QUALITY ENHANCEMENT PLAN
GETTING TO THE CORE: LEARNING COMMUNITIES AND STUDENT LEARNING

QUALITY ENHANCEMENT PLAN OVERVIEW

In 2005, Collin College developed a quality enhancement plan (QEP) focused on developing critical thinking skills, a general education outcome, through learning communities (LRCM). LRCM are defined as two courses from different disciplines integrated around a common theme. Instructors from each discipline team teach the course, and students and teachers form a community of learners. Collin College designed its Learning Communities program, in part, to foster critical thinking among students. In 2001, Collin’s Learning Community program was nationally recognized with a Bellwether Award from the Community Colleges Futures Assembly. As a collaborative teaching methodology aimed at developing critical thinking, it was a logical choice to expand the Learning Communities program as an opportunity for students to enhance their critical thinking skills.

The Quality Enhancement Plan

The QEP is focused on enhancing the critical thinking within the general education core course outcomes by affording students the opportunity to complete the general education core curriculum through LRCM. This collaborative course delivery methodology provides an interdisciplinary learning environment to promote contextual learning, defined by Collin College as “learning and applying subject area competencies within a collaborative and interdisciplinary context.” The QEP is expected to demonstrate whether LRCM improve students’ disposition to think critically and increase their perceptions of their own learning gains.

INITIAL QEP GOALS AND INTENDED OUTCOMES

QEP Goals

The four primary goals of Collin’s QEP are listed below.

1. Enhance students’ contextual learning in identified student learning outcomes by offering students the opportunity to complete the academic core in [interdisciplinary] learning communities. (Enhance contextual learning)
2. Develop a process to assess and systematically document student learning outcomes in learning communities consisting of paired core courses. (Assessment and documentation)

3. Enhance and expand faculty members’ knowledge and skills related to learning communities through professional development. (Faculty professional development)

4. Enhance support systems for learning communities courses. (Support systems)

**Intended Outcomes**

There are three intended outcomes, all related to goal 1, enhance contextual learning. Goals 2-4 provide support to goal 1. These outcomes are stated as three hypotheses to test for significant learning differences between students in the LRCM core courses (treatment) vs. those in single-subject core courses (control):

1. Students in learning communities consisting of paired core courses will perform as well as or better than students in the control group on assessments of course-specific knowledge. 
   Measure: Course-specific items designed by Collin faculty to measure learning outcomes in relation to approved general education learning outcomes.

2. Students in learning communities consisting of paired core courses will perform better than students in the control group on an assessment of critical thinking skills. 
   Measure: The nationally-normed California Critical Thinking Disposition Inventory (CCTDI)

3. Students in learning communities consisting of paired core courses will demonstrate higher levels of self-perceived learning gains than students in the control group.
   Measure: The Community College Student Experiences Questionnaire (CCSEQ), section 6, Estimate of Gains.

**QUALITY ENHANCEMENT PLAN STATUS**

Collin College formed a Quality Enhancement Plan Advisory Committee (QEPAC), comprised of faculty and administrators, to implement, direct and monitor progress of the five-year plan. This committee continually monitored progress of the QEP, reviewed data and guided decisions to modify the plan when needed.

**Goal 1-Enhance Contextual Learning**

The first step in accomplishing the QEP was to provide students the opportunity to complete the core curriculum through LRCM. Data collection procedures were established to
assess critical thinking and perception of learning. Baseline data were collected in 2005-06. By 2008-09 the roster of LRCM courses had one or more courses in all core component areas.

**Goal 2-Assessment and Documentation**

Initial course-level student learning outcome data collection procedures were established and baseline data was collected in academic year 2005-06. Thereafter, discipline faculty collected course-level student learning outcomes data and analyzed student mastery of content annually. A review of assessment results and methodologies ensured collection of insightful information about student mastery of intended student learning outcomes.

**Goal 3-Faculty Professional Development**

Developing faculty to effectively teach LRCM, while incorporating strategies to enhance critical thinking skills was essential to the success of LRCM and the QEP. Each fall and spring semester, the College hosted a faculty workshop to introduce faculty to LRCMs, the course development process, and contextual learning. Formal professional development opportunities were also available, annually, to advance LRCM, beginning with a “Teaching and Assessing Critical Thinking” Workshop in 2006 and 2007 ending with a 2010 presentation on how to “Maximize Your Use of Student Learning Outcomes.”

**Goal 4-Support Systems**

At the start of the QEP, the LRCM program was five years-old. The program was small, with 12 LRCM pairs offered in spring 2005. Furthermore, the College did not have a formal, systematic process in place to approve new courses or new faculty to teach the collaborative LRCM courses. Goal 4 helped to develop support systems to grow and sustain the quality of the program including a marketing, systematic course development, and instructional spaces.

*Marketing*

The Learning Communities Chair, the Dean of Social and Behavioral Sciences, representatives from academic advising, admissions and college and public relations developed
a marketing campaign to inform students of the LRCM opportunity. The plan included a variety of visual media such as movie theater promotions, table top fliers on campus, buttons worn by advisors, news features, and campus banners displayed during registration. Electronic media were also employed, including: a LRCM web page, email messages announcing available LRCM courses to students; and video clips in the student Web portal. In addition, faculty promoted LRCMs face-to-face at student orientations.

Systematic Course Development and Approval Process

In conjunction with academic deans and experienced learning community faculty, the College developed a systematic process for proposing, developing, approving, and scheduling a new LRCM course. As intended, LRCM courses were offered in every one of the eight components of Collin’s general education core curriculum.

Flexible Instructional Space

Research on collaborative learning found that the physical classroom environment can promote collaboration and improved learning. The College furnished three classrooms to permit flexible groupings and collaborative spaces within the classroom to support collaborative learning in LRCM courses.

SIGNIFICANT QEP CHANGES AND THE REASONS FOR THE CHANGES

Trend analyses of the CCSEQ, the CCTDI, and performance indicators did not show any significant, replicable differences in student learning or performance outcomes between students in LRCM courses and single-subject courses. Program proponents describe qualitative enhancements to learning in LRCM that had not been captured quantitatively. Therefore, QEPAC adjusted the QEP assessments in response to expected qualitative outcomes to explore whether other measures might capture expected differences in student learning contributed by the LRCM approach. Changes to the original QEP are discussed below.
Assessment of Thinking Critically (Goal 1, Outcome 2)

For measuring critical thinking, Collin’s faculty identified the nationally-normed CCTDI as the best match between measurement and expected outcomes. The test is designed for an adult population, is widely used in higher education, has excellent reliability, has demonstrated construct and content validity and provides seven subscales. The QEPEC reviewed three-year trend results of CCTDI data along with two external studies, which supported a person’s disposition to think critically is a fairly stable trait similar to personality traits. However, a review of research studies by Ernest T. Pascarella and Patrick T. Terenzini (2005) concluded that critical thinking skills and behaviors can be acquired in the classroom; therefore, a recommendation was made to measure application of critical thinking skills in learning activities. QEPAC thus shifted the assessment emphasis from the disposition to think critically to student demonstration of critical thinking skills. This shift necessitated the development of a new method to measure students’ application of critical thinking skills in course assignments. A critical thinking rubric, adapted from an instrument developed by Valencia Community College, was applied to student artifacts from the LRCM and a comparison group of single-subject courses to determine reliability of the instrument. The rubric measure was found reliable and logistically feasible.

Student Perception of Learning Gains in Learning Communities (Goal 1, Outcome 3)

Students’ perceptions of their own learning gains and their overall collegiate learning experience using the CCSEQ demonstrated no statistically significant differences between the two groups. The instrument did not produce replicable results from year to year. The QEPAC decided to discontinue administration of the CCSEQ and focus on direct measures of student learning. The direct assessment of course-specific student learning outcomes yields objective data rather than students’ self-reported perception of learning gains, which are subjective. While the direct measure of course-specific measures also demonstrated no difference between the
two pedagogical approaches, the aim of the faculty was to ensure there was equivalent student mastery of course-specific learning outcomes and skills development as a result of participation in the collaborative LRCM processes.

**Development of Assessment Process (Goal 2)**

The research design called for a treatment group and two control groups for the assessment of student learning outcomes, critical thinking, and student estimates of learning gains. All students enrolled in LRCM consisting of paired core courses formed the treatment group. Initially, the study included two control groups. The first control was a random group of 50 students enrolled in single-subject core courses taught by faculty members with no LRCM experience. The second control was a parallel sample of 50 students enrolled in single-subject core courses taught by faculty members concurrently teaching the same core subjects in their LRCM. In spring 2008, the campus Vice President/Provosts, Deans and the QEPAC revised the data collection methods to exclude the second control group because there were insufficient matched pairs. The revised control group included 100 students enrolled in core single-subject courses, taught by non-LRCM faculty, corresponding to LRCM course subjects.

**Additional Assessment Measures**

With several measures producing inadequate results, the QEPAC identified additional measures that could potentially differentiate the student learning in a LRCM and a single-subject course. The QEPAC monitored student performance indicators including course retention and successful completion. They also recommended conducting faculty focus groups and a student survey to learn more about the LRCM experience.

**THE QEP’S IMPACT ON STUDENT LEARNING**

**Learning Community v. Single Subject Courses**

Trend data of student learning outcome measures show that LRCM students perform as well as students in single-subject courses. However, surveys of faculty and students indicate
greater benefits of the collaborative learning experience than what the data show. In a 2010 survey of the LRCM experience, 80 percent of 118 responding LRCM students agreed that, “the LRCM experience helped students understand connections across the subject and helped them see how the disciplines related to each other.” More than 70 percent agreed that it was, one of the best educational experiences they have had. Eighty-three percent agreed that “the LRCM experience broadened their thinking,” and 74 percent agreed that “LRCM courses used instructional time very effectively.” Overall, the results were positive, but a comparative survey to students in single-subject courses is needed before making conclusions about the success of the LRCM courses.

Critical Thinking Assessment

As recommended by the QEPAC in 2009, faculty piloted the use of a critical thinking rubric that measures students’ ability to learn and apply critical thinking skills including analysis, synthesis and evaluation to solve disciplinary problems integrated in the core courses. Student artifacts were assessed by a faculty team to compare critical thinking skills demonstrated by LRCM students and single-subject core courses.

The pilot demonstrated that faculty could reach agreement about the elements and criteria of critical thinking and apply these criteria across a wide range of student artifacts. The faculty group which assessed the student artifacts subsequently participated in a college-wide faculty development session which explored the rubric categories, elements and its integration into the classroom as an instructor’s tool along with student companion pieces. The scoring rubric and associated resources [1] [2] are available on Collin’s curriculum Intranet site for faculty use college-wide.

Course Retention and Success

Although course retention and success were not initial measures for the QEP, the QEPAC identified both as a potential benefit of the LRCM program. The student performance
indicators of course retention and successful completion, defined as a final grade of C or better, did show a pattern. Students in spring LRCM courses consistently, outperformed students in matched single-subject courses. However, the reverse was true in the fall where students in single-subject courses outperformed students in LRCM courses. Additional research is necessary to identify potential cause and effect.

Impact of Flexible Instructional Space

A Classroom Space Assessment survey of students in LRCM and single-subject Collin classrooms determined the degree to which students perceived that the designed space influenced student learning in comparison to standard Collin classrooms with fixed tables in row arrangements. Overall, the collaborative space was rated more favorably than the traditional classroom for physical comfort, emotional appeal, promoting group interaction, and supporting independent learning. However, the flexible furnishings did not significantly influence student learning outcomes.

INSTITUTIONAL IMPACT/UNINTENDED OUTCOMES

Integration into the Core Curriculum

The Learning Communities program and course proposal process have been integrated into the regular curriculum offerings of Collin College. Faculty participation is sufficient to offer a wide range of LRCM core course pairings to meet student demand on a semester by semester basis. A faculty workshop on developing a LRCM will continue after the QEP.

Curriculum Development

LRCM course offerings have expanded to include all components of core curriculum. It is possible for a student to take an LRCM course in every area of 42 hour core. Through the QEP, Collin has brought structure to its course development process for LRCM.
Assessment Process Improvements

The College has improved the assessment of LRCM by adding measures assessing quantitative and cognitive gains of student learning, including critical thinking and discipline-based common course measures. The lessons learned about the assessment of LRCM have been applied in general education and workforce education program assessment at Collin.

Faculty Development

A significant benefit of the QEP has been faculty development. LRCM team teaching enables faculty to transfer use of technology and behavior management skills, acquire knowledge of the paired course content, learn examples that reinforced their own subject, and experiment with new teaching methodologies that require the extended periods available in the LRCM format. Furthermore, the semester-long partnership between faculty in the LRCM course provides faculty with sufficient time to practice and tailor their new instructional skills and knowledge to fit their circumstances.

Technology Adoption

LRCM faculty reported learning new methods for instruction through the application of technology from their LRCM partner. Personal response system technology was made available to LRCM faculty for the purpose of enhancing student engagement and providing instructors with immediate student feedback. This technology has been adopted by some participating LRCM faculty for long-term use.

Student Success Outcomes

Student course completion was the similar for the first four years in LRCM and single-subject courses (82 percent for an LRCM core enrollment of 1,688 v. 81 percent for the single-subject core enrollment of 50,991). Successful course completion was also the same for the two pedagogical approaches.
Collaborative Learning Diffusion

Students enrolled in single-subject classes report similar rates of collaborative college learning experiences on the CCSEQ compared to the students in LRCM courses.

Learning Communities Recruitment

It continues to be a challenge to inform students early in the admission process about the opportunity to participate in the Learning Communities program. LRCM enrollment has ranged from a low of 122 in fall 2006 to a high of 236 in fall 2008 following expanded publicity efforts. The QEPAC monitors scheduling and promotes course proposals to maximize student opportunity to participate in the LRCM program.

FUTURE DIRECTIONS

Although the QEP did not produce expected results, its implementation has made an impact on the LRCM program and assessment across the College District. A LRCM committee of faculty will continue to address issues such as annual program promotion and scheduling, but will also discuss plans on developing a systematic model for a cohort of students to enroll in multiple LRCMs. A prolonged exposure to the contextual, collaborative learning environment with a focus on critical thinking may produce the quantitative results expected from the original QEP. Students and faculty who participate in the LRCM experience at Collin College have a positive experience and quantifying the impact of LRCM on learning will continue to be a goal.

SOURCE DOCUMENTS

2009-2010 District Strategic Plan
Original Quality Enhancement Plan