

The Tortoise and the Hare

Thinking Slowly to Think Quickly



Southwest Virginia Community College
Quality Enhancement Plan 2015

THE TORTOISE AND THE HARE: THINKING SLOWLY TO THINK
QUICKLY

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Preface

President Dwight D. Eisenhower, in contemplating the success of Operation Overlord, often recited his version of the old Army saw: “Plans are nothing; planning is everything.” During development of the Quality Enhancement Plan at Southwest Virginia Community College (SWCC), we certainly found that planning *is* everything. Especially during the sessions of the two primary work groups, the Data Mining and Topic Selection Committee and the Topic Development and Implementation Committee, participants saw a growing *esprit de corps*, an increasing commitment to the topic of the QEP, and a developing belief that this project could indeed raise the quality of Southwest Virginia Community College’s educational programs and improve student learning outcomes.

However, we are not willing to admit that plans are nothing. The document found herein is a sound, interdisciplinary, and co-curricular approach to improving the intellectual capabilities of our students. One of SWCC’s Core Values reads as follows: “SWCC strives for excellence in instruction and service through rigorous academic and professional standards.” We believe that if our students develop the ability to think more critically they have a stronger potential to be successful as college students, lifelong learners, employees, and community members.

Yet, we do remember what we learned with our first Quality Enhancement Plan: we are not soothsayers and we do have an imperfect construct of the future nature of SWCC. In that first QEP, the learning communities we developed relied on incoming freshmen enrolling in general education classes; we could not have foreseen that the rising tide of dual enrollment in Virginia would usurp that flow of students and leave us without a critical mass of student enrollment for the learning communities.

However, we did revise the Quality Enhancement Plan as we moved through the implementation period, and, as documented in our Fifth Year Interim Report, we did meet the original goals of that QEP. We believe that the cycle of planning, implementation and assessment

contained within this document will allow us to respond to the unforeseen obstacles that may come our way.

Executive Summary

Southwest Virginia Community College (SWCC) has been engaged in the process of developing a Quality Enhancement Plan (QEP) since January of 2014 when Dr. Barbara Fuller, Vice President of Academic and Student Services, conducted an initial canvas of college stakeholders to solicit their views on a topic for SWCC's next QEP.

During Fall Semester 2014, the Quality Enhancement Plan Data Mining and Topic Selection Committee continued the process, meeting to analyze existing assessment data and select a QEP topic. The committee focused primarily on the following areas: it reviewed the SWCC Vision, Mission, and Core Values and SWCC Strategic Plan; it reviewed data sources providing direct measures of SWCC student learning, such as program assessment reports, General Studies Assessment Test (GSAT) results, and Test of Essential Academic Skills (TEAS) data; faculty members and students on the committee provided their evaluations of SWCC's current state of instruction and student learning, and the alumni often compared and contrasted these insights to the institution when they were students.

These were the committee's conclusions. Based on the GSAT in particular, SWCC could justify a QEP in mathematics, science, or humanities because students across the history of the test showed weaknesses in these areas. Other data sources, including assessment reports, suggested similar conclusions. No single academic area seemed to be overwhelmingly weak and to pose a negative impact on student learning.

One of the committee's student representatives forcefully recommended that critical thinking would be a perfect topic in that it could address the issues responsible for a lack of strong academic performance within courses and across programs and an improvement in this area would serve students well when they graduated and obtained a job or transferred to a baccalaureate institution. This recommendation was given even more credence when the Committee was able to obtain disaggregated SWCC student scores from the Virginia Community

College System's Core Competency test on Critical Thinking; SWCC's students scored at the 49th percentile. As a result, committee members unanimously concurred and approved critical thinking as the QEP topic.

During Spring Semester 2015, the Quality Enhancement Plan Topic Development and Implementation committee created a structure to deliver the components of the QEP to SWCC's students. The committee began by developing a definition of critical thinking and ten student learning outcomes; for the sake of efficiency, these ten SLOs were later condensed to three. This definition and these student learning outcomes provide the unity and coherence necessary to drive the Quality Enhancement Plan for its duration. These Student Learning Outcomes will chart the path as Southwest Virginia Community College works toward its overarching goal of improving student critical thinking as a prerequisite to improved student academic performance.

The first student learning outcome, SLO 1, is related to data acquisition and developing reliable and flexible processes for gathering information in academic, work-related, or personal contexts. SDV 108 will be responsible for introducing, teaching and assessing this SLO and its supporting content. Specific discipline classes in the Business, Engineering and Industrial Technology (BEIT) division and Health Technologies, Humanities, Mathematics, Natural and Social Sciences (HTHMNSS) division will also be responsible for teaching this material, relating it to other course SLOs and professional expectations, and assessing student progress in meeting this outcome. Critical thinking activities related to SLO 1 will be supported by a textbook, LibGuides, and the Critical Thinking Center.

The second student learning outcome, SLO 2, is concerned with data analysis and synthesis. SDV 108 will again be responsible for introducing, teaching and assessing this SLO and its supporting content. Identified classes in BEIT and HTHMNSS will also be responsible for teaching this material, relating the concepts to other course SLOs and professional expectations, and assessing student progress in meeting this learning outcome. Critical thinking activities related to SLO 2 will be supported by a textbook, LibGuides, and the Critical Thinking Center.

The final learning outcome, SLO 3, is related to problem solving and argumentation. SDV 108 will introduce, teach, and assess this SLO and its supporting content. Faculty members in BEIT and HTHMNSS will teach this material (while providing many opportunities to form and critique arguments and solve problems), relate this material to other course SLOs and professional expectations and assess student progress in meeting this learning outcome. Critical thinking activities related to SLO 3 will be supported by a textbook, LibGuides, and the Critical Thinking Center.

This Quality Enhancement Plan has many strengths. First and foremost, it will impact almost all Southwest Virginia Community College students by virtue of its SDV 108 component and its integration into classes in the divisions of Business Engineering and Industrial Technology and Health Technologies, Humanities, Mathematics, Natural Science and Social Science. Additionally, this QEP is driven by a clear definition of critical thinking and directed by specific and hierarchical student learning outcomes. Most importantly, the QEP builds on Southwest Virginia Community College's traditional strengths: its academic nature will provide a core of competent graduates ready for transfer to a four-year institution or entry into the workplace; its structure reflects the interdisciplinary nature of current academic learning; and, as the product of institution-wide planning, its implementation will be a collaborative effort of the entire college, uniting its academic and student services.

Process Used to Develop the Quality Enhancement Plan

Preliminary Survey and Schedule Development

Although speculation about the next Quality Enhancement Plan and its topic seems to begin almost as soon as the current one is approved and the implementation process begins, Southwest Virginia Community College (SWCC) initiated the formal process of developing a Quality Enhancement Plan on January 15, 2014, when Dr. Barbara Fuller, Vice President of Academic and Student Services, conducted an initial canvas of college stakeholders to solicit their views on a topic for SWCC's next QEP. Dr. Fuller's email made a direct appeal: "SACSCOC requires that we select another topic for our upcoming reaffirmation. We are seeking your ideas for SWCC's new QEP and would like to have as many topics as possible, by January 24." Below are topics that were put forth in response to that email:

- Lifelong Learning
- Apprenticeships
- Knowing Appalachia
- Appalachian Botany
- Geology in the Appalachians
- Agriculture
- Ecology/Environmental/Green Studies of the Appalachian Mountains
- Basic Human Survival in Appalachia
- Tourism
- History of the Appalachian Mountains
- Appalachian Study of Sociology
- Appalachian Mountain Crafts/Arts
- Appalachian Mountain and Bluegrass Music Study
- Volunteerism
- Online Career Modules
- Focus on recruitment and retention

- Mentoring program (almost like the Big Brother, Big Sister program, but only on a SWCC level). We can pair sophomore students up with freshman students
- Volunteer SWCC
- Student to Professional: Creating workforce-ready students by the use of online career modules
- Lifelong Learning components
- More apprenticeship-focused students
- Entrepreneurship and apprenticeship
- Lifelong Learning components - offering students who graduate from SWCC with a certificate, degree or diploma the chance to return continuously for re-training and updating classes in their respective program at a reduced or free tuition rate
- More apprenticeship-focused students - encouraging employers to offer a greater number of apprenticeship programs that guarantee stability and promotion in exchange for students taking certificate, degree or diploma programs with SWCC (Fuller 15 Oct. 2014)

While these topics reflected a diversity of interests and valid concerns with student learning, community service, and regional awareness, none seemed capable of sustaining long-term development and implementation. As a result, during Summer Semester of 2014, a plan of attack was developed to provide an approach to producing the QEP; the document (See Appendix I), "Quality Enhancement Plan 2014-2016: Topic Selection, Concept Development, and Writing the QEP," outlined a calendar which encompassed the process from the formation of committees to the submission of the final QEP. This document was revised, edited and improved throughout summer session and was approved by the following college stakeholders at the end of the term: Mark Estep, President; Barbara Fuller, Vice President of Academic and Student Services; and Edmond C. Smith, IRO, Assessment, and SACS Liaison.

Data Mining and Topic Selection

A committee was formed to examine college data related to student learning and educational outcomes and to discover areas where student performance could be improved. The committee was composed of full-time teaching faculty, librarians, alumni, students, and administrators. The Vice President of Academic and Student Services and IRO served as ex officio members (See Appendix II). Their charge was simple: to select a topic that would help Southwest Virginia Community College improve student learning outcomes and which would successfully drive the Quality Enhancement Plan for the duration of its implementation.

Early in the process, the Data Mining and Topic Selection committee reviewed SWCC's Vision, Mission, and Core Value statements. The committee agreed that the following segment of the mission statement was valuable in guiding its direction: "Southwest Virginia Community College...provides quality educational...opportunities for lifelong learners, workforce and community." And, from among the Core Values, the committee was especially attracted to this statement: "SWCC strives for excellence in instruction and service through rigorous academic and professional standards" (Southwest Virginia Community College, *2014-2016 Catalog and Student Handbook*, 1-2).

Preliminary activities included another review of the topics generated by the Vice President for Academic and Student Services from early 2014. All members read QEPs from other institutions to familiarize themselves with expectations and to get an idea of the types of topics being selected, especially by community colleges. Some members reviewed annual reports and academic unit plans. Most of the effort, however, was concentrated on examining direct assessments of learning for Southwest Virginia Community College students. The following measures were investigated.

ASSET/COMPASS These tests were traditionally used by the Virginia Community College System to test reading, writing, and mathematics skills of incoming students and place

them in appropriate classes. The committee obtained a limited number of historical scores of SWCC students for this test and was unable to draw any useful conclusions from the data.

Virginia Placement Test (VPT) The Virginia Placement Test succeeded the ASSET/COMPASS as the required placement test for incoming Virginia Community College Students. Again, the committee was unable to gain access to enough test scores to be worthwhile in determining students' strengths and weaknesses as freshmen.

Test of Essential Academic Skills (TEAS) This test is required of all students entering the Nursing (AAS) degree program and the Practical Nursing Certificate program. The committee was unable to get complete historical data for this test, but it did examine some cohorts' test scores from 2012 and 2013. In these years, the performance of incoming SWCC students was generally very good. In comparing the SWCC group scores with the individual national mean, the percentage of SWCC students performing above the individual national mean varied from 25.0 percent to 47.1 percent. The only major content area where the students scored consistently below the national group mean was in Science (Group Performance Profile. Test of Essential Academic Skills).

Assessment (Praxis I) Committee members reviewed assessment reports from 2008 to the present (Southwest Virginia Community College. "Chapter 3: Assessment Measures"). For the Associate Degree in Education and the Associate Degree in Education with the VCCS Teacher Education Curriculum Specialization, one of the measures used was the Praxis I, a nationally normed test produced by Educational Testing Services (ETS). The Southwest Virginia Community College *Assessment Report 2009-2010* (Southwest Virginia Community College. "Chapter 3: Assessment Measures") included information on SWCC students who had taken the assessment. The Institutional Summary Report for September 1, 2006, through August 31, 2007, "indicated that twelve (12) SWCC students took the Praxis I during this time period. On the Reading subtest, the median for SWCC students was 179 compared to the median of 178 for all examinees. On the Writing subtest, the median for SWCC students was 174.5 compared to the

median of 175 for all examinees. On the Mathematics subtest, the median for SWCC students was 177 compared to the median of 178 for all examinees” (22).

In the Southwest Virginia Community College *Closing the Loop 2009-10: First Year Follow-Up for Programs Assessed in 2008-2009* (Southwest Virginia Community College. “Chapter 3: Assessment Measures”), more data is given. The Educational Testing Services (ETS) Institutional Summary Report for September 1, 2008, through August 31, 2009, indicated that “six (6) SWCC students took the Praxis I during this time period. On the Reading subtest, the median for SWCC students was 177 compared to the median of 178 for all examinees. On the Writing subtest, the median for SWCC students was 170.5 compared to the median of 175 for all examinees. On the Mathematics subtest, the median for SWCC students was 175.5 compared to the median of 178 for all examinees” (11).

General Studies Assessment Test (GSAT) The Data Mining and Topic Selection committee was able to obtain data on every student who took the GSAT from 2004 through Spring Semester of 2014. The test was administered every year during this period.

The General Studies Assessment Test was developed by SWCC English faculty member Greg Horn as a measure of student learning in the General Studies Learning Community, a part of SWCC’s previous Quality Enhancement Plan, *Southwest Virginia Community College’s Communities of Excellence: Strengthening Student Engagement in Learning*. The GSAT is an academic achievement test designed to measure academic achievement and compare how students in the disciplines of humanities, science, and mathematics are faring in acquiring academic knowledge.

The Data Mining and Topic Committee reviewed the raw data for the ten years and read the analysis and reports compiled by Horn at the end of each year. In these reports, Horn discussed the strengths and weaknesses of student performance on the GSAT. This excerpt from the Spring 2014 “Conclusions” is typical:

The GSAT scores of students with more than 45 earned credits, when compared to students with 15 or fewer earned credits, were exceptionally high this year. In past years, the difference has typically been around 4-5%. This year, it ranged approximately 12-21%. *Although some of this increase may be attributed to the random sample, it does show that students are learning a great deal while they are at SWCC, particularly the students who were assessed this year.*

These findings confirmed what faculty members on the committee already knew. Students who persist in their studies at SWCC are indeed learning and they have acquired knowledge and skills in their tenure at the College.

In this same report, Horn spoke to differences among the test scores by discipline:

Students in all cohorts tend to have higher scores on the humanities segment of the GSAT than they do on the science and math segments. For all cohorts, the differences in scores on each segment is proportionally similar. *The relative weakness in science and math performance is shared proportionally in all cohorts. However, students nearing graduation from other programs scored better this year by 6-10% than did General Studies students. This suggests a relative weakness in math and science among General Studies graduates as compared to graduates from other SWCC programs.*

Committee members had noticed this trend in the raw data and were anecdotally aware of it in their students and their advisees. The topic of this math and science weakness was part of the committee discussion for the rest of the topic selection process.

VCCS Core Competency The IRO attempted to obtain disaggregated Core Competency test scores. These were made available only after a topic was selected (see below), but they provided additional justification for the topic selection.

As the committee examined data, it also engaged in a wide-ranging discussion of topics born of experience, reading or perceived need. The following topics received the most attention:

Developmental Education The topic of developmental education was often on the minds of the committee. In the past five years, the Virginia Community College System has been engaged in developmental education redesign, and at the time of the committee's work, the *Initial Impact Reviews* for developmental math and English had not been completed and released. Therefore, this question was on the mind of many of the committee members: "How do we know these (the redesigned English ENF and the redesigned math MTE classes) are working" (SWCC, *DMTSC Minutes 10-3-14*)? The committee did find that the VCCS was conducting an initial impact report on the ENF and MTE classes to be released at the end of 2014 and decided that any discussion of the success of developmental education should be postponed until that data became available.

Information Literacy Information literacy was frequently discussed as a possible QEP topic in the early weeks of committee meetings. One student representative said that "most students are unsure of library use." Another committee member said that there are information literacy courses in other colleges. It was also pointed out that information literacy is required for today's society and that many careers are now research-based (SWCC, *DMTSC Minutes 10-10-14*). The committee discussed the growth of Open Educational Resources and the VCCS's encouragement of their use in classes. It was noted that the use of Open Educational Resources makes it even more important to find reliable information (SWCC, *DMTSC Minutes 10-10-14*).

Serious thought was given to settling on information literacy as a topic and consideration was also given to a delivery system. One member queried, "What about the orientation program introduction to information literacy? Could the orientation program be expanded to include more information literacy?" (*DMTSC Minutes 10-10-14*). This comment came partly in response to SWCC's offering some SDV orientation classes in a two-day format at the beginning of the semester. Another suggestion put forth the possibility of integrating information literacy into an existing capstone course or creating one for that purpose (*DMTSC Minutes 10-10-14*).

While the committee did not choose information literacy as the topic, it was destined to be part of the development and implementation construct of the eventual QEP topic. As one committee member said near the end of the search, “Information seeking behavior is important” (SWCC, *DMTSC Minutes* 11-7-14); both committees were attracted to this pair: information seeking behavior and information literacy.

Another lasting contribution from this line of discussion was a belief in the power of SDV 108, the Orientation class. This conviction did lead to SDV 108 being an important delivery system for the eventual focus of the QEP. A strong concern of the committee was that the shorter two-day option for SDV 108 did not provide sufficient time for student growth and development, with one member noting, “Orientation used to be a one-credit course that lasted all semester” (SWCC, *DMTSC Minutes* 10-10-14).

Ideas which received some discussion but which were discarded without much follow through were liberal education and lifelong learning. One committee member noted that “Students don’t buy in to the traditional idea of liberal or general education” (SWCC, *DMTSC Minutes* 11-7-14) and argued that the QEP should attempt to help convince them of the value of these courses and pursuits. Another member argued that a significant part of the mission of SWCC and the community college system as a whole is to extol the value of lifelong learning and the necessity for continuous improvement and retraining over one’s lifetime (SWCC, *DMTSC Minutes* 11-7-14).

Another idea that was always in the back of the minds of the committee members was advising. A member noted that “During academic discussions like these, advising always comes up...” (SWCC, *DMTSC Minutes* 10-10-14). The committee agreed that problems did exist with advising and more than once the question of whether or not Blackboard could be modified to assist with advising surfaced. The nursing representative on the committee discussed the method of advising and assessment that the nursing program uses (TEAS for entry, NCLEX for exit, meetings early in the program with nursing advisors to look at test scores—especially reading

and placement) (SWCC, *DMTSC Minutes* 10-17-14). The question was raised as to whether or not, if advising were chosen as the QEP topic, the nursing model could be generalized for other or all academic programs.

By the end of the data review and discussion, the committee had reached a desirable dilemma. Overall, judging from data gathered from nationally normed sources and especially from Southwest Virginia Community Colleges' own GSAT, SWCC students were progressing through their curricula and testing well at the ends of their programs. It is true that based on data alone, one could have made a case for a Quality Enhancement Plan that focused on mathematics or science since SWCC students did show some weakness in those areas, especially compared with the results on the humanities reading and writing sections.

But nearing the end of the committee's work, members had reached another conclusion; most of them were of the opinion that critical thinking offered the most advantages as a QEP topic, and they freely expressed these opinions:

- "Critical thinking is essential." (SWCC, *DMTSC Minutes* 11-14-14)
- "Synthesis is a challenge to students." (SWCC, *DMTSC Minutes* 11-14-14)
- "Students tend to think superficially." (SWCC, *DMTSC Minutes* 11-14-14)
- "Students can't see practical application." (SWCC, *DMTSC Minutes* 11-14-14)
- "Students do not think sequentially." (SWCC, *DMTSC Minutes* 11-14-14)
- "Critical thinking. What classes require critical thinking?" (SWCC, *DMTSC Minutes* 11-14-14)

But it was actually one of the student representatives on the committee who solidified the decision. In an email to the committee she said, "I would like to put in my vote for the topic: critical thinking. I chose this because regardless of any change in developmental math or writing, critical thinking will be a necessary skill for every student's success" (Muawad 13 Nov. 2014).

During the discussion of critical thinking, a committee member who had worked with the Virginia Community College Core Competency tests kept reminding the committee that SWCC's previous year's graduating class had been tested on their critical thinking skills. After the topic had been chosen, the committee was able to obtain those scores (See Appendix V).

This data did lend weight to the committee's topic choice. Fifty-two SWCC students completed the assessment; the students scored from the 6th to 98th percentile compared to all the Virginia Community College students testing on that date. While the VCCS did not provide any analysis or longitudinal data for comparison, the group average percentile of 49.92 was low, and low percentile rankings were evenly distributed on the subtests of analysis, inference, evaluation, induction, and deduction.

At the end of the Data Mining and Topic Selection Committee's work, the following college officials and stakeholders gave their approval of "critical thinking" as the Quality Enhancement Plan topic: James Dye, Dean; Cathy Smith-Cox, Dean; Ed Smith, IRO; Barbara Fuller, Vice President for Academic and Student Services; J. Mark Estep, President; Southwest Virginia Community College Local Board.

Topic Development and Plans for Implementation

Once a workable topic was in hand, a committee was formed to structure the Quality Enhancement Plan itself. The committee was composed of full-time teaching faculty, librarians, alumni, students, and administrators. The Vice President of Academic and Student Services and IRO again served as ex officio members (See Appendix III).

The charge to this committee was more complex. The Topic Development and Implementation Committee was asked to fully conceptualize, develop, and operationalize the following areas: desired learning outcomes, literature review and best practices, actions to be implemented, timeline, organizational structure, resources, and assessment. The committee was also asked to evaluate the scope, structure, and integrity of the completed QEP structure using SACSCOC's "Quality Enhancement Plan Guidelines: Indicators of an Acceptable Quality Enhancement Plan" (CS 3.3.2).

After discussing the nature of the Quality Enhancement Plan and reviewing the work of the Data Mining and Topic Selection Committee, the first tasks the committee tackled were beginning a literature review and developing a definition of "critical thinking."

Committee members found no shortage of opinions concerning the nature of critical thinking and no scarcity of attempts to define it. Here are a few considered early in the process:

- "Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness" (Foundation for Critical Thinking "Defining Critical Thinking").

- “Critical thinking is self-guided, self-disciplined thinking which attempts to reason at the highest level of quality in a fair-minded way” (Foundation for Critical Thinking “Defining Critical Thinking”).
- “Critical thinking is that mode of thinking—about any subject, content, or problem—in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them” ((Foundation for Critical Thinking “Why Critical Thinking?”).

In considering these and other definitions of critical thinking, the committee did notice these commonalities: there is a process involved, information is gathered/collected and analyzed, various pieces of data may be synthesized, arguments may be formed or problems may be solved.

The committee also brainstormed qualities of critical thinking expected of professionals in their fields.

The TDIC compiled a list of the following components of critical thinking:

- Acquisition
- Analysis
- Synthesis
- Application
- Abstraction ladder (S. I. Hayakawa)
- Bloom's taxonomy (knowledge, comprehension, application, analysis, synthesis, evaluation)
- Understand what you need
- Understand what you found
- Facts come from experience, others, research
- "Is it right for you?"
- Increase insight into self and others
- Clarity of vision and observation
- Accuracy of interpretation
- Improvement results via appropriate application
- Increase curiosity and ongoing exploration
- Questioning the known to successfully discover the unknown
- Metacognition
- Higher order thinking skills
- Decision making
- Process
- Judgment
- Evaluation
- Argumentation
- Language of thinking
- Practice in constructive criticism
- Making creative choices
- Self-reflection
- Distancing oneself from oneself
- Improved confidence of/in reasoning
- Balancing/analyzing with an open mind while being aware of bias
- Adaptable "light on one's feet"
- Look at a problem and see similarities and differences (analysis)
- To be able to creatively "work around" stumbling blocks when solving a problem
- To be able to analyze validity of known information
- To be able to evaluate the validity of any derived quantity
- To be able to acquire new knowledge/techniques and apply those to improve speed and/or accuracy of a solution

(SWCC, *TDIC Minutes* 1-23-15)

Two quotations came up during this discussion. An administrator on the committee noted that "An effective instructor teaches students how to think, not what to think." And the committee noted that a college classified employee had this quotation by Albert Einstein posted on her door:

"We cannot solve our problems with the same thinking we used when we created them"

(SWCC, *TDIC Minutes* 1-23-15).

After discussing some of the qualities, constructs, and operations of critical thinking, the committee developed or advanced the following definitions of critical thinking:

- Critical thinking motivates the acquisition of knowledge, empowers its analysis and synthesis, and guides its application.

- Critical thinking is the process of decision-making using acquisition, analysis and application based on learning, experience, and criticism.
- Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action; it is based on clarity, accuracy, precision, consistency, relevance, sound evidence and reasoning, depth, detail, and fairness.
- Critical thinking is the process of acquiring and evaluating information to creatively derive a solution to open-ended problems and to constructively criticize the solution for applicability. (SWCC, *TDIC Minutes* 1-23-15)

Combining ideas from these two sources of definitions and the preliminary committee ideas produced the following definition, which the Topic Development and Implementation Committee used to guide the rest of its work:

Critical thinking is the internalized and recursive process of decision making using acquisition, analysis, synthesis, and application to creatively solve problems.

The committee saw this definition as the driver of all Quality Enhancement Plan activities and the touchstone by which they could be evaluated. It speaks to the concern of many of the committee members that critical thinking must be an internal and automatic process that is reflected in one's profession, such as engineering (see discussion of Kahneman in *Intellectual Contexts*). It also embodies a predictable inductive movement from data to argument (claim) (see discussion of Toulmin in *Intellectual Contexts*). It focuses on the academic endpoint for critical thinking (argument) as well as the practical and applied endpoint of critical thinking (problem solving).

With a workable definition in hand, the committee turned to developing student learning outcomes to be achieved by the QEP. A number of general concepts were mentioned as possibilities in structuring student learning outcomes:

- Technical
- Religious
- Philosophical
- Sociological
- Psychological
- Economics

The following suggestions were put forth as possible student learning outcomes:

- demonstrate critical thinking skills in problem solving across the disciplines
- demonstrate the ability to use the elements of thought in developing a student's thinking process to effectively solve problems and make decisions
- consistently apply the critical thinking standards to students' thinking process to engage in the process of application, analysis, synthesis and evaluation in order to make informed and effective decisions
- demonstrate curiosity and ongoing exploration
- employ creativity in decision making
- develop study skills to empower themselves for academic success
- exercise self-discipline to keep on track to stay motivated to study and learn
- understand information literacy
- demonstrate information literacy through research and data gathering skills
- develop skills of reasoning
- practice constructive criticism
- make a defensible argument
- collaboratively solve problems
- engage in creative decision making
- develop viable hypotheses
- identify sources of high quality information
- develop viable solutions when faced with adversity

- adapt communication to audience
- develop tolerance for alternative cultures and lifestyles (multicultural competencies)
- define the problem with regard to scope and solvability
- gather information from a variety of sources and evaluate the validity and reliability of those sources
- select viable methodologies to solve a problem
- evaluate the quality of a solution, i.e., list pros and cons
- create a qualified argument
- create an unqualified argument
- understand authority (subject matter expert)
- challenge judgments to achieve better conclusions
- question authority
- draw conclusions based on gained knowledge
- understand logical relationships (cause/effect, correlation, analogy, etc.)
- prioritize a series
- compare variables and make a successful decision
- understand bias
- increase insight into self and others
- ask meaningful questions (SWCC, *TDIC Minutes* 1-30-15)

As consideration of these student learning possibilities continued, the committee chose the flow of the Toulmin's model of argument to structure and categorize the following student learning outcomes:

Student Learning Outcomes related to Acquisition

Students will be able to:

1. Demonstrate information-seeking behavior.
2. Synthesize personal experience and academic knowledge.
3. Identify appropriate SWCC resources to help them acquire academic information.
4. Develop a process of information-gathering on a given topic.
5. Assess an information-gathering process and identify alternative processes.

Student Learning Outcomes related to Data Analysis/Synthesis

Students will be able to:

1. Categorize and prioritize information.
2. Format and structure data.
3. Identify relationships within the data.

Student Learning Outcomes related to Problem Solving/Application

Students will be able to:

1. Form arguments.
2. Evaluate arguments. (SWCC, *TDIC Minutes* 1-30-15)

With a definition of critical thinking developed and student learning outcomes agreed upon and categorized, the committee began to consider possibilities for structuring and implementing them.

On February 13, 2015, the Topic Development and Implementation Committee met with program heads and major faculty from both academic divisions (Business, Engineering and Industrial Technology and Health Technologies, Humanities, Mathematics, Natural Science and Social Science) to discuss the QEP development to that point and to solicit information and ideas on ways to structure the QEP and suggestions for content, themes, and strategies for inclusion in

the Plan. The TDIC was also interested in the extent to which critical thinking was currently being implemented, especially in terms of forming arguments and solving problems.

The nursing faculty members provided a wealth of information on their teaching strategies for improving student critical thinking abilities. In the Associate of Applied Science Degree in Nursing in particular, students are asked to prioritize, assimilate, analyze, and synthesize data. Nursing faculty members also use simulations, testing utilizing higher order thinking, progressive testing, and debriefing. The nursing faculty members believe that problem solving is especially important for the nursing exams, which are 100 percent application, and clinical experiences. They also believe that instruction often limits critical thinking if it employs lectures rather than activities.

Several faculty members emphasized the importance of problem solving in their disciplines and the value of general education courses as a venue for critical thinking. One program head stated it directly: "Put it [critical thinking/problem solving] in general ed. courses." A faculty member added that "general education courses [at SWCC] are not as strong as they should be." Another insisted, "[we] must give critical thinking techniques to students in general studies." One course suggested for these critical thinking concepts to be delivered to students was SDV 108. This class's structure would allow the introduction of principles of critical thinking along with organizational skills.

Some faculty members suggested a critical thinking test, especially for general education courses. Others admitted that although they used situational or simulation-based testing, such measures were time intensive and hard to assess.

Others present discussed how there is often a gap between what a student is taught and the student taking appropriate action. Another faculty member suggested that in an ideal class concepts inform application and vice versa and that critical thinking is important for this two-way relationship. The end result of this relationship is that students develop skills they can use in a senior institution or on the job (SWCC, *TDIC Minutes 2-13-15*).

The Topic Development and Implementation Committee reached these conclusions from this meeting: discipline faculty are acutely aware of the need for critical thinking in their curricula and the value of it to transfer students and future employees; these faculty are already employing critical thinking exercises, simulations and assignments. They believe that general education classes could be improved and that GenEd classes should be the primary conduit for improving critical thinking; and they see a crucial role for SDV 108 in this effort. It was in these areas that the TDIC focused its efforts.

A group of administrators (academic and Student Success) met to conceptualize SDV 108 as the foundation course of the SWCC's efforts to improve student critical thinking. One of the topics of discussion was whether a two-credit College Survival Skills course was needed to implement critical thinking skills or if the current one-credit course should be redesigned to adequately address critical thinking skills. The current one-credit course does cover career exploration, learning styles, study skills, goal setting, time management, financial literacy, personality inventory, diversity, communication skills, wellness, Title IX, college resources, policy and academic planning. The group determined that topics such as college resources, policies, and academic planning could be implemented in a separate orientation during the summer. Having this separate orientation session and redesigning the SDV 108 course would allow 40% of the content to be devoted to critical thinking skills. A team-teaching approach comprised of academic personnel and student services personnel was suggested for the course. The group also discussed possible texts for the SDV 108 course, such as *Becoming a Master Student* by Dave Ellis and *The Thinker's Guide to College Success* by John Chaffee. Open Educational Resources for SDV 108, available through the VCCS, are possible additional resources for the class (Fuller 10 April 2015).

With the intent of improving the contribution of general education classes to critical thinking, committees in both academic divisions, Business Engineering and Industrial Technology (BEIT) and Health Technologies, Humanities, Mathematics, Natural Science and Social Science

(HTHMNSS), met to discuss implementation of critical thinking within their divisions, in particular the classes that might be the most appropriate for teaching these skills.

BEIT selected ITE 115 and ACC 211. ITE 115 is the Introduction to Computer Applications and Concepts; it is required across SWCC by many of the Associate of Arts and Sciences and Associate of Applied Science programs and some Certificate programs. ACC 211 is Principles of Accounting. It is required in the Associate of Arts and Sciences in Business Administration and some of the Associate of Applied Science programs in Business Technology. The BEIT division expects this combination of classes will allow its faculty to impact the greatest number of students with this critical thinking initiative. These BEIT classes will address student learning outcomes related to Data Analysis/Synthesis and student learning outcomes related to Problem Solving/Application/Argument.

The HTHMNSS content committee discussions included whether to choose a major, a discipline or a group of courses for targeted critical thinking instruction and practice. The committee decided that the Psychology sequence of PSY 200, 230 and 231 will expose a majority of students to the critical thinking initiative. Pros and cons of each option were discussed, and ultimately the group decided that the PSY courses chosen would reach the largest number of students. Also, after evaluating the data included on the general education per degree inventory, it was determined that most students in majors in the division took one of these courses. Perhaps most importantly, articulated learning outcomes for psychology have been developed by the VCCS and have been implemented in the last three years. Critical thinking is included in the outcomes for psychology, so the courses are a natural fit (Smith-Cox 23 April 2015). These HTHMNSS psychology classes will address student learning outcomes related to Problem Solving/Application/Argument.

With this information in hand, much of remainder of the Topic Development and Implementation Committee's work was accomplished in subcommittees.

Textbook and Central Concept Selection Subcommittee The original charge for this committee was to select a critical thinking textbook appropriate for SDV (in particular) and other classes. The original hope was that one textbook could be used for all classes and that it might provide a central metaphor or concept that would unify all the critical thinking intensive classes and might also be useful for marketing. As discussions developed, the TDIC believed it more effective to modify the charge. The new charge asked the TDIC subcommittee and Student Success division members to select an SDV 108 textbook and develop a course outline with a weekly calendar showing at least 40 percent of the class devoted to critical thinking activities.

The committee recommended using *Becoming a Master Student* by Dave Ellis. The book was chosen after the student development team examined several options, including books with the sole focus on critical thinking and others with the primary focus on student development. Not only did this work combine those topics, it also had the advantage of offering relevant critical thinking exercises for each of the topics covered. Additionally, Ellis's book provided a resource that students could refer to throughout their academic careers. The critical thinking component in this book contextualizes the exercises to the skill addressed while keeping it in focus with the six kinds of thinking as described by Benjamin Bloom. The critical thinking exercises walk students through these levels of thinking with exercises and examples.

All of the critical thinking exercises on the course outline were taken from the appropriate section of the book or are exercises suggested in the Instructor Tools and Tips section, with the exception of classes five and six. These two classes will involve exercises designed by the student development staff related to interpersonal communication and diversity. Since this module is focused around the Myers Briggs Type Indicator test, the material in the book was not as relevant for these two classes (Ragland 9 June 2015).

SDV 108 will focus on the first five student learning outcomes, those related to the acquisition of data. This outline was revised again in Spring Semester 2016. See the revised SDV 108 Academic Calendar in Appendix VI.

Another subcommittee, **The Discipline Textbook and Central Concept Selection Subcommittee**, recommended a supplementary text, *Critical Thinking for Psychology* by Mark Forshaw, to help psychology instructors define critical thinking in their classes and aid them in showing how arguments are formed and evaluated. It also noted that the most important central concept (useful for guiding faculty and students) in SWCC's QEP is the structure and relationship of its student learning outcomes and their support of SWCC's definition of critical thinking (see graphic in The Plan: Actions To Be Implemented). The principles in Daniel Kahneman's *Thinking, Fast and Slow* will also provide a construct for discipline faculty to think about the Quality Enhancement Plan and its purpose and goals, and the writings of Stephen Toulmin, especially his model of argumentation which guided the division of student learning outcomes into three major categories (Acquisition, Data Analysis/Synthesis, and Problem Solving/Application or Argument), will constantly remind faculty and students of the inductive nature of much of critical thinking. The Toulmin model will also be utilized by faculty members in their classroom presentations and discussions.

Critical Thinking Test Selection Subcommittee This subcommittee's charge was to select a critical thinking test that can measure SWCC students' proficiency in critical thinking and allow the College to track student progress stemming from the actions implemented by the QEP. The committee evaluated the following tests:

- 1) Cornell Critical Thinking Test
- 2) Halpern
- 3) CAAP Critical Thinking ACT
- 4) California Critical Thinking—Test of Everyday Reasoning
- 5) Watson Glaser
- 6) Free Critical Thinking Test
- 7) International Critical Thinking Basic Concepts and Understanding Online
- 8) International Critical Thinking Basic Concepts and Understanding Paper Version

Each test was evaluated on the following criteria: Does the test measure the Learning Outcomes of the project? (2) Is the test student-friendly? (3) Is the test affordable to use as both a pre-test and a post-test? (4) How is the test administered? (5) What is the average test-taking time? (6) How is the test graded? (7) How are results presented? (8) Is it norm or criterion referenced?

Each committee member was assigned at least two tests to evaluate based on the above criteria. The committee then narrowed the list to three: Halpern, California Critical Thinking—Test of Everyday Reasoning, CAAP Critical Thinking ACT. All committee members took each of the three tests and made recommendations for adoption. The tests were ranked one through three. All committee members ranked the tests in the same order: 1) California Critical Thinking—Test of Everyday Reasoning, 2) CAAP Critical Thinking ACT, 3) Halpern.

The subcommittee recommended and the TDIC agreed to use the California Critical Thinking Test of Everyday Reasoning (TER) as a part of its QEP Assessment. TER meets all of the criteria set forth by the committee. The test more closely aligns with the learning outcomes than any of the others evaluated. It can be administered online through Blackboard and the validity and reliability are good. It is also affordable and is administered in less than an hour. Results are presented immediately in a highly usable form. Test administration information and scheduling can be found in this QEP section: The Plan: Actions To Be Implemented.

Professional Development Subcommittee This committee's charge was to determine the needs for faculty professional development and to select appropriate activities and training. Much of the effective training available, such as that provided by the Foundation for Critical Thinking, is expensive, inconvenient, and often inconsistent with the real needs of the community college.

The TDIC and the professional development subcommittee note two areas where professional development for this Quality Enhancement Plan is needed. The first is general

professional development concerning critical thinking and the teaching of critical thinking skills. The other area is the methodology of team teaching as will be implemented in SDV 108.

For the first need, the QEP will utilize in-house training in the form of a book discussion group. This group will read, analyze and discuss books and articles on the topic of critical thinking. The early semester(s) will be dedicated to Stephen Toulmin's ideas.

QEP faculty will also take advantage of ad hoc sessions and VCCS training opportunities for improving team teaching techniques.

Finance Subcommittee This committee was charged with reviewing the budgets of other QEPs, especially those related to critical thinking, and to structure a six-year budget (Years 0-5) for SWCC's QEP. The subcommittee's budget has changed as ideas for the QEP have developed; its final form can be found in the Institutional Capability for Initiation, Implementation, and Completion section of this QEP.

Marketing Subcommittee The marketing subcommittee's first charge was to ensure that the college community and other stakeholders are familiar with the QEP and its concepts and to develop a plan to keep the community thinking about the QEP and its goals for the duration of its implementation.

The committee has discussed and settled on t-shirts, posters and banners as the best methods for advertisement and suggested that the Back-to-School Splash would be a great place to unveil these.

The committee also discussed several suggestions for a logo:

1. A brain with a puzzle piece missing. The caption could say something about "the other national deficit."
2. A door with three locks – one lock is a high school degree, one lock is a college degree, and one lock (a pad lock) is critical thinking.
3. A maze of some kind.

Critical Thinking Center Subcommittee Since the selection of critical thinking as a topic, committee members and others across the SWCC campus have discussed the topic of gaming as a way to interest students in the idea of critical thinking and convince them of its importance. Late in the TDIC's work, an administrator noted that a Critical Thinking Center could provide a venue for academic gaming, educational "open world" programs, such as Minecraft, and other unstructured classroom activities. This administrator also noted the opportunity for "real world" learning; for example, the Construction Management students could help design and create the space, and engineering technology students could help design and create the computer hardware and select and test appropriate software.

At the end of the Topic Development and Implementation Committee's work, the following college officials and stakeholders gave their approval of the development of the "critical thinking" topic selected for the Quality Enhancement Plan and the structure for its implementation: James Dye, Dean; Cathy Smith-Cox, Dean; Ed Smith, IRO; Barbara Fuller, Vice President for Academic and Student Services; J. Mark Estep, President; Southwest Virginia Community College Local Board.

The Plan: Actions To Be Implemented

Goals

From the time the Data Mining and Topic Selection Committee selected “critical thinking” as the topic for the QEP, it was clear that the project had one primary goal: to improve the critical thinking abilities of Southwest Virginia Community College students. During the work of the Topic Development and Implementation Committee, there were discussions about the appropriate classes or programs in which to deliver the instruction. This was especially true during the February 13, 2015, meeting with program heads. The focus on critical thinking never wavered and the segmented goals below reflect the intent of both development committees and the *Report of the Reaffirmation Committee* Response Team working during the Spring of 2016.

The goals of the Quality Enhancement Plan are as follows:

1. The QEP will improve students’ abilities to think critically in preparation for college transfer.
2. The QEP will improve students’ abilities to think critically in preparation for gainful employment.
3. Classes supporting the QEP will develop course outlines that integrate its Student Learning Outcomes, and the resulting classes will be taught during the deployment of the Quality Enhancement Plan.
4. The QEP will assess students’ critical thinking abilities to determine how they compare with a national benchmark.
5. Students in General Studies who complete the QEP critical thinking classes will achieve a total score increasing by ten (10) percent from the GSAT pre-test to the GSAT post-test. Students in curricula other than General Studies

who complete the QEP critical thinking classes will achieve a total score increasing by ten (10) percent from the GSAT pre-test to the GSAT post-test.

6. Students who complete the QEP critical thinking classes will show an increase in critical thinking skills as measured by the TER-N and near graduates will compare favorably with SWCC's norm comparison group—the National Technical and Community College Norms. The expected average TER-N Overall Score for SWCC QEP students at program completion is 90.

These goals will be achieved by modifying six (6) classes to focus on critical thinking related instruction, exercises, testing, and assessment. These classes represent Student Success, Business Engineering and Industrial Technology, and Health Technologies, Humanities, Mathematics, Natural and Social Sciences divisions. The curriculum map that follows (p. 38) shows the definition developed for the QEP, lists the Student Learning Outcomes, and outlines the classes charged with modifying instruction to meet those Student Learning Outcomes.

The distribution of classes is important for guaranteeing the QEP's positive impact on students enrolled in both academic divisions of Southwest Virginia Community College. An analysis of course enrollment patterns for Fall Semester 2015, completed by the IRO in December 2015, shows that, with the exception of ACC 211, all courses targeted by the QEP were in the top fifteen (15) for course enrollments for the institution. The course enrollments were as follows: SDV 108 was fourth with 339 enrolled; ITE 115 was sixth with 318 enrolled; PSY 231 was tenth with 182 enrolled; and PSY 200 was eleventh with 160 enrolled. This data, along with a program-by-program catalog analysis, validated that the target courses chosen had robust enrollments and would reach a significant number of students in both university transfer and occupational technical degree programs.

These SLOs will direct the content of each QEP class and will be specified on the course outline along with discipline-specific SLOs. Each QEP class will cover all SLOs developed for the Quality Enhancement Plan. SDV 108 will introduce each SLO and teach and assess how well students have progressed toward that outcome. The discipline courses in BEIT and HTHMNSS will teach content related to each SLO, relate them to other SLOs in the course and expectations of professionals in careers related to the course, and assess student progress.

Therefore, regardless of which combination of SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, or PSY 231 students enroll in, they will be introduced to, taught, and assessed on all SLOs.

These are the SLOs as modified by the *Report of the Reaffirmation Committee* Response Team working during the Spring Semester of 2016.

1. Students will identify appropriate resources and synthesize academic information with their personal experiences.
2. Students will collect and analyze data.
3. Students will form and evaluate arguments.

These SLOs are seamlessly integrated into the QEP's Conceptual Structure (see following page), and they will drive its implementation over the five-year span of the project. For specific information on how the SLOs and Conceptual Structure are applied semester by semester, see Actions to be Implemented with Timeline (p. 39).

CONCEPTUAL STRUCTURE OF SOUTHWEST VIRGINIA COMMUNITY COLLEGE'S QUALITY ENHANCEMENT PLAN

Critical thinking is the internalized and recursive process of decision making using acquisition, analysis, synthesis, and application to solve problems creatively.

Curriculum Map: Critical Thinking Skills by Academic Class			
Course	SLO 1	SLO 2	SLO 3
SDV 108	Pretest, I, T, A	Pretest, I, T, A	Pretest, I, T, A
ACC 211	T, R, A	T, R, A	T, R, A
ITE 115	T, R, A	T, R, A	T, R, A
PSY 200	T, R, A	T, R, A	T, R, A
PSY 230	T, R, A	T, R, A	T, R, A
PSY 231	T, R, A	T, R, A	T, R, A
<p>All SDV 108 students are pre-tested using TER-N and GSAT. All graduates are post-tested using TER-N and GSAT during the Student Assessment Day scheduled each spring semester.</p> <p><i>Legend</i> I—Introduced T—Taught R—Related to other course SLOs and professional expectations A—Assessed using course assessments and rubric</p>			
<p>SLO 1 Acquisition of Data Students will identify appropriate resources and synthesize academic information with their personal experiences.</p> <p>SLO 2 Data Analysis/Synthesis Students will collect and analyze data.</p> <p>SLO 3 Problem Solving/Argumentation Students will form and evaluate arguments.</p>			

Actions to be Implemented with Timeline

QEP Year 0 2015-2016 Actions to be Implemented	
Academic	<ul style="list-style-type: none"> • Develop ITE 115 course outline • Develop ACC 211 course outline • Develop PSY 200 course outline • Develop PSY 230 course outline • Develop PSY 231 course outline • Complete development of online GSAT • Created glossary of critical thinking language • Select software for Critical Thinking Center
Professional Development	<ul style="list-style-type: none"> • Organize Faculty Discussion Group • Organize Brown Bag Lunches • Professional meetings as possible

<p>Support</p>	<ul style="list-style-type: none"> • Hire QEP director • Hire QEP support staff, including support staff for director, CT Center Lab Technician, and CT Center Implementation Specialist • Develop space for the Critical Thinking Center • Publicize Quality Enhancement Plan
<p>Assessment</p>	<ul style="list-style-type: none"> • Administer TER-N <ul style="list-style-type: none"> ○ Baseline testing before SDV 108 instruction • Administer General Studies Assessment Test <ul style="list-style-type: none"> ○ Baseline testing before SDV 108
<p>Analysis, Reporting, and Administration</p>	<ul style="list-style-type: none"> • QEP Director meets with QEP Coordinating Committee at the end of Year 0 to discuss baseline testing and readiness for implementation. Together they are responsible for the analysis of data gathered, structuring an implementation plan (if needed) and implementing that plan.

QEP Year 1 2016-2017 Actions to be Implemented	
Academic	<ul style="list-style-type: none"> • Implement all QEP Classes • Update software and activities for Critical Thinking Center
Professional Development	<ul style="list-style-type: none"> • Faculty Discussion Group • Brown Bag Lunches • Professional conferences as possible
Support	<ul style="list-style-type: none"> • Staff Critical Thinking Center • Publicize Quality Enhancement Plan
Assessment	<ul style="list-style-type: none"> • Administer TER-N <ul style="list-style-type: none"> ○ Before SDV 108 instruction ○ At program completion • Administer General Studies Assessment Test <ul style="list-style-type: none"> ○ Before SDV 108 ○ At program completion
Analysis, Reporting, and Administration	<ul style="list-style-type: none"> • QEP Director meets with QEP Coordinating Committee at least once per semester to analyze data gathered, structure an implementation plan (if needed) and implement that plan. QEP Director produces an annual report submitted to the VP for Academic and Student Services and academic deans for inclusion in annual reports.

QEP Year 2 2017-2018 Actions to be Implemented	
Academic	<ul style="list-style-type: none"> • Offer all QEP classes • Update software and activities for Critical Thinking Center
Professional Development	<ul style="list-style-type: none"> • Faculty Discussion Group • Brown Bag Lunches • Professional conferences as possible
Support	<ul style="list-style-type: none"> • Staff Critical Thinking Center • Publicize Quality Enhancement Plan
Assessment	<ul style="list-style-type: none"> • Administer TER-N <ul style="list-style-type: none"> ○ Before SDV 108 instruction ○ At program completion • Administer General Studies Assessment Test <ul style="list-style-type: none"> ○ Before SDV 108 ○ At program completion
Analysis, Reporting, and Administration	<ul style="list-style-type: none"> • QEP Director meets with QEP Coordinating Committee at least once per semester to analyze data gathered, structure an implementation plan (if needed) and implement that plan. QEP Director produces an annual report submitted to the VP for Academic and Student Services and academic deans for inclusion in annual reports.

QEP Year 3 2018-2019 Actions to be Implemented	
Academic	<ul style="list-style-type: none"> • Offer all QEP classes • Update software and activities for Critical Thinking Center
Professional Development	<ul style="list-style-type: none"> • Faculty Discussion Group • Brown Bag Lunches • Professional conferences as possible
Support	<ul style="list-style-type: none"> • Staff Critical Thinking Center • Publicize Quality Enhancement Plan
Assessment	<ul style="list-style-type: none"> • Administer TER-N <ul style="list-style-type: none"> ○ Before SDV 108 instruction ○ At program completion • Administer General Studies Assessment Test <ul style="list-style-type: none"> ○ Before SDV 108 ○ At program completion
Analysis, Reporting, and Administration	<ul style="list-style-type: none"> • QEP Director meets with QEP Coordinating Committee at least once per semester to analyze data gathered, structure an implementation plan (if needed) and implement that plan. QEP Director produces an annual report submitted to the VP for Academic and Student Services and academic deans for inclusion in annual reports.

QEP Year 4 2019-2020 Actions to be Implemented	
Academic	<ul style="list-style-type: none"> • Offer all QEP classes • Update software and activities for Critical Thinking Center
Professional Development	<ul style="list-style-type: none"> • Faculty Discussion Group • Brown Bag Lunches • Professional conferences as possible
Support	<ul style="list-style-type: none"> • Staff Critical Thinking Center • Publicize Quality Enhancement Plan
Assessment	<ul style="list-style-type: none"> • Administer TER-N <ul style="list-style-type: none"> ○ Before SDV 108 instruction ○ At program completion • Administer General Studies Assessment Test <ul style="list-style-type: none"> ○ Before SDV 108 ○ At program completion
Analysis, Reporting, and Administration	<ul style="list-style-type: none"> • QEP Director meets with QEP Coordinating Committee at least once per semester to analyze data gathered, structure an implementation plan (if needed) and implement that plan. QEP Director produces an annual report submitted to the VP for Academic and Student Services and academic deans for inclusion in annual reports.

QEP Year 5 2020-2021 Actions to be Implemented	
Academic	<ul style="list-style-type: none"> • Offer all QEP classes • Update software and activities for Critical Thinking Center
Professional Development	<ul style="list-style-type: none"> • Faculty Discussion Group • Brown Bag Lunches • Professional conferences as possible
Support	<ul style="list-style-type: none"> • Staff Critical Thinking Center • Publicize Quality Enhancement Plan's accomplishments
Assessment	<ul style="list-style-type: none"> • Administer TER-N <ul style="list-style-type: none"> ○ Before SDV 108 instruction ○ At program completion • Administer General Studies Assessment Test <ul style="list-style-type: none"> ○ Before SDV 108 ○ At program completion
Analysis, Reporting, and Administration	<ul style="list-style-type: none"> • QEP Director meets with QEP Coordinating Committee at least once per semester to analyze data gathered, structure an implementation plan (if needed) and implement that plan. QEP Director will also write Impact Report of the Quality Enhancement Plan as part of SWCC's Fifth Year Interim report for submission to SACSCOC

Discussion of Actions to be Implemented

Academic Focus This Quality Enhancement Plan is expected to be a refinement of Southwest Virginia Community College's current and ongoing efforts to produce graduates who successfully transfer to senior institutions and who obtain employment and excel in their jobs.

While creating a stand-alone course would have been optimal (see discussion in Intellectual Contexts), it is not possible because the State Council for Higher Education in Virginia (SCHEV) and the VCCS limit the number of hours required by any program. Therefore, a group of classes will be utilized to improve student performance on student learning outcomes related to critical thinking, especially data acquisition, analysis, forming of arguments, evaluation of arguments, and problem solving. Revised course outlines will provide the blueprint for these updated classes and ensure that all faculty are focusing on the QEP's student learning outcomes.

The course outline for SDV 108 was revised during QEP development and further revised during Spring Semester 2016 (See Appendix VI.). Faculty from BEIT and HTHMNSS will now staff all sections of this class. During Year 0, the course outlines for ACC 211, ITE 115, PSY 200, PSY 230, and PSY 231 will be reviewed and revised to reflect the QEP's student learning outcomes. Beginning with Year 1, all courses will be offered each semester.

The expectation is that the Quality Enhancement Plan will reach most of Southwest Virginia Community College's students in two or more classes. The combination of SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, and PSY 231 will reach a significant number of SWCC students (See discussion under The Plan: Actions To Be Implemented). In any of the QEP classes in which students enroll, **they will be introduced to, taught, and assessed on all SLOs.** Additionally, these courses will span a student's time enrolled in a curriculum. Thus the SLOs and supporting concepts will be integrated seamlessly into the program of studies.

The Critical Thinking Center (CTC) will be an important enhancement for classroom activities. Since the selection of critical thinking as a topic, committee members and others across the SWCC campus have discussed a need for collaborative space to engage students in critical thinking skill development. This space will also be utilized for faculty training and professional development, and allow for use of a variety of high- and low-tech tools, including proprietary gaming platforms for education, specialized web programs by discipline, and free web-based activities to include activities such as WebQuests.

Pedagogy The topic of pedagogy arose often during the work of the Data Mining and Topic Selection Committee and the Topic Development and Implementation Committee. It was fortuitous that the text selected for the QEP classes, Cottrell's *Critical Thinking Skills: Developing Effective Analysis and Argument*, has an embedded pedagogy—critical reflection. This is certainly not a new approach, but it is indeed one appropriate for community college students of the millennial generation. Cottrell's text offers a full definition of critical reflection, argues for its effectiveness, and provides a specific methodology, models and examples.

All QEP classes will utilize critical reflection as a standard pedagogy, but some classes will also use simulations, the flipped classroom, service learning, collaborative learning, or games.

Professional Development Professional development is important for the success of this Quality Enhancement Plan, but providing that training creates a challenge as well. As noted earlier, the TDIC professional development subcommittee found much of the effective training available, such as that provided by the Foundation for Critical Thinking, to be expensive, inconvenient, and often inconsistent with the real needs of the community college. Additionally, the Foundation for Critical Thinking prefers a long-term obligation on the part of the higher education institution and expects to set the agenda for training.

Other sources of professional development that seemed initially promising were unworkable as well. For example, Tennessee Tech University's training is directed toward

institutions and faculty using their CAT (Critical Thinking Assessment Test). This test was not chosen by Southwest Virginia Community College, so their training would not be applicable.

The TDIC and the professional development subcommittee also noted three areas where professional development for this Quality Enhancement Plan is needed. The first is general professional development concerning critical thinking and the teaching of critical thinking skills. The second area is the methodology of team teaching as will be implemented in SDV 108. The final one is the pedagogy of critical reflection, requiring faculty members to complete background readings, discuss strategies, and develop assignments and instruments for their classes.

For the first need, the QEP will utilize in-house training in the form of a book discussion group. This group will read, analyze, and discuss books and articles on the topic of critical thinking. The early semester(s) will be dedicated to Stephen Toulmin's ideas and later ones to the ideas and writings of Daniel Kahneman and others.

Southwest Virginia Community College has had an active faculty discussion group in the past (early 1990's to 2011). This group's structure and experienced faculty will be used to initiate the QEP's professional development.

QEP faculty will also take advantage of ad hoc sessions and VCCS training opportunities for improving team teaching techniques and other deficiencies that become obvious through the span of the QEP. For example, Dr. Abby Stonerock provided a session on critical thinking at the Southwest Virginia Community College 2015 Pre-Service meeting, and she has agreed to provide additional training. Also, the annual New Horizons Conference and regular faculty peer groups always offer many sessions on pedagogy.

For increasing faculty members' knowledge and understanding of critical reflection, the QEP will again utilize in-house training in the form of a book discussion group. This group will review some of the critical reflection texts, such as Malcolm Murray's *Critical Reflection: A Textbook for Critical Thinking*, represented by its publisher as an "engaging textbook on the art of analyzing arguments [that] is also relevant to today's undergraduates in its use of real-life

examples and exercises drawn mainly from media and politics” (McGill-Queens University Press). However, the Brown Bag Lunches will provide the ideal venue for discussing Stella Cottrell’s *Critical Thinking Skills* and its approach to defining and using critical reflection, reviewing academic journal articles, and presenting ideas for integrating the graphic aids of critical reflection into the QEP classes.

Support Southwest Virginia Community College supports this Quality Enhancement Plan and has planned a budget to finance its full implementation (See Institutional Capability for Initiation, Implementation, and Completion).

A QEP Director and staff will provide leadership, oversight and general support for the duration of the Quality Enhancement Plan. The Director has been hired and the positions of part-time support staff member (working with the QEP Director), the Critical Thinking Center Lab Technician, and the Critical Thinking Center Implementation Specialist will be filled during Year 0. While the QEP Coordinating Committee bears the collective responsibility for the management, oversight, and assessment of the QEP, the QEP Director is the “boots on the ground.” Among the Director’s duties are the following: “Directing all aspects of the QEP including SACSCOC compliance; implementing the QEP initiatives and outcomes; assessing the results and dissemination of results to SWCC stakeholders.”

The Critical Thinking Center (CTC) will be an important part of the support structure for the QEP. The Critical Thinking Center will utilize laptops, laptop carts, and wireless access points. Seating that can be rearranged in pods or large group setup will be incorporated, in addition to lecture-capture equipment, mobile whiteboards, and SMART technology. This would not be an open student lab; rather it would be designated for focused use on skill development.

There is space available for the CTC in the Learning Resources building that has wiring and appropriate structure in place, so no renovations will be necessary. In addition, laptops and laptop carts will be provided from a recently completed grant program. Cost estimates have been formulated to allow for the hardware and software needs, supplies and staffing. Both a lab

technician and a lab implementation specialist have been budgeted for and will be employed during Year 0.

Administration, Monitoring and Reporting The TDIC has developed a leadership team, the QEP Coordinating Committee, to direct the QEP's activities over its period of implementation. The QEP Coordinating Committee will monitor, review, and assess the progress of SWCC's Quality Enhancement Plan. The QEP Coordinating Committee general responsibilities are as follows:

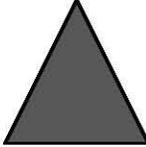
- Oversee the implementation of the QEP, including analyzing data gathered, structuring an implementation plan (if needed) and implementing that plan
- Meet at regular times
- Monitor progress of students toward meeting student learning outcomes
- Ensure that successful practices will be shared across the SWCC college community and the Virginia Community College System
- Coordinate and participate in the Faculty Discussion Group
- Coordinate and participate in the Brown Bag Lunches
- Encourage integration of techniques developed in the critical thinking intensive classes into other courses at SWCC

The QEP Coordinating Committee will meet at least once per semester. At the end of each year of the QEP, the QEP Director and the Coordinating Committee will provide an annual report to each division dean to be included in that division's annual report. The report should discuss successes and failures in the effort to improve student learning outcomes, including assessment results, and adjustments to the budget.

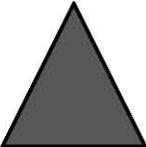
See the following graphic for the QEP Coordinating Committee's organizational structure.

ORGANIZATIONAL STRUCTURE

PRESIDENT

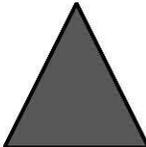


VICE PRESIDENT FOR ACADEMIC AND STUDENT SERVICES

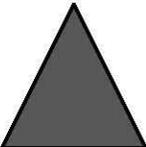


QEP COORDINATING COMMITTEE

QEP DIRECTOR	DEAN, BEIT	DEAN, HTHMNSS	DEAN, STUDENT SUCCESS	DIRECTOR, DLIT
	BEIT FACULTY REP		HTHMNSS FACULTY REP	



QEP DIRECTOR and SUPPORT STAFF



QEP FACULTY

BEIT		HTHMNSS
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Measurement and Assessment

Baseline Data

Greg Horn, SWCC faculty member, developed the General Studies Assessment Test (GSAT) in 2004 to measure student gains in knowledge of general education topics. The GSAT was first administered in 2005 and has been administered annually since then. This data represents a significant corpus of baseline data. A review of this data shows that SWCC students have consistently made gains in conceptual knowledge in humanities, science and mathematics from the time they began programs to the time they graduated.

1. During the eleven-year longitudinal history of the GSAT, students majoring in General Studies who have completed more than forty-five (45) hours have improved their cumulative scores on the Humanities, Science and Mathematics subtests by a longitudinal average of 7.32% over students who had completed fewer than fifteen hours.
2. During the eleven-year longitudinal history of the GSAT, students enrolled in curricula other than General Studies who have completed more than forty-five (45) hours have improved their cumulative scores on the Humanities, Science and Mathematics subtests by an average of 10.71% over students who had completed fewer than fifteen hours.

As might be expected, year-to-year average scores on the GSAT have varied by a range of a few points. However, the longitudinal improvement of GSAT scores provides a strong predictor of how QEP students might be expected to perform on the test. The *Report of the Reaffirmation Committee* Response Team, reviewing this data in Spring Semester 2016, concluded that as a result of the deployment of this critical thinking QEP, scores on the GSAT should improve, especially on the Natural Science and Mathematics subtests. As a result the RT

has added a new goal to the QEP. (See Goal 5 under Goals under The Plan: Actions to be Implemented).

The TER-N is a new test for Southwest Virginia Community College; testing to establish a baseline is underway during Spring Semester of 2016. All students selected had completed fewer than fifteen (15) hours. The Response Team has reviewed the data and arrived at some conclusions. The overall percentile score mean was 35.19048 for all students tested at the beginning of Spring Semester 2016. The norm comparison group for this test was the National Technical and Community College Norms (two-year colleges). Only slightly more than one-third of all students in this norm comparison group tested scored lower than SWCC students.

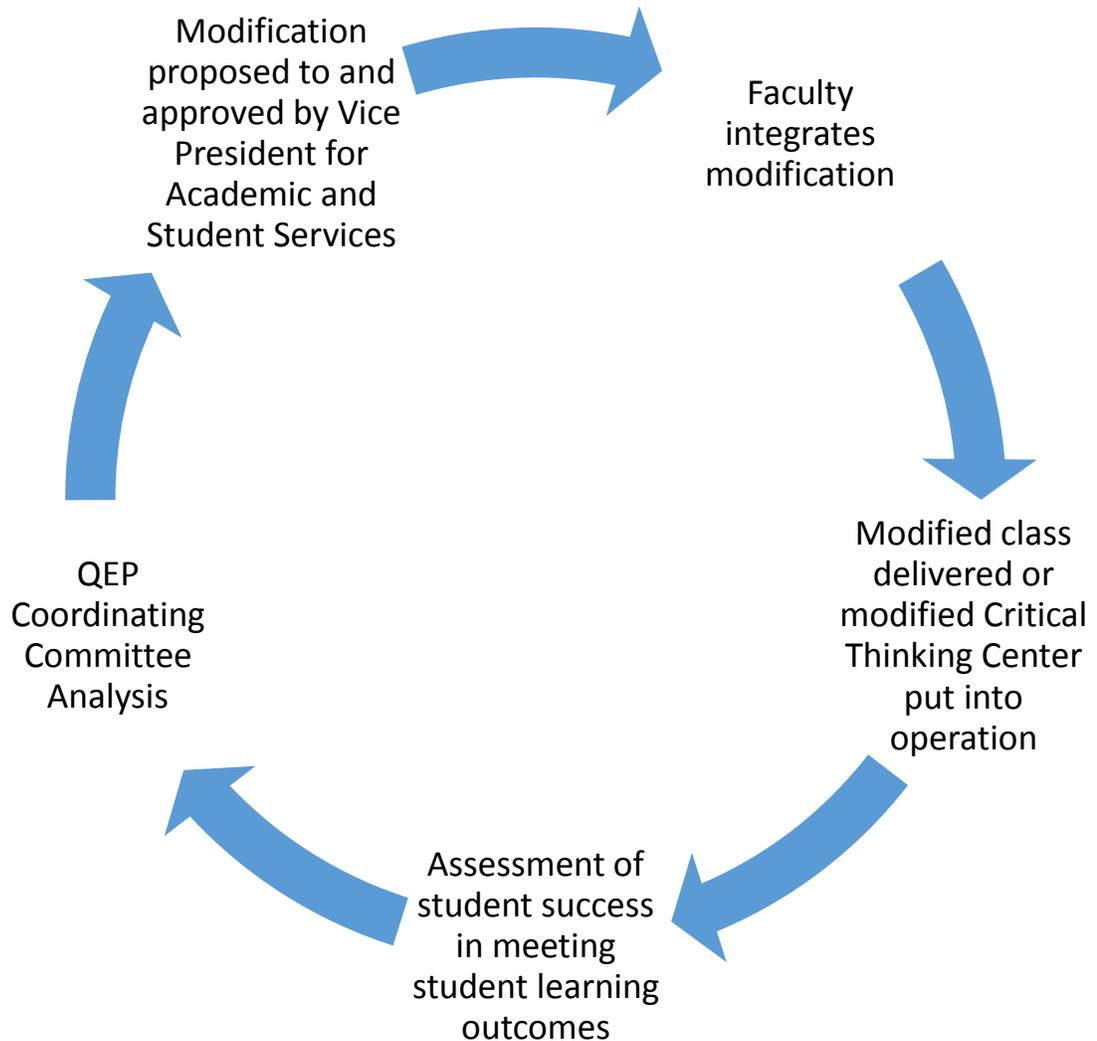
Insight Assessment believes that “The TER Overall Score is the best overall measure of critical thinking skills when the purpose is to compare individuals or groups of individuals” (Insight Assessment). The overall raw score mean for all SWCC students having completed the TER-N is 82.95238. This average places SWCC students into the low end of the moderate range (80-88). Individual SWCC students’ TER Overall Scores ranged from 74 to 91. A score of 74 suggests that critical thinking is Not Manifested. No SWCC student has yet scored in the Superior range, 94 or higher.

After reviewing SWCC’s baseline data, the Response Team believes concludes that the deployment of this QEP will produce an improvement in TER-N scores as a result of the emphasis on critical thinking. Therefore, another new goal has been added to the QEP. (See Goal 6 under Goals under The Plan: Actions to be Implemented).

Measurement of Student Performance

Assessment Process From its outset, Southwest Virginia Community College’s QEP will measure and track student progress in meeting student learning outcomes. These findings will be evaluated by the QEP Coordinating Committee, and adjustments will be made to the

appropriate QEP class, course outline, delivery system, or support structure. The assessment cycle will proceed as follows:



Assessment Instruments

Measurement and assessment of the current QEP will include four levels: traditional classroom testing; a new Class Common Exam for each QEP critical thinking class, such as ITE 115; a rubric for tracking student intellectual development over time; and two traditional objective assessment tests. One of these, the General Studies Assessment Test, is an in-house measure

of student academic achievement. The other, the TER-N, is a norm-referenced national test providing a choice of external comparison groups.

Traditional Classroom Testing Instructors are idiosyncratic in their methods of structuring a class, designing and delivering instruction, and assessing that instruction. Therefore, instructors will continue to administer the style of tests they most prefer, including multiple choice, short answer, true-false, essay, simulation, scenario, etc. However, classroom tests in the QEP classes will be required to have a critical thinking component. These tests and other classroom activities will assist the instructor in acquiring enough information about students' critical thinking skills to complete the SWCC Critical Thinking Rubric (see below).

Class Common Exam Each QEP class will have a Class Common Exam which can be used as part or all of the final exam. This exam will have both discipline-specific items and critical thinking items; these critical thinking questions will be suggested by Stella Cottrell's *Critical Thinking Skills*, SWCC's *A Glossary of Critical Thinking Terms and Concepts*, and other concepts or activities which have been introduced by Faculty Discussion Group or Brown Bag Lunches and which have been adopted by the QEP faculty.

SWCC Critical Thinking Rubric The next measure, SWCC's *Critical Thinking Rubric*, is qualitative (see Page 56). The development of this instrument began with the American Association of Colleges and Universities' *Critical Thinking Value Rubric*. Through review of Cottrell's *Critical Thinking Skills* and the TER-N's *User Manual*, and discussion of the need to have common domains and ranges across the assessment measures, the criteria and ranges on the AACU's rubric were revised. This new version has the TER-N's critical thinking skills on the y-axis (analysis, inference, evaluation, induction, deduction, numeracy—with data collection and Argumentation/Problem Solving added) and the same ranges as the TER-N on the x-axis (Not Manifested, Weak, Moderate, Strong, and Superior).

SWCC CRITICAL THINKING RUBRIC

Name:
 Student ID:
 Class:
 Semester:

	Does Not Exhibit Critical Thinking Not Manifested 0-74	Exhibits Growth toward Critical Thinking		Consistently Exhibits Critical Thinking Strong 89-93	Consistently Exhibits Superior Critical Thinking Superior 94-100
		Weak 75-79	Moderate 80-88		
Data collection					
Analysis					
Inference					
Evaluation					
Deduction					
Induction					
Numeracy					
Argumentation/Problem Solving					

It provides an instrument that allows the instructor to rate a student generally on each of the critical thinking skills; it also provides space for instructor comments. The Brown Bag Lunches, faculty meetings, division meetings and other venues will afford faculty members time to discuss the instrument and fine tune inter-rater reliability.

An Excel version of this rubric will allow each instructor to efficiently complete the Critical Thinking Rubric for each student and submit it to the QEP Director at the end of the semester. The rubric will allow for assessment of each student in each class and permit the Director and QEP Coordinating Committee to track student progress in developing critical thinking skills over time.

Traditional Tests of Critical Thinking and Academic Achievement The Quality Enhancement Plan will utilize two of these instruments: the TER-N and the General Studies Assessment Test.

California Critical Thinking Test of Everyday Reasoning (TER-N) Originally, the TDIC Critical Thinking Test Selection Subcommittee found that the TER meets all of the criteria set forth by the committee; however, during Spring Semester 2016, this test was replaced by the TER-N. Insight Assessment provides this description of the TER-N: “The Test of Everyday Reasoning (TER) provides objective assessment of the critical thinking skills of community college, GED, high school and adult test-takers. The TER is widely used by public and private high schools, prep schools, community colleges, technical colleges, businesses, government agencies and American and European International Schools. The TER-N is an enhanced version of the TER, measuring quantitative reasoning in addition to critical thinking skills. The TER-Numeracy brings all the skills analysis of the TER plus the added value assessing numeracy” (Insight Assessment “Test of Everyday Reasoning--Numeracy”).

The QEP Coordinating Committee will rely heavily on this test to provide to provide insight into QEP students’ critical thinking capacities. The test more closely aligns with the learning

outcomes than any of the others evaluated. It can be administered online through Blackboard (SWCC's course management system) and the validity and reliability are good. It is also affordable and is administered in less than an hour. Results are presented immediately in a highly useable form. The TER-N also offers flexibility in permitting benchmarking against multiple norms. Insight Assessment also offers customized external norms.

General Studies Assessment Test (GSAT) SWCC believes the actions of the QEP will both increase student knowledge of critical thinking and improve the analytical abilities involved in addressing new academic materials, resulting in improved student learning. The GSAT will provide an internal longitudinal benchmark useful for comparing student performance during the course of the QEP.

See the following graphic for a unified view of tests, measures, benchmarks, and timeline.

TESTS OF CRITICAL THINKING AND ACADEMIC ACHIEVEMENT										
TEST	ENTRANCE ADMIN.	EXIT ADMIN.								
California Critical Thinking Test of Everyday Reasoning (TER-N)	Before SDV 108 instruction	At program completion								
General Studies Assessment Test (GSAT)	Before SDV 108 instruction	At program completion								
<p>*SWCC defines “benchmark” as the point above which a student could be expected to transfer to a senior institution and succeed; SWCC also defines it as the point above which a student could reasonably be expected to find employment and succeed.</p> <p>For these two tests, these are the specific numerical benchmarks for students near graduation:</p> <table> <tr> <td>TER-N</td> <td>90</td> </tr> <tr> <td>GSAT Humanities</td> <td>60</td> </tr> <tr> <td>GSAT Science</td> <td>50</td> </tr> <tr> <td>GSAT Math</td> <td>50</td> </tr> </table>			TER-N	90	GSAT Humanities	60	GSAT Science	50	GSAT Math	50
TER-N	90									
GSAT Humanities	60									
GSAT Science	50									
GSAT Math	50									

Testing, Analysis, Sample Size, and Cautions

Incoming students will be pre-tested with both the GSAT and TER-N in SDV 108. The weekly meeting schedule for SDV 108 has been modified to allow this testing to fit seamlessly into the calendar (See Appendix VI). SWCC will strive to pre-test nearly the entire population of incoming students.

A statistically valid, randomly selected sample of graduating students will be evaluated on Student Assessment Day as stipulated by the Program Assessment Calendar. Assuming 275 program graduates (OT and Transfer), calculating a sample size for this population based

on a 95% Confidence Level and a Confidence Interval of four (4) would yield a statistically valid sample of 189. SWCC is committed to testing at this rate throughout the QEP.

Insight Assessment notes that the TER-N can be reliably used to determine how well students have improved in a program or curriculum—value added; also, the skills of students exiting a program can also be compared with a national norm. That is, the TER-N can be used to evaluate the critical thinking skills of individual students or a group of students. However, Insight Assessment does provide cautionary notes concerning the use of their instrument:

- The pre-test should come as early in the program as possible and the post-test should come as late as possible.
- For the TER-N to be used to show the effect of the QEP on individual students, it is necessary to pre-test and post-test the same student and match the scores.
- Sample sizes under 25 require special analysis (Insight Assessment).

The concepts or reasoning skills (analysis, inference, evaluation, induction, deduction, numeracy) targeted by the TER-N and the way they empower data collection and argumentation are the most important critical thinking concepts SWCC wants its graduates to develop and to be able to apply. The chart below serves as a visual aid for delineating the relationships of critical thinking concepts to SLOs and specific QEP classes. It also indicates the instrument that will assess each critical thinking concept or reasoning skill. This is a useful reference for course developers and will be a valuable tool as the QEP Director and QEP Coordinating Committee begin their task of evaluating the success of the project.

Relationships among Concepts, SLOs, Assessment Instruments and QEP Classes			
Concept (reasoning skill) These are defined by Insight Assessment and are the concepts tested by the TER-N	SLO	Assessment Instrument	Classes Taught (See Curriculum Map below.)
Analysis	2	SWCC's <i>Critical Thinking Rubric</i> , TER-N, Class Common Exam	SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, PSY 231
Inference	2, 3	SWCC's <i>Critical Thinking Rubric</i> , TER-N, Class Common Exam	SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, PSY 231
Evaluation	1, 2	SWCC's <i>Critical Thinking Rubric</i> , TER-N, Class Common Exam	SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, PSY 231
Induction	2, 3	SWCC's <i>Critical Thinking Rubric</i> , TER-N, Class Common Exam	SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, PSY 231
Deduction	3, 3	SWCC's <i>Critical Thinking Rubric</i> , TER-N, Class Common Exam	SDV 108, ITE 115, ACC 211, PSY 200, PSY 230, PSY 231
Numeracy	2, 3	SWCC's <i>Critical Thinking Rubric</i> , TER-N, Class Common Exam	ITE 115, ACC 211, PSY 200, PSY 230, PSY 231

Role in Revised Assessment and Institutional Effectiveness

Southwest Virginia Community College has revised its academic assessment for 2015-16. The new plan increases emphasis on tying assessment to program goals, college goals and Virginia Community College System goals. The new plan also emphasizes the need for programs to have specific learning outcomes, measures for these outcomes, and a benchmark by which to measure them, preferably one that is national or regional. The assessment plan for the QEP complies with every facet of the new plan.

This Quality Enhancement Plan aspires to improve students' critical thinking skills, thereby enabling them to be more successful transfer students and employees. These skills will help SWCC's academic programs produce more successful graduates. As students progress through the QEP critical thinking classes, their achievement should be visible on the QEP tests and measures, and these students should become more successful in their programs or majors.

Perhaps most importantly, the Quality Enhancement Plan will be an asset to institutional effectiveness. It offers the opportunity for Southwest Virginia Community College to improve the "quality educational and cultural enrichment opportunities for lifelong learners, workforce, and community" (*2016 Catalog & Student Handbook* 1). The QEP has locally developed measures of student learning, including the GSAT and the SWCC Critical Thinking Rubric, a nationally normed measure of student critical thinking, and new classroom assessments, including a Class Common Exam. With this data, the QEP Coordinating Committee will evaluate and improve the QEP classes and their critical thinking components and ultimately help improve the institutional effectiveness of Southwest Virginia Community College.

Institutional Capability for Initiation, Implementation, and Completion

Southwest Virginia Community College has the financial capacity to initiate, implement and complete this Quality Enhancement Plan. Funding for the QEP will be provided at a ratio of 50% Education & General (State) funds, and 50% SWCC Foundation Buchanan Estate gift (private) funds.

Sustainability of those funding sources is assured. The Buchanan Estate gift deposited with the Foundation is currently at \$3 million, which is ample to provide funding of the QEP at the level of 50% over the period of the QEP. State E & G funding is secure due to Governor McAuliffe's recent announcement that fiscal year 2015 General fund revenue collections increased 8.1%, resulting in a \$553.3 million surplus that should equate to sustainable Education & General budget allocations over the QEP period as well. This represents the largest fiscal year-end surplus in the Commonwealth's history, exceeding the \$544.6 million surplus in fiscal year 2014. "Virginia's significant revenue growth and preliminary year-end revenue surplus are a clear indication that our efforts to grow and diversify our economy are paying off," said Governor McAuliffe.

It should also be noted that the Virginia Community College System is moving toward an outcomes based funding formula. By 2020, each VCCS college may receive up to twenty percent of its funding through its success in meeting a number of performance funding measures. Southwest Virginia Community College's prospects for doing well on some of these measures, such as Course Performance, Retention Performance, Awards Performance and Transfer Performance, should improve with the implementation of this Quality Enhancement Plan, thus assuring a level budget for Southwest Virginia Community College over the implementation period and stable support for the QEP.

The budget (below) for the QEP provides funding for program development, implementation, and management and operations for the six-year duration of the project. The

budget contains funding for a QEP director and staff, professional development for participating faculty, fees related to assessment and testing, costs of textbooks supplied by Southwest Virginia Community College for students in the SDV 108 and psychology classes, supplies, consulting fees, necessary travel and supplies.

Additionally, while not part of the official QEP budget, during Year 0 the SWCC Library has allocated \$3000 of its funding for book purchases to increase and update holdings of print resources on critical thinking. In Years 1-5, it will allocate an additional \$500 per annum. Throughout this period, the Virtual Library of Virginia (VIVA) and the Virginia Community College System (VCCS) will continue to purchase shared online resources that support the general subject area of critical thinking.

The final Quality Enhancement Plan Budget Years 0-5 was approved by the Southwest Virginia Community College Administrative Cabinet on October 5, 2015.

NOTE: The line item *QEP Advisory Committee* is synonymous with *QEP Coordinating Committee*.

Quality Enhancement Plan Budget Years 0-5

Southwest Virginia Community College									
Quality Enhancement Plan (QEP) Budget									
SACS-COC									
			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Program Development									
Personnel									
	QEP Director Greg Horn 50% (FT 9-mo contr.)	R	39,555.45	-	-	-	-	-	39,555.45
	QEP Support Staff 100% (Part Time)	N	13,175.85	-	-	-	-	-	13,175.85
	QEP Advisory Committee	I	25,299.74						25,299.74
	Total Personnel		78,031.04	-	-	-	-	-	78,031.04
	Travel	N	3,000.00	-	-	-	-	-	3,000.00
	Training (Workshops, Conferences, etc.)	N	1,000.00	-	-	-	-	-	1,000.00
	Supplies (Textbooks software, materials, etc.)	N	46,151.64	-	-	-	-	-	46,151.64
	Supplies (Critical Thinking Center)	N	27,800.00	-	-	-	-	-	27,800.00
	Consultant Fees	N	5,000.00	-	-	-	-	-	5,000.00
	Total Program Development		160,982.68	-	-	-	-	-	160,982.68
Program Implementation									
Personnel									
	QEP (QEP Director Greg Horn 50% (FT 9-mo contr.)	R	-	20,766.61	-	-	-	-	20,766.61
	QEP Support Staff 100% (Part Time)	N	-	6,917.32	-	-	-	-	6,917.32
	QEP Faculty	I	-	100,779.08	-	-	-	-	100,779.08
	CT Center Lab Technician 100% (Full Time)	N	-	12,150.00	-	-	-	-	12,150.00
	CT Center Implementation Specialist	N	-	9,768.00	-	-	-	-	9,768.00
	QEP Advisory Committee	I	-	13,282.36	-	-	-	-	13,282.36
	Total Personnel		-	163,663.37	-	-	-	-	163,663.37
	Travel	N	-	1,500.00	-	-	-	-	1,500.00
	Supplies (CT Center, software, materials, etc.)	N	-	2,250.00	-	-	-	-	2,250.00
	CCSSE Custom Survey Items	N	-	500.00	-	-	-	-	500.00
	Marketing	N	-	3,000.00	-	-	-	-	3,000.00
	Testing	N	-	3,500.25	-	-	-	-	3,500.25
	Assessment	N	-	2,000.00	-	-	-	-	2,000.00
	CTC Equipment-SMART Podiums, Lecture Capture, Laptops	I	-	27,800.00					27,800.00
	Total Program Implementation		-	204,213.62	-	-	-	-	204,213.62

Quality Enhancement Plan Budget Years 0-5 (continued)

Program Administration & Support			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Personnel									
	QEP Director Greg Horn 50% (FT 9-mo contr.)	R	-	20,766.61	43,609.88	45,790.38	48,079.90	50,483.89	208,730.66
	QEP Support Staff 100% (Part Time)	N	-	6,917.32	14,526.37	15,252.69	16,015.33	16,816.09	69,527.81
	QEP Faculty	I	-	100,779.08	206,597.10	216,926.96	227,773.31	239,161.97	991,238.42
	CT Center Lab Technician 100% (Full Time)	N	-	12,150.00	25,515.00	26,790.75	28,130.29	29,536.80	122,122.84
	CT Center Implementation Specialist	N	-	9,768.00	20,512.80	21,538.44	22,615.36	23,746.13	98,180.73
	QEP Advisory Committee	I	-	13,282.36	27,228.84	28,590.28	30,019.80	31,520.79	130,642.07
	Total Personnel		-	163,663.37	337,990.00	354,889.50	372,633.98	391,265.68	1,620,442.53
	Travel	N	-	1,500.00	3,000.00	3,000.00	3,000.00	3,000.00	13,500.00
	Supplies (CT Center, software, materials, etc.)	N	-	1,500.00	3,000.00	3,000.00	3,000.00	3,000.00	13,500.00
	CCSSE Custom Survey Items	N	-	-	-	500.00	-	500.00	1,000.00
	Marketing	N	-	3,000.00	6,000.00	6,000.00	6,000.00	6,000.00	27,000.00
	Testing	N	-	3,500.25	7,000.50	7,000.50	7,000.50	7,000.50	31,502.25
	Assessment	N	-	2,000.00	4,000.00	4,000.00	4,000.00	4,000.00	18,000.00
	Consultant Fees	N	-	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	25,000.00
	Total Administration & Support		-	180,163.62	365,990.50	383,390.00	400,634.48	419,766.18	1,749,944.78
Total QEP Budget			160,982.68	384,377.24	365,990.50	383,390.00	400,634.48	419,766.18	2,115,141.08
New Funding									
	(50% State E & G NGF/50% Foundation)	N	96,127.49	86,921.14	88,554.67	92,082.38	94,761.48	98,599.53	557,046.69
	Repurposed Funds	R	39,555.45	41,533.22	43,609.88	45,790.38	48,079.90	50,483.89	269,052.72
	Inkind	I	25,299.74	255,922.87	233,825.95	245,517.24	257,793.10	270,682.76	1,289,041.66
	Totals		160,982.68	384,377.24	365,990.50	383,390.00	400,634.48	419,766.18	2,115,141.08
Funding Key									
N	=	New							
R	=	Repurposed							
I	=	Inkind							

Intellectual Contexts

During the work of the Topic Development and Implementation Committee, members individually investigated source materials, and the Librarian provided both a bibliography and literature review. As the committee's discussions progressed, questions arose and many of them were answered by the critical literature.

Do we even need to develop a QEP on critical thinking? There is, of course, no shortage of studies, both academic and popular, that underscore the need for critical thinking in the academy, on the job, and in everyday life. Flores cites Del Bueno (2005) who found that only 35% of registered nurses could successfully apply critical thinking skills on the job (223). Collins and Peerbolte found that fifty-four local government emergency managers scored poorly on the Watson-Glaser Critical Thinking Appraisal Form S (WGCTA-S) assessment. The Council for Aid to Education reported that for the 2013-14 cohort of college students they tested, 31 percent of freshmen and 14 percent of seniors lacked basic mastery of critical thinking skills, including data collection and analysis (Council for Aid to Education). In a survey of 400 employers conducted by Hart Research Associates for the Association of American Colleges and Universities, the researchers concluded, "When it comes to the types of skills and knowledge that employers feel are most important to workplace to success, large majorities of employers do NOT feel that recent college graduates are well prepared. This is particularly the case for applying knowledge and skills in real-world settings, critical thinking skills, and written and oral communication skills—areas in which fewer than three in 10 employers think that recent college graduates are well prepared" (Hart Research Associates).

And in terms of pedagogy, the Foundation for Critical Thinking notes that American college classes are structured so that little critical thinking takes place; rather than offering assignments and class structures that promote critical thinking, faculty members instead rely on timeworn techniques, such as lecturing, rote learning, and tests that do not involve critical thinking skills.

Clearly, there is agreement among academic and workforce sources that critical thinking skills could be improved.

What is critical thinking? Definitions tended to vary by discipline, time period, geographic location, and personal perspective. No standard definition seems to exist, but several practitioners, scholars and critics have made an attempt to produce a workable one (Flores; Foundation for Critical Thinking; Kaddoura; Moore; Petress; Rowles; Weisser; and others).

Rowles listed some qualities of critical thinking in her study of health sciences' faculty concepts of critical thinking: analysis, evaluation, and decision making or problem solving (25). Rowles summarized the respondents' concept of critical thinking as "an ability or skill to make reasoned decisions or solve complex problems based on critical analysis of available evidence" (25). She also directly quoted a respondent whose definition of critical thinking emphasized "process" and was to have many of the same components as SWCC's eventual definition of critical thinking (it was not a direct influence): "the ability to gather information, identify what pieces of that information are most relevant, to analyze that information, and come to a conclusion with regard to some decision involving that data" (26).

Tim Moore's article "Critical Thinking in Search of a Concept" shows the range of concepts which have been used in the attempt to define critical thinking. He lists judgment, skepticism, originality, sensitive reading, rationality, activist engagement with knowledge, and self-reflexivity as being the most important and most common. These conclusions were drawn from the information provided by university faculty whom he interviewed.

Moore reports that these interviewees had wide agreement on four of these themes, beginning with the importance of judgment in critical thinking across disciplines. One philosophy professor summed it up: "I like to say to students—would it profit you to read the entirety of Aristotle's work, and form no view whether it's bullshit or not?" (Moore 511). These informants also believed that those critical judgments should often be skeptical, that is, to tend to take a negative or cautious view of a situation, text, or argument. One of Moore's interviewees summed up this aspect of critical

thinking simply: “Well, I suppose that ... critical thinking is not just accepting what somebody tells you” (Moore 512). Many of the professionals interviewed stressed that originality is a very important aspect of critical thinking. A history professor interviewed in this study noted that “a critical thinker has to argue on the basis of the critical thought. [But] it is not enough just to have critically negative thoughts. You actually have to ... put them into something, to produce something” (Moore 513).

An important takeaway from this article is that “critical thinking” is an important, powerful, yet extremely general concept. Moore himself concludes that “the idea of critical thinking clearly defies reduction to some narrow, and readily identifiable cognitive mode” (519).

Richard Paul and Linda Eller provide a metacognitive definition of critical thinking: “Our working definition of critical thinking is: Critical thinking is the ability and disposition to improve one's thinking by systematically subjecting it to rigorous self-assessment” (Elder and Paul, “Critical Thinking...”). The Foundation for Critical Thinking has several definitions:

- “Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness” (Foundation for Critical Thinking “Defining Critical Thinking”).
- “Critical thinking is self-guided, self-disciplined thinking which attempts to reason at the highest level of quality in a fair-minded way” (Foundation for Critical Thinking “Defining Critical Thinking”).
- “Critical thinking is that mode of thinking—about any subject, content, or problem—in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing

intellectual standards upon them” (Foundation for Critical Thinking “Why Critical Thinking?”).

The concepts of process, universality, fairness, and self-motivation are evident here.

Bers believes there is no one standard definition of critical thinking. She quotes Kurfiss, who believes that there are, however, three types of thinking which comprise the critical thinking process: “knowing the facts and concepts of the discipline, which he calls *declarative knowledge*; knowing how to reason, inquire, and present knowledge in the discipline, which he calls *procedural knowledge*; and being able to set goals, determine when additional information is needed, and assess the fruitfulness of a line of inquiry, which he calls *metacognition*” (15).

While the Topic Development and Implementation Committee was influenced by these definitions and others and while it developed a definition that looks a great deal like one put forth by a Rowles’ respondent, the definition SWCC will use in this QEP is its own. The TDIC used an inductive process to generate a list of components (or expectations) for critical thinking and molded those into several test definitions before arriving at a final one (See Topic Development and Plans for Implementation).

What are some student learning outcomes related to critical thinking? In order to encourage students to move toward higher level thinking, Washington State University created its Critical Thinking Project. Its student learning outcomes are inherent in the “Guide to Rating Critical Thinking” rubric created to respond to student assignments:

1. Identifies and summarizes the problem or question at issue
2. Identifies and presents the student’s own perspective and position as it is important to the analysis of the issue
3. Identifies and considers other salient perspectives and positions that are important to the analysis of the issue
4. Identifies and assesses the key assumptions

5. Identifies and assesses the quality of supporting data or evidence and provides additional data or evidence related to the issue
6. Identifies and considers the influence of the context on the issue
7. Identifies and assesses conclusions, implications, and consequences (Kelly-Riley 6-7).

What are the best curriculum structures to deliver critical thinking skills to college students? During early discussion of how Southwest Virginia Community College could deliver critical thinking content to students, a committee member observed that it would be useful to have an entire course devoted to critical thinking. While that indeed might be the optimal situation, most SWCC curricula are at or near the credit hour limits established by the State Council of Higher Education in Virginia and the Virginia Community College System, so another model was necessary. Additionally, Paul in “The State of Critical Thinking Today” argues that such general education classes do not improve critical thinking within a discipline.

Gerald Nosich notes that there are two models of adding critical thinking to community college courses. The first one is called the “one of many” model, and in it the instructor teaches critical thinking as a percentage of class content, but uses primarily traditional teaching methods. The other model, “cover as much content as possible,” focuses on ideas, issues, and concepts in the material and may or may not use critical thinking ideas in the classroom. Nosich sees both of these approaches as ineffective and perhaps damaging; he notes that “both models may incorporate critical thinking activities into instruction, but they employ a nonsubstantive concept of critical thinking” (62).

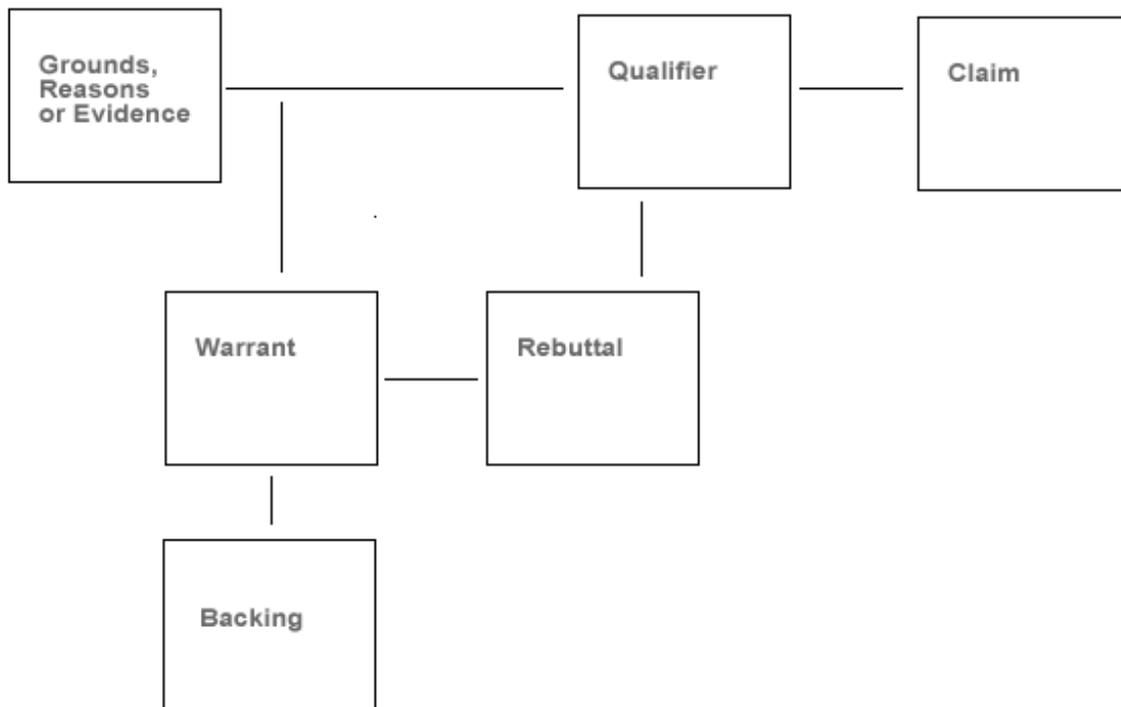
If one must use a “one of many” approach, what are the best classroom activities to teach critical thinking? Stephen Brookfield offers suggestions for approaching the teaching of critical thinking in the community college. He advises faculty members first to make a case for critical thinking, to “sell” it to the students. Such techniques as simulations and case studies can be used to effectively convince students of the value of critical thinking. Faculty members should also model and critique critical thinking. This can be easily done in a team-taught class where one faculty

member evaluates another’s argument or position. Brookfield also notes the value of placing students in peer groups and tying critical thinking analysis to specific events.

Other techniques believed to be effective are Think Pair Share (Kaddoura “Think Pair Share”), prompts to improve critical reading, case studies, questioning strategies (Hoffman), and concept mapping (Wilgis).

Are there effective models, ideas, or metaphors that could unify the QEP? The Topic Development and Implementation Committee hoped that it could find a model, idea, image or metaphor to unify the efforts of the QEP, particularly a model set forth in a textbook.

After some discussion, the TDIC did come to believe that the Toulmin Model as set forth in *The Uses of Argument* could serve as a model for the QEP, especially in its treatment of claims, data, warrant, and qualifiers. While Toulmin’s original text is philosophical and obtuse, his model has been translated into a number of disciplines and is treated in a number of community college level textbooks. The one below is representative of the models used by higher education (San Diego State University).



A discussion that started in the Data Mining and Topic Selection Committee and continued into the TDIC revolved around the fact that, while no significant gaps could be found in SWCC student achievement, critical thinking provided an avenue to maximize student learning. It also became clear that during the work of the TDIC that our Mission, Vision and Core Value statements could best be supported by curricula producing graduates who either successfully transfer and excel in their courses at senior institutions or by producing graduates in the occupational technical areas who are able to obtain employment and eventually rise to leadership positions.

Daniel Kahneman's *Thinking, Fast and Slow* provides a construct to allow faculty teaching the QEP's critical thinking classes to discuss with their students the necessity of building academic skills and critical thinking abilities (slow thinking, System 2) and to emphasize the importance of experience building activities, such as simulations, group discussions, and capstone project/presentations.

System 1 or fast thinking could be equated with intuition. Kahneman relates this story:

...a team of firefighters...entered a house in which the kitchen was on fire.

Soon after they started hosing down the kitchen, the commander heard himself shout, "Let's get out of here!" without realizing why. The floor collapsed almost immediately after the firefighters escaped. Only after the fact did the commander realize that the fire had been unusually quiet and that his ears had been unusually hot. Together these impressions prompted what he called "a sixth sense of danger." He had no idea what was wrong, but he knew something was wrong. It turned out that the heart of the fire had not been in the kitchen but in the basement beneath where the men had stood.

(11)

This fast thinking which saved the men's lives is System 1. Kahneman defines it this way: "System 1 effortlessly [originates] impressions and feelings that are the main sources of the explicit beliefs and deliberate choices of System 2" (21). There is no magic here. Kahneman quotes Herbert Simon who provides the reason for the efficiency of Type 1 thinking: "The situation has provided a cue; this

cue has given the expert access to information stored in memory, and the information provides the answer. Intuition is nothing more and nothing less than recognition” (11).

That power of recognition is increased through experience. System 2 also comes into play. Kahneman emphasizes that “System 2...[is] the conscious reasoning self that has beliefs, makes choices, and decides what to think about and what to do” (21). It provides an important checks and balances function: “it also prevents many foolish thoughts and inappropriate impulses from overt expression. The investment of attention improves performance in numerous activities...[System 2] is essential to some tasks, including comparison, choice, and ordered reasoning” (415).

These systems are both essential for successful academic achievement, reliable on-the-job performance, and participatory citizenship. Kahneman makes it clear that System 1 is not clearly educable (417), but fine tuning the reasoning processes of System 2 (especially with active pedagogical techniques, such as simulations, case studies, group activities, and experimentation) improves the interplay of both.

The Continuing Effects

Vision, Mission, and Core Values Support

Southwest Virginia Community College has clear Vision, Mission, and Core Values statements (2014-2016 Catalog & Student Handbook 1). The College is dedicated to the mission of providing “quality educational...opportunities for lifelong learners.” In addition to literacy and numeracy, critical thinking is an essential skill for college students, productive professionals and lifelong learners.

Richard Paul issued an indictment of colleges in general and community colleges in particular in the 2005 *Critical Thinking: Unfinished Business*:

What is the current state of critical thinking in higher education? Sadly, studies demonstrate three disturbing, but hardly novel facts: (1) most college faculty at all levels lack a substantive concept of critical thinking; (2) most faculty don't realize they lack a substantive concept and instead believe they understand critical thinking sufficiently and are already successfully teaching it within their discipline; (3) despite 'reform' efforts, lecture, rote memorization, and (largely ineffective) short-term study strategies are still the norm in college instruction and learning today. (27)

This QEP offers the opportunity for Southwest Virginia Community College to answer Paul's accusation and to significantly improve instruction through revising course outlines (SDV 108, ACC 211, ITE 115, PSY 200, PSY 230, and PSY 231), integrating more assignments that require critical thinking, utilizing the Critical Thinking Center to provide experience with educational “open world” programs, such as Minecraft, and other unstructured classroom activities, and moving instruction away from that which was *de rigueur* in 1950.

The Continuing Effects: Integration into Campus Culture

This Quality Enhancement Plan will primarily impact the students who enroll in SDV 108, ACC 211, ITE 115, PSY 200, PSY 230, and PSY 231, but the College hopes that these students will carry the discussions of data, inductive reasoning, deductive reasoning, warrants, fallacies, and arguments far beyond the classroom.

There is evidence that these continuing effects are possible. SWCC has noted and documented several effects from its first QEP, including increased retention, graduation, and transfer rates. Most importantly, elements of the first QEP were integrated into campus culture and continue to be experienced today. All four of those original Learning Communities still have activities underway. Here are examples of two of them, the General Studies Learning Community and the Science Learning Community. For ten years, the Humanities Seminar of Southwest Virginia Community College has been offered as part of the General Studies Learning Community. The class is based on a different theme each year which is explored through films, both documentary and feature, then discussed informally by class participants as a means of sharing theme-related individual experiences to better understand issues of the day. During Fall Semester of 2015, the seminar focuses on a theme entitled: "**After War: The Homecoming Experience of American Veterans.**" The Science Learning Community from that first QEP also continues to be successful. Georgia Householder, a Science faculty member who has worked with the Science Learning Community since its inception, commented on the Science curriculum and the Science Learning Community's success in transferring students to the local pharmacy school: "I definitely think the interest of local students wanting to go to Appalachian College of Pharmacy (ACP) is a driving force for the SLC and our science classes in general. I also think the news releases and publicity have helped get the word out that SWCC students do get into the pharmacy school. Not only do they get in, but they are successful in the doctoral program. Our students that are in ACP and the ones that have graduated recommend SWCC."

Despite some limitations, the first QEP was successful in its goals because of the dedication of individual faculty members, division chairs (deans), and the superhuman abilities of two of the Learning Communities (Business Administration and General Studies) to transform themselves to meet new and unexpected challenges.

It is very likely that the 2015 Quality Enhancement Plan will be more fully integrated into Campus culture; it has the following features:

- A strong director with good communication skills;
- A QEP Coordinating Committee that will constantly attend to the implementation, assessment and promotion of the QEP;
- The Faculty Discussion Group will not only provide a venue for professional development (discussion of books and articles related to critical thinking), but it will also ensure the sharing of curricular ideas among faculty;
- The Brown Bag Lunches will also provide a venue for the sharing of ideas and the creation of a sense of community;
- The Critical Thinking Center will fulfill the critical function of attracting and maintaining student interest in the QEP.

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Appendix I

QUALITY ENHANCEMENT PLAN 2014-2016

TOPIC SELECTION, CONCEPT DEVELOPMENT, AND WRITING THE QEP

SOUTHWEST VIRGINIA COMMUNITY COLLEGE

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- Cedar Valley College Timeline

INTRODUCTION AND JUSTIFICATION

Institutions seeking reaffirmation of accreditation by the Southern Association of Colleges and Schools Commission on Colleges are required to submit a Quality Enhancement Plan as part of their decennial review. The document that follows suggests an approach to producing that QEP and outlines a calendar which encompasses the process from the formation of committees to the submission of the final QEP.

While the QEP is an important document in the reaffirmation process in terms of providing SACSCOC insight into an institution's commitment to student learning, the upcoming development of a Quality Enhancement Plan provides a wealth of opportunity for Southwest Virginia Community College:

- It encourages all stakeholders of the campus to plan, implement, and evaluate a new experiment in student learning. The five years of this undertaking can be a mission, an adventure, and an overwhelming success;
- It seeks a movement from traditional academic practices to best academic practices;
- It rewards collegiality and communication among all stakeholders of the college;
- It applauds benchmarking and competitiveness;
- It demands an awareness of student learning outcomes;
- It underscores the need for effective strategic planning;
- It thrives as a vibrant part of institutional effectiveness;
- It requires an evaluation of SWCC's strategic plan, vision, mission and core values; as a result there is a potential for reallocation of human, financial and physical resources;
- It fails without constant ongoing assessment of the implementation of the Quality Enhancement Plan itself and the student learning it promises.

Fall Semester 2014

Data Mining and Topic Selection

Important dates

August 29	Committee organizational meeting and charge
November 19	Review and approval of topic selection by academic division deans (James Dye, Cathy Smith-Cox)
November 24	Approval of topic selection by IRO, Vice President of Academic and Student Services, President
December 2	Report of topic selection to SWCC College Board
December 11	Press releases

Committee

Margaret Dye, Jereial Fletcher (chair), Beverly Lester, Janet Rowell, Kevin Stilwell, Jerry Stinson, Danny Whited, Brian Wright, Teresa Yearout, alumni (1), student (1), Vice President of Academic and Student Services (ex officio), IRO (ex officio)

Meetings

Fridays, 9 a.m.

Documentation

Weekly minutes submitted to Vice President of Academic and Student Services

Upon selecting a topic, the committee will prepare a document presenting the topic and arguments for its approval

Campus Communication

The IRO/Vice President of Academic and Student Services will provide at least monthly updates in Faculty/Staff meetings and other venues

Tasks

Review SWCC Vision, Mission, and Core Values (last emailed by Vice President Fuller on 5/25/2014), and SWCC Strategic Plan (SWCC website)

Review recent QEPs from similar institutions (see link at end of this document)

Review applicable data sources providing **direct** measures of SWCC student learning: assessment reports (Chapter 3 Assessment Measures (<http://sw.edu/about/ir/>), GSAT, VCCS core competency data, ASSET or Compass scores, VPT scores, TEAS data, General Library Survey, etc.

Review annual reports and all appropriate academic unit plans and reports

Review topics solicited by Vice President Fuller in January 2014

The committee at its discretion may utilize other data collection strategies, such as surveys, focus groups, interviews, case studies. The data may be solicited from faculty, staff, students, alumni, community members

Select a specific QEP topic. ***This topic must focus on a key issue identified by an assessment process. It must be tied to SWCC strategic planning efforts and priorities***

Evaluate topic selection using the document below, "Quality Enhancement Plan Guidelines: Indicators of an Acceptable Quality Enhancement Plan" (CR 2.12)

Prepare and submit a document outlining topic and arguments for approval

Spring Semester 2015

Topic Development and Plans for Implementation

Important dates

January 9	Committee organizational meeting and charge
March 2	Compliance Certification due
April 21-24	Off-site peer review conducted
April 29	Review and approval of development and implementation plan by academic division deans (James Dye, Cathy Smith-Cox), Dean of Student Success (Mary Ragland), Coordinator of Community, Workforce, and Economic Solutions (Lyn Tatum), and Coordinator of Library Services (Teresa Yearout)
April 1	Submission of the names of two potential QEP lead evaluators to SACSCOC
May 4	Approval of development and implementation plan by IRO, Vice President of Financial and Administrative Services, Vice President of Academic and Student Services, President
June 23	Report of development and implementation plan to SWCC College Board
June 25	Press releases

Meetings

Fridays, 9 a.m.

Documentation

Weekly minutes submitted to Vice President of Academic and Student Services

A detailed implementation document covering the major components of the Quality Enhancement Plan

Committee

(Two carry overs from Data Mining and Topic Selection Committee), Mike Bales, Donna Corns, Jereial Fletcher (chair), Brian Hale, Mike Henry, April Hess, Dyan Lester, Diane Phillips, Lyn Tatum, Dave Witt, students (2), Vice President of Academic and Student Services

(ex officio), IRO (ex officio). The structure of this committee may vary based on the QEP topic selected

Campus Communication

The IRO/Vice President of Academic and Student Services will provide at least monthly updates in Faculty/Staff meetings and other venues

Tasks

Structure and develop the Quality Enhancement Plan

Evaluate the scope, structure, and integrity of the QEP using the document below, "Quality Enhancement Plan Guidelines: Indicators of an Acceptable Quality Enhancement Plan" (CS 3.3.2)

The following areas should be fully conceptualized, developed, and operationalized: Desired Learning Outcomes, Literature Review and Best Practices, Actions to be Implemented, Timeline, Organizational Structure, Resources, and Assessment

Summer Semester 2015

Drafting, Revising and Editing of the QEP Document

Important dates

August 1	Probable date of focused report
August 1 (tentative)	Quality Enhancement Plan due (earliest date)
August 1 (tentative)	Review and approval of Quality Enhancement Plan final draft by academic division deans (James Dye, Cathy Smith-Cox), Dean of Student Success (Mary Ragland), Coordinator of Community, Workforce, and Economic Solutions (Lyn Tatum), and Coordinator of Library Services (Teresa Yearout)
August 15 (tentative)	Review and approval of Quality Enhancement Plan final draft by IRO, Vice President of Financial and Administrative Services, Vice President of Academic and Student Services, President

Committee

Jereial Fletcher (writer), Pat Bussard, Vice President of Academic and Student Services (ex officio), IRO (ex officio)

Tasks

Create a finished Quality Enhancement Plan document, utilizing materials developed by the Topic Development/ Implementation committee

Provide opportunities for review by the college community and other stakeholders, including the Data Mining and Topic Selection Committee and the Topic Development and Plans for Implementation Committee

Produce a finished final draft for submission to SACSCOC

Fall Semester 2015
Submission of QEP Document

Important dates

September 22 (tentative)	Report of completed Quality Enhancement Plan to SWCC College Board
October 1	Quality Enhancement Plan due (more likely date)
November 17-19	On-Site Peer Review Conducted
December 3	Press releases

Spring Semester 2016

Dénouement

Important dates

June 13-16	Review by the SACSCOC Board of Trustees
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Appendix II

Roster: Data Mining and Topic Selection Committee

*Margaret Dye, Instructor of Accounting

Jereial Fletcher (chair), Associate Professor of English

*Barbara J. Fuller (ex officio), Vice President of Academic and Student Services

Beverly Lester, Associate Professor of Practical Nursing/Director of Practical Nursing Program

Danielle Muawad (student), Psychology-General Studies

Janet Rowell, Associate Professor of Administrative Support Technology

Christopher Shortt (student), General Studies, United States Navy

*Charles A. Shrader (alumnus), United States Air Force. General Telephone and Electric. Virginia
Department of Corrections. United States Postal Service.

Edmond C. Smith (ex officio), Institutional Research Officer

*Kevin Stilwell, Assistant Professor of Biology

*Jerry Stinson, Program Director/Assistant Professor of Administration of Justice Program

*Danny Whited, Assistant Professor of Mathematics

*Brian Wright, Associate Professor of History

*Teresa Yearout, Coordinator of Library Services

*Denotes Southwest Virginia Community College alumni. These are in addition to the official alumni representative, Charles A. Shrader.

Appendix III

Roster: Topic Development and Implementation Committee

*Mike Bales, Financial Services Manager

Daniel Bowman (student), Science-Environmental Science, United States Army

*Donna Corns, Instructor of Radiology/Clinical Coordinator

*Margaret Dye, Instructor of Accounting

Jereial Fletcher (chair), Associate Professor of English

*Barbara J. Fuller (ex officio), Vice President of Academic and Student Services

*Brian Hale, Assistant Professor of Engineering

Mike Henry, Professor/Director of Student Support Services

April Hess, Associate Professor of Human Services

Dyan Lester, Director of Distance Learning and Instructional Technology

Danielle Muawad (student), Psychology-General Studies

*Diane Phillips, Librarian

Edmond C. Smith (ex officio), Institutional Research Officer

*Cathy Smith-Cox, Dean of Health Technologies, Humanities, Mathematics, Natural and Social
Sciences

*Kevin Stilwell, Assistant Professor of Biology

Lyn Tatum, Coordinator Community and Workforce Solutions

*Dave Witt, Assistant Professor of Welding

*Denotes Southwest Virginia Community College alumni.

Appendix IV

Roster: Subcommittees of Topic Development and Implementation Committee

- Textbook and central concept selection subcommittee
 - Charge: To select a critical thinking textbook appropriate for SDV (in particular) and other classes
 - Chair: Mike Henry
 - Members: Student Services personnel selected by Henry

- Critical thinking test selection subcommittee
 - Charge: To select a critical thinking test that can measure our students' proficiency
 - Chair: Dean Cathy Smith-Cox
 - Members: Mike Bales, April Hess, Brian Hale

- Marketing subcommittee
 - Charge: This charge will be adjusted as the QEP unfolds. The first charge is to ensure that students, the college community and other stakeholders are familiar with the QEP and its concepts before the onsite committee arrives on campus November 17-19
 - Chair: Donna Corns
 - Members: Margaret Dye, Brian Hale as needed

- Discipline textbook and central concept selection subcommittee
 - Charge: To select a critical thinking textbook appropriate for classes in BEIT and HTHMNSS
 - Chair: Jereial Fletcher
 - Members: Diane Phillips

- Professional development subcommittee
 - Charge: To determine the needs for faculty professional development and to select appropriate activities
 - Chair: Kevin Stilwell
 - Members: Dyan Lester, Lyn Tatum

- Finances subcommittee
 - Charge: To review budgets of other QEPs, especially those related to critical thinking, and structure a five-year budget
 - Chair: Mike Bales
 - Members: Margaret Dye, Daniel Bowman

Appendix V

Critical Thinking Source Data SW294 ES: Academic Year 2013-2014 Testing

overall	percentile	analysis	inference	evaluation	induction	deduction	percent_answered
16	22	4	7	5	10	6	0.97
14	16	3	7	4	5	9	1
20	43	5	7	8	11	9	1
33	98	9	13	11	16	17	1
31	95	9	14	8	14	17	1
23	60	5	10	8	12	11	1
20	43	5	10	5	10	10	1
20	43	5	7	8	12	8	1
26	78	8	12	6	13	13	1
23	60	5	11	7	10	13	1
20	43	5	8	7	12	8	1
32	96	7	15	10	15	17	1
21	50	6	8	7	12	9	1
22	55	5	10	7	10	12	1
29	89	8	12	9	12	17	1
26	78	8	9	9	13	13	1
29	89	8	11	10	12	17	1
13	12	2	5	6	7	6	1
20	43	6	9	5	10	10	1
23	60	6	9	8	10	13	1
28	86	7	12	9	15	13	1
28	86	9	10	9	14	14	1
11	6	3	6	2	4	7	0.86
22	55	7	11	4	11	11	1
12	9	3	6	3	6	6	1
24	66	8	10	6	11	13	1
16	22	5	8	3	8	8	1
25	72	6	10	9	14	11	1
13	12	4	6	3	6	7	1
28	86	7	13	8	13	15	1
13	12	5	5	3	9	4	1
18	32	6	8	4	10	8	0.97
20	43	7	10	3	7	13	1
22	55	6	9	7	10	12	1
14	16	4	7	3	7	7	1
28	86	8	12	8	13	15	1
20	43	6	9	5	10	10	1
22	55	6	10	6	12	10	1

Southwest Virginia Community College

overall	percentile	analysis	inference	evaluation	induction	deduction	percent_answered
29	89	8	12	9	14	15	1
30	92	9	12	9	14	16	1
26	78	8	12	6	12	14	1
14	16	3	7	4	6	8	1
19	38	5	7	7	9	10	1
22	55	7	8	7	12	10	1
17	26	5	8	4	8	9	1
15	19	4	5	6	8	7	0.97
18	32	4	8	6	9	9	1
16	22	4	8	4	10	6	1
14	16	4	7	3	7	7	1
17	26	5	8	4	6	11	1
23	60	5	10	8	11	12	1
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Appendix VI

SDV 108 Academic Calendar

Week One: How do I learn?

- SLOs addressed: 4, 5, 7
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 12

Week Two: How do I know if I can think critically and solve problems effectively?

- Activities: TER-N Testing

Week Three: How do I know if I will need more general education knowledge in order to think critically and to solve problems effectively?

- Activities: GSAT Testing

Week Four: Where do I find relevant academic sources?

- SLOs addressed: 1, 2, 7
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 8

Week Five: What is critical thinking?

- SLOs addressed: 1, 2, 3, 7
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 1

Week Six: How do I employ personal responsibility, self-motivation, and self-management to improve critical thinking and other academic skills?

- SLOs addressed: 4
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 2

Week Seven: How do I utilize knowledge of my own learning style(s) to improve critical thinking and other academic skills?

- SLOs addressed: 4, 5
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 1

Week Eight: How do I identify an argument?

- SLOs addressed: 3
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 3

Week Nine: How do I evaluate data used to support arguments?

- SLOs addressed: 1, 2, 3
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 8

Week Ten: How do I utilize critical thinking to facilitate academic planning and prepare for a professional career?

- SLOs addressed: 6

Week Eleven: How do I analyze arguments?

- SLOs addressed: 1, 2, 3
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 4, 5

Week Twelve: How do I evaluate arguments?

- SLOs addressed: 1, 2, 3
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 7

Week Thirteen: How do I recognize underlying assumptions and implicit arguments?

- SLOs addressed: 3
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 6

Week Fourteen: How do I use critical reading and critical reflection to strengthen arguments and improve problem solving?

- SLOs addressed: 3, 5
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 9

Week Fifteen: How do I use critical reading and note-taking to strengthen arguments and improve problem solving?

- SLOs addressed: 3
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 9

Week Sixteen: How do I use and evaluate critical thinking when writing?

- SLOs addressed: 3, 4
- Readings: Cottrell, *Critical Thinking Skills*, Chapter(s) 10, 11

Exam Week

- Class Common Exam

Note: College Resources and College Policy will be covered in a separate noncredit Orientation.