



2014-2015 Annual Report

The University of Tennessee at Chattanooga (UTC) has completed the fourth year of a five-year Quality Enhancement Plan (QEP), *ThinkAchieve: Creating Connections* (<http://www.utc.edu/ThinkAchieve>), promoting and improving student critical thinking skills. The ThinkAchieve staff in the Student Learning Outcomes, Assessment & Accreditation areas make up the QEP team and are leading the initiative to help faculty include teaching strategies that enhance student critical thinking skills in the classroom and through co-curricular, experiential learning activities. This report provides a summary of the activities and milestones in the project and also lays out a plan for the activities for the 2015-16 fiscal year.

<p>3 Components of ThinkAchieve</p> <ul style="list-style-type: none">• Introduction and Orientation to Critical Thinking• In the Classroom: Curricular Integration• Beyond the Classroom: Experiential Learning
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2014-15 Activities

QEP Freshman Orientation activities are designed to introduce incoming freshmen to university-level critical thinking and problem-solving while being a part of a community of learning. The 2014 exercise expanded upon

and improved the previous year's problem-solving scenario. Trained faculty, with assistance from student orientation leaders, facilitated team-based exercises and discussions on critical thinking and problem solving. These exercises were intended to exemplify the QEP outcomes in a participatory manner.

Faculty facilitators received training in May 2014 and freshmen orientation began in June 2014. The first few orientation sessions were pilot sessions and adjustments were made to the later sessions based on faculty feedback. Faculty facilitators led discussion about the meaning of critical thinking and then asked groups of five students to complete a challenge objective. Once the objective had been completed, faculty facilitators debriefed students on the skills the students relied on during the challenge. The aim was to help students understand how the critical thinking model might work with real world issues they may face as a part of their

higher education experience and life in general.

In the Classroom: Curricular Integration promotes critical thinking and problem-solving throughout the curriculum by offering faculty development programs on the integration of critical thinking pedagogies and activities that help students practice and improve their skills through general education and disciplinary courses. Year four activities continued extensive faculty development offerings such as seminars, workshops, webinars, a conference, faculty learning communities and book clubs. These faculty development offerings are continuously revised throughout the year and new topics are introduced based on faculty feedback. A unique faculty development opportunity this year was a training on Critical thinking Assessment Test (CAT) Analog Tests. This training provided faculty attendees with specific guidance on how to develop disciplinary assessments that evaluate students on the critical thinking skills that are measured with the CAT.

The Faculty Fellows and Faculty Awards programs continued this year, awarding small group grants to faculty to conduct critical thinking faculty learning communities and to honor campus faculty who have integrated critical thinking into the classroom. Two Faculty Fellows were selected to lead groups of faculty learners in a year-long program on topics related to critical thinking. Eight faculty participated in these two learning communities and three faculty were selected to receive Faculty Awards to recognize outstanding and innovative teaching that supports the goals of ThinkAchieve.

The ThinkAchieve grants program continued this year; 14 grants were awarded to faculty representing 13 departments and programs. The total number of students involved in the grant projects was over 500. Five of the grant projects resulted in designated experiential learning courses. These connections between grants and designated courses were in part due to a change to the grant application form. All grant projects were showcased as teaching and learning scholarship at the institutional Research Day, Instructional Excellence Conference, and several departmental seminars.

Beyond the Classroom: Experiential Learning provides students with opportunities to participate in “learning by doing” through the application of experiences beyond the classroom upon which they critically reflect. Students, staff, and faculty propose activities for approval by the Experiential Learning Task Force and approved activities are assigned a point value based on the extent of work, critical thinking, and problem-solving effort required. Students receive awards and recognition based on the number of points earned.

To continue incorporating experiential learning as an integral component of learning to think critically, the focus for this past year remained to increase the experiential learning course designation listings as a part of the schedule of classes for each semester, as well as to designate activities that might not be linked specifically to an academic program. The designation was heavily promoted in years three and four through extensive meetings with departments, faculty, staff, students, and community partners. The number of designated classes increased from 32 classes across 18 departments to 47 classes across 29 departments.

The fourth year focused on methods to sustain the momentum of the QEP in a systematic and visible manner and to ensure programmatic continuation once the five-year QEP has been completed. Institutional visibility for the program continued through our first two ThinkAchieve graduates being recognized at the 2015 Spring Graduation Ceremony, in the Graduation Program and on their official UTC transcripts. These graduates were also recognized at the Student Government Association’s Spring Leadership Banquet, a prominent student-driven campus awards event.

Year Four Assessment

The QEP focuses on five elements of critical thinking that are assessed using the Critical thinking Assessment Test (CAT), the ETS Proficiency Profile (ETS PP), the National Survey of Student Engagement (NSSE), and the Faculty Survey of Student Engagement (FSSE). These assessments use both direct and indirect measures. Experiential learning participation is also

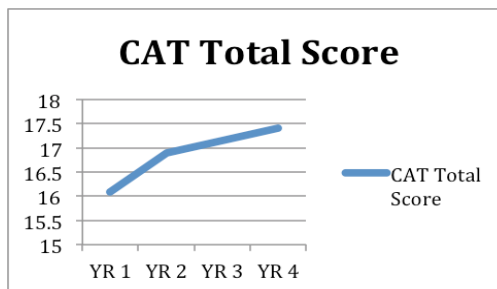
The CAT is a cognitive measure used to assess four broad areas of critical thinking:

- Evaluating and interpreting information
- Problem solving
- Creative thinking
- Effective communication

collected as an element of the QEP.

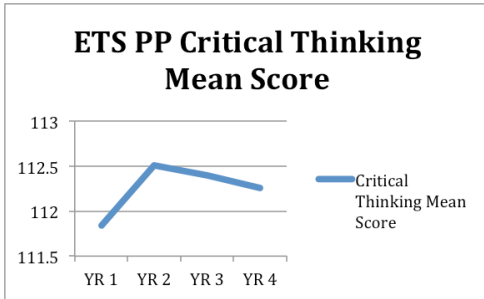
Comprised of short answer essay questions derived from real-world situations, the CAT is the QEP’s core assessment measure because the specific skills assessed align closely with four of the five QEP student learning outcomes (SLOs).

The CAT was administered to a total of 167 seniors in 2014-15 (compared to 192 seniors in 2014). As stated in our original QEP proposal, the benchmark for the SLOs is continued growth of senior scores across program years. Seniors in 2014 had an overall mean score of 17.15 while seniors in 2015 had an overall mean score of 17.41. While this is not a statistically



significant increase, there has been a statistically significant increase in senior level CAT scores ($p < .001$) from Year One to Year Four.

Additional measures are included in the assessment plan to provide a more



comprehensive examination of critical thinking at UTC. The ETS PP, a cognitive measure administered to seniors for general education outcomes assessment, provides scaled scores and proficiency levels of several skill and content areas including critical thinking. The test is administered to

graduating seniors every semester to provide additional measures (both criterion and norm-referenced) of critical thinking proficiency. During the 2013-14 academic year, the ETS PP was administered to 1,464 seniors and to 1,563 seniors during the 2014-15 academic year. Results from the ETS PP show that 4.0% of students tested in 2014-15 were proficient in critical thinking. UTC scored higher in critical thinking than 31% of all institutions that administered the ETS PP. The goal is for UTC seniors to be at or above mean institutional ranking on the ETS PP (50th percentile or higher) by year five of the QEP.

The NSSE and FSSE are survey of student engagement used to compare student and faculty perceptions of emphasis on higher-level thinking in the classroom. The surveys provide a unique opportunity to examine the perceived agreement/disagreement between what faculty

Of the questions asked on the NSSE and FSSE, the following five classroom skills are most closely linked to critical thinking and are analyzed closely:

- Memorizing facts, ideas, or methods from course readings
- Analyzing an idea, experience, or line of reasoning in depth by examining its parts
- Applying theories or concepts to practical problems or in new situations
- Thinking critically and analytically
- Solving complex real-world problems

and students think are taking place in the classroom. Any discrepancies between these perceptions may indicate areas in which faculty need to communicate more explicitly with students and be more intentional in their teaching. The surveys were administered to 189 faculty and 896 students in spring 2014.

The desired outcome is a decreased perception gap across program years. During this reporting period, the gap between faculty and student perceptions has narrowed in some way on four of the five skills examined. This indicates that faculty and student perceptions are beginning to be more closely aligned. The one skill where that perception gap is still widening is the memorization

of facts, ideas, or methods. Students report memorization as being much more prevalent than do faculty. While there is still a gap in the one area, it is important that perceptions of other teaching skills associated with critical thinking are aligned. Although defining exactly what critical thinking is and how it looks in or outside of the classroom may be extremely difficult, faculty will be encouraged to use the defined QEP critical thinking outcomes for their courses and disciplines. Implementing more critical thinking strategies into course activities and assignments and training faculty on best practices for teaching and assessing critical thinking skills is crucial to decreasing the perception gap.

Implementing and tracking more experiential learning and community engagement options in the academic coursework should enhance the critical thinking component of the QEP. Additionally, a point-earning category entitled “Non-Academic Credit Bearing Experiences” has been added to capture student involvement and reflection on University-sponsored programs that involve experiential learning but bear no academic credit. Informing students of the options for experiential learning and the reasons why it is crucially important could help to increase critical thinking across the student population. The 2015 orientation program will intentionally focus more on publicizing and marketing the experiential learning elements of ThinkAchieve. Goals to incorporate a better informational/marketing plan for the experiential learning programs should be included in next year’s priorities.

Year Five Priorities: Implemented or Suggested Improvements for the QEP

Assessment results suggest that continued improvement is needed to increase faculty integration of critical thinking teaching concepts into the classroom. While the lack of statistically significant increases in the ETS PP scores is of concern after four years of work, UTC has maintained its relative position in institutional rankings. The fact that student scores on the CAT have increased significantly from Year One to Year Four is a positive sign. NSSE/FSSE data indicate that there is less disparity in perceptions of classroom learning between faculty and students with the gap between faculty and student perceptions closing. Although there are still issues related to the documentation of students’ experiential learning, the Beyond the Classroom program made substantial progress over the past two years. Experiential learning should continue to be documented and valued as an institutional priority. If the past four years are good indications of the future, the success of the quality enhancement endeavors will continue to progress incrementally as long as efforts are supported by staff, faculty, and administration. Faculty development opportunities for the 2015-16 academic year will include

information on how to focus on “deep learning” and assessment techniques that require students to move away from memorization alone and toward more critical thinking.

As more students participate in ThinkAchieve activities, the ability of faculty and staff to adequately assess reflection will also need to increase. The final “product” of a ThinkAchieve graduate’s involvement in experiential learning at UTC is a senior reflection. This reflection is currently an additional task required of graduating seniors to be recognized as a ThinkAchieve graduate. Enhancing the ability of ThinkAchieve faculty and staff to help students document their reflections throughout all phases of involvement would more seamlessly integrate reflection into the entire undergraduate experience. This would require more attention and engagement with potential ThinkAchieve graduates earlier in their involvement with experiential learning and reflection. The 2015 UTC Strategic Plan includes an undergraduate requirement to “complete an internship, practica, service project, research project, senior capstone, honors thesis, or international experience”, which illustrates the ongoing importance placed on these activities in the learning process.

Evaluation of the QEP – Program Implementation and Assessment Steps for Year Five

Our fourth year has highlighted some critical issues related to an institutional project of this size. While our direct assessment measures seem to be producing results, it is more and more apparent that faculty have a difficult time implementing changes in the classroom learning environment to focus on increasing critical thinking skills. A change to the grant reporting requirements for this year has improved assessment data for those projects, and with more designated courses, reflection data has improved because rubrics are now required as part of the course designation application process.

UTC has continued a curriculum mapping project that requires all programs to review and map their program outcomes to required courses. This project, along with the QEP’s emphasis on developing faculty knowledge and skill in teaching critical thinking will allow all departments to better identify and focus on the critical thinking outcomes specific to their programs and to integrate teaching and learning efforts to help students meet these outcomes across the curriculum as part of the annual institutional effectiveness assessments.

As part of the general education courses certification process, faculty and departments are required to detail assessments for each outcome related to each general education category. This will allow the ThinkAchieve QEP committee to begin to collect additional evidence of the teaching and assessment of critical thinking skills as a part of the course

recertification process.

All other implementation activities will take place as outlined in the original implementation plan. Assessment data for each main component will be reviewed in an ongoing manner to make adjustments in the faculty development offerings as indicated through feedback of the ongoing sessions, the grants programs, Faculty Fellows programs and as a part of the curriculum mapping, course redesign and general education assessment efforts at UTC.