

Part V - Impact Report of the Quality Enhancement Plan

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Description of the Quality Enhancement Plan as Initially Presented

The Lubbock Christian University Quality Enhancement Plan (QEP), "I think; therefore, I write," provided a framework by which faculty and students deliberately fostered a community of critical thinkers that expressed itself well in discipline-appropriate written forms. The QEP contained interrelated initiatives for students to improve critical thinking (CT) abilities and for faculty to improve CT pedagogy and assessment.

Goals

The QEP consisted of two fundamental goals: 1) designating and planning specific upper-division critical thinking-intensive courses across programs that would enhance students' CT through writing; 2) creating faculty development opportunities to further enhance how faculty foster CT in the classroom.

Upper-Division Critical Thinking-Intensive Courses

A Faculty Fellow (FF) program was created to train faculty members on the use and implementation of CT strategies in specific upper-division courses. Each semester, faculty members voluntarily applied, and the QEP Director, the Provost, and the Academic Deans selected FF participants based on the individual applications, as well as on the overall benefit to the department and university. Each FF then designated an upper-division class as a Critical Thinking-Intensive (CT-I) course and spent the following semester redesigning it in a FF cohort with the QEP Director.

The Paul and Elder CT model, including the Elements of Thought (purpose, question at issue, information, interpretation, concepts, assumptions, implications, point of view), was used as the framework for structuring the CT-I courses. The Paul and Elder approach was especially useful because of its focus on the quality of student thinking with a specific goal of improving student writing. Using this model, instructors developed discipline-appropriate writing assignments and activities that incorporated CT elements throughout course content.

Faculty Development in Critical Thinking and Pedagogy

The QEP influenced the student learning environment by encouraging faculty to become more explicit in their use of CT-related concepts and vocabulary as they interacted with students and one another. The QEP provided faculty with professional development opportunities and with interdisciplinary support for enhancing pedagogical methods and for assessing CT.

A strategic part of this interdisciplinary support was the Teaching Commons (TC), which brought faculty together to collaboratively develop effective pedagogical strategies. In addition to providing a clearinghouse for practical resources and research on teaching and learning, the TC connected faculty with wider networks of innovation beyond the campus through consultants and speakers. The TC also provided grants for some faculty to receive targeted professional development in CT pedagogy and assessment. Each semester, current and former FF members contributed directly to the TC and frequently shared lessons learned at TC-sponsored events. The TC was an important crossroads where multiple initiatives intersected and were coordinated in ways that strengthened the ability of our faculty to improve student learning.

Learning Outcomes

Each upper-division CT-I course aimed at one of the following two learning outcomes. The outcomes reflect a consideration of both lower-order and higher-order cognitive abilities, acknowledging that students would progress from comprehension and application to evaluation.

Learning Outcome I: Students will comprehend and apply the essential components of CT in their writing.

Learning Outcome II: Students will demonstrate their ability to evaluate CT in written expression.

Depending on the outcome selected per course, students were required to take either the Critical Thinking Assessment Test (CAT) or the Ennis-Weir Critical Thinking Essay Test at both the beginning and end of the semester to determine growth. The TC provided both resource materials and professional development opportunities for training the faculty in CT strategies that would help students meet the learning outcomes.

Changes

Any changes to the initiative were undertaken with a view toward supporting our faculty as they help improve the CT skills and writing abilities of their students. To aid in the campus-wide implementation of this important initiative, a new name was adopted to better portray the purpose of the QEP for the LCU community. EquipLCU was selected because of the QEP's overarching purpose of equipping faculty and students with the skills necessary to strengthen critical thinking and writing across disciplines.

Modification to Administrative Staff

EquipLCU was originally designed to be administered by a single Director. The Director's primary focus was to develop and coordinate the FF and TC programs. In order to ensure effective implementation, in year 2, an Assistant Director for Professional Development was given responsibility for the TC. In year 3, an Assistant Director for Assessment was charged with overseeing all data collection and reporting. The EquipLCU team consisting of these three individuals were responsible, then, for implementing and monitoring all aspects of the QEP.

Modification of Implementation

Initially, the FFs aimed to apply the entire Paul and Elder model to their designated CT-I course. However, after two semesters of implementation, it was determined that because of the broad and comprehensive nature of the Paul and Elder model, students were not getting an in-depth understanding or use of all 8 Elements of Thought. In addition, not every course was ideal for focusing equally on each of the 8 elements. Concentrating on fewer elements per course would allow students to gain a clearer understanding of CT within a given class and discipline. Therefore, faculty members were encouraged to select the 1-3 elements best suited for their particular CT-I course, thus giving more time and attention to those dimensions of thinking that would have the greatest impact on student learning.

Modifications to Assessment Plan

Direct measures for Outcomes I & II were pre- and post- *Critical Thinking Assessment Test (CAT)* results, pre- and post- *Ennis Weir Critical Thinking Essay Test (EW)* results, and Faculty Fellow designed rubrics used to grade written assignments. During implementation, Faculty Fellows discovered that the CAT and EW exams were not as useful in assessing discipline-specific content as it related to the outcomes. As a result, Faculty Fellows emphasized evaluation of a pre- and post-experience writing assignment using the rubric. Rubrics were designed using the *Performance Patterns*

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Applied to Paul & Elder's Elements of Thought rubric (Wolcott 2010), a rubric intended to evaluate both critical thinking and writing. Rubrics also included discipline-specific CT-related outcomes for each specific upper division course to produce more actionable assessment data. Administration of the CAT and EW continued but more emphasis was placed on evaluation of the written component using the rubric.

Impact on Student Learning and the Environment Supporting Student Learning

Critical Thinking-Intensive Courses Impact

The primary vehicle for promoting student growth in CT and writing was through carefully designed upper-division courses. Over the five-year period of QEP implementation, 28 courses from across various disciplines were redesigned and designated as CT-I courses. Every department on LCU's campus offered its students at least one upper-division major's course with a focus on CT and writing, and over the implementation period, 661 students were enrolled in these CT-I courses.

The QEP's impact on student learning was reflected in recent results from the annual National Survey for Student Engagement (NSSE), which records students' perceptions of the amount of time and effort they put into their academic endeavors, as well as their perceptions of the institution's efforts in engaging students with the various resources provided and curricula offered. The 2012-2013 school year data reported the following from students. When asked for the students' perceptions of their "Perceived Gains" while at LCU, the highest perceived gain was "Thinking critically and analytically," where 87% of seniors responded "Very Much" or "Quite a Bit." The third highest "Perceived Gain" was "Writing clearly and effectively," where 77% of seniors responded "Very Much" or "Quite a Bit."

Outcome I Impact

During the 5-year period that EquipLCU has been in place, 20 of the 28 upper-level CT-I courses taught as a part of the initiative focused on Learning Outcome I, which was measured through the use of departmentally-designated rubrics on discipline-specific writing assignments and the use of the nationally designated Critical Thinking Assessment Test (CAT), given as both a pre- and a post-test.

Throughout the 5-year implementation, 17 of these 20 courses met the standard set for this outcome using the discipline-specific rubric. The courses that fell just below the standard included a math course and a communications course. After receiving data, the Director met with the FF to examine the scores and courses to help determine what changes might facilitate stronger growth. After the second course offering, the math course once again did not meet the specified criterion; however, the scores did increase by 11 percentage points. The communications course resulted in 77% rather than the specified 80% of students meeting the designated standard; however, the professor left the university before the course could be offered a second time.

The second assessment measurement came from the CAT, with 73% of the courses exhibiting growth overall. Of those, 45% exhibited an increase of at least 10% between pre- and post- tests. The Director met with faculty members to discuss incremental changes that could be made to increase growth when the course is taught a second time, not only in CAT scores but also in the discipline-specific and writing assignments. Based on faculty discussion and data analysis, it became evident that the departmentally-designated rubric provided faculty members with the most relevant and useful information to gauge the development and growth of students' CT and writing abilities.

Outcome II Impact

Eight upper-level CT-I courses focused on Outcome II, with achievement measured through the use of departmentally-designated rubrics for discipline-specific writing assignments and the Ennis Weir Critical Thinking Essay Test, given as both a pre- and post- exam. After compiling data for these courses, all 8 met the assessment standard set for the discipline-specific writing component. However,

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even with these results, the Director met with each FF to determine if additional incremental changes could be made to further enhance student growth in both CT and writing when taught the second time as a CT-I course.

Data from the Ennis-Weir test showed that 50% of the courses demonstrated significant improvement, showing at least 10% growth between pre- and post- tests. As with Outcome I, the discipline-specific writing component proved to be the most relevant and valid measure of CT growth. Faculty members provided evidence of both in-class and outside-of-class assignments that demonstrated students' CT growth, which could not be seen on the Ennis-Weir due to its lack of connection with course content. The Director discussed assessment results with FFs and reflected on how to improve student growth, finding that discipline-specific writing assessment provided more relevant assessment data than the Ennis-Weir test. A summary of CT-I assessment data is provided for reference.

Critical Thinking Intensive Course Impact			
Indicator	Outcome	Type	2008-2013
Average CAT Pre-/Post-Test Improvement	I & II	Direct	6.8%
Average Ennis-Weir Pre-/Post-Test Improvement	II	Direct	4.9%
Students Meeting Achievement Target on Post-CT-I Experience Paper (Evaluated Using Faculty-Designed Rubric)	I & II	Direct	91.1%
Average Pre-/Post-Writing Improvement (Evaluated Using Wolcott Rubric)	I & II		
Total Number of Students Enrolled in CT-I Courses	I & II	Indirect	661
Average Percentage Improvement in the Number of Student Presentations at Scholars Colloquium from Pre-Implementation	I & II	Indirect	12.2%

Faculty Development Impact

Intentional faculty development activities were planned and implemented to further enhance academic quality and achieve the overarching goals set for the QEP. These activities included training the FF cohorts, creating the TC (which included a physical resource center, an online resource module, and campus-wide professional development opportunities), funding faculty development grants, and participating in our annual Scholar's Colloquium.

Faculty Fellows Impact

Once selected, FFs met weekly as a group with the Director to discuss their courses, assignments, and strategies for increasing student engagement and improving the quality of CT expressed in writing. During this time, faculty members researched the Paul and Elder Critical Thinking Model through the use of resources from The Foundation For Critical Thinking (www.criticalthinking.org) and Gerald Nosich's book, *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum*. Nosich's guide was written to help faculty create assignments and courses that enhance the CT of their students.

Faculty were also asked to research CT within their discipline as they redesigned their courses to include more intentional pedagogy for fostering CT skills and strengthening writing abilities. Each FF determined which CT elements best fit his or her discipline and course and then planned lessons and assignments around those elements. The FFs studied, implemented, and shared best practices for developing the kinds of thinking that promote good writing.

By the conclusion of the fifth year, 28 faculty members representing each of the 3 colleges were trained as FFs to create discipline-specific CT-I courses. Each cohort was comprised of an

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interdisciplinary mix of faculty that met weekly to plan and redesign their respective courses. All 12 departments on campus had at least 1 representative participate, but some had as many as 4 faculty members trained. At this time, 26 of the 28 are still teaching at LCU. Lessons learned during this professional development opportunity were then used to enhance other non-CT-I courses taught by FFs, and in some cases (with our Chemistry faculty, for example, who revised all lab manuals), such lessons informed departmental meetings that led to significant efforts to enhance student learning. A summary of Faculty Fellow Program impact is provided for reference.

Faculty Fellow Program Impact			
Indicator	Outcome	Type	2008-2013
Total Number of Faculty Fellows Trained	I & II	Indirect	28
Percentage of Academic Departments with Faculty Fellows	I & II	Indirect	100%

Teaching Commons Impact

The TC included a physical collection of resource materials, located in the library, as well as a virtual repository of resources containing sample syllabi, examples of effective grading rubrics, links to scholarly articles on CT—all grouped according to academic discipline. As a more active method of encouraging and facilitating faculty development, however, the TC was implemented as a series of events through which faculty could share, learn, and practice strategies for teaching and learning.

In 2008-09, EquipLCU provided 72 sessions (workshops, brown bags, and seminars): 12 of which had a total of 106 in attendance and offered specific training in CT and interactive teaching strategies; 9 of which had a total of 115 in attendance and featured various faculty and staff sharing personal stories and professional research on topics such as the integration of faith and learning; 44 of which had a total of 561 in attendance and represented a collaborative partnership with the Technology and IT department on campus. In 2009-10, our professional development sessions featured 7 book studies led by Faculty Fellows, where small groups (97 in total attendance) met to discuss how sociological studies like *Hurt* related to the lives of our students, or how pedagogical analysis like *How People Learn* might affect how we structure our classes, our assignments, and our strategies for teaching. We hosted and facilitated in Fall 2009 an all-campus Forum on Faith, Tradition, and Critical Thinking. EquipLCU also instituted an annual Celebration of Scholarship, a reception in honor of faculty and their academic achievements where we formally recognize scholarly efforts and encourage faculty to continue to develop their thinking and writing as they mentor and teach students to do likewise.

From 2010-13, each semester featured 3 lunch discussions led by one of our faculty. The speakers were frequently FFs, sharing how they enhanced the CT and writing dimensions of their courses, and sometimes these luncheons included guest lecturers presenting on the use of technology to foster CT and writing in the classroom. Other topics often related to our campus-wide initiatives: Thinking Critically about Poverty (Fall 2011), Thinking Critically about Civic Engagement (Fall 2012), and Thinking Critically and Christianly about Vocation (Fall 2013). The TC hosted a series on Strategies for Getting Students to Think, which included lunch discussions on Reading Assignments, Research Projects, and Tests. From 2010-13, these professional development luncheons for faculty had 227 in total attendance and included representation from every department on campus. In addition, a Spring 2012 workshop focusing specifically on strategies for helping students write well included all 85 of the faculty. All of these events have been aimed directly at the mutually beneficial goals of strengthening the professional lives of our faculty and enhancing the educational experiences of our students. A summary of Teaching Commons impact is provided for reference.

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Teaching Commons Impact			
Indicator	Outcome	Type	2008-2013
Total Number of Attendees for TC Professional Development	I & II	Indirect	553
Average Number of Full-Time Faculty Trained by TC Each Year	I & II	Indirect	54

Professional Development Grants Impact

The QEP budget allocated funds for faculty professional development grants. Each grant proposal was reviewed using a rubric which emphasized the impact that the proposal would have on student learning, particularly on CT processes and academic writing experiences. Grants were awarded in the fall and spring of each year and included four categories: travel to professional conferences, travel to present at professional conferences, research projects, and materials for classroom or laboratory use.

From Fall 2009 to Spring 2013, LCU faculty submitted grant proposals through a competitive peer-review process, with funded requests totaling \$29,950 during those 5 years: 8 funded research projects related to student learning; 26 funded faculty making presentations at regional, national, and international conferences; 16 funded faculty attending such conferences; and 5 funded faculty developing materials for classroom and laboratory experiences.

The various tools created by faculty using grant funding include new chemistry lab manuals that require students to utilize deeper CT skills, specific microscopes to enhance the biology lab courses, and the Evidence-Based Research (EBR) tool. The EBR tool is a web-based and mobile-ready educational resource that was developed as an interdisciplinary collaborative. It is designed to enhance students' research and online search skills and strengthen their ability to critically appraise the scientific literature. Use of the EBR tool significantly increased LCU students' research skills. Data from embedded questions within the tool are being used to continually improve the nursing curriculum, and the data is beginning to be used in department assessment as well. The EBR tool is currently being tested at the Lebanese American University on both the Beirut and Byblos campuses. This project has been used to prepare "Outcomes of a Web-Based Tool to Teach Evidence-Based Practice: Application to Institutional Effectiveness," which has recently been accepted for presentation at the December 2013 SACS Annual Conference.

Scholar's Colloquium Impact

Each year, Lubbock Christian University held a Scholars Colloquium (SC), a professional academic conference highlighting faculty research, student projects, and student-faculty collaboration. The SC allowed both faculty and students to showcase original scholarship, as faculty sponsors mentored the students presenting papers and posters. EquipLCU worked with the Scholars Colloquium (SC) to implement a CT-sensitive rubric to screen and either accept or deny submissions. In year 4, this rubric was shared with the faculty so that submissions would be evaluated by faculty mentors prior to submission, resulting in an increased quality of submissions and fewer entries requiring revision and re-submission.

Due in part to the emphasis that has been placed on the Scholars Colloquium through the QEP process, the SC has grown significantly in recent years. The upper-division CT-I courses have routinely required research projects and essays, and many of these have been developed for presentation at the Colloquium. Between 2006 and 2008, the SC averaged 48 paper and 19 poster presentations. By 2013, the number of paper presentations had grown to 93 and the number of poster presentations had grown to 52. In 2013, the SC boasted 2404 total attendees, with many attending multiple paper and poster sessions.

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Unintended Outcomes Impact

The implementation of the QEP had an impact on areas and initiatives outside those originally planned, and it positively influenced the campus over the past 5 years. Such unintended but beneficial outcomes included the establishment and growth of the University Writing Center (UWC), the annual Writing Carnival, and the University-wide Critical Thinking Initiatives that have been held every year since 2011.

University Writing Center Impact

Prior to QEP implementation, the university provided dedicated writing support only in a classroom setting or via the university tutoring center. Due to the influence of the EquipLCU Implementation Committee and with the help of the English department and other interested parties, during year 1 of the QEP, the LCU campus began the process of researching, planning, obtaining funding for what is now known as the LCU University Writing Center (UWC).

The UWC is housed in the LCU Library and began serving students during year 2 (Fall 2009) of the QEP. The UWC is structured as a drop-in facility, where consultants from a variety of academic fields offer students appointments to discuss and improve their writing. Since its inception, the UWC has increased student consultations from an average of 2.9 per day in Fall of 2009 to an average of 12.3 per day in Fall of 2012. This demonstrates growth from 90 students being served in that first semester to 594 being served in Fall of 2012, with the number of departments represented increasing from 3 in the Fall of 2009 to include all 12 departments in Fall of 2012. The number of individual courses represented increased from 6 to 54 over this time span.

University Writing Carnival

In an attempt to improve student connection with the University Writing Center and to build community, the UWC, the Student Affairs Office, and the Department of Humanities collaborated to create an annual Writing Carnival. This event features a common reading (*The Chronicles of Narnia*, *The Lord of the Rings*, *Harry Potter*, *The Princess Bride*) that is discussed during chapel and that is read aloud in the mall area of campus during a 24-hour Reading Marathon. The Writing Carnival itself, with booths for students to submit their writing efforts (6-word stories, haiku, captions for themed photos, rhymes, magnetic poetry, etc.), begins at the conclusion to the Reading Marathon and includes a meal of carnival food on the mall. These events provide an engaging experience for our students, and they highlight the work of our Writing Center and the importance of reading and writing for our faculty, staff, and students.

University-wide Critical Thinking Initiative Impact

The Thinking Critically Initiatives grew out of several sources: the QEP, a presentation by a Faculty Fellow, and a discussion between two professors. Each initiative purposely involved the freshman writing classes, as well as other courses across campus, creating far-reaching impact within the LCU community. The initiatives involved speakers, screenings and discussions of relevant films, panel discussions, as well as other creative projects or events developed by students and faculty. The LCU librarians collected suggested readings and put them on reserve in the LCU library for use during the year. The initiatives were co-curricular in nature, where Academics worked closely with Student Affairs to plan events. Because of this collaboration, both areas were able to provide quality student life activities that added value to the academic experience, including a city-wide bi-partisan event that encouraged attendees to set aside preconceived notions and engage in a thoughtful examination of their role in civic life. The three initiatives included "Thinking Critically about Poverty," "Thinking Critically about Civic Engagement," and "Thinking Critically and Christianly about Vocation."

Reflections on What the University Has Learned

The university community has gained an appreciation for a campus-wide Writing Center to assist all professors in improving both the thinking and the writing of our student body. The UWC has seen continual growth in student and faculty use across the four years in which it has been in operation.

Many university courses include a more explicit and rigorous approach to teaching CT and writing, as well as a more focused emphasis on undergraduate research. This growth has created specific opportunities for both faculty and staff to partner in undergraduate research collaborations, not only at our own Scholars Colloquium, but also at the National Council on Undergraduate Research (NCUR) annual conference. Both students and faculty have submitted research proposals that have been accepted for presentations. As a result of such developments, the university has involved more faculty in its Institutional Review Board (IRB) and in its Undergraduate Research Committee to help oversee and support research projects.

The university increased both funding and opportunities for professional development to allow faculty members occasions to renew, update, and share their professional growth through conferences, seminars, and other scholarly gatherings. The EquipLCU grant program has helped fund research and travel for faculty, and the TC has facilitated multiple professional development efforts that encourage interdisciplinary engagement and collaboration. As the TC has promoted and fostered such opportunities, other departments and groups have initiated their own campus-wide gatherings, such as the Nursing Department's Research Brown Bags.

Faculty Fellows made significant improvements to their courses and shared their lessons learned with the campus community, influencing more than those enrolled in the designated CT-I courses. The FFs routinely implemented some of the strategies and approaches that they studied and practiced in courses not officially designated as CT-I, as they found ways of teaching and learning that work in multiple classes and settings.

FF discussions fostered interdisciplinary sharing and provided opportunities for cross-discipline research and programming. In many cases, faculty members were aware of common pedagogical strategies within their own discipline but were unaware of strategies used outside of their department. The weekly FF discussions provided an opportunity for faculty to teach each other effective strategies for fostering CT throughout their courses. Faculty could bring concerns, questions, or issues at hand to the meetings to be discussed, which allowed the cohort to brainstorm possible solutions to those issues. Moreover, collaborations such as the EBR Tool included non-FF members, indicating that conversations were being initiated within and across departments. Such synergy helped foster an academic culture attentive to CT and writing, interested in undergraduate research, and open to innovative pedagogical strategies. One of the most important lessons learned during QEP implementation has been the benefit for the campus community when we explicitly and intentionally foster interdisciplinary sharing, learning, and collaboration.