology. As Henry Hermanowicz writes:

Despite the apparent built-in flexibility of the problem-solving method as classroom technique, it has dangers of being an orthodox procedure in itself. A wide variety of teaching methods should be employed to help students develop their own abilities in decision making. The teacher's role is to help students seek relevant knowledge, understand important values, analyze possible alternatives and project probable consequences involved in dealing with different problems. This will foster the type of critical thinking that was Dewey's original goal in emphasizing the development of reflective thought. (Hermanowicz, p. 6)

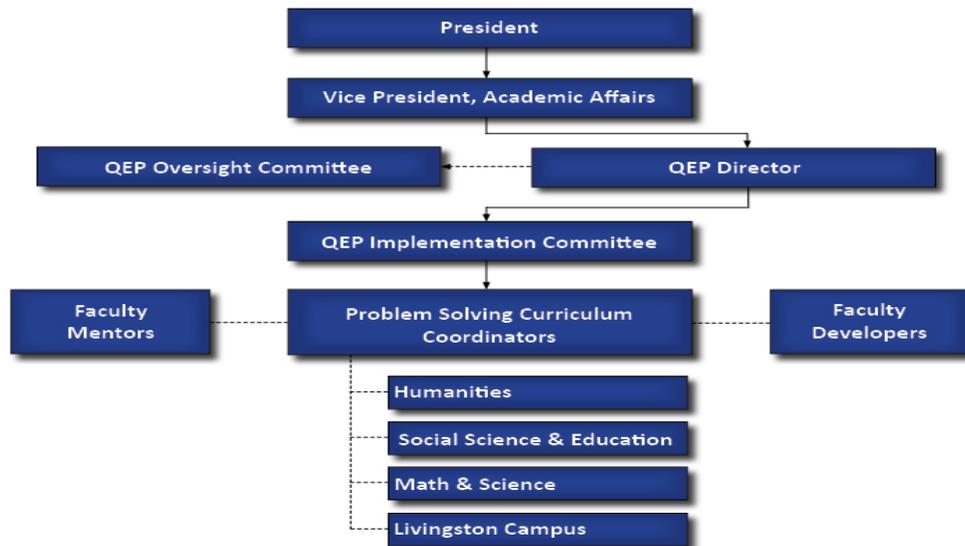
Problem solving methods are applicable to a wide variety of courses and can be utilized by faculty and student support staff. This pedagogy is broad in scope and will thus be applicable to all general education courses at Volunteer State. Given that part of the process of this methodology is to teach the problem solving steps, it corresponds well to the campus-wide focus on improving students' problem solving skills.

The three discussed pedagogies were chosen as the best methods to address the refocused QEP which evolved from two professional development activities held in October and January and from extensive literature review and identification of best practices. The College chose these three problem solving methods because of their demonstrated effectiveness in improving student problem solving skills, and to permit faculty the opportunity to adapt problem solving strategies according to the degree of complexity of a given problem. Clearly, problems come in all shapes and sizes. As a result, problem solving activities will vary between general education courses. Therefore, all faculty members who teach general education courses will be trained in the use of three problem solving methodologies to permit them the opportunity to determine the best method to be used for that particular subject and assist in improving student problem solving skills.

INSTITUTIONAL CAPACITY: ORGANIZATIONAL STRUCTURE AND RESOURCES

Organizational Structure

The implementation of Seek Problem Solving Solutions will necessitate a considerable amount of human, physical, and financial resources by Volunteer State. The College is fully committed to its success and will provide highly qualified leadership, oversight, and an adequate budget to insure the implementation and management of the Plan. The result will be an improvement in students' problem solving skills in general education courses.



QEP Oversight Committee

Under the ultimate guidance of President Warren Nichols, the QEP will be managed by the QEP Director who will report to the Vice President of Academic Affairs. The QEP Director will serve on the QEP Oversight Committee providing bi-annual reports of progress. The QEP Oversight Committee will have responsibility for overseeing the successful implementation of the QEP. Committee members include the Vice President of Academic Affairs, the QEP Director; General Education Academic Deans; the Vice President of Institutional Effectiveness, Research, Planning, and

Assessment; Director of Advising Center; one faculty member teaching in a non-general education area; Director of the Library; Curriculum Committee Chair; and General Education Outcomes Committee Chair. The Oversight Committee reports to the President's Cabinet. Membership of the QEP Oversight Committee is indicated below:

QEP Oversight Committee

Dr. Bruce Scism	Vice President for Academic Affairs
To be appointed	QEP Director
Dr. Bonny Copenhaver	Dean of Humanities
Phyllis Foley	Dean of Social Sciences and Education
Nancy Morris	Dean of Math and Science
Jane McGuire	V P, IE, Research, Planning an Assessment; SACS Liaison
Terry Bubb	Director of Advising Center
Teresa Moore	Associate Professor of Business
Louise Kelly	Director of the Library
Cory Martin	Curriculum Committee Chair
Nancy Morris	General Education Outcomes Committee Chair

The Vice President for Academic Affairs and the general education deans have leadership for ensuring the integration of problem solving methodologies into the general education curriculum. In addition, the deans oversee class scheduling to provide for broad-based exposure to the re-engineered courses. The Vice President of Institutional Effectiveness, Research, Planning and Assessment will continue to support QEP assessment efforts and integration into the strategic planning and institutional effectiveness processes. The Director of the Advising Center will oversee student support area initiatives while the non-general education faculty member will provide oversight with training in problem solving methodologies for non-general education faculty. The Director of the Library will oversee library collections and resources in support of faculty development. The Curriculum Committee Chair and the General Education Outcomes Committee Chair will ensure coordination between these committees and QEP implementation.

The purpose of the QEP Oversight Committee is to oversee the full implementation of the QEP. It will provide coordination of the QEP with other curricular initiatives of the College and monitor progress. In order to fully manage the QEP, the Oversight Committee will engage in the following activities:

- Review assessment results and adopt recommendations for improvement
- Monitor all financial expenditures to ensure appropriateness of expenditures as being directly related to the goals and objectives of the QEP
- Review and provide leadership support to QEP implementation
- Verify planned professional development activities occur and are directly related to the teaching of problem solving methodologies
- Monitor the Faculty Mentoring Program to ensure successful implementation and continuous improvement of the program
- Inform campus employees, students and the community of QEP activities

The Oversight Committee will meet twice a year at the beginning of each semester. Additional meetings will be called as needed by the Oversight Committee Chair and/or QEP Director.

QEP Director

The QEP Director will provide for the day to day operations of QEP implementation, serve on the QEP Oversight Committee, coordinate professional development for faculty, and overall coordination of the QEP. The job description is as follows:

The QEP Director will be a tenure-track faculty member with assigned administrative duties, teaching a maximum of one course each semester with additional summer responsibilities. This position will be filled from within the existing ranks of full-time faculty and afforded release time to administer the QEP. The director will report to the Vice President of Academic Affairs and serve as a liaison between stakeholders, including the Vice President of Institutional Effectiveness, Research, Planning, and

Assessment, department chairs, faculty members, students, community members, and student support personnel. Minimum qualifications include a Masters Degree, with three years teaching experience in higher education and experience with problem solving pedagogies. Experience with assessments and budgets with demonstrated abilities to direct long-term projects in a two-year college environment is preferred. The director will be responsible for the following activities:

- coordinating professional development for faculty
- assisting faculty with the creation of problem solving classroom activities and assessments
- creating, maintaining, analyzing reports and records, and distributing information to constituencies to assess the QEP process and progress
- coordinating the support services required by the QEP implementation
- working with Institutional Effectiveness to coordinate assessments

QEP Implementation Committee

The QEP Implementation Committee assists the QEP Director with implementation of the QEP and serves as leaders for problem solving methodologies. This committee will conduct research on problem solving methods, assist with development of professional development activities, and oversee course development pilots and assessments and improvements indicated from assessment. The committee, as explained on page 8 will consist of general education faculty, student support personnel, one representative from the Business and Finance Division, the Vice President of Institutional Effectiveness, Research, Planning and Assessment, and one non-general education faculty. The committee will review and monitor progress of QEP implementation, prepare reports for the QEP Director and QEP Oversight Committee,

identify professional development activities, develop marketing materials, conduct ongoing assessment of the QEP, and participate in program planning.

Problem Solving Curriculum Coordinators

Four problem solving curriculum coordinators will oversee the integration of problem solving pedagogy into the general education curriculum. They have expertise in each of the general education divisions, Humanities, Math and Science, and Social Sciences and Education. They will coordinate the scheduling of course development and required faculty professional development. One coordinator will be located at the Livingston Center to ensure integration of the problem solving methodologies at the Livingston Campus.

Faculty Developers

Faculty developers will re-engineer general education courses using context rich problems, faculty coached in-class problem solving, and/or problem solving pedagogies. The developers will receive extensive training in these pedagogies, further research the pedagogy best suited for the course, and will develop and implement classroom activities and instructional delivery methods for the course.

Faculty Mentors

Faculty mentors will provide assistance to the faculty developers in designing problem solving methodologies for courses. They will lead training sessions during departmental meetings and adjunct faculty orientation. They will prepare problem solving resources that will be posted on a specially-designed website devoted to the teaching of problem solving.

Other Institutional Support

College Standing Committees

The QEP Director will serve as an ex officio member of relevant College Standing Committees including the General Education Outcomes Committee, the

Curriculum Committee, and the Professional Development Committee. The General Education Outcomes Committee purpose “is to ensure achievement of general education outcomes and academic excellence in the general education program” and includes review of general education assessments. Likewise, the Curriculum Committee’s purpose “is to ensure academic excellence” and “monitors and reviews instructional standards, including outcomes assessment, making recommendations for improvement as necessary.” The Professional Development Committee will plan for professional development activities that are critical to the success of the QEP.

Library and Learning Resource Center

The Library and Learning Resource Center will provide for a collection of materials on problem solving methodologies that will be available for faculty use in the development of problem solving activities within general education courses. They will also create materials and special programs that will assist students with research that relate to problem solving assignments of the re-engineered general education courses.

Office of Institutional Effectiveness, Research, Planning and Assessment

This office will continue to provide the necessary resources to administer, analyze, and maintain assessment information related to Seek Problem Solving Solutions. The Director of Institutional Research and the Director of Institutional Effectiveness will coordinate the collection and analysis of assessment information. The Vice President of Institutional Effectiveness, Research, Planning and Assessment will ensure that information is presented to the Executive Council (strategic planning body of the College) and provide leadership for assessment activities.

Student Services

Under the direction of the Vice President of Student Affairs, this office will ensure the integration of problem solving techniques into the student support areas of the

College. All student support personnel will participate in problem solving professional development activities and integrate these techniques into their day-to-day duties.

Faculty

Full-time faculty will integrate problem solving activities into general education courses resulting in an improvement of student problem solving skills. All full-time faculty will be afforded the opportunity to participate in professional development activities focused on problem solving methodologies and will develop and implement problem solving methodologies in general education courses. Part-time (adjunct) faculty will participate in professional development focused on problem solving methodologies. The academic deans will provide for the appropriate scheduling of courses and supervision of the faculty developers and faculty mentors.

Financial Resources

In order to sustain and support Seek Problem Solving Solutions and its success, VSCC has committed adequate financial resources for its implementation and impact . These resources will be reviewed annually during the College's strategic planning and budgeting process. The necessary financial resources to sustain the QEP through completion are presented in the following table.

QEP Budget

	2009-10	2010-11	2011-12	2012-13	2013-14
Personnel					
Director Salary	\$ 45,424	\$ 45,424	\$ 46,332	\$ 47,259	\$ 48,204
Director Benefits	\$ 20,441	\$ 20,441	\$ 20,849	\$ 21,267	\$ 21,691
Director Stipend	\$ 4,260	\$ 4,260	\$ 4,344	\$ 4,431	\$ 4,532
Clerical Salary	\$ 3,600	\$ 5,700	\$ 7,600	\$ 8,000	\$ 8,000
Clerical Benefits	\$ 360	\$ 570	\$ 760	\$ 800	\$ 800
Adjunct Faculty		\$ 30,000	\$ 30,000		
Salaries & Benefits Total	\$ 74,085	\$ 106,395	\$ 109,885	\$ 81,757	\$ 83,227
Operating					
Assessments					
CAT Test	\$ 1,000	\$ 1,150	\$ 1,150	\$ 1,500	\$ 1,500
CAT Annual Fee	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
CAT Training Session and Scoring	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Annual Formative Assessment		\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
Assessments Total	\$ 2,200	\$ 3,850	\$ 3,850	\$ 4,200	\$ 4,200
Professional Development					
CAT Conference	\$ 4,500				
Speakers on PS Methods		\$ 9,000	\$ 9,000	\$ 4,500	\$ 4,500
Conferences (faculty attend)	\$ 2,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
QEP Director	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Locally Developed Workshops	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
Total Professional Development	\$ 7,500	\$ 11,000	\$ 11,000	\$ 6,500	\$ 6,500
IT Equipment					
Two Desktops	\$ 2,000				
Scanner	\$ 4,300				
Printer	\$ 400				
Total IT Equipment	\$ 6,700				
Other Operating					
Library (Critical Thinking Special Collection)	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Office Expenses	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Other Operating Total	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
Assessments Paid Through Other Accounts					
*MAPP	\$ 8,400	\$ 8,400	\$ 8,400	\$ 8,400	\$ 8,400
*CCSSE	\$ 6,400	\$ 6,400	\$ 6,400	\$ 6,400	\$ 6,400
* Alumni Survey	\$ 10,539		\$ 10,539		\$ 10,539
*SENSE		\$ 5,760	\$ 5,760	\$ 5,760	
Total Assessments Paid Through Other Accounts	\$ 25,339	\$ 20,560	\$ 31,099	\$ 20,560	\$ 25,339
Total Budget	\$117,824	\$143,805	\$157,834	\$115,017	\$121,266

The major portion of the budget consists of personnel costs, professional development and assessments. The personnel and assessment costs were captured through existing institutional resources. No additional physical space will be required for QEP implementation. Available office space will be utilized and existing classrooms and class labs.

The Seek Problem Solving Solutions budget provides the necessary resources to support the goals and objectives of the plan. The budget funds the necessary training of faculty and student support personnel to integrate problem solving methodologies into the College environment. The College currently provides two professional development training opportunities during the year when the College is not open to the public. During this time, experts in the three problem solving pedagogies will be invited to campus to provide training. Three hours of release time will be afforded each faculty developer during years two and three. Adjunct faculty will teach the three hour course(s). Through the Faculty Mentoring Program training will be provided during departmental meetings, workshops and other venues. Faculty will also be given the opportunity to attend national conferences to obtain professional development in problem solving methodologies. The budget also provides for adequate funding for the QEP director who will teach one course a semester and be a faculty developer during the first year of implementation. A part-time secretary will provide clerical support to the department. Office supplies and operating expenses are adequate to ensure efficient office operations.

Sustainability

Volunteer State is committed to the full implementation of the QEP and has adequate resources to sustain the project. Financial stability is indicated by a reserve balance that is maintained within 2% to 5% range of unrestricted revenues as requested

by the Tennessee Board of Regents. According to the College's Statement of Net Assets exclusive of plant and plant-related debt for June 30, 2008, current assets exceed current liabilities by \$2,462,034 (Appendix F). The Seek Problem Solving Solutions has a sufficient budget and the Director will participate in the College's annual budget process. As previously discussed, the resources required for full implementation of the QEP are adequate for the sustainability of the project.

Implementation Strategy

Overview

Volunteer State’s research clearly identified a significant need for the improvement of students’ problem solving skills. This became apparent from a review of institutional assessment information where mean scores for problem solving items on the CCSSE Academic Challenge subarea, Employer Survey and Alumni Survey all indicated less than desirable student abilities with problem solving. The need was further substantiated through campus-wide focus groups where all employees participated and confirmed that students abilities to problem solve were weak. The literature review further indicated problem solving was a national issue where in *Teaching for Tomorrow: Teaching Content and Problem-Solving Skills*, Ted McCain (2005) asserts: “it is important to equip students with the useful problem solving skills because being able to think logically and independently is just as critical for solving personal and house-hold problems as it is for solving work-related problems. What we are really talking about here is providing students with life skills” (p. 10). Advisory Committee members (Appendix E) further supported problem solving. To address the lack of student problem solving skills, the College has developed an action plan to train faculty in three problem solving pedagogies. This will result in faculty having the knowledge to facilitate student problem solving learning and ultimately increase student learning and success. A summary of the Implementation Timeline follows:

Implementation Timeline Summary

Date	Activity	Impact
Spring 10	QEP Director Appointed	QEP Director assumes role and begins planning faculty development activities for fall 10, faculty and external trainers identified and contacted
Spring 10	CAT Administered	CAT baseline data collected
Spring 10-Summer 10	Faculty Mentor Program established	Program purpose defined, activities identified, faculty participants identified

Fall 10- Summer 11	External Evaluator Identified	External assessment process defined
Fall 10-Summer 13	Professional Development in three problem solving pedagogies: <ul style="list-style-type: none"> • Context-rich problems • Faculty-coached, in-class problems • Problem solving method 	All faculty and staff receive training in problem solving pedagogies
Fall 10-Spring 13	General education courses re-engineered to incorporate problem solving pedagogy Faculty selected and assigned to re-engineer courses	General education courses re-engineered incorporating context-rich problems; faculty-coached, in-class problems; and problem solving method
Fall 10-Summer 14	Faculty Mentor Program fully functioning	Mentors assist other faculty in integrating problem solving pedagogy into general education courses and assist in faculty development training
Spring 11 – Spring 14	CAT Administered, CAT scorers trained	CAT administered and data collected.
Summer 11-Summer 14	Annual Formative Assessments conducted by external evaluator	Results of assessments shared with QEP Director and plan stakeholders
Summer 12-Summer 14	Plan assessment data collected, compiled, and distributed	Data distributed, Deans and Directors informed, strengths and weaknesses identified and documented, Advisory Committees updated
Fall 13 – Summer 14	Write 5-year report	Report prepared and submitted to SACS
Fall 14	Review QEP results for possible expansion to courses outside of General Education area	QEP results suggest that expansion to non-general education course is warranted, process is identified

Research supports context rich problems, faculty-coached in-class problem solving, and problem solving method as three pedagogies that will result in improving student problem solving skills in general education courses. By training faculty in these problem solving pedagogies, students' abilities to achieve the six learning outcomes of Seek Problem Solving Solutions will be accomplished. The six student learning outcomes are: Students will

- identify and define a complex problem;
- identify and analyze strategies for solving the problem, distinguishing relevant from irrelevant information;

- understand how new information or changing situations alters the problem;
- propose potential solutions to the problem;
- select the best solution and develop an implementation; and
- evaluate the solution and its implementation.

Accomplishing the goal of improving VSCC students' problem solving abilities over the next five years requires a broad-based, orchestrated effort. Sixty-one general education courses will be re-engineered to integrate problem solving methods over a three-year period. Full-time general education faculty will have primary responsibility for the re-engineering effort. In order to keep the focus sufficiently narrow to ensure success, the College purposely chose this approach with hopes of expanding this to all courses. However, the College also recognizes that part-time (adjunct) faculty and student support personnel play a critical role in increasing the likelihood of improving student learning through improved problem solving; therefore, the plan will also make available to them training in best practice problem solving pedagogies.

The QEP is designed to impact the largest number of students possible. Given that the majority of VSCC students are enrolled in general education courses, it is of paramount importance that the faculty members who teach these courses be trained in using proven, problem solving pedagogies.

Implementation Plan

Seek Problem Solving Solutions is a four part plan with yearly strategic initiatives that results in improving students' problem solving skills in general education courses. The plan concentrates on providing the necessary training and resources for faculty to re-engineer general education courses by using problem solving pedagogies. The four parts of the plan are

1. Professional Development
2. Re-Engineer General Education Courses

3. Faculty Developers
4. Faculty Mentoring Program

Professional Development

Beginning fall 10, all full-time faculty members will regularly receive comprehensive training in three problem solving pedagogies: context rich problems, faculty coached in-class problem solving, and problem solving method. Training sessions will be taught by faculty experts who successfully utilize these methodologies and by Volunteer State faculty who have re-engineered and delivered courses using one of the problem solving pedagogies. Contacts have been made to John Magill of Western Iowa Community College, who is an expert on problem solving methodologies, and Connie Wolfe from Surry Community College who has been working with the critical thinking aspect of problem solving using the Paul and Elder critical thinking model. Both come highly recommended by other institutions who have received professional development training in problem solving methodologies.

Formalized professional development for all full-time faculty will occur bi-annually during the College's Professional Development Day. The College currently provides two professional development training opportunities during the year when the College is not open to the public. During this time, experts in the three problem solving pedagogies will be invited to campus to provide training to assist faculty with re-engineering general education courses. Faculty will select the problem solving pedagogy training that is most relevant to the course being re-engineered. The three sessions for problem solving pedagogies will be strategically planned to permit faculty to attend more than one session. This strategic scheduling permits the opportunity to learn about all three methods and will assist faculty in identifying the method most suited to the course being re-engineered. The planning for and identification of external trainers is one of the focuses of Seek Problem Solving Solutions for the first year.

Problem solving methods professional development will also be provided during departmental meetings. Faculty developers (faculty who are in the process of re-engineering a course) will share knowledge and experiences with other faculty in the department. Through this collaborative approach, high exposure to context rich problems, faculty coached in-class problem solving, and problem solving method will occur.

Student support personnel and part-time (adjunct) faculty will be afforded the opportunity to participate in problem solving professional development. Planning for this will also occur during the first year of the implementation plan. While the primary focus of the QEP is on full-time faculty, student support personnel and adjunct faculty will also have opportunities for professional development in problem solving. Employees working in student support areas will attend the professional development sessions to be held bi-annually during the College's Professional Development Day and will choose the problem solving method that is most conducive to their area of responsibility. Adjunct faculty will receive training from faculty mentors (faculty developers who are part of the Faculty Mentoring Program) during Adjunct Faculty Orientation. In addition, adjunct faculty who teach general education courses will be encouraged to communicate regularly with faculty mentors from within their department. This collaborative approach ensures that all sections of every general education course will be integrated with problem solving methods resulting in improved student problem solving skills.

It is also important for training to occur at problem solving related conferences to permit for networking and obtaining the knowledge to re-engineer general education courses. During summer 08, the QEP Development Committee and the General Education Outcomes Committee Chair attended the SACS COC Summer Institute and

one member of the QEP Development Committee attended the 28th Annual International Conference on Critical Thinking conducted by the Foundation for Critical Thinking.

Seek Problem Solving Solutions provides for two individuals (faculty and/or student support personnel) to attend problem solving conferences annually. During fall 09, three faculty members attended the Train-the-Trainer Workshop for the Critical Thinking Assessment Test (CAT) to train faculty scorers. This test is being piloted spring 10 and will be used as a primary assessment for the QEP. Train-the-trainer workshop participants will train 12 faculty in the scoring of the test. The training focuses on CAT test scoring and problem solving activities and pedagogy.

As faculty members are trained in the use of these problem solving methodologies and create general education problem solving activities for students, it is important that the proper rubrics be developed to use for both faculty and student assessment. Therefore, faculty will be trained in rubric development. Faculty must be evaluated on the integration of the problem solving pedagogies into general education courses to make sure that the problem solving activities are effective. Students must be evaluated properly as they engage in the problem solving activities to provide valuable information concerning the effectiveness of the re-engineered courses in improving student problem solving skills. As a result of this training, faculty will create rubrics that will be effective for the evaluation of student problem solving activities.

Professional development opportunities afforded faculty and student support personnel will continue throughout the five year implementation cycle. However, the dependence on outside trainers will be reduced after year three due to the completion of re-engineering general education courses, the full implementation of the Faculty Mentoring Program, and all full-time general education faculty teaching re-engineered courses. Training will continue however to ensure that faculty and student support

personnel stay current with best practice problem solving methodologies resulting in accomplishment of the goals and objectives of Seek Problem Solving Solutions.

Re-Engineering General Education Courses

The described professional development training ensures that faculty and student support personnel will be well trained in the problem solving pedagogies of context rich problems, faculty coached in-class problem solving, and problem solving method. As a result, general education courses will be re-engineered through the adaptation of problem solving teaching methods and student support personnel will utilize the six steps of problem solving in working with students.

During year one (spring 10) of the implementation plan, ten (10) general education courses are identified to be re-engineered. One section of each course will be restructured to utilize the instructional methods from one of the three problem solving pedagogies during fall 10. The general education courses with the highest enrollments will be developed first so that the greatest number of students will be impacted as quickly as possible. In addition, careful attention was made to the implementation schedule so that proper sequencing of courses occurred (i.e. English 1010 preceded English 1020). Different disciplines will be implemented during the same semester to further maximum student exposure while limiting the impact on an individual instructional department due to faculty receiving release time. Faculty will be afforded three hours of release time to permit adequate time for development of the course.

The re-engineered courses will be piloted the same semester (fall 10) within one section of the course. This permits faculty the opportunity to refine the re-engineered course prior to full implementation. After the pilot is complete, all course sections taught by full-time faculty will use the newly developed re-engineered course problem solving methods. The ten faculty members who piloted a course in fall10 will serve as mentors

to the faculty members who are assigned to teach that same course in spring 11. (See page 49 for an explanation of the faculty mentoring program.) Likewise, in spring 11, ten additional faculty members who teach ten different general education courses will develop and pilot those courses and the same implementation strategy will occur. These faculty members will subsequently be able to serve as mentors and these ten courses will become fully implemented in fall 11. This implementation strategy will continue for the first forty (40) general education courses where 20 courses are re-engineered each year. The remaining twenty-one courses will be developed during fall 12 with full implementation completed spring 2013, the last semester of year four. These courses have the lowest enrollment numbers and at times are canceled due to insufficient enrollments. Following is a detailed course implementation schedule.

Seek General Education Course Integration Plan

Department/ Group	Course	Course Name	Total Enrollment	Developed & Piloted	Implemented in All Sections	Division
Group 1						
ART	1030	Introduction to Art	871	Fall 2010	Spring 2011	HUM
BIOL	1030	Essentials of Biology	382	Fall 2010	Spring 2011	M & S
BIOL	2010	Human Anatomy & Physiology I	1382	Fall 2010	Spring 2011	M & S
COM	100	Fundamentals of Speech Communication	1113	Fall 2010	Spring 2011	HUM
ENGL	1010	English Composition I	2256	Fall 2010	Spring 2011	HUM
HIST	2010	Survey of American History I	1035	Fall 2010	Spring 2011	SSED
MATH	1530	Elementary Statistics	458	Fall 2010	Spring 2011	M & S
MUS	1030	Music Appreciation	1114	Fall 2010	Spring 2011	HUM
PSY	101	General Psychology	1814	Fall 2010	Spring 2011	SSED
PSY	222	Human Growth & Development	753	Fall 2010	Spring 2011	SSED
Group 2						
BIOL	2020	Human Anatomy & Physiology II	638	Spring 2011	Fall 2011	M & S
CHEM	1030	Fundamentals of Chemistry	433	Spring 2011	Fall 2011	M & S
COM	103	Public Speaking	346	Spring 2011	Fall 2011	HUM
ECO	211	Principles of Economics I	308	Spring 2011	Fall 2011	SSED
ENGL	1020	English Composition II	1310	Spring 2011	Fall 2011	HUM
ENGL	1030	Introduction to Film	452	Spring 2011	Fall 2011	HUM
ENGL	2110	American Literature to 1865	345	Spring 2011	Fall 2011	HUM
HIST	2020	Survey of American History II	1025	Spring 2011	Fall 2011	SSED
MATH	1130	College Algebra	1392	Spring 2011	Fall 2011	M & S
SOC	101	Introduction to Sociology	902	Spring 2011	Fall 2011	SSED
Group 3						
ECO	212	Principles of Economics II	173	Fall 2011	Spring 2012	SSED
ENGL	2120	American Literature since 1865	254	Fall 2011	Spring 2012	HUM
GEOG	105	World Regional Geography	303	Fall 2011	Spring 2012	SSED
HED	120	Introduction to Wellness	432	Fall 2011	Spring 2012	SSED
HIST	1110	World Civilization Primitive to 1650	184	Fall 2011	Spring 2012	SSED
HIST	2030	Tennessee History	216	Fall 2011	Spring 2012	SSED
MATH	1010	Math for Liberal Arts	330	Fall 2011	Spring 2012	M & S
PHIL	1030	Introduction to Philosophy	286	Fall 2011	Spring 2012	HUM
PSCI	1030	Introduction to Physical Science	212	Fall 2011	Spring 2012	SSED
THEA	1030	Introduction to Theater	308	Fall 2011	Spring 2012	HUM

Department /Group	Course	Course Name	Total Enrollment	Developed & Piloted	Implemented in All Sections	Division
Group 4						
BIOL	1010	Introduction to Biology I	183	Spring 2012	Fall 2012	M & S
CHEM	1110	General Chemistry I	126	Spring 2012	Fall 2012	M & S
EDU	102	Human Growth & Development	305	Spring 2012	Fall 2012	SSED
ENGL	2310	World Literature to 1650	190	Spring 2012	Fall 2012	HUM
GEOL	1030	Essentials of Geology	184	Spring 2012	Fall 2012	M & S
HIST	1120	World Civilization 1650 to Present	195	Spring 2012	Fall 2012	SSED
MATH	1410	Structure of Mathematical Systems I	153	Spring 2012	Fall 2012	M & S
MATH	1710	Pre-Calculus I (College Algebra)	201	Spring 2012	Fall 2012	M & S
PHIL	121	Ethics	205	Spring 2012	Fall 2012	HUM
POL	200	American Gov't & Politics	118	Spring 2012	Fall 2012	SSED
Group 5						
ASTR	1030	Astronomy	132	Fall 2012	Spring 2013	M & S
BIOL	1020	Introduction to Biology II	61	Fall 2012	Spring 2013	M & S
CHEM	1120	General Chemistry II	43	Fall 2012	Spring 2013	M & S
ENGL	2030	The Experience of Literature	new	Fall 2012	Spring 2013	HUM
ENGL	2320	World Literature since 1650	107	Fall 2012	Spring 2013	HUM
MATH	1720	Pre-Calculus II (Trigonometry)	83	Fall 2012	Spring 2013	M & S
MATH	1830	Intuitive Calculus	114	Fall 2012	Spring 2013	M & S
MATH	1910	Calculus and Analytic Geometry I	92	Fall 2012	Spring 2013	M & S
POL	110	Introduction to Political Science	56	Fall 2012	Spring 2013	SSED
SOC	102	Social Problems	143	Fall 2012	Spring 2013	SSED
BIOL	1040	Environmental Science	57	Fall 2012	Spring 2013	M & S
BIOL	1110	General Biology I	41	Fall 2012	Spring 2013	M & S
BIOL	1120	General Biology II	15	Fall 2012	Spring 2013	M & S
GEOG	101	Physical Geography	30	Fall 2012	Spring 2013	SSED
GEOG	108	Cultural Geography	31	Fall 2012	Spring 2013	SSED
GEOL	1040	Physical Geology	18	Fall 2012	Spring 2013	M & S
GEOL	1060	Earth's Environment	10	Fall 2012	Spring 2013	M & S
PHYS	1030	Introductory Physics	72	Fall 2012	Spring 2013	M & S
PHYS	2110	Calculus-Based Physics I	20	Fall 2012	Spring 2013	M & S
PHYS	2120	Calculus-Based Physics II	11	Fall 2012	Spring 2013	M & S
POL	210	State & Local Gov't in U.S.	80	Fall 2012	Spring 2013	SSED

Sixty-one (61) general education courses will be developed and piloted during the first three years of implementation. All general education courses will be taught using one of three problem solving methodologies (context rich problems, faculty coached in-class problem solving or problem solving method). In addition, all degree-seeking students will have taken courses utilizing the problem solving methodologies to achieve the goals and objectives of Seek Problem Solving Solutions.

Faculty Developers

Faculty developers will re-engineer general education courses using context rich problems, faculty coached in-class problem solving, and/or problem solving pedagogies. The developers will receive extensive training in these pedagogies, further research the selected pedagogy for the course, and will develop and implement classroom activities and instructional delivery methods for the course. Faculty developers receive three hours of release time to permit designated time to focus on the development of the course.

During year one of the implementation plan, Faculty Developers identify the first group of ten (10) general education courses to be re-engineered. The developers will re-engineer the courses and pilot the instructional methodology and classroom activities during fall 10 and spring 11. This cycle of development will continue each semester until all general education courses are re-engineered (fall 12). Developers will become faculty mentors who will train other faculty teaching sections of the re-engineered course. This permits the expansion of the newly developed re-engineered course to all course sections resulting in increased exposure of students to the new methodology. All course sections will be fully implemented by spring 13.

Faculty Developers will work in teams with 10 members to a team. The team will consist of one faculty member for each course being re-engineered. This team approach will provide opportunities for faculty to meet to discuss and debate the

methodologies to be used in the re-engineering of the courses. Ten courses will be re-engineered each fall and spring semester through spring 13 at which time all general education courses will be fully implemented. Full-time faculty who have not participated in the re-engineering of a course will be trained as a Faculty Developer.

Four of the Faculty Developers will serve the role of problem solving curriculum coordinators who will oversee the integration of problem solving pedagogy into the general education curriculum. They have expertise in each of the general education divisions, Humanities, Math and Science, and Social Sciences and Education. They will coordinate the scheduling of course development and required faculty professional development. One coordinator will be located at the Livingston Center to ensure integration of the problem solving methodologies at the Livingston Campus.

Faculty Developers will re-engineer the general education course using context rich problems, faculty coached in-class problem solving and problem solving method pedagogy. They will research, design and pilot problem solving methodologies within general education courses. After being trained as a developer, they will be eligible to become a faculty mentor.

Faculty Mentoring Program

The Faculty Mentoring Program will provide assistance to Faculty Developers in the re-engineering of the general education courses. The program provides for trained faculty who have expertise in problem solving pedagogies. Through the professional development initiatives in this plan, faculty mentors will receive extensive training in one or more of the instructional pedagogies (context rich problems, faculty coached in-class problem solving and problem solving method). Prior to becoming a faculty mentor, these faculty members will have re-engineered a general education course.

Faculty mentors will provide assistance to the faculty developers in designing problem solving methodologies for courses. They will lead training sessions during

departmental meetings and adjunct faculty orientation. They will prepare problem solving resources that will be posted on a specially-designed website devoted to the teaching of problem solving.

As previously described, ten faculty members will be chosen to pilot and develop one general education course (See Course Implementation Schedule on page 46) beginning fall 10. These faculty members will receive three hours of release time so that they can develop and implement problem solving activities in their particular general education course. This process will be repeated each fall and spring semester through year four of the QEP, at which time all general education courses will be re-engineered with problem solving pedagogy.

Faculty who develop and pilot a course will serve as faculty mentors to departmental colleagues the following semester. The first group of 10 faculty who develop and pilot general education courses will serve as mentors. This program will be expanded during year two of implementation to include 15 faculty members who are named as mentors for the year. The program will maintain a membership of 15 trained faculty to ensure adequate resources for faculty developing re-engineered general education courses. Membership will include representation from the three general education divisions (Humanities, Math and Science, Social Science and Education) and will include adequate representation of the departments that are re-engineering courses. The faculty who are appointed to be faculty mentors will lead training sessions during departmental meetings, Adjunct Faculty Orientation, will work one-on-one with colleagues who are teaching the same general education course piloted the previous semester, and will post problem solving activities on a specially-designed website devoted to the teaching of problem solving.

The Implementation Plan is designed to ensure that the goals and objectives of Seek Problem Solving Solutions are accomplished resulting in improved student

problem solving skills. All general education courses will be re-engineered to integrate one of three problem solving pedagogies (context rich problems, faculty coached in-class problem solving and problem solving method). Full-time faculty, adjunct faculty and student support personnel will be trained in these methods. Full-time faculty, serving as Faculty Developers, will have primary responsibility for the development of the re-engineered courses. Faculty Developers will integrate the most appropriate problem solving pedagogy into general education courses. Student support personnel will use problem solving methods when working with students. The Faculty Mentoring Program will ensure a sound basis of professionally trained faculty that will assist other faculty with the development of and implementation of re-engineered general education courses. All general education courses will be fully developed with problem solving methodologies according to a well-designed implementation schedule. As a result, students' problem solving skills will improve because of the high exposure to learning to problem solve. The complete, five-year Implementation Plan follows.

Implementation Plan

Implementation Year One (Fall 09 – Summer 10)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Revise QEP, submit to SACS, get approval	VP OIERPA, President	Address recommendations, write report, submit	Completion of document and submission to SACS, SACS approval	
Establish QEP Oversight Committee	VPAA and President	Identify appropriate members, appoint members, write purpose and responsibilities, establish calendar	QEP Oversight committee established	
Appoint QEP Director and assign staff	VPAA	VPAA appoints QEP Director; director appoints staff	Director and staff in place	\$74,445
Identify Seek core faculty team (faculty developers) for fall 10 (year 2) and targeted courses	QEP director, deans & department chairs	Examine Gen Ed course enrollments to maximize student exposure and select 10 courses, ask for volunteers, determine number of core team members (include one student services representative)	Ten courses selected (spring 10), team members identified: ENG 1010, PSY 101, MATH 1530, BIOL 1030, COM 100, MUS 1030, ART 1030, ENG 2110 or 2120, HIST 2010, EDU102/PSY222	
Identify external Problem Solving faculty trainers and schedule training	QEP Director, Seek Team, and faculty course developers	Contact potential trainers identified through best practices and literature research	Completion of identification of training and faculty assessment tool	

Implementation Year One (Fall 09 – Summer 10)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
		and schedule training, design faculty assessment tool (define proficiency rubric to measure problem solving)		
Plan faculty development activities for all faculty and student services representative	Professional Development Committee, QEP Director	Identify professional development activities, schedule and conduct professional development; address adjunct faculty during adjunct orientation; identify faculty to develop problem solving rubric	Completion of planning for professional development activity	
Administer CAT to establish baseline, train faculty to score	CAT Trainers & faculty scorers, IE	Administer CAT spring 2010 to 120 students to establish baseline data, train faculty in CAT scoring	Completion of CAT scoring faculty training to 15 faculty members, establishment of baseline data	\$6,700
Send QEP team members to related conferences, etc.	QEP Directors, deans	Identify team members to attend, identify conferences, secure funding	Team members attend conferences; team members share information through campus	\$3,000

Implementation Year One (Fall 09 – Summer 10)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
			held professional development workshops	
Assign data collection responsibilities and establish all external assessments for annual data collection.	IE Office	Identify who is responsible for administration and compilation of results, post to intranet, review and identify strengths and weaknesses, make recommendations, distributed to the QEP Oversight Committee	Assessments completed, reviews distributed and analyzed, recommendations for improvement presented	26,139 (existing resources)
Develop Faculty Mentor Program	VPAA, QEP Director, Deans, Department Chairs	Define purpose, identify activities, identify faculty participants	Faculty Mentor Program established, faculty identified	
Develop student problem solving rubric	QEP Implementation Committee	Identify student learning outcomes, identify rubric format, design rubric	Assessment rubric developed	
Notify faculty that problem solving pedagogy is to be incorporated into newly developed general education courses	VPAA, Deans, QEP Director	Communicate course requirement for problem solving	Communication completed	

Implementation Year Two (Fall 10 – Summer 11)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Identify (fall 10) second group of Seek faculty (faculty developers) and targeted courses to integrate problem solving pedagogy into curriculum in spring 11	QEP Director, deans and department chairs	Examine Gen Ed course enrollments to maximize student exposure and select 10 courses, ask for volunteers, determine number of core team members (include one student services representative), develop courses for 11-12 implementation	Ten courses selected (spring 11); BIOL 2020; CHEM 1030; COM 103; ECO211; ENGL 1020; ENGL 103; ENGL 2110; HIST 2020; MATH 1130; SOC 101	
Identify (spring 11) third group of Seek faculty (faculty developers) for targeted courses to integrate problem solving pedagogy into curriculum in fall 11	QEP Director, deans and department chairs	Examine Gen Ed course enrollments to maximize student exposure and select 10 courses, ask for volunteers, determine number of core team members (include one student services representative), develop courses for 11-12 implementation	Ten courses selected (fall 11); ECO212; ENGL 2110; GEOG 105; HED 120; HIST 1110; HIST 2030; MATH 1010; PHIL 1030; PSCI 1030; THEA 1030	
Identify external PS faculty trainers, schedule and use	QEP & Seek team members	Contact potential trainers identified through best practices and literature research, schedule and complete training, design and administer faculty assessment tool (define proficiency rubric to measure problem solving)	Completion of training, evaluation of training proficiency assessment rubric developed, assessment of faculty proficiency	\$9,000
Plan and schedule faculty development activities for all faculty	Prof. Dev. Committee, QEP director	Identify professional development activities, schedule and conduct professional development; address adjunct faculty during adjunct orientation	90% of full-time faculty attend professional development activity; 60% of adjunct faculty attend orientation; completion of problem solving rubric for student assessment; 100% of second year faculty developers attend professional development; training completed, problem solving activities developed	\$9,000 (same dollars as above)

Implementation Year Two (Fall 10 – Summer 11)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Administer CAT train group 2 faculty	CAT Trainers & faculty scorers, IE	Administer CAT fall 2010 and spring 2011 to students participating in the Seek Enhanced courses, train faculty in CAT scoring	Completion of CAT scoring faculty training to 30 faculty members (administer fall and spring)	\$2,350
Send Faculty Course Developers to related conferences, etc.	QEP Directors, deans	Identify team members to attend, identify conferences, secure funding	Team members attend conferences; team members share information learned through internal professional development	\$1,000
Design problem solving activities for 10 courses (Group 1) piloted and developed in fall 10 and for 10 courses (Group 2) piloted and developed in spring 11	QEP Director, faculty mentors, and faculty developers	Identify methods in literature review & best practices used in teaching problem solving, select method appropriate to targeted course, develop activities and assessments, implement pilot in selected courses	Problem solving methods selected, activities developed, assessments utilized, completion of yr 2 course implementation; compile rubric results	\$30,000 for adjunct faculty to teach 3 hr. hour course for faculty developer
Implement, Evaluate and Revise Faculty Mentor Program	VPAA, QEP Director, Deans, Department Chairs	Identification of faculty mentors, develop/implement faculty mentor program, faculty training, evaluate faculty training, develop assessment tool and evaluate	Faculty Mentor Program implemented, faculty trained, assessment developed	\$500 included in team members conferences
Identify someone to train a selected group in the development of rubrics for problem solving faculty & student assessment; develop rubric to assess faculty proficiency in teaching problem solving	VPAA, QEP Director	Identify the rubric trainer, identify persons to be trained; coordinate with activity 4.	Training provided; student rubric developed; faculty proficiency rubric developed	\$9,000 (included in PS faculty trainers)
Annual Formative Assessment	IE & External Evaluator	Identify & secure an external evaluator to work with OIER to develop & implement a plan of assessment	Assessment carried out by external evaluator and OIER office; results used to modify plan as indicated	\$1,500

Implementation Year Three (Fall 11 – Summer 12)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Identify (fall 11) fourth Seek faculty team for targeted courses	QEP Director, deans and department chairs	Examine Gen Ed course enrollments to maximize student exposure and select 10 courses, determine number of core team members (include one student support services representative)	Ten courses selected, team members identified: BIOL 1010, CHEM 1110, EDU 102, ENGL 2310, GEOL 1030, HIST 1120, MATH 1410, MATH 1710, PHIL 121, POL 200	
Identify (spring 12) fifth Seek faculty team for targeted courses	QEP Director, deans and department chairs	Examine Gen Ed course enrollments to maximize student exposure and select 21 courses, determine number of core team members (include one student support services representative)	Twenty-one courses selected, team members identified: ASTR 1030, BIOL 1020, CHEM 1120, ENGL 2030, ENGL 2320, MATH 1720, MATH 1830, MATH 1910, POL 110, SOC 102, BIOL 1040, BIOL 1110, BIOL 1120, GEOG 101, GEOG 108, GEOL 1040, GEOL 1060, PHYS 1030, PHYS 2110, PHYS 2120, POL 210	
Identify external PS faculty trainers, schedule and use	QEP Director & Seek team members	Contact potential trainers identified through best practices and literature research, schedule and complete training, design and administer faculty assessment tool	Completion of training, evaluation of training, assessment of faculty proficiency	\$9,000
Plan and schedule faculty development activities - all faculty & student support representative	Prof. Dev. Committee, QEP Director	Identify, schedule and conduct professional development activities, address adjunct faculty during adjunct orientation	90% of full-time faculty attend a professional development activity; 60% of adjunct faculty attend orientation; 100% of second year faculty developers attend professional development	\$9,000 (same dollars as above)
Administer CAT and train 5 faculty scorers	CAT faculty scorers, IE	Administer CAT fall 2011 and spring 2012; train faculty in CAT scoring	Completion of CAT, faculty training completed	\$2,350

Implementation Year Three (Fall 11 – Summer 12)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Distribution and Review of Assessment Data	IR, IE (distribution) go to VPAA, General Education Deans and Department Chairs, General Education Committee, Advisory Committee	IE collects, compiles and distributes; review and discuss assessment results during monthly deans and directors meetings, departmental meetings, and Advisory Committees	Data distributed, deans & directors informed, strengths & weaknesses identified, changes documented through IE process, Advisory Committees updated	\$26,139
Send Faculty Course Developers to related conferences, etc.	QEP Directors, deans	Identify team members to attend, identify conferences	Team members attend conferences, share information	\$1,000
Design problem solving activities for 10 courses (Group 3) piloted & developed in fall 11 & for 10 courses (Group 4) piloted & developed in spring 12	QEP Director, faculty mentors, and faculty developers	Identify methods in literature review and best practices used in teaching problem solving, select method appropriate to targeted course or activity, develop activities and assessments, implement pilot in selected courses	Problem solving methods selected, activities developed, assessments utilized, completion of yr 3 course implementation; compile rubric results	Release time \$30,000 for adjunct faculty
Evaluate and Revise Faculty Mentor Program	VPAA, QEP Director, Deans, Department Chairs	Identify additional faculty mentors, evaluate faculty mentor program, provide mentor faculty training	Faculty Mentor Program implemented, faculty trained	
Implement problem solving rubric	QEP Director, Seek faculty	Integrate rubric, distribution of results to VPAA, deans, department chairs, QEP Oversight Committee, Advisory Committees	Analyze results and distribute for use in identifying improvements	
Annual Formative Assessment	IE & External Evaluator	Secure an external evaluator to conduct assessment	Assessment by external evaluator and OIER office; results used to modify plan as indicated	\$1,500

Implementation Year Four (Fall 12 – Summer 13)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Implement problem solving activities for 21 courses piloted in fall 12	QEP Director, faculty mentors, and faculty developers	Identify methods in literature and best practices used in teaching problem solving, select method appropriate to targeted course; develop activities and assessments, implement pilot in selected courses	Problem solving methods selected, activities developed, assessments utilized, completion of yr 4 course implementation; rubric results compiled	
Plan and schedule faculty development activities for all faculty and student support services representative	Prof. Dev. Committee, QEP Director	Identify professional development activities, schedule and conduct professional development; address adjunct faculty during adjunct orientation	90% of full-time faculty attend a professional development activity; 60% of adjunct faculty attend orientation; 100% of second group of faculty developers attend professional development	\$4,500
Administer CAT and train 5 faculty scorers	CAT Trainers & faculty scorers, IE, train 5	Administer CAT fall 12 and spring 2013, train 5 faculty in CAT scoring	Completion of CAT	\$2,700
Distribution and Review of Assessment Data	IR, IE (distribution) go to VPAA, Gen Educ Deans & Department Chairs, Gen Educ Com, Advisory Com.	IE collects compiles and distributes; Review and discuss assessment results - deans and directors meetings, departmental meetings, and Advisory Com.	Data distributed, deans and directors informed, strengths and weaknesses identified, changes documented through IE process, Advisory Committees updated	\$21,360
Evaluate and revise Faculty Mentor Program	VPAA, QEP Director, Deans, Department Chairs	Evaluate faculty mentoring program	Faculty Mentor Program evaluated and results used for improvement; faculty trained	
Review assessments to evaluate effectiveness in measuring student problem solving skills	QEP Director, IE, QEP Oversight Committee, General Education Committee	IE reviews assessments to determine effectiveness, distribution of IE review to stakeholders, stakeholders will make recommendations for improvements	Completion of assessments, distribution of reports, and recommendations finalized	
Annual Formative Assessment	IE & External Evaluator	Identify and secure an external evaluator to work with OIER to implement the assessment plan	Assessment carried out by external evaluator; results used to modify plans as indicated	\$1,500

Implementation Year Five (Fall 13 – Summer 14)				
Tasks	Responsible	Strategies & Methods	Assessment & Outcomes	Budget
Administer CAT and train 5 faculty scorers	CAT Trainers & faculty scorers, IE	Administer CAT fall 2013 and spring 2014 to sample of students participating in the Seek enhanced courses, train faculty in CAT scoring	Completion of CAT scoring and training	\$2,700
Distribution and Review of Assessment Data	IR, IE (distribution) to VPAA, general Education Deans and Department Chairs, General Education Committee, Advisory Committee	IE collects compiles and distributes; Review and discuss assessment results during deans and directors meetings, departmental meetings, and Advisory Committees	Data distributed, deans and directors informed, strengths and weaknesses identified, changes documented through annual IE process, Advisory Committees discuss	\$26,139
Assess Faculty Mentor Program for application in other initiatives	VPAA, VPSS, VPBF, QEP Director, Deans, Department Chairs, student service personnel	Evaluate, make recommendations	Assessment completed	
Evaluate to determine expansion of pedagogy into non general education courses	QEP Director, QEP Oversight Committee, VPAA, Deans	Review outcomes of QEP to determine effectiveness, make recommendation	Completion of review	
Write 5 th Year SACS Report	QEP Director, SACS Liaison, President	Prepare report	Report submitted	
Annual Formative Assessment	IE & External Evaluator	Identify and secure an external evaluator to work with OIER to implement the assessment plan	Assessment carried out by external evaluator and OIER office; results used to modify plan as indicated	\$1,500

Assessment Plan

The purpose of Volunteer State Community College's (VSCC) Quality Enhancement Plan, Seek Problem Solving Solutions, is to improve student problem solving skills in general education courses. The assessment plan follows the College's institutional effectiveness process. The assessment plan was developed to provide meaningful information to evaluate the achievement of student learning and the quality enhancement plan processes that are being implemented through re-engineering general education courses. Therefore, two types of assessments will be used. Outcome assessments will evaluate the attainment of the six student learning outcomes. Student learning outcome assessment will include both direct and indirect measures. Direct measures will evaluate student academic performance. Indirect measures will provide information concerning the perspective of students with regard to obtaining the outcomes. Process assessments will focus on the ongoing assessment of progress in meeting implementation strategies, collection and use of effective data, and the achievement of the measurable outcomes.

The QEP Director and the Vice President of Institutional Effectiveness, Research, Planning and Assessment share leadership responsibility for collecting data, analyzing results, and reporting results. The QEP Implementation Committee has primary responsibility for reviewing assessment results. This committee will make recommendations to the QEP Director who in turn will present the assessment findings and recommendations to the QEP Oversight Committee. The QEP Oversight Committee has monitoring responsibility. The assessment results will be shared with the President's Cabinet, QEP Oversight Committee, Vice President of Academic Affairs, General Education Deans, General Education Committee, Curriculum Committee, faculty, student support personnel, students and community members. Faculty will be responsible for the review of student learning outcome assessments and will develop

improvement strategies. As a result, a comprehensive but very manageable assessment plan has been established.

Process Assessment

Annual Formative Evaluation

An external evaluator will conduct a process assessment of the QEP on an annual basis. The evaluator will be familiar with problem solving pedagogies and the Quality Enhancement Plan process. The evaluator will conduct an on-site visit annually at the end of the implementation year to:

1. Interview faculty, students, staff and the QEP leadership to determine the status of progress made with QEP implementation
2. Review assessment results, comparing baseline data against the yearly QEP outcome
3. Prepare a written report to the President of findings and recommendations for modifications

In addition to the annual formative evaluation, the College will monitor professional development participation by faculty and student support personnel, the integration of the three problem solving methods into general education courses, the Faculty Mentoring Program, and the administration of the Critical Thinking Assessment Test (CAT) on an annual basis. The two campus-wide Professional Development Days, departmental meetings, Adjunct Faculty Orientation, and Problem Solving Conferences will collect attendance data and compare attendees to the official personnel files to ensure that all affected personnel are participating. The Faculty Mentoring Program will be established by the end of year one and will be assessed by successful implementation of the program. An evaluation instrument will be developed to capture opinions concerning the effectiveness of the program and of the faculty mentors to ensure quality. Presentations prepared by Faculty Developers and Mentors will be

collected and placed on a website specifically designed for Seek Problem Solving Solutions.

Faculty Problem Solving Rubric

The assessment plan calls for multiple measures of faculty participation in professional development activities and for the development of general education courses incorporating the use of problem solving pedagogy. A faculty rubric will be used to evaluate the integration of problem solving pedagogies into general education courses. During the first year of implementation the rubric will be developed. During fall 11, the rubric will be used and baseline data established.

Student Learning Outcomes Assessment

The remaining assessments focus on the overarching student learning outcome of: “Students will improve their problem solving skills following a defined process” and six student learning outcomes that focus on student’s problem solving knowledge and abilities. The six student learning outcomes are: Students will

1. identify and define a complex problem;
2. identify and analyze strategies for solving the problem, distinguishing relevant from irrelevant information;
3. understand how new information or a changing situation alters the problem;
4. propose potential solutions to the problem;
5. select the best solution and develop an implementation plan; and
6. evaluate the solution and its implementation.

Student learning outcome assessment will include both direct and indirect measures.

Indirect measures will provide information concerning the perspective of students with regards to obtaining the outcomes. Direct measures will evaluate student academic performance.

Indirect Measures of Student Learning Outcomes

Opinion surveys are the primary source of assessment that will be used as indirect measures. Selected items directly related to the student learning outcome that

provided evidence for the focus of the QEP, improving student problem solving skills in general education courses, will be used to assess the accomplishment of the goals and objectives of Seek Problem Solving Solutions. The Assessment and Timeline table on page 68l provides details for each student learning outcome. A description of the surveys follows:

Employer Survey – The Employer Survey is administered annually during the spring to employers of recent graduates. The primary purpose of the survey is to capture evaluative information concerning the preparedness of Volunteer State graduates from the community’s perspective. Selected survey items provide information concerning the preparation of graduates with regards to problem solving skills in the work environment.

Community College of Student of Student Engagement (CCSSE) – The CCSSE is administered annually during spring semester in class to capture student opinion concerning classroom activities (pedagogy) and their overall college experience.

Specific items of this survey provide indirect measures for each of the student learning outcomes identified in Seek Problem Solving Solutions. These items include:

memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form (item 5a) (this item is inversely used where a low mean is desirable); analyzing the basic elements of an idea, experience or theory (item 5b); synthesizing and organizing basic ideas, information, or experiences in a new way (item 5c); making judgments about the value or soundness of information, arguments, or methods; and (5d) applying theories to practical problems or in new situations (item 5e).

Alumni Survey - The Alumni Survey is administered every other year during the spring to recent graduates. The primary purpose of the survey is to capture evaluative information concerning the preparedness of graduates from a student perspective.

Selected survey items provide information concerning the preparation of graduates with regards to problem solving skills. These items include: memorizing facts, ideas, or

methods from your course and readings so you can repeat them in pretty much the same form (item 6a); analyzing the basic elements of an idea, experience or theory such as examining a particular case or situation in depth and considering its components (item 6b); synthesizing and organizing ideas, information or experiences into new, more complex interpretations and relationships (item 6c); making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of conclusions (item 6d); applying theories to practical problems or in new situations (item 6e & 7a); and solving numerical problems (item 8f).

In addition to the indirect assessment measures used to evaluate student problem solving skills, several direct measures will be used. Direct measures will evaluate student academic performance through demonstration of skills assessed by a rubric, success rates in college level courses, an end of program comprehensive exit exam, and a critical thinking test with specific problem solving measures. Following is a description of the direct assessments:

Direct Measures of Student Learning Outcomes

Student Problem Solving Rubric – Faculty during year one of implementation will develop a problem solving rubric that will assess students' problem solving skills. The rubric will be administered each semester in all re-engineered general education courses.

National Community College Benchmark Project (NCCBP) – The College participates in this project annually with data being reported during the spring. The NCCBP provides community colleges with a system to report data on key learning outcomes and indicators of institutional effectiveness and to compare their results with national norms and from selected peer institutions. Enrollees success rate defined as “earning a C or higher” will be used as a direct assessment measure.

Measure of Academic Proficiency and Progress (MAPP) – The MAPP, developed by Educational Testing Services, is a general education test that measures proficiency in critical thinking, reading, writing and mathematics in the context of humanities, social sciences and natural sciences and academic skills developed, versus subject knowledge taught in general education courses. The College utilizes the test as an end-of-program assessment to evaluate academic skills. Critical Thinking Level III proficiency is the focus of this assessment and includes the following skills: evaluate competing causal explanations; evaluate hypotheses for consistency with known facts; determine the relevance of information for evaluating an argument or conclusion; determine whether an artistic interpretation is supported by evidence contained in a work; recognize the salient features or themes in a work of art; evaluate the appropriateness of procedures for investigating a question of causation; evaluate data for consistency with known facts, hypotheses or methods; and recognize flaws and inconsistencies in an argument.

Critical Thinking Assessment Test (CAT) – This test was developed at Tennessee Technological University through support from the National Science Foundation and includes: evaluating information, evaluating ideas/others points of views, learning and problem solving, and communication. The College will administer this test during year one to establish baseline data. The following items will be used to assess student problem solving skills: use and apply relevant information to evaluate a problem (item 11); explain how changes in real-world problem situation might affect the solution (item 15); identify suitable solutions for real-world problem using relevant information (item 13); identify additional information needed to evaluate a hypothesis (item 4 & 7); determine whether an invited inference is supported by specific information (item 8); evaluate whether spurious information strongly supports a hypothesis (item 5); provide alternative explanations for a pattern of results that has many possible causes (item 3);

identify and explain the best solution for a real-world problem using relevant information (item 14); and provide relevant alternative interpretations for a specific set of results.

The detailed assessment plan follows including the goal, objective, assessment, date of administration, person responsible, and measurable benchmarks for each year of the plan.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 5 (2013-14)
1.1. Full-time faculty will be trained in the pedagogy of problem solving skills.	1.1a. 100% of faculty will be trained in the pedagogy of problem solving skills.	Attendance at problem solving pedagogy professional development activity	Fall & Spring Semesters; Years 2-5/QEP Director	100% of full-time faculty will attend problem solving pedagogy professional development activity	100% of full-time faculty will attend problem solving pedagogy professional development activity	100% of full-time faculty will attend problem solving pedagogy professional development activity
1.2. Full-time general education faculty will demonstrate proficiency in teaching problem solving skills.	1.2a. 100% of general education full-time faculty will demonstrate proficiency (80% or higher on the rubric) in teaching problem solving skills.	Faculty-developed rubric	Fall & Spring Semesters; Years 2-5/QEP Director	Proficiency will be defined and measurement and rubric will be created. Faculty will design a classroom activity that will be evaluated to demonstrate proficiency.	20% of full-time faculty will demonstrate proficiency of 80% or higher in teaching problem solving skills.	100% of full-time faculty will demonstrate proficiency of 80% or higher in teaching problem solving skills.
1.3. Full-time general education faculty will integrate problem solving pedagogy into course instruction	1.3a. 100% of general education full-time faculty will integrate problem solving pedagogy into course instruction.	General Education courses will be reengineered integrating problem solving techniques.	Fall & Spring Semesters; Years 2-5/QEP Director		33% of general education courses will be reengineered to integrate problem-solving techniques.	100% of general education courses will be reengineered to integrate problem solving techniques.
1.4. Part-time (adjunct) faculty will have the opportunity to participate in problem solving pedagogy professional development activities	1.4a. 100% of adjunct faculty will have the opportunity to participate in problem solving pedagogy professional development activities	Problem solving pedagogy professional development activities provided for adjunct faculty	Fall & Spring Semesters; Years 2-5/QEP Director	Problem solving pedagogy professional development activities provided for adjunct faculty	Problem solving pedagogy professional development activities provided for adjunct faculty	Problem solving pedagogy professional development activities provided for adjunct faculty
1.5 Student support personnel will be trained in facilitating student problem solving skills	1.5a. 100% of student support personnel will be trained in facilitating student problem solving skills	Attendance at problem solving facilitation professional development activity	Fall & Spring Semesters; Years 2-5/QEP Director	100% of student support personnel will attend problem solving skills facilitation professional development	100% of student support personnel will attend problem solving skills facilitation professional development	100% of student support personnel will attend problem solving skills facilitation professional development
Objective 2.1. Faculty will serve as faculty mentors to assist with integration of problem solving pedagogy into general education curriculum and professional development.	2.1a. 15 faculty will serve as faculty mentors to assist with integration of problem solving pedagogy into general education curriculum and professional development	Report and documentation of establishment of a faculty mentoring program and identification of mentors	Year 2-5/QEP Director		Faculty mentors identified and assigned to general education full-time faculty teaching in Groups 1 & 2 courses.	All faculty mentors have assisted 100% of general education faculty in integration of problem solving pedagogy into courses

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 5 (2013-14)
2.2. Faculty mentors will provide professional development training in a formalized fashion.	2.2a. 50% faculty mentors will provide professional development training in a formalized fashion.	Professional development in problem solving methodologies provided.	Years 2-5/QEP Director	Faculty will attend professional development to serve as faculty mentors.	15 faculty mentors provide professional development training for 100% of full-time faculty teaching general education classes.	All faculty mentors have provided professional development to 100% of all full-time faculty teaching general education classes.
2.3. Faculty mentors will assist with new faculty with development of new courses.	2.3a. 100% of faculty mentors will assist with new faculty with development of new courses.	Evaluation of faculty mentors.	Years 2-5/QEP Director	100% (15) of faculty mentors assist with new faculty with development of new courses.	100% (15) of faculty mentors assist with new faculty with development of new courses; Evaluation instrument developed.	100% (15) of faculty mentors assist with new faculty with development of new courses.
2.4. Faculty mentors will serve as problem solving pedagogy resources.	2.4a. 100% of faculty mentors will serve as problem solving pedagogy resources.	Evaluation of faculty mentors	Years 2-5/QEP Director		100% of faculty mentors serve as problem solving pedagogy resources; Evaluation instrument developed.	100% of faculty mentors serve as problem solving pedagogy resources.
2.5. Faculty mentors will be trained in scoring the CAT.	2.5a. 100% of faculty mentors will be trained in scoring the CAT.	Faculty mentors trained in CAT scoring.	Years 1-5/QEP Director	15 faculty members trained.	15 faculty mentors will be trained in scoring the CAT.	100% faculty mentors will be trained in scoring the CAT.
3.1. Students will improve their problem solving skills following a defined process.	3.1a. Students improve their problem solving skills following a defined process.	Faculty designed common rubric for Problem Solving skills.	Year 1/QEP Implementation Committee	Professional Development on Rubric design; Rubric designed.	Establish baseline data for student performance using rubric as evaluation.	Increased baseline score by a statistically significant amount or percentage
	3.1b. Employer Survey problem solving skills items mean score of 4.86 on a 5.0 scale.	VSCC Employer Survey: "Problem Solving Skills"	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 4.23/5.00 (2007-2008); Survey administered; Data collected.	Survey administered; Data collected	Increase employer survey problem solving skills score by 15% (from 4.23 to 4.86)
	3.1c. NCCBP enrollee success rate of 82.77	NCCBP: "Enrollee Success Rates"	Annually – Spring/OIERPA; Results available - fall	Baseline data established. 71.98/100 (Fall 2007); Survey administered; Data collected	Survey administered; Data collected	Increase the NCCBP enrollee success rate by 15% (from 71.98 to 82.77)

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 5 (2013-14)
	3.1d. Students MAPP critical thinking proficiency levels will be 5%	ACPRO/ MAPP Scores in "Critical Thinking"	Fall & Spring /OIERPA; Results available -	Baseline data established. 4% Proficiency (3 yr. avg. 2005-2008); Test administered; Data collected.	Test administered; Data collected	Increase the MAPP critical thinking proficiency percentage to 5%
	3.1e. CCSSE Item 5a mean score of 2.5 on a 5.0 scale.	CCSSE 5a: Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form.	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 2.79 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Reduce mean score 10% (from 2.79 to 2.5)
	3.1f. Alumni survey Item 6a mean score of 2.6 on a 5.0 scale.	VSCC Alumni Survey 6a: Memorizing facts, ideas, or methods from your course and readings so you can repeat them in pretty much the same form.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	Baseline data established. 2.91/4 (1=Very Little/ 4=Very Much) 2007 Survey; Survey administered; Data collected		Reduce mean score 10% (from 2.91 to 2.6); Survey administered; Data collected
3.2 Students will be able to identify and define a complex problem.	3.2a. CCSSE Item 5b mean score of 3.1 on a 5.0 scale.	CCSSE 5B: Analyzing the basic elements of an idea, experience, or theory.	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 2.79/4 (1=never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Increase mean score 15% (from 2.79 to 3.1).
	3.2b. Alumni Survey Item 6b mean score of 3.2 out of 5.0 scale	VSCC Alumni Survey 6B: Analyzing the basic elements of an idea, experience or theory such as examining a particular case or	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	Baseline data established. 2.93/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected		Increase mean score 10% (from 2.93 to 3.2); Survey administered; Data collected.
	3.2c. CAT Q11 mean score increased by statistically significant amount	CAT Q11: use and apply relevant information to evaluate a problem.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage
3.3 Students will be able to identify and analyze strategies for solving the problem, sorting relevant from irrelevant information.	3.3a. CCSSE Item 5b mean score of 3.1 out of 5.0 scale	CCSSE 5b: Analyzing the basic elements of an idea, experience, or theory.	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 2.78/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Increase mean score 15% (from 2.79 to 3.1)

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 5 (2013-14)
	3.3b. Alumni Survey 6b mean score of 3.1 out of 5.0	Alumni Survey 6B: Analyzing the basic elements of an idea, experience or theory such as examining a particular case or situation in depth and considering its components.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.78/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score 10% (from 2.78 to 3.1); Survey administered; Data collected.
	3.3c. CAT Q11 mean score increase by statistically significant amount.	CAT Q11: Use and apply relevant information to evaluate a problem.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
3.4 Students will be able to Understand how new information or changing situation alters the problem.	3.4a. CCSSE Item 5c mean score of 3.1 out of 5.0 scale	CCSSE 5c. Synthesizing and organizing basic ideas, information, or experiences in a new way.	Annually – Spring/OIERPA; Results available – summer	2.69/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Increase mean score by 15% (from 2.69 to 3.1)
	3.4b. Alumni Survey Item 6c mean score of 3.1 out of 5.0 scale	VSCC Alumni Survey 6c. Synthesizing and organizing ideas, information or experiences into new, more complex interpretations and relationships.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.67/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score by 15% (from 2.67 to 3.1); Survey administered; Data collected.
	3.4c. CAT Q15 mean score increased by statistically significant amount	CAT Q15: Explain how changes in real-world problem situation might affect the solution.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increase baseline score by a statistically significant amount or percentage.
3.5 Students will be able to Propose potential solutions to the problem.	3.5a. CCSSE Item 5e mean score of 3.0 out of 5.0 scale	CCSSE 5e: Applying theories to practical problems or in new situations.	Annually – Spring/OIERPA; Results available – summer	2.61/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Increase mean score by 15% (from 2.61 to 3.0)
	3.5b. Alumni Survey Item 6d mean score of 3.1 out of 5.0 scale	VSCC Alumni Survey 6d: Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of conclusions.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.66/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score by 15% (from 2.66 to 3.1); Survey administered; Data collected.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 5 (2013-14)
	3.5c. CAT Q13 mean score increased by a statistically significant amount	CAT Q13: Identify suitable solutions for real-world problem using relevant information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.5d. CAT Q4 mean score increased by a statistically significant amount	CAT Q4 Identify additional information needed to evaluate a hypothesis.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.5e. CAT Q7 mean score increased by a statistically significant amount	CAT Q7. Identify additional information needed to evaluate a hypothesis.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.5f. CAT Q8 mean score increased by a statistically significant amount	CAT Q8: Determine whether an invited inference is supported by specific information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
3.6 Students will be able to Select the best solution and develop an implementation.	3.6a. CCSSE Item 5e mean score of 3.1 out of 5.0 scale	CCSSE 5e: Applying theories to practical problems or in new situations.	Annually – Spring/OIERPA; Results available - summer	2.61/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Increase mean score by 20% (from 2.61 to 3.1)
	3.6b. Alumni Survey Item 6e mean score of 3.3 out of 5.0 scale	VSCC Alumni Survey 6e: Applying theories to practical problems or in new situations.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.83/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score by 15% (from 2.83 to 3.3); Survey administered; Data collected.
	3.6c. Alumni Survey Item 7a mean score of 3.2 out of 5.0 scale	VSCC Alumni Survey 7a: Applying theories or concepts to practical problems or in new situations.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.75/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score by 15% (from 2.75 to 3.2); Survey administered; Data collected.
	3.6d. Alumni Survey Item 8f mean score of 3.3 out of 5.0 scale	VSCC Alumni Survey 8f: Solving numerical problems.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.91/4 (1=Very Little/ 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score by 15% (from 2.91 to 3.3); Survey administered; Data collected.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 5 (2013-14)
	3.6e. CAT Q5 mean score increased by a statistically significant amount	CAT Q5: Evaluate whether spurious information strongly supports a hypothesis.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.6f. CAT Q3 mean score increased by a statistically significant amount	CAT Q3: Provide alternative explanations for a pattern of results that has many possible causes.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available – summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.6g. CAT Q14 mean score increased by a statistically significant amount	CAT Q14: Identify and explain the best solution for a real-world problem using relevant information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
3.7 Students will be able to Evaluate the solution and its implementation.	3.7a. CCSSE Item 5d mean score of 3.0 out of 5.0 scale	CCSSE 5d: Making judgments about the value or soundness of information, arguments, or methods.	Annually – Spring/OIERPA; Results available - summer	2.54/4 (1=Never, 4=Very Often) 2009 Survey	Survey administered; Data collected	Increase mean score by 20% (from 2.54 to 3.0)
	3.7b. Alumni Survey Item 6d mean score of 3.2 out of 5.0 scale	VSCC Alumni Survey 6d: Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of conclusions.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.66/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Increase mean score by 20% (from 2.66 to 3.2); Survey administered; Data collected.
	3.7c. CAT Q9 mean score increased by a statistically significant amount	CAT Q9: Provide relevant alternative interpretations for a specific set of results.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.7d. CAT Q14 mean score increased by a statistically significant amount	CAT Q14: Identify and explain the best solution for a real-world problem using relevant information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available – summer		Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.

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**I. Appendix A
QEP Development Timeline
Fall 2007-Spring 2010**

DATE	ACTION	RESPONSIBLE INDIVIDUALS
11/5/2007 – 12/17/2007	<ul style="list-style-type: none"> • SACS Process and QEP are explained to all faculty in a campus-wide faculty meeting. • SACS Leadership Team formed to plan for the reaccreditation process including the QEP • SACS Leadership Team meets to prepare for SACS and the QEP 	<ul style="list-style-type: none"> • Jane McGuire, OIER Vice-President • Leadership Team: President Warren Nichols, VP Academic Affairs Charles Lea, VP Office of Institutional Effectiveness, Research, Planning and Assessment Jane McGuire, VP Student Services Patty Powell, VP Business and Finance, Beth Cooksey, VP Resource Development and Executive Director of College Foundation Karen Mitchell, Director of Public Relations Ken Lovett, Executive Assistant to the President Shanna Jackson, QEP Committee Chair Laura Black
01/03/2008	QEP Topic Briefing; Overview presented on QEP's role in the SACS reaccreditation process and as a student learning initiative.	VSCC SACS liaison, Jane McGuire, members of the SACS Leadership Team and the President's Cabinet.
01/07/2008	Topic Selection Discussion; sessions were held during Professional Development day to discuss the general topic selection for the QEP.	All stakeholders, members of every division and area.
01/11/2008-01/24/2008	QEP Topic Selection Committee formed; Members of the QEP Topic Selection Committee conducting 18 focus group meetings open for all VSCC staff, faculty and administrators and conducting 7 focus group meetings open to all VSCC students. Two open online discussions of general topic selection were also conducted.	<ul style="list-style-type: none"> • Facilitators and recorders included members of the QEP General Topic Selection Committee and support staff from Student Services and I.E.R.P.A. Office. Members of VSCC faculty, staff, and administrators attended focus group meetings. • Topic Selection Committee: Chair Laura Black (Assistant Professor of English/Director of Language Center) Kay Dayton (Director of NewSkills & Developmental Studies Coordinator of Learning Strategies), Loretta Calvert (Coordinator of Paralegal Studies – Business), Dr. Le-Ellen Dayhuff (Associate Professor of Math & Science – Math & Sciences), Dr. Mickey Hall (Professor of English – Humanities), Terri Johnson (Clinical Coordinator of Radiology – Allied Health), Emily Short (Director of Retention Student Support Services), Eucretia Walker-Johnson (Instructor of Psychology – Social & Behavioral Sciences)

01/28/2008	SACS Orientation Meeting in Atlanta, GA; receive orientation in SACS process and overview on the QEP	VSCC SACS Leadership Team members.
02/04/2008	Campus-wide forum on QEP General Topic Selection	Facilitated by the QEP General Topic Selection Committee. VSCC faculty, staff, and administrators participated in an open forum and discussion.
02/11/2008	President's Cabinet Meeting; QEP Topic Selection Committee presents proposal to President's cabinet. Discussion and finalization of "Critical Thinking" as general topic selected for VSCC's QEP.	Members of the QEP General Topic Selection Committee and President's Cabinet members.
March 2008	QEP Development Committee formed.	<ul style="list-style-type: none"> • SACS liaison, deans, department chairs, and faculty members. • QEP Development Committee: Chair Laura Black, Assistant Professor of English/Director of the Language Center (Humanities); Dr. Mickey Hall, Professor of English (Humanities); Terri Johnson Crutcher, Clinical Coordinator of Radiology (Allied Health); Jane McGuire, VP of I.E., Research, Planning, and Assessment; Teresa Moore, Associate Professor of Business (Business); Robert Moon, Assistant Professor of Mathematics (Math & Science); Dr. Carol Topping, Assistant Professor/Chair of Psychology (Social & Behavioral Sciences)
04/15/2008-2/27/2009	<ul style="list-style-type: none"> • Development of QEP; data analysis of student assessments focusing of topic; writing of review of literature; discussions with stakeholders and development of plan. • Weekly meetings are held to develop the QEP. • Secure Intranet SACS Web Portal established 	QEP Development Committee members, members of Student Support Services, and other stakeholders, Webmaster Derek Pennycuff
7/21-24/2008	QEP Development Committee member attends 28 th International Conference on Critical Thinking, Berkeley, CA	Mickey Hall
7/27-30/2008	QEP Development Committee Chair attends SACS COC Summer Institute	Laura Black
8/18/2008	QEP Development Committee presents QEP to faculty and staff at Fall Convocation	QEP Development Committee, all faculty and staff
10/15/2008	QEP Development Committee	QEP Development Committee, all faculty

	presents a panel discussion of SEEK during Professional Development Day	
Fall 2008	<ul style="list-style-type: none"> • Focus group meetings with department chairs to discuss implementation of QEP • Deans, Directors, Department Chairs, Campus Forum, SACS Leadership Team meetings regularly used for QEP updates 	QEP Development Committee, department chairs, Deans, Directors, SGA, SACS Leadership Team
11/10/2008-11/14/2008	Faculty involved in piloting critical thinking courses meet with departments to develop problem solving activities.	Mickey Hall, Department Chairs, Response from Faculty
11/14/2008	Deadline for faculty to submit names as departmental participants	Interested faculty and department chairs for ENGL, Math, & PSYCH
11/17/2008	<p>Reg. QEP Meeting</p> <ul style="list-style-type: none"> • Meet with Student Services for assistance on student logo contest & discuss best ways to engage students in SEEK. • Review faculty and select faculty participants. • Review and finalize written charge for faculty. 	QEP Development Committee Members & Invited Student Services members (Patty Powell, Monique Wright, Emily Short & Gina Garera)
11/18-11/21/2008	Subcommittee meetings with QEP members and departmental faculty to provide background and charge for action	QEP Development Committee members and selected participating faculty members
11/24/2008	<p>Reg. QEP Meeting</p> <ul style="list-style-type: none"> • Progress reports from participating dept. faculty • Reports on QEP Lead Evaluator 	QEP Development Committee members and participating faculty
12/01/2008	<p>Reg. QEP Meeting</p> <ul style="list-style-type: none"> • Preliminary Drafts Due from participating faculty • Decide CAT use 	Participating faculty and QEP Development Committee members
12/05/2008	Completed Preliminary Drafts from Subcommittees Due to QEP Committee	Participating departmental faculty
12/08/2008	Reg. QEP Meeting Review dept. drafts from faculty & assessments	QEP Development Committee members
12/15/2008	<p>Reg. QEP Meeting</p> <ul style="list-style-type: none"> • Complete PDD 01/08/09 activities • Determine QEP Evaluator 	QEP Development Committee members
01/08/2009	QEP Professional Development Day: SEEK, an update on the QEP presentation.	Presented by members of the QEP Development Committee; attended by staff and faculty of VSCC.
Jan.-May 2009	Ongoing meetings with Advisory Boards to gain community feedback	Terri Johnson, Carol Topping and other QEP members as needed

01/05/2009	QEP Meeting <ul style="list-style-type: none"> • Finalize PDD 01/08/08 details • Report on Marketing & PR plans • Report on Professional Development activities for QEP implementation 	QEP Development Committee members Mick, Teresa & Terri to focus on long-term PDD for QEP and will present their report; invited PR members as needed
01/08/2009	Professional Development Day Activities	QEP Development Committee members, general faculty, participating faculty members and other stakeholders
01/09/2009, 01/12/2009, 01/13/2009, 01/14/2009	Special QEP Committee Meetings (2 hrs. daily) Complete written Drafts for <ol style="list-style-type: none"> 1. Departmental Implementation 2. Budget plan 3. Marketing Plan 4. Professional Development Plan 5. Support Services Plan 	QEP Development Committee members Invited Participating dept. faculty members, PR, Student Support Services, Academics Support Services, Continuing Education and Business & Finance members as needed
01/22/2009	SEEK Student Logo Contest ends	Students submit work to QEP Chair Laura Black.
01/26/2009	Reg. QEP Meeting <ul style="list-style-type: none"> • Review Final Drafts for dept. Activities • Select SEEK Logo. • Finalize Assessments 	QEP Development Committee members and participating faculty
02/02-02/27/2009	Regular QEP Meetings to be held each Monday for 2 hrs. <ul style="list-style-type: none"> • Report Progress of Writing. Writing, revising and editing draft document of QEP. 	QEP Development Committee members
03/02/2009	Submit QEP written draft to President's Cabinet and SACS Leadership Team	QEP Development Committee members, Chair Laura Black will be available to meet with Cabinet or the Leadership Team from 3/2/09-3/13/09, as needed.
03/03/2009-03/13/2009	Review SEEK written draft	President's Cabinet & SACS Leadership Team
03/16/2009	Reg. QEP Meeting <ul style="list-style-type: none"> • Review responses and address questions and concerns from Cabinet & SACS Leadership Team 	QEP Development Committee members
03/16/2009-03/19/2009	Revise and edit QEP written draft based on responses from Cabinet & SACS Leadership Team.	QEP Development Committee members
03/20/2009	Submit written QEP draft to SACS for review	QEP Development Committee members
03/23/2009-03/27/2009	Conference calls to SACS re: QEP date and time TBD	QEP Development Committee members and other stakeholders
4/13/2009	QEP Implementation Committee Formed	QEP Development Committee plus Len Assante, Associate Professor and Chair of Communication, Foreign Language & Philosophy; Linda Brady, Associate

		Professor English; Terry Bubb, Director of Advising Center (Support Services); Dr. Kim Caldwell, Professor of Mathematics; Charles Hicks, Instructor of Biology (Natural Sciences); David Johnson, Associate Professor of English (Livingston Campus); Dr. George Pimentel, Associate Professor & Chair of History (History); Livy Simpson, Instruction Librarian (Support Services); Cindy Wyatt, Instructor of English; Sue Mulcahy, Professor of Art (Fine Arts)
03/30/2009-08/24/2009	Continuous Refinement of Quality Enhancement Plan and Continuous Marketing & PR of QEP	QEP Implementation Committee members and other appropriate stakeholders
06/12/2009 6 wks prior to On-Site Visit	QEP Lead Evaluator Due to SACS	QEP Implementation Committee members and SACS Liaison
08/24/2009	QEP final written draft due to SACS	President Nichols, VP Institutional Effectiveness, Research, Planning and Assessment Jane McGuire
Fall 2009	<ul style="list-style-type: none"> • Complete Pilot Programs • Report on departmental assessments 	Participating faculty and students
10/13/2009-10/15/2009 Thurs.	SACS On-Site Visit to focus primarily on QEP	QEP Implementation Committee, SACS Leadership Team and entire campus
10/21/2009	Professional Development Day SEEK Focus Groups meet to begin narrowing QEP focus	All faculty, staff, and administrators
11/8/2009-11/10/09 Wed	QEP Development Committee members attend CAT Training, Hartford, CT	Laura Black, Carol Topping, Len Assante
11/30/2009	<p>QEP Meeting</p> <ul style="list-style-type: none"> • Discuss SACS On-Site Recommendations • Announcement of new co-chairs, Terry Bubb and Teresa Moore • Introduction of expanded QEP New Implementation Committee members Aaron Doyka (student), Brian Mitchell, Chris Vaught (student services), Jessica Anderson (student), Kathy Johnson, Kayla Barbee (student), Peter Johnson 	QEP Implementation Committee members plus Aaron Doyka (student), Brian Mitchell (Mathematics), Chris Vaught (Student Services), Jessica Anderson (student), Kathy Johnson (Business Office), Kayla Barbee (student), Peter Johnson (History)
12/07/2009	<p>Regular QEP Meeting</p> <ul style="list-style-type: none"> • Follow-up on Recommendations 	QEP New Implementation Committee members

	<ul style="list-style-type: none"> Professional Development Day (1/7/10) Planning 	
Dec. 2009	SACS Final Review of VSCC's QEP	SACS COC
12/14/2009	Regular QEP Meeting <ul style="list-style-type: none"> Follow-up on Recommendations Professional Development Day update 	QEP New Implementation Committee members
12/21/2009	Regular QEP Meeting <ul style="list-style-type: none"> Professional Development Day Planning Focus Group Activity Finalized 	QEP New Implementation Committee members
1/4/2010	Regular QEP Meeting <ul style="list-style-type: none"> Professional Development Day Presentation and Activity Finalized 	QEP New Implementation Committee members
1/7/2010	Campus-Wide Professional Development Day <ul style="list-style-type: none"> General QEP Mandatory Session – President addresses SACS on-site visit and QEP Recommendations Focus Groups discuss student problem solving skills and brainstorm strategies for improving 	All staff, administrators, and full-time faculty
1/12/2010	Regular QEP Meeting <ul style="list-style-type: none"> Review Focus Group Data collected on Professional Development Day Discussion of SACS Recommendations 	QEP New Implementation Committee members
1/19/2010	Regular QEP Meeting <ul style="list-style-type: none"> Progress reports from subcommittees addressing QEP Assessments, Literature review of Problem Solving Best Practices, and Changes to existing Plan Discussion of new learning outcomes resulting from QEP realignment to Problem Solving 	QEP New Implementation Committee members
2/1/2010	Regular QEP Meeting Progress reports from subcommittees: <ul style="list-style-type: none"> Assessments – changes in assessments to be used in realigned QEP Literature Review – best practices in problem solving identified and reviewed Existing Plan Review – what can be used and what must be eliminated 	QEP New Implementation Committee members
2/3/2010	Special Called QEP Workshop with Consultant <ul style="list-style-type: none"> SACS Recommendations 	<ul style="list-style-type: none"> QEP New Implementation Committee members QEP Design Team: Terry Bubb,

	<ul style="list-style-type: none"> • Realignment of QEP to Problem Solving • Problem Solving Assessments and linkages • Learning Outcomes for problem solving • Design Team formed 	Teresa Moore, Mickey Hall, Laura Black, Carol Topping, Jane McGuire
2/4/2010	QEP Workshop with Consultant <ul style="list-style-type: none"> • Revised QEP Purpose and Objectives • First-year Implementation Plan 	QEP Design Team
2/5/2010	QEP Workshop with Consultant <ul style="list-style-type: none"> • Years 1-5 Implementation Plan 	QEP Design Team
2/8/2010	QEP Regular Meeting <ul style="list-style-type: none"> • Assessment Sub-Committee Report • Problem-Solving Methodologies Research Report • Marketing Plan for Seek Report • Seek Implementation Plan Years 1 & 2 	QEP New Implementation Committee
2/11/2010	QEP Design Team Meeting to address SACS recommendations	QEP Design Team, VP OIERPA Jane McGuire, VPAA Bruce Scism
2/15/2010	QEP Regular Meeting <ul style="list-style-type: none"> • Pedagogy/Methodology Review • Problem-Solving Method, Context-Rich Problems, Faculty-Coached In-Class Methods selected • Assessment Plan Reviewed • Marketing Plan Discussed • Implementation Plan Reviewed • Purposes, Goals, Objectives Reviewed • Timeline Reviewed 	QEP New Implementation Committee
2/22/10	QEP Regular Meeting <ul style="list-style-type: none"> • Assessment Plan Reviewed • Benchmarks set • Marketing Plan Presented 	QEP Implementation Committee
2/22/10	QEP Design Team Meeting <ul style="list-style-type: none"> • Assessment Plan Finalized • Report Writing Update 	QEP Design Team
2/26/10	QEP Design Team Meeting <ul style="list-style-type: none"> • Finalize Assessment Plan • Finalize Timeline • Finalize Student Rubric • Finalize Implementation Plan • Review Plan to date 	QEP Design Team, VP OIERPA Jane McGuire

II. Appendix B QEP Pilot Pedagogy Faculty Reports

Psychology 101 Pilot Class Livingston Center

During the fall 2009 semester a pilot critical thinking psychology 101 class was implemented at the Livingston site in conjunction with pilot classes at the main campus. At Livingston two classes were involved in the process, one being a normal psychology class and the other being the pilot. A pretest was administered to both classes to ascertain the knowledge base of both groups. As part of the pretest, there were some essay type questions that lent themselves to critical thinking skill. The pretest was sent to the main campus for data collection. At the end of the semester the exact same test was administered to both classes as a post test. The test was sent to main campus for data collection. I have not received the results.

As for the classes in general, the students did appear to enjoy the hands on design of the pilot class. There were fewer lectures and more class interaction and participation. Being very hands on type teacher normally, the number of activities did not differ greatly between the two class settings. The types of activities did differ. Having taught psychology 101 for numerous years, the activities that I normally use were part of the time scheduling in the class. In the pilot class, some activities took longer than anticipated, thus making the process seem like I was playing catching up off and on during the semester.

The predominate difference in the classes was the amount of lecturing and the time spent going over the requirements and emphasis. I learned that students do not automatically read the materials available to them (i.e. textbook, supplements, syllabus) even if they are instructed to do so. Often times in the pilot class they wanted further explanations of course materials and content, so I also found myself deviating from the original schedule to expand on numerous key points. I believe the pilot would have been more successful for my group of students had a better mix of lecturing and activities been utilized.

Overall, I think the pilot class was successful in allowing the students to be active participants in their educational process. I do believe that they did learn critical thinking skills because the class lent itself to some self guided and group problem solving. I think the class was effective in emphasizing the brain, and students' response to the class was positive. The support from the main campus in getting the tools needed for the activities were excel, and the psychology team did stay in contact throughout the process.

English Composition 1010

The goal was to include group problem solving as an activity in the English Composition 1010 course. To meet a TBR course requirement, English Composition 1010 students must write a brief research project based upon outside sources and documented in MLA format. I required my students to work in groups to select a research area (a contemporary issue), to divide this broad area into more narrowly focused subtopics, and as a group, to thoroughly research the subject. Each individual group member was required to present one subtopic as part of a group Powerpoint presentation.

The research groups had to decide how to subdivide the subject and how to share the research sources. The groups were required to use databases available online from the Thigpen Library as sources for their research. Their group presentation included a discussion of the different sources cited in their individual projects along with a discussion of the subtopic itself.

Since this project was the last major assignment in the course, the students wrote a reflection essay on their experiences in research and group problem solving for their final exam.

According to the feedback in their reflection essays, the students were surprisingly positive about their group problem solving / research experiences. In fact, they seemed to learn more than I thought they had about working in groups and making group decisions. Based on the quality of their research essays and their positive feedback about the project, I plan to schedule this assignment again.

ENGL 1010 SEEK Pilot Project, Fall 2009

In Fall 2009, I piloted the SEEK activity in my dual enrollment ENGL 1010 class (ENGL 1010 084) at Watertown High School. Because the course was a dual enrollment class (which is compressed into seven weeks), I had to modify the original pilot slightly. The main difference was that I did not use ethnography as a writing assignment, since ethnography requires students to do original research in the form of interviews, field observations and case studies with members of the ethnic group being studied. Because the term is compressed, we had only a little over two weeks (versus nearly five) to complete the assignment. Instead, I assigned the general topic of "Health Care," since health care was a topic being debated across the country last fall. I capitalized on the debate as an opportunity for students to become more aware of a current public policy issue.

We divided the 16 students into four equal groups, each group selected an area within the health care debate and focused their research on that. Group 1 chose "The Current Debate" using President Obama's speech on Health Care and the political reactions to it; Group 2 chose "A History of Health Care Reform in the US" as a major topic; Group 3 chose "What's Wrong with the Current System" (a review of current problems and issues); and Group 4 chose "Health Care Systems Around the World," and reported on the national health care systems in France, Germany, Japan, and Canada. Each student wrote a 3 – 4 page research paper on some aspect of their group's subtopic, no duplication of topics was allowed. Also, each group worked together to create a cohesive and unified 15 – 20 minute presentation based on the information from their papers.

All in all, the experience was very positive for both the students and me. Their research and papers were at or above par with other standard research papers from ENGL 1010, plus students had an opportunity to get some good information and a better understanding of an important social issue. I believe requiring *ethnography* is unrealistic for freshman students—it requires students to do original research at a level above their skills. I do, however, believe that the requirement to collaboratively (to develop a broad topic and then

subdivide that topic into workable sub-topics) was valuable. It gave students an opportunity to grapple with real-world issues and processes and to practice putting together a complex presentation. In the future, as we remove the criteria for “collaborative” work, I may look for other mechanisms to encourage it.

Pilots in MATH 1530 Elementary Statistics

The project did help some student think critically and better understand the concepts presented in the course. Students that could be classified as “C” and “D” students, probably did not benefit as much from the project because they were caught so off guard by the fact that we wanted them to determine what tests applied to their data, and they simply didn’t seem to have the skills, or want to develop them, to make these critical thinking type of decisions.

Students generally were not fond of the project. They wanted to be told exactly what to do, while the point of the project was to get them to think critically to conclude what analysis applies to their data and thus needs to be performed. Students also found challenge working in groups if members did not do their share of the work and others had to do extra work at the last minute. For the majority of the students, the overall project grade was lower than their course average without the project, and therefore was only applied toward their final grade if it raised their average.

A modified project in one statistics course will be done Spring 2010. The following modifications will be made: no group work, no presentations, due dates more often with less per due date, start project later in semester after students have better understanding of topics.

III. Appendix C

Professional Development Day October 21, 2009

Please indicate the area of College in which you work, i.e. Student Services, Advising, Discipline such as English, etc.

Refocusing the QEP—Critical Thinking/ Problem Solving

1. What does VSCC students' critical thinking look like today, October 21, 2009? What are the critical thinking skill weaknesses of our students?
2. What do we want VSCC students' critical thinking to look like five years from now on October 21, 2014? What critical thinking skills do we want our students to learn?
3. How can we, specifically, accomplish the goal of question number two by changing what we do in the classroom or students services? Explain and use concrete examples from your specific area of the college.
4. Is this an appropriate expectation for all of our classes and students? Explain.

Sample of results:

What is Critical Thinking?

- Prioritizing the situation
- Ability to choose the best solution
- Information goes in one way and comes out differently
- Gathering information/Brainstorming
- Seeking input from others who are experts
- Trying to achieve the results
- Discussing your opinion with others to get validation
- Problem Solving: what you do to solve it, i.e., Campus Emergency Response provides items to use in resolving the situation at hand
- Exploring all the possibilities of the problem
- Evaluating the process
- Talk, try, talk, retry, talk, and retry
- Process of improvement
- Compare multiple outcomes

What skills do we want our students to have when they leave here?

- Hard Skills like computer work and Soft Skills as in their personality
- Take what they have learned and apply it to a problem
- First be able to identify the problem
- Think creatively with any situation
- Know how to be productive
- Understanding to know how
- Make good choices

- Critical thinking be a part of their work:
 - Be effective communicator
 - Find the information needed
 - Problem solving
 - Follow directions
 - Time management skills
 - Maintain flexibility

What can we measure to know if we have succeeded?

- Successful in their job production
- A particular skill set for course completion {reason why they need skill}
- Written communication should be accomplished: give them a problem and let them solve it showing communication with others
- Portfolio for critical thinking completed by each student

Critical Thinking Skills Our Students Need

- Communication Skills both orally and written
- Analysis – not in their ability
- Trained to get the answer and not beyond
- Follow Directions
- Time Management
- Need to respect the classrooms
- Do not take College seriously
- Intrinsic Motivation
- Reality that they can fail
- Effective Listening Skills
- Do not take responsibility for their own actions
- Not prepared for class, i.e., no pencils or paper

How do you define Critical Thinking?

- Ability to Analyze
- Creative Problem Solving
- Deductive Reasoning
- Trigger Intrinsic Motivation
- Understand/Plan/Do/Check
- Define, Analyze, and Solve Problems
- Find the best solution for your current situation
Observe → Evaluate → Decide → Communicate

**IV. Appendix D
January College-Wide Focus Groups**

Department	Facilitator	Recorder
Plant Operations/Maintenance	Terry Bubb	Amber Regan
Academic Affairs, Continuing Ed, Career Placement, IE, President's Office, HR, & Payroll	Bob Carter	Beverly Houser
Information Technology	Chris Vaught	Debra Lindsay
NewSkills	Kathy Y. Johnson	Heather Lee
Public Relations, Media Services, Foundation	Teresa Brown	Betty Gibson
Financial Aid	Livy Simpson	Erin Montgomery
Advising, Disability Services	Jane McGuire	Suzanne Hesson
Records	Carol Topping	Stacy Womelduff
Admissions	Mickey Hall	Teresa Corlew
Business Office, Purchasing	Laura Black	Holly Nimmo
Humanities (Last name A-K)	Linda Brady	Jenny Bartley
Humanities (Last name L-Z)	Cynthia Wyatt	Penny Tucker
Social Science	George Pimentel	Keith Lessert
Allied Health	Terri Johnson	Holly Harvey
Math	Chuck Hicks	Erica Malone
Science	Brian Mitchell	Stacy Bagshaw
Business Division	Teresa Moore	Brenda Martin
Student Services, Athletics, Retention Support, Testing, TRIO	Sue Mulcahy	Tammy Swindle
Security/Public Safety/Bs. & Finance Management	David Johnson	Mary Edison
Livingston, Off-Campus Services	Sherry Cliburn	Kathy Turner
President, VP's, Deans	Kenyatta Lovett	Laurette Nuckols

QEP FOCUS REDESIGN PROCESS – January 2010

On Professional Development Day, October 21, 2009, the afternoon session was dedicated to campus-wide fact gathering. The assignment for the afternoon was to discuss the original focus of our QEP, critical thinking. One of the recommendations of the SACS visiting team was to narrow the focus of the QEP from the broad topic of critical thinking, to a more specifically defined and manageable topic that could be addressed more easily through professional development and assessed more tangibly. The visiting team also recommended that this re-focusing process be a campus-wide activity.

As a result, faculty and staff were divided into 12 focus groups. The four questions presented to those focus groups were: 1) What does VSCC students' critical thinking look like today, October 21, 2009? What are the critical thinking weaknesses of our students? 2) What do we want VSCC students' critical thinking to look like five years from now on October 21, 2014? What critical thinking skills do we want our students to learn? 3) How can we, specifically, accomplish the goal of question number two by changing what we do in the classroom or student services? Explain and use concrete examples from your specific area of the college. 4) Is this an appropriate expectation for all of our classes and students? Explain.

The data gathered from these focus groups was compiled by Institutional Research and distributed to the QEP committee. The committee then analyzed the data and identified problem solving as the common thread. Problem solving is the new focus of our refined QEP.

In this Professional Development Day session, we seek input on how the teaching of problemsolving skills might be incorporated into Vol State classrooms and campus services.

DEFINITION OF PROBLEM SOLVING

The QEP committee conducted a research of literature on problem solving and best practices in order to discover a definition of problem solving that could be used campus-wide in reinforcing the QEP. The definition the committee selected came from the Association of American Colleges and Universities website, <http://www.aacu.org/value/rubrics/pdf/ProblemSolving.pdf>, and states “Problem solving is the process of designing , evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.” The QEP committee has identified a five-step problem solving process that will be used campus wide to help students learn problem solving skills.

These steps are as follows

1. Define or describe problem
2. Brainstorm strategies
Propose and design possible solutions
3. Evaluate potential solutions
4. Select and implement solution
5. Evaluate outcomes

PROFESSIONAL DEVELOPMENT DAY QEP ASSIGNMENT

In the QEP session, you are to consider a problem and then brainstorm strategies and propose and design possible solutions (step 2 of our defined process).

The problem for today is , “Students are not problem-solvers and independent learners.” A table showing the QEP problem-solving process with this stated problem has been provided for you to help you in your discussions.

The question you are to use to guide the discussion is listed below:

For Academic Divisions: What teaching strategies or learning activities would you recommend to solve this problem?

For Non-Academic Areas: What strategies or procedures would you use to mentor students and help them become problem solvers and independent learners?

A facilitator has been assigned to your small group to lead the discussion and a recorder will document your strategies/learning activities or procedures. At the close of your session, return these notes to Institutional Research.

Problem Solving

Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.

Problem Solving Steps	Result of Step – Enter the solutions to each step here
Define or describe problem:	“Students are not problem-solvers and independent learners.”
Evaluate potential solutions	
Select and implement solution	
Evaluate Outcomes	

V. Appendix E
QEP Advisory Board Survey, Spring 2010

The QEP Implementation Committee surveyed 58 current Advisory Board members regarding problem solving with 31 responding. Questions related to specific problem solving skills such as the ability to analyze work-related problems, accurately determine causation, develop possible solutions, evaluate possible solutions, implement a solution, evaluate implementation as well as the importance of their employees possessing good problem solving skills were included. Thirty-one members responded with graduates scoring 16.1 percent to 25.8 percent in the “Always” category for the specific problem solving skills questions for an average of 22 percent in the “Always” category. On the question that asked employers the importance of their employees possessing good problem-solving skills, 71 percent of the respondents rated this as “Extremely” important. The importance of problem solving skills in the job market is evidenced by this 71 percent as is the need for improvement in the specific problem solving skills where graduates met the “Always” criteria an average of only 22 percent of the time. This data was used to support the focus of problem solving and to develop student learning outcomes which relate to the specific problem solving skills questioned in the survey.

	Rarely		Sometimes		Usually		Always		NA	
	N	%	N	%	N	%	N	%	N	%
VSCC Graduates are able to:										
Analyze work-related problems and accurately determine their cause. (mean 4.15)	0	0.0	3	9.7	17	54.8	7	22.6	4	12.9
Develop possible solutions to problems. (mean 4.15)	0	0.0	3	9.7	17	54.8	7	22.6	4	12.9
Evaluate the potential advantages and disadvantages of possible solutions. (mean 4.15)	0	0.0	4	12.9	15	48.4	8	25.8	4	12.9
Implement a chosen solution in an effective way. (mean 3.96)	0	0.0	6	19.4	16	51.6	5	16.1	4	12.9
Evaluate the effectiveness of the implementation. (mean 4.00)	1	3.2	5	16.1	14	45.2	7	22.6	4	12.9
Work with others in a cooperative and productive manner. (mean 4.59)	0	0.0	0	0.0	11	35.5	16	51.6	4	12.9

How important is it that your employees possess good problem-solving skills?

	N	%	Mean
Very	9	29.0	4.71
Extremely	22	71.0	
Total	31	100.0	

Additional Comments:

- As technology advances we must educate and challenge individuals to understand the current process while looking for alternatives that may produce better results.
- I am not an employer therefore these questions are not applicable.
- Unfortunately we have not had any Vol State graduates in a few years. We do employ a current student at this time and plan to hire some of the graduates from the Vet Tech program in the next couple of years.
- Vol State has without a doubt proven it has a high quality ultrasound program, producing excellent sonographers, with great critical thinking skills. Monica Pipkins has an amazing gift of creativity that she is somehow able to seamlessly blend with her awesome teaching techniques. I have recommended her program to so many people already. There is a very distinct difference in the quality and confidence of the sonographers she produces versus the other surrounding ultrasound programs. Vol State should be very proud to have her.
- We have 2 VSCC graduates here, including me.

VI. Appendix F
Volunteer State Community College
Unaudited Statement of Net Assets
June 30, 2008

	Institution
ASSETS	
Current assets:	
Cash and cash equivalents (Notes 2 and 18)	\$11,712,776.22
Short-term investments (Note 3)	2,104,000.00
Accounts, notes, and grants receivable (net) (Note 4)	9,070,373.66
Pledges receivable (net) (Note 18)	-
Inventories (at lower of cost or market)	1,572.84
Prepaid expenses and deferred charges	37,495.99
Accrued interest receivable	72,089.49
Total current assets	\$ 22,998,308.20
Noncurrent assets:	
Cash and cash equivalents (Notes 2 and 18)	\$5,752,696.92
Investments (Notes 3 and 18)	2,000,000.00
Pledges receivable (net) (Note 18)	-
Capital assets (net) (Note 5)	33,219,891.36
Other assets	7,866.50
Total noncurrent assets	\$ 40,980,454.78
Total assets	\$ 63,978,762.98
LIABILITIES	
Current liabilities:	
Accounts payable	\$8,785,603.45
Accrued liabilities	1,423,858.37
Deferred revenue	896,379.75
Compensated absences (Note 6)	323,576.10
Long-term liabilities, current portion (Note 6)	125,993.43
Deposits held in custody for others	4,508,564.01
Other liabilities	1,773.41
Total current liabilities	\$ 16,065,748.52
Noncurrent liabilities:	
Accrued liabilities	\$620,208.42
Compensated absences (Note 6)	987,165.41
Long-term liabilities (Note 6)	192,698.72
Due to grantors (Note 6)	3,427.19

Total noncurrent liabilities	<u>\$ 1,803,499.74</u>
Total liabilities	<u>\$ 17,869,248.26</u>
<hr/>	
NET ASSETS	
Invested in capital assets, net of related debt	\$ 32,901,199.21
Restricted for:	
Nonexpendable:	
Scholarships and fellowships	116,931.15
Expendable:	
Scholarships and fellowships	46,601.64
Instructional department uses	38,479.67
Loans	118.13
Capital projects	
Other	58,395.79
Unrestricted (Note 8)	12,947,789.13
Total net assets	<u>\$ 46,109,514.72</u>
<hr/>	

**VII. Appendix G
Assessment Plan**

PURPOSE: The purpose of Seek QEP is to improve student problem solving skills in General Education courses.								
GOAL 1: Volunteer State Community College faculty will be trained in the pedagogy of problem solving skills								
OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
1.1. Full-time faculty will be trained in the pedagogy of problem solving skills.	1.1a. 100% of faculty will be trained in the pedagogy of problem solving skills.	Attendance at problem solving pedagogy professional development activity	Fall & Spring Semesters; Years 2-5/QEP Director	100% of full-time faculty will attend problem solving pedagogy professional development activity	100% of full-time faculty will attend problem solving pedagogy professional development activity	100% of full-time faculty will attend problem solving pedagogy professional development activity	100% of full-time faculty will attend problem solving pedagogy professional development activity	100% of full-time faculty will attend problem solving pedagogy professional development activity
1.2. Full-time general education faculty will demonstrate proficiency in teaching problem solving skills.	1.2a. 100% of general education full-time faculty will demonstrate proficiency (80% or higher on the rubric) in teaching problem solving skills.	Faculty-developed rubric	Fall & Spring Semesters; Years 2-5/QEP Director	Proficiency will be defined and measurement and rubric will be created. Faculty will design a classroom activity that will be evaluated to demonstrate proficiency.	20% of full-time faculty will demonstrate proficiency of 80% or higher in teaching problem solving skills.	75% of full-time faculty will be demonstrated proficiency of 80% or higher in teaching problem solving skills.	100% of full-time faculty will demonstrate proficiency of 80% or higher in teaching problem solving skills.	100% of full-time faculty will demonstrate proficiency of 80% or higher in teaching problem solving skills.
1.3. Full-time general education faculty will integrate problem solving pedagogy into course instruction	1.3a. 100% of general education full-time faculty will integrate problem solving pedagogy into course instruction.	General Education courses will be reengineered integrating problemsolving techniques.	Fall & Spring Semesters; Years 2-5/QEP Director		33% of general education courses will be reengineered to integrate problem solving techniques.	66% of general education courses will be reengineered to integrate problem solving techniques.	100% of general education courses will be reengineered to integrate problem solving techniques.	100% of general education courses will be reengineered to integrate problem solving techniques.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
1.4. Part-time (adjunct) faculty will have the opportunity to participate in problem solving pedagogy professional development activities	1.4a. 100% of adjunct faculty will have the opportunity to participate in problem solving pedagogy professional development activities	Problem solving pedagogy professional development activities provided for adjunct faculty	Fall & Spring Semesters; Years 2-5/QEP Director	Problem solving pedagogy professional development activities provided for adjunct faculty	Problem solving pedagogy professional development activities provided for adjunct faculty	Problem solving pedagogy professional development activities provided for adjunct faculty	Problem solving pedagogy professional development activities provided for adjunct faculty	Problem solving pedagogy professional development activities provided for adjunct faculty
1.5 Student support personnel will be trained in facilitating student problemsolving skills	1.5a. 100% of student support personnel will be trained in facilitating student problem solving skills	Attendance at problem solving facilitation professional development activity	Fall & Spring Semesters; Years 2-5/QEP Director	100% of student support personnel will attend problem solving skills facilitation professional development	100% of student support personnel will attend problem solving skills facilitation professional development	100% of student support personnel will attend problem solving skills facilitation professional development	100% of student support personnel will attend problem solving skills facilitation professional development	100% of student support personnel will attend problem solving skills facilitation professional development

GOAL 2: Volunteer State Community college will establish a faculty-mentoring program.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
2.1. Faculty will serve as faculty mentors to assist with integration of problem solving pedagogy into general education curriculum and professional development.	2.1a. 15 faculty will serve as faculty mentors to assist with integration of problem solving pedagogy into general education curriculum and professional development	Report and documentation of establishment of a faculty mentoring program and identification of mentors	Year 2-5/QEP Director		Faculty mentors identified and assigned to general education full-time faculty teaching in Groups 1 & 2 courses.	Faculty mentors identified and assigned to general education full-time faculty teaching in Groups 3 & 4 courses.	Faculty mentors identified and assigned to general education full-time faculty teaching in Group 5 courses.	All faculty mentors have assisted 100% of general education faculty in integration of problem solving pedagogy into courses
2.2. Faculty mentors will provide professional development training in a formalized fashion.	2.2a. 50% faculty mentors will provide professional development training in a formalized fashion.	Professional development in problem-solving methodologies provided.	Years 2-5/QEP Director	Faculty will attend professional development to serve as faculty mentors.	15 faculty mentors provide professional development training for 100% of full-time faculty teaching general education classes.	15 faculty mentors provide professional development training for 100% of full-time faculty teaching general education classes.	15 faculty mentors provide professional development training for 100% of full-time faculty teaching general education classes.	All faculty mentors have provided professional development to 100% of all full-time faculty teaching general education classes.
2.3. Faculty mentors will assist with new faculty with development of new courses.	2.3a. 100% of faculty mentors will assist with new faculty with development of new courses.	Evaluation of faculty mentors.	Years 2-5/QEP Director	100% (15) of faculty mentors assist with new faculty with development of new courses.	100% (15) of faculty mentors assist with new faculty with development of new courses; Evaluation instrument developed.	100% (15) of faculty mentors assist with new faculty with development of new courses.	100% (15) of faculty mentors assist with new faculty with development of new courses.	100% (15) of faculty mentors assist with new faculty with development of new courses.
2.4. Faculty mentors will serve as problem solving pedagogy resources.	2.4a. 100% of faculty mentors will serve as problem solving pedagogy resources.	Evaluation of faculty mentors	Years 2-5/QEP Director		100% of faculty mentors serve as problem solving pedagogy resources; Evaluation instrument developed.	100% of faculty mentors serve as problem solving pedagogy resources.	100% of faculty mentors serve as problem solving pedagogy resources.	100% of faculty mentors serve as problem solving pedagogy resources.
2.5. Faculty mentors will be trained in scoring the CAT.	2.5a. 100% of faculty mentors will be trained in scoring the CAT.	Faculty mentors trained in CAT scoring.	Years 1-5/QEP Director	15 faculty members trained.	15 faculty mentors will be trained in scoring the CAT.	5 faculty mentors will be trained in scoring the CAT.	5 faculty mentors will be trained in scoring the CAT.	100% faculty mentors will be trained in scoring the CAT.

GOAL 3: Volunteer State Community College will improve problem solving skills in General Education								
OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
3.1. Students will improve their problem solving skills following a defined process.	3.1a. Students improve their problem solving skills following a defined process.	Faculty designed common rubric for Problem Solving skills.	Year 1/QEP Implementation Committee	Professional Development on Rubric design; Rubric designed.	Establish baseline data for student performance using rubric as evaluation.	Rubric administered; Data collected	Rubric administered; Data collected	Increased baseline score by a statistically significant amount or percentage
	3.1b. Employer Survey problem solving skills items mean score of 4.86 on a 5.0 scale.	VSCC Employer Survey: "Problem Solving Skills"	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 4.23/5.00 (2007-2008); Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase employer survey problem solving skills score by 15% (from 4.23 to 4.86)
	3.1c. NCCBP enrollee success rate of 82.77	NCCBP: "Enrollee Success Rates"	Annually – Spring/OIERPA; Results available - fall	Baseline data established. 71.98/100 (Fall 2007; Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase the NCCBP enrollee success rate by 15% (from 71.98 to 82.77)
	3.1d. Students MAPP critical thinking proficiency levels will be 5%	ACPRO/ MAPP Scores in "Critical Thinking"	Fall & Spring /OIERPA; Results available -	Baseline date established. 4% Proficiency (3 yr. avg. 2005-2008); Test administered; Data collected.	Test administered; Data collected	Test administered; Data collected	Test administered; Data collected	Increase the MAPP critical thinking proficiency percentage to 5%
	3.1e. CCSSE Item 5a mean score of 2.5 on a 5.0 scale.	CCSSE 5a: Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form.	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 2.79 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Reduce mean score 10% (from 2.79 to 2.5)

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
	3.1f. Alumni survey Item 6a mean score of 2.6 on a 5.0 scale.	VSCC Alumni Survey 6a: Memorizing facts, ideas, or methods from your course and readings so you can repeat them in pretty much the same form.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	Baseline data established. 2.91/4 (1=Very Little/ 4=Very Much) 2007 Survey; Survey administered; Data collected		Survey administered; Data collected		Reduce mean score 10% (from 2.91 to 2.6); Survey administered; Data collected
3.2 Students will be able to identify and define a complex problem.	3.2a. CCSSE Item 5b mean score of 3.1 on a 5.0 scale.	CCSSE 5B: Analyzing the basic elements of an idea, experience, or theory.	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 2.79/4 (1=never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase mean score 15% (from 2.79 to 3.1).
	3.2b. Alumni Survey Item 6b mean score of 3.2 out of 5.0 scale	VSCC Alumni Survey 6B: Analyzing the basic elements of an idea, experience or theory such as examining a particular case or situation in depth and considering its components	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	Baseline data established. 2.93/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected		Survey administered; Data collected		Increase mean score 10% (from 2.93 to 3.2); Survey administered; Data collected.
	3.2c. CAT Q11 mean score increased by statistically significant amount	CAT Q11: use and apply relevant information to evaluate a problem.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available – summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage
3.3 Students will be able to identify and analyze strategies for solving the problem, sorting relevant from irrelevant information.	3.3a. CCSSE Item 5b mean score of 3.1 out of 5.0 scale	CCSSE 5b: Analyzing the basic elements of an idea, experience, or theory.	Annually – Spring/OIERPA; Results available – summer	Baseline data established. 2.78/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase mean score 15% (from 2.79 to 3.1)

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
	3.3b. Alumni Survey 6b mean score of 3.1 out of 5.0	Alumni Survey 6B: Analyzing the basic elements of an idea, experience or theory such as examining a particular case or situation in depth and considering its components.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available - summer	2.78/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score 10% (from 2.78 to 3.1); Survey administered; Data collected.
	3.3c. CAT Q11 mean score increase by statistically significant amount.	CAT Q11: Use and apply relevant information to evaluate a problem.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available – summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
3.4 Students will be able to Understand how new information or changing situation alters the problem.	3.4a. CCSSE Item 5c mean score of 3.1 out of 5.0 scale	CCSSE 5c. Synthesizing and organizing basic ideas, information, or experiences in a new way.	Annually – Spring/OIERPA; Results available – summer	2.69/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase mean score by 15% (from 2.69 to 3.1)
	3.4b. Alumni Survey Item 6c mean score of 3.1 out of 5.0 scale	VSCC Alumni Survey 6c. Synthesizing and organizing ideas, information or experiences into new, more complex interpretations and relationships.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	2.67/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score by 15% (from 2.67 to 3.1); Survey administered; Data collected.
	3.4c. CAT Q15 mean score increased by statistically significant amount	CAT Q15: Explain how changes in real-world problem situation might affect the solution.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
3.5 Students will be able to Propose potential solutions to the problem.	3.5a. CCSSE Item 5e mean score of 3.0 out of 5.0 scale	CCSSE 5e: Applying theories to practical problems or in new situations.	Annually – Spring/OIERPA; Results available – summer	2.61/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase mean score by 15% (from 2.61 to 3.0)
	3.5b. Alumni Survey Item 6d mean score of 3.1 out of 5.0 scale	VSCC Alumni Survey 6d: Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of conclusions.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	2.66/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score by 15% (from 2.66 to 3.1); Survey administered; Data collected.
	3.5c. CAT Q13 mean score increased by a statistically significant amount	CAT Q13: Identify suitable solutions for real-world problem using relevant information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.5d. CAT Q4 mean score increased by a statistically significant amount	CAT Q4: Identify additional information needed to evaluate a hypothesis.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.5e. CAT Q7 mean score increased by a statistically significant amount	CAT Q7: Identify additional information needed to evaluate a hypothesis.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
	3.5f. CAT Q8 mean score increased by a statistically significant amount	CAT Q8: Determine whether an invited inference is supported by specific information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
3.6 Students will be able to Select the best solution and develop an implementation.	3.6a. CCSSE Item 5e mean score of 3.1 out of 5.0 scale	CCSSE 5e: Applying theories to practical problems or in new situations.	Annually – Spring/OIERPA; Results available – summer	2.61/4 (1=Never, 4=Very Often) 2009 Survey; Survey administered; Data collected.	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase mean score by 20% (from 2.61 to 3.1)
	3.6b. Alumni Survey Item 6e mean score of 3.3 out of 5.0 scale	VSCC Alumni Survey 6e: Applying theories to practical problems or in new situations.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	2.83/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score by 15% (from 2.83 to 3.3); Survey administered; Data collected.
	3.6c. Alumni Survey Item 7a mean score of 3.2 out of 5.0 scale	VSCC Alumni Survey 7a: Applying theories or concepts to practical problems or in new situations.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	2.75/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score by 15% (from 2.75 to 3.2); Survey administered; Data collected.
	3.6d. Alumni Survey Item 8f mean score of 3.3 out of 5.0 scale	VSCC Alumni Survey 8f: Solving numerical problems.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	2.91/4 (1=Very Little/ 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score by 15% (from 2.91 to 3.3); Survey administered; Data collected.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
	3.6e. CAT Q5 mean score increased by a statistically significant amount	CAT Q5: Evaluate whether spurious information strongly supports a hypothesis.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.6f. CAT Q3 mean score increased by a statistically significant amount	CAT Q3: Provide alternative explanations for a pattern of results that has many possible causes.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.6g. CAT Q14 mean score increased by a statistically significant amount	CAT Q14: Identify and explain the best solution for a real-world problem using relevant information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
3.7 Students will be able to Evaluate the solution and its implementation.	3.7a. CCSSE Item 5d mean score of 3.0 out of 5.0 scale	CCSSE 5d: Making judgments about the value or soundness of information, arguments, or methods.	Annually – Spring/OIERPA; Results available – summer	2.54/4 (1=Never, 4=Very Often) 2009 Survey	Survey administered; Data collected	Survey administered; Data collected	Survey administered; Data collected	Increase mean score by 20% (from 2.54 to 3.0)
	3.7b. Alumni Survey Item 6d mean score of 3.2 out of 5.0 scale	VSCC Alumni Survey 6d: Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of conclusions.	Bi-Annually – Beginning Spring 2010/OIERPA; Results available – summer	2.66/4 (1=Very Little, 4=Very Much) 2007 Survey; Survey administered; Data collected.		Survey administered; Data collected.		Increase mean score by 20% (from 2.66 to 3.2); Survey administered; Data collected.

OBJECTIVES	OUTCOMES (To be met by Year 5 of QEP)	ASSESSMENT	ADMINISTRATION DATE/PERSON RESPONSIBLE	YR 1 (2009-10)	YR 2 (2010-11)	YR 3 (2011-12)	YR 4 (2012-13)	YR 5 (2013-14)
	3.7c. CAT Q9 mean score increased by a statistically significant amount	CAT Q9: Provide relevant alternative interpretations for a specific set of results.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available – summer	Administer and score; establish baseline data.	Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.
	3.7d. CAT Q14 mean score increased by a statistically significant amount	CAT Q14: Identify and explain the best solution for a real-world problem using relevant information.	Spring 2010 to establish baseline; Semi-annually – Fall & Spring/OIERPA; Results available - summer		Tests administered; Data collected	Tests administered; Data collected	Tests administered; Data collected	Increased baseline score by a statistically significant amount or percentage.