Angelina College has identified three critical thinking learning outcomes consequent to the implementation of critical thinking skills in the curriculum: (1) Angelina College administration, faculty, and staff will have a common understanding of the tools and concepts of critical thinking; (2) all Divisions will execute tools for teaching critical thinking across the curricula; and (3) graduates of Angelina College will have the ability to adapt and apply critical thinking skills and strategies in their academic, professional and personal lives.

To evaluate the implementation process and to assess student learning outcomes as they relate to critical thinking, six assessment tools will be utilized: the Community College Survey of Student Engagement (CCSSE), California Critical Thinking Skills Test (CCTST), Faculty Learning Community (FLC) Student Learning Survey, the Angelina College Critical Thinking Rubric, the Student Learning Outcomes Assessment (SLOA) and the Course Assessment Plan – Summary of Findings (SOF).

**Assessment Tools**

**Community College Survey of Student Engagement (CCSSE):**
The CCSSE provides information on student engagement which is a key indicator of learning. The survey asks questions that assess institutional practices and student behaviors that are correlated highly with student learning and student retention. The CCSSE contains questions that refer to students’ perceptions of their ability to think critically. (See Addendum)

**California Critical Thinking Skills Test (CCTST-2000):**
The CCTST is a 34-item multiple choice test that targets core CT skills of analysis, interpretation, inference, evaluation, and explanation.

**Faculty Learning Community (FLC) Student Learning Survey:**
Over the course of three semesters, faculty from each discipline will be involved in a training and implementation cycle. This cycle will involve intensive training, peer consultation, self-directed learning, and evaluation. This concept is known as a Faculty Learning Community (FLC). An FLC involves a group of 6 – 15 faculty members (8 – 12 recommended size) from various disciplines engaging in an active, collaborative, yearlong program with a curriculum that focuses on enhancing teaching and student learning. Research suggests (Cox, 2004) that peer consultation over an extended period of time has been found to be more effective in achieving professional development in the area of student learning than workshops facilitated by expert consultants.
The FLC Student Learning Survey is an instrument that measures student learning outcomes.

**Angelina College Critical Thinking Rubric:**
The Critical Thinking Rubric is an instrument designed to enable instructors to gather data that measures an identified critical thinking learning outcome.

**Student Learning Outcomes Assessment (SLOA):**
The SLOA provides a structure for faculty to specify in written format the learning outcome to be measured, how it will be measured, and the actual results of the analysis.

**Course Assessment Plan – Summary of Findings (SOF):**
The SOF compiles outcomes assessed in a particular semester by individual instructor. It specifies the type of outcome assessed and records whether outcomes were achieved.

### Implementation Cycle

#### Cycle 1 – Spring 2007 – Fall 2008

**Phase 1 – Beginning Spring 2007**

On February 16, 2007 – February 20, 2007, the Coordinator of Institutional Effectiveness and QEP attended the 26th Annual Conference on the First Year Experience in Addison, Texas. Sessions regarding learning communities and critical thinking were attended.

In March/April 2007, the CCSSE was administered. (This survey was first administered at Angelina College in Spring 2005.) All completed surveys for inclusion in data analysis were submitted by May 2007.

Baseline data for the CCTST was needed in order to obtain comparison data for pre/post test scores on the CCTST (that will be obtained Fall 2008). In March 2007, the Coordinator of IE/QEP obtained a listing of students who had applied for graduation. A sample of these individuals were administered the CCTST during the week of April 16, 2007 – April 20, 2007. The web-administration took place in the Angelina College Testing Center.

**Summer 2007**


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**Critical Thinking Skills: A Key for Successful Student Learning Outcomes in All Disciplines**
Six faculty members have been selected by each Division Director and have been identified as Division Facilitators. These facilitators were the first FLC (FLC1) at Angelina College:

Business Division – Keith New
Fine Arts – Burlon Wilkerson
Health Careers – Alyssa Bass
Liberal Arts – Edith Miller
Science and Math Division – Charlotte Barker
Technology and Workforce Division – Tara Newman

Each division has alternate facilitators. These alternate facilitators will become the FLC2 in the Spring of 2008:

Business Division – Occie Cluff
Fine Arts – Beckie Compton
Health Careers – Marilyn Craig
Liberal Arts – Debbie Jenke
Science and Math Division – Tom Dudley
Technology and Workforce Division – Vicky Milstead


On August 24, 2007, a Division Facilitator Planning Retreat was held. The facilitators received information regarding faculty learning communities and the status of QEP. This retreat was also to plan for the Fall semester.

**Fall 2007**

During Fall 2007, the FLC 1 was involved in several critical thinking training sessions. These training sessions involved compiling and discussing content obtained from the conference. The curriculum the FLC1 follows is based on information from the text *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life, 2nd Edition* (2006) by Richard Paul and Linda Elder.
## Training Sessions

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Activity</th>
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<tbody>
<tr>
<td>09/14/07</td>
<td>Introduction/Planning Session</td>
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<tr>
<td>09/25/07</td>
<td>Becoming a Fair-minded Thinker (Chapter 1)</td>
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<td>The First Four Stages of Development (Chapter 2)</td>
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<td>Self Understanding (Chapter 3)</td>
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<td>10/16/07</td>
<td>The Parts of Thinking (Chapter 4)</td>
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<td>The Standards of Thinking (Chapter 5)</td>
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<td>Asking Questions that Lead to Good Thinking (Chapter 6)</td>
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<td>10/23/07</td>
<td>Master the Thinking, Master the Content (Chapter 7)</td>
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<td>Discover How the Best Thinkers Learn (Chapter 8)</td>
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<td>Redefining Grades as Levels of Thinking and Learning (Chapter 9)</td>
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<td>10/30/07</td>
<td>Making Decisions and Solving Problems (Chapter 10)</td>
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<td>Deal With Your Irrational Mind (Chapter 11)</td>
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<td>How to Detect Media Bias and Propaganda (Chapter 12)</td>
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<td>11/13/07</td>
<td>Developing as an Ethical Reasoner (Chapter 14)</td>
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<td>Learning and Using Information Critically and Ethically Part 1 (Chapter 15)</td>
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<td>Learning and Using Information Critically and Ethically Part 2 (Chapter 16)</td>
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<td>Strategic Thinking Part II (Chapter 18)</td>
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<td>Becoming An Advanced Thinker (Chapter 19)</td>
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### Phase 2 - Spring/Summer Semester 2008 (This time period also marks the beginning of Cycle 2 Phase 1)

The FLC1 is using the spring semester to plan for critical thinking implementation. Each FLC1 participant has selected a course in which to implement a formal strategy for teaching and measuring critical thinking. Course portfolios will be utilized for planning. These portfolios will serve as lesson plans for the course. Each will include information specific to the course, such as syllabi, course materials, sample assignments, and how the teaching method and course materials will enhance learning outcomes. Critical thinking instruction and assessment will be delineated in these portfolios. Subsequently, these portfolios will be placed in the critical thinking resource area in our library. The critical thinking resource area is located within the professional development area on the second floor of the library.
The courses for implementation for Fall 2008 are as follows:

Business Division – Business Report Writing and Correspondence (BUSI 2304)
Fine Arts – Public Speaking (SPCH 1315)
Health Careers - Nursing Care of the Childbearing Childrearing Family (RNSG 1412)
Liberal Arts – American Literature (ENGL 2326)
Science and Math – General Biology II (BIOL 1409)
Technology and Workforce – Child Growth and Development (TECA 1354)

In February 2008, the FLC2 attended the Texas A&M Assessment Conference. In April 2008, the FLC2 will start consulting with the FLC1. The next group of alternate facilitators will be the following:

Business Division – Patrick Hale
Fine Arts – Robbie Roach
Health Careers – Bridget Geist
Liberal Arts – Kevin Wooten
Science and Math – Paul Draper
Technology and Workforce – Gary White

These alternates will become the FLC3 in Spring 2009.

In July 2008, a member of the FLC2 will attend the Annual International Conference of the Foundation for Critical Thinking.

The Coordinator of Institutional Effectiveness and QEP will attend the QEP Summer Institute in July 2008.

A Division Facilitator Planning Retreat will be conducted in August 2008.

**Phase 3 - Fall Semester 2008**

During Fall 2008, the FLC2 will initiate Phase 1. Consultations with the FLC1 will be required.

The FLC1 will implement critical thinking into their selected courses.

Near the beginning of the semester (shortly after the official census date), students enrolled in these identified courses will be administered the California Critical Thinking Skills Test (CCTST) as a pre-test.

One week prior to final exams, the CCTST will be re-administered to assess the attainment of critical thinking skills. In addition, the assessment of teaching strategies and learning outcomes will be measured by utilizing the FLC Student Learning Survey for Faculty.

**Critical Thinking Skills: A Key for Successful Student Learning Outcomes in All Disciplines**
The pre- and post-test scores from the CCTST will be compared to baseline scores on the CCTST that was collected in April 2007.

The QEP Advisory Committee and the FLC1 will review all collected data and determine the effectiveness of instruction. The group will then use the compiled data to recommend additional strategies and any changes for continuous improvement of teaching and learning critical thinking skills.

**Cycle 2 – Spring 2008 – Fall 2009**

**Phase 1 – Beginning Spring/Summer 2008**

Same as Phase 2 of Cycle 1. See information above.

**Fall 2008**

During Fall 2008, the FLC 2 will be involved in weekly critical thinking training sessions.

<table>
<thead>
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<td>Midterm</td>
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**Critical Thinking Skills: A Key for Successful Student Learning Outcomes in All Disciplines**
Phase 2 – Spring/Summer Semester 2009 (This time period also marks the beginning of Cycle 3 Phase 1)

The FLC2 will use the spring semester to plan for critical thinking implementation. Each FLC2 participant will select a course in which to implement a formal strategy for teaching and measuring critical thinking.

In April 2009, the next group of facilitators (FLC3) will start consulting with the FLC2. The next group of alternate facilitators will be identified at this time. These alternates will become the FLC4 in Spring 2010.

In July 2009, a member of the FLC2 will attend the Annual International Conference of the Foundation for Critical Thinking.

Phase 3 - Fall Semester 2009

During Fall 2009, the FLC3 will initiate Phase 1. Consultations with the FLC2 will be required.

The FLC2 will implement critical thinking into their selected courses.

Students enrolled in these identified courses will be administered the California Critical Thinking Skills Test (CCTST) as a pre-test.

FLC2 instructors will use the Angelina College Critical Thinking Grading Rubric to evaluate critical thinking exercises during the progression of the course. The grading rubrics will measure the student’s acquisition of critical thinking skills.

One week prior to final exams, the CCTST will be re-administered to assess the attainment of critical thinking skills. In addition, the assessment of teaching strategies and learning outcomes will be measured by utilizing the Faculty Learning Community Student Learning Survey for Faculty.

The pre- and post-test scores from the CCTST will be compared to baseline scores on the CCTST that was collected in Spring 2007 and Fall 2008.

The QEP Advisory Committee and the FLC2 will review all collected data and determine the effectiveness of instruction. The group will then use the compiled data to recommend additional strategies and any changes for continuous improvement of teaching and learning critical thinking skills.
Data for 2010 Impact Report

By the end of Fall 2009, we should have the following data:

2. CCTST scores from Spring 2007, Fall 2008 and Fall 2009
3. FLC Student Learning Surveys from Fall 2008 and Fall 2009
4. CT Rubrics from Fall 2008, Spring 2009, Fall 2009
5. SLOA data from Fall 2008, Spring 2009, Fall 2009
6. SOFs for Fall 2008, Spring 2009, Fall 2009

By the end of Fall 2009, we will have implemented CT (Paul/Elder Model) in 18 courses.
Works Cited

Phase 1: Professional Development
Summer/Fall Semester
Training in the Use of the Paul/Elder Model of Critical Thinking

Phase 2: Course Development
Spring
Course Portfolios

Phase 3: Course Implementation and Assessment of Results
Fall/Spring
Implement Critical Thinking Enhanced Curriculum/Data Collection

Critical Thinking Skills: A Key for Successful Student Learning Outcomes in All Disciplines
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