

Part V. of exemplary and innovative active learning strategies that contribute to their life long success. To help achieve success in this area and encourage the broadest possible campus participation in this endeavor,

we have also identified three areas of emphasis that units may pursue to help improve critical thinking and real world problem solving skills.

- x Improving students' communication skills
- x Improving students' critical thinking/real world problem solving skills with emphasis on teamwork skills.
- x Improving students' critical thinking/real world problem solving skills with emphasis on creative thinking.

The selection of the QEP topic and the areas of emphasis described above were based on thorough analyses of TTU strengths and weaknesses in our IDEA teaching evaluations, senior exit exams, enrolled student surveys, alumni surveys, employer surveys, and faculty observations. We also examined available research and other published employer surveys to identify factors that would positively impact students' lifelong success since this is the focus of our strategic plan and vision. Finally, the selection of the QEP topic and the areas of emphasis were guided by faculty, student, and alumni input so that we could get the broadest campus involvement.

Section 2. Initial Goals and Intended Outcomes

Initial goals:

Intended

*** Baseline established in 2005

**** Baseline established in 2008 (2006 graduates)

Section 3. Significant Changes

The central topic has remained unchanged, but some changes were made with respect to the implementation and assessment of the QEP. The major changes are described below.

Year 1: To insure a consistent method for evaluating QEP projects, the QEP Director developed a survey instrument that could be used to evaluate the success of projects funded through the QEP budget. A staff member from Student Services was also added to the QEP Committee to insure that QEP projects might extend beyond the classroom into other areas of student life. Both of these changes were in response to suggestions from the SACS Visiting Committee that reviewed our original QEP proposal.

Year 2: Awards for QEP funded projects were announced in May (rather than August). This additional time provides faculty with greater opportunities to recruit students and implement projects in fall classes. QEP workshops were held to disseminate best practices ~~disseminated in fall~~ This c

measure improvement within specific classes/projects. The QEP Committee decided to hold two rounds of proposals each year instead of one. The second round provides more opportunities and more visibility for the QEP.

Year 5 also coincided with the first year of a new set of Performance Funding Standards used by the Tennessee Higher Education Commission to stimulate instructional improvement and student learning. Because of the success and infrastructure of our QEP, we are maintaining our critical thinking initiatives through 2015 to satisfy the new THEC requirements. This coincidental timing also provided us with an opportunity to revisit our goals and establish new goals for the maintenance of our critical thinking efforts. We had learned, for example, that continuous percentage increases were not realistic or sustainable. We also decided that future progress should be benchmarked against our own previous gains instead of against national norms or other peer comparisons. Thus, our Year 5 goals were modified in the ways described in Table 2.

Table 2: Changes to Year 5 Goals

Objective	New Goal for Year 5
Frequency of Relevant Objectives Selected by Faculty on IDEA	Faculty will select relevant objectives at an average rate equal to or greater than the average rate of the previous three years.
National Survey of Student Engagement Responses on Relevant Items	Average scores on relevant items of the Spring 2011 administration will match or exceed scores from Spring 2009.
Employer Survey Responses on Relevant Items	A new employer survey is under development and scheduled for Spring 2013 implementation.
Individual Project Assessments	The percentage of successful projects will meet or exceed the percentage over the previous three years.

Section 4. Quality Enhancement Plan Impact

Goal 1: Campus projects aimed at QEP related objectives will be financially supported and will show increasing levels of success across the implementation plan.

Perhaps the most specific and intensive efforts to implement our QEP occurred within focused individual projects proposed by faculty/staff and supported financially by the University. Over the five year implementation cycle, 75 projects involving 99 faculty/staff were funded by the University (see Table 3). These grants were awarded through a competitive process and attracted participation from every college within the University. We developed an assessment instrument to evaluate each project. Students were asked at the beginning of each semester to complete a survey describing their typical previous classroom experience. At the end of the semester, they completed a similar survey asking them about their QEP related experiences in that particular class. their supported

decline in the number of grants in 2010 2011 might be attributable to the transition to a new QEP director or our requirement that each funded project be something new to the instructor. Over time it

already being chosen at a relatively high rate before the QEP began. By 2010, that particular objective was chosen in 69.0% of our classes, much more than any other objective. Other objectives (i.e., Creativity and Communication) seemed to show short term increases in selection followed by subsequent decreases. There are at least two explanations

In 2009, we observed 5% increases in the

The Critical Thinking Assessment Test (CAT) was administered to a stratified random sample of graduating seniors in 2005, 2008, and 2009. We expected to see an increase in scores across time with specific goals of 5% and 10% increases. We did not expect to see changes in the entire group of seniors until the QEP was widely disseminated throughout the campus. Scores on the CAT did show a substantial increase in 2008 (see Table 6). As the plan was more fully implemented, it became clear that QEP projects did not impact the magnitude of students required to affect the sample of graduating seniors. Assessment using the CAT was then implemented within specific QEP projects and performed in Spring 2009 and Spring 2010. Results from these projects showed that five out of nine projects assessed significantly improved critical thinking scores across a broad range of skills. Further course specific assessment using the CAT has been undertaken by individual departments on campus. This allows faculty to identify potentially high impact courses and provide formative assessment about individual courses that may be improving students' critical thinking.

Table 6: Critical Thinking Assessment Test Results

	2005 Baseline	2008	Percentage Change (5% Goal)	2009	Percentage Change (10% Goal)
CAT Score	17.7	19.1	7.91*	17.9	1.13

* Goal was achieved

Goal 5: Alumni will report an increase in QEP related activities during their time at TTU.

An alumni survey was conducted by our governing body (THEC) in 2007 and 2010. The survey targeted alumni who had graduated two years prior and asked them about several items related to our QEP. Specifically, alumni were asked if their college experience emphasized memorization, analyzing information, synthesizing information, making judgments, and applying information. They were also asked how well their college experience equipped them to write effectively, speak effectively, and learn independently. Results are shown in Table 7.

Table 7: Alumni Survey Results

	2007 Baseline	2010	Percentage Change (5% Goal)
Memorizing (decrease expected)	3.08	2.66	13.6*
Analyzing	3.24	2.79	13.9
Synthesizing	2.84	2.68	5.6
Making Judgments	2.94	2.60	11.6
Applying	3.23	3.25	0.7
Writing clearly and effectively	2.99	2.66	11.0
Speaking clearly and effectively	2.90	2.71	7.6
Learning on your own	3.31	2.98	10.0

* Goal was achieved

We did observe a decrease in the amount of memorization reported by alumni, but we did not see significant increases in the other expected outcomes. The 2010 survey targeted those who graduated in 2008, so it is possible that the QEP had not been disseminated widely enough to have a significant impact across the campus.

Goal 6: Employers will report higher levels of skills in the areas of critical thinking, problem solving, teamwork, and communication.

Our baseline employer survey was conducted in 2008, but the subsequent survey has not yet been completed. We