Introduction

The University of Louisiana at Monroe QEP Impact Report describes the implementation and effectiveness of the University’s Quality Enhancement Plan. The QEP, “Engage the Possibilities!,” was developed with the goal of “improving student learning through course redesign within the Core Curriculum” (QEP Executive Summary). We aimed to change the culture of student learning throughout core courses by embedding pedagogies and practices that engage students with active learning strategies. A process was adopted by which a cross section of core courses was selected, faculty were trained in active learning pedagogies, and courses were redesigned to implement those strategies. Assessment data are collected to determine that the strategies have been implemented and to gauge improvement in student learning outcomes.

The process model that was adopted consists of four phases. Redesign begins in Phase I in which learning objectives for selected courses are identified, data collected to establish a baseline assessment of student learning, and faculty receive training to prepare for redesign. In Phase II faculty redesign the course, embedding strategies that involve student-centered, active learning and possibly also incorporating technology. The course also undergoes evaluation by faculty reviewers using the QEP rubric for assurance that it addresses the standards for redesign. Phase III implementation of the redesigned course sees the course taught in its approved form, with data collected to determine the achievement of the outcomes. Evaluation in Phase IV includes analysis of student data to determine the success of the redesign or the need for further redesign.

Initial Goals and Intended Outcomes of the Quality Enhancement Plan

Learning outcomes and assessment measures intended to analyze student achievement were established in all courses in ULM’s Core Curriculum at the time the QEP was developed. These measures include a variety of tasks and assessments such as compositions graded by rubrics, examinations, written critiques, and essays. Because of the mixed results of assessments from mostly traditionally-taught courses, the QEP Steering Committee selected as the focus of the QEP redesigning core courses and embedding pedagogies that support active learning. This effort would support the University’s Strategic Plan that supported the enrichment of the academic learning environment by incorporating new learning methods while maintaining those approaches that produce desired results.

The original overarching goal of the QEP was to improve student learning in ULM’s core curriculum courses through their systematic redesign and through the incorporation of innovative pedagogies that will transform the student learning environment.

This goal of the QEP Steering Committee was identified in an effort to strengthen student learning by engaging students in activities that are student-centered. Innovative activities would replace the traditional model of students primarily reading texts, attending lectures, working individually on assignments, or demonstrating understanding by taking examinations. By experiencing active learning, students should improve their skills in areas such as communication, critical thinking, and problem solving.

The initial goals of the QEP are:

- Improve student learning in the core curriculum through the systematic redesign of core courses
- Increase student and faculty satisfaction with redesigned core curriculum courses
Intended outcomes of the QEP:

- Improved success rates in assessment for redesigned courses
- Incorporation of multiple pedagogies and technologies that encourage active learning
- Faculty satisfaction with the redesign process and with the data management system
- Faculty perception of student engagement in redesigned courses
- Student satisfaction with the redesigned courses

Changes made to the QEP

Early on in the implementation of the QEP some changes were adopted and approved by the QEP Committee:

- Changes in the wording of the indirect measures were made and approved by the QEP Committee during the fall of 2010. The new measures were worded to provide clarification to what the original committee’s intent was when writing these outcomes and to align the results more clearly with the faculty and student perception of course redesign.
- The order of courses for redesign has been modified to better fit the needs of the courses and to maximize the effectiveness of the implementation. Additionally, courses were reprioritized based on the number of sections of a course taught.
- In May of 2011, the initial goals were expanded to be more detailed; this was done
  - To have students actively involved in the learning process.
  - To help students develop higher order thinking skills, such as analyzing, evaluating, creating, and synthesizing.
  - To have a greater variety of best pedagogical practices integrated into a course.
  - To have greater integration of technology and/or variety of resources to enhance a course.
  - To guide students to become more successful in redesigned courses.
- Changes in the Course Redesign Rubric were made to clarify the review standards.
- The QEP Director was hired in January 2010. A second director was named in June 2012, and the third director was named in Fall 2013.
- The data management system that was created to collect assessment data for redesigned courses was determined to be inadequate for the needs of evaluating data and its use was discontinued in fall 2012.
- The course review process was found to be an excellent way to evaluate whether the courses were designed to address the standards of the rubric, but not to determine whether student learning was impacted by the redesign. In spring 2013, the course review project was concluded after thirty courses were redesigned, reviewed, and implemented. A cross section of those courses was selected and data collected to determine the impact on student learning in those courses.
- The QEP budget to support implementation of the plan was created before a series of budget cuts, both annually and mid-year for several years by the state that impacted all of higher education in Louisiana. These cuts caused drastic reduction in personnel. As a result, the budget that would have provided the opportunities for faculty to attend conferences such as NCAT, for consultants to be brought to campus, and for other faculty development opportunities was decreased, and those activities were cancelled. Only faculty development that could be held at a minimum cost was conducted.

While the changes are significant, the course redesign planned by the QEP did impact a significant number of core courses in all areas of the core curriculum.

A description of the QEP’s impact on student learning and/or the environment supporting student learning: achievement of identified goals and outcomes; any unanticipated outcomes of the QEP

The ULM QEP Steering Committee developed the course redesign project in order to improve student learning outcomes by embedding active learning strategies. Active learning was defined as any activity other than a student’s passively listening to lectures. A wide variety of activities, ranging from question and answer sessions to allow students to more clearly understand content, to collaborative activities, to more complex role playing and project-based assignments were planned to enrich the learning experiences of students. The QEP steering committee planned activities that would assure course redesign became a reality on the ULM campus.
• Faculty training
  - External training
  - Training by experts brought to campus
  - Peer training
  - Technology training
• Redesign of core courses
  - Implementation of pedagogical innovations
  - Support for redesign faculty
• Technology training and support
  - Helpdesk support
  - Embedding technology into face-to-face courses
  - Integrating the LMS into face-to-face courses

Faculty training began in the early stages of implementing the QEP, including workshops to prepare faculty whose courses were selected for redesign. Some of the topics included the redesign format, active learning pedagogies, assessment, technology, and data collection. Active learning and instructional technology became continuous topics at faculty development sessions during University Week prior to each semester and at other sessions held throughout each semester. (See page 10, Figure 12 for sample University Week faculty development schedule.) Faculty participated in learning communities to form a network of support for the redesign project. Some faculty attended conferences to learn about active learning and become peer trainers on campus, and expert speakers gave presentations to faculty on pedagogy and strategies to improve teaching and learning. After budget cuts reduced funding for the QEP the university reduced activities to what could be accomplished with very little expense, eliminating travel and hiring presenters. Faculty presentations, peer workshops, and technology training continued to expand and support implementation of the QEP.

Data collection began in fall 2010 with the first cohort of redesigned courses. The plan’s first goal – to improve student learning – was assessed using the existing university assessment data, with assessment from 2009-10 as the baseline. Other data collected described implementation of active learning strategies, and the changes in student learning that occurred as a result of that implementation. Goal one was assessed by four measurable outcomes. Those outcomes and the results of data compiled for each Direct Measure are:

1. 85% of redesigned courses will demonstrate at least 75% success rate in the assessment for the student learning outcomes for each redesigned course. (Direct Measure 1)
   
   At the end of 2013 data indicated that 74.2% of the courses attained the target. While the courses did not meet the target, it important to note that there was a considerable increase of 19.4% over the baseline of 54.8% success in 2009.

   **Figure 1: Results of Direct Measure 1**

   | Courses in General Education Category Meeting Target for Direct Measure 1 |
   |-----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
   | Academic Year               | 2009-2010                   | 2010-2011                   | 2011-2012                   | 2012-2013                   |
   | Number of courses achieving target of 75% success rate | 17                       | 22                       | 16                       | 23                       |
   | Percent of courses achieving target of 75% success rate | 54.8%                  | 73.3%                   | 53.3%                   | 74.2%                  |

2. The aggregate results of student learning assessment in General Education will be enhanced by 15% from the baseline (2009), and 85% of students in each of the six categories will demonstrate competency. (Direct Measure 4)
   
   The aggregate results in General Education were enhanced by 5.7%, and of the six categories in General Education, only one (Fine Arts) achieved the target with 92% students demonstrating
competency. Four of the remaining categories achieved increases ranging from two percentage points to 22 percentage points. One category recorded a decrease from the baseline of two percentage points.

**Figure 2: Results of Direct Measure 4:**

<table>
<thead>
<tr>
<th>Categories in General Education Meeting Target for Direct Measure 4</th>
<th>2009-2010</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Year</td>
<td>2009-2010</td>
<td>2010-2011</td>
<td>2011-2012</td>
<td>2012-2013</td>
</tr>
<tr>
<td>Composition</td>
<td>No data</td>
<td>51%</td>
<td>44%</td>
<td>50%</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>75%</td>
<td>90%</td>
<td>83%</td>
<td>92%</td>
</tr>
<tr>
<td>Humanities</td>
<td>59%</td>
<td>66%</td>
<td>70%</td>
<td>81%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>75%</td>
<td>71%</td>
<td>76%</td>
<td>64%</td>
</tr>
<tr>
<td>Natural/Physical Science</td>
<td>75%</td>
<td>85%</td>
<td>76%</td>
<td>80%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>77%</td>
<td>81%</td>
<td>82%</td>
<td>79%</td>
</tr>
</tbody>
</table>

3. 90% of courses will demonstrate the incorporation of multiple pedagogies that encourage active learning. (Direct Measure 2)

Data indicated that 93.5% of the redesigned courses reported incorporating active learning.

**Figure 3: Results of Direct Measure 2**

4. 90% of courses will demonstrate the incorporation of new technologies that encourage active learning. (Direct Measure 3)

96% of the redesigned courses reported that they utilized technology that encouraged active learning.

**Figure 4: Results of Direct Measure 3**
Other data were collected to evaluate the impact of active learning strategies on student learning. Faculty from the redesign cohort were asked to report their implementation of active learning, the assessment used to measure the outcomes, and changes in student learning using the QEP Active Learning Matrix.

**Figure 5: Implementation of Active Learning**

<table>
<thead>
<tr>
<th>QEP Active Learning Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course:</strong></td>
</tr>
<tr>
<td>Concept/Lesson/Skill to improve</td>
</tr>
</tbody>
</table>

The data reported regarding student learning was scored using a rubric with the levels of Bloom’s Taxonomy as the rating system. As shown in the above figure, we analyzed the data collected to answer two important questions related to course redesign. The first question was to measure the level/amount of redesign of a course and an evaluation of the techniques adopted therein. The second question was to evaluate the actual gain in student understanding of a course, as a result of the redesign.

To address the first question we generated an overall score for each course. This was done by combining the scores from two different aspects of redesign:

1. The difference in the course structure before and after redesign, and
2. The outcome of redesign, based on all changes that were incorporated in the course.

We used the QEP Active Learning Matrix completed by faculty members whose course(s) underwent redesign, by first categorizing them into ‘score-able’ format. The responses were categorized and scaled as: 1= Knowledge / Remembering; 2= Comprehension / Understanding; 3= Application / Applying; 4= Analysis / Analyzing, 5= Synthesis / Writing; 6 = Evaluation. A revised Bloom’s taxonomy was used to create the scoring rubric. (Anderson, Lorin W., and Leonard O. Pellicer. *Teacher Peer Assistance and Review: A Practical Guide for Teachers and Administrators*. Corwin Press, 2001.)

**Figure 6: Examples of Levels of Bloom’s Taxonomy in Redesigned Courses**

<table>
<thead>
<tr>
<th>Bloom’s Taxonomy Level</th>
<th>Example of Activity in Redesigned Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Knowledge/Remembering</td>
<td>Students took a picture of a cloud at a standard time and identified it.</td>
</tr>
<tr>
<td>2 – Comprehension/Understanding</td>
<td>Students participated in small group discussions and verbal reports to class involving close reading and analysis of texts.</td>
</tr>
<tr>
<td>3 – Application/Applying</td>
<td>Students gather voting results (such as favorite ice cream flavor) and use results to determine which outcome would win an election using a variety of vote counting techniques.</td>
</tr>
<tr>
<td>4 – Analysis/Analyzing</td>
<td>Students compared each damage characteristic for a variety of hurricanes using online data sets.</td>
</tr>
<tr>
<td>5 – Synthesis/Writing</td>
<td>Students participated in a Cold War-themed game, based around students organized into competing groups, which we call “nations”</td>
</tr>
<tr>
<td>6 - Evaluation</td>
<td>Students wrote evaluations and observations of live or recorded (video) musical performances.</td>
</tr>
</tbody>
</table>
In summary, courses that used higher level thinking skills as a result of the redesign, scored higher than courses that used only lower tiers of thinking skills.

To address the second question, we measured the actual gain in student understanding of the concepts as a result of the ‘intervention’, the redesign. This was accomplished by scoring changes in student learning within a course, as a result of the redesign. While this was easy to score, we also had to take into account that there were a few courses that already used active learning strategies to some extent and had full student engagement. Such courses, while redesigned did not show any change as a result of the intervention (See Fig. 8). On the other hand, courses that were taught in a very traditional setting (without much active learning and teaching strategies) received higher scores after redesign since student learning in these courses improved. Based on Fig. 8, about 61% of the courses (17 out of 28 courses) that underwent redesign resulted in improved student learning.
Figure 8. Bars represent gain in student learning as a result of intervention – course redesign. The values are the difference in student learning outcomes before and after the redesign. Note: The dashed line represents a score of 1 signifying no change and values above and below the reference line indicate increase and decrease in student learning respectively, as measured using the rubric. Repeated course names indicate courses taught by different instructors. The data aggregated from this study indicated that active learning did indeed impact student learning positively.

The second goal of the QEP was to increase student and faculty satisfaction with redesigned courses. The measurable outcomes and associated data for the Indirect Measures are:

1. Faculty satisfaction with course redesign will reach 90%.
   A 2014 survey of faculty involved in redesign indicated 67% satisfaction with course redesign.
2. Faculty satisfaction with data management system will reach 90%.
   Faculty found using the data management system was not satisfactory. The system had design flaws that made it unusable; circumstances dictated that the data management system be abandoned.
3. Faculty perception that students are more engaged in courses will reach 90%.
   Faculty indicated 87% engagement by students, with 57% of students more engaged as a result of redesign.
4. Student perception of engagement in courses will reach 90% by the last year of QEP implementation.
   Student responses on the Spring 2013 Course Evaluations indicated their perception of engagement in the last year of data collection for the QEP.
   - 73.5% of student responses reported that at least 20% of classroom experiences were engaging.
   - 81% of students perceived a positive atmosphere that promoted learning.
   - 78.4% reported effective and interesting instruction.
   - 83.8% of students received instruction from instructors who encouraged discussion or questions in class.

As in other measures set at the ambitious goal of 90%, student perception of engagement did not reach that target. However, according to student reporting there was a high percentage of courses where the atmosphere promoted learning, and a high percentage of students experienced engaging activities for a substantial portion of the learning experience.

A survey sent to faculty who participated in redesign and who have taught the redesigned courses for at least two semesters reported positive results with the QEP redesign project in the areas of faculty satisfaction and student engagement. (Results are displayed in Figure 9 and Figure 10.)

Figure 9: Faculty Satisfaction with QEP Course Redesign and Faculty Perception of Engagement

<table>
<thead>
<tr>
<th>Category</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty satisfaction with course redesign</td>
<td>67% satisfied with the project</td>
</tr>
<tr>
<td>Faculty satisfaction with student engagement</td>
<td>87% agree that students are engaged, with 60% reporting increased engagement</td>
</tr>
<tr>
<td>Faculty satisfaction with use of technology by students</td>
<td>73% reporting increased use of technology</td>
</tr>
<tr>
<td>Faculty satisfaction with improved student learning as a result of active learning</td>
<td>100%</td>
</tr>
</tbody>
</table>

7
Figure 10: Student Perception of Engagement

<table>
<thead>
<tr>
<th>Student Perception of Engagement as Outlined in the QEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of responses reporting at least 20% of classroom experiences were engaging</td>
</tr>
<tr>
<td>73.5%</td>
</tr>
</tbody>
</table>

The faculty survey also collected data on what activities and assessments were implemented in redesigned courses. Traditional activities such as in-class writing assignments, exams, and quizzes were maintained; however, redesigned courses also included projects and portfolios (40%), group work (53%), and real-life application of content (60%) all of which made an impact on learning in these courses. A few faculty reported performance and presentation (13%), Case studies (13%), role playing and games (40%). (The survey allowed respondents to select more than one activity.)

Perhaps the survey information that provided the most convincing evidence of improved student learning was the question that asked about the levels of thinking according to Bloom’s Taxonomy that the redesigned courses required. The lower levels: remembering, demonstrating understanding and applying were certainly evident. More importantly, the high percentages reported for requiring students to think at the higher levels indicated that active learning in redesigned courses achieved the purpose of the QEP to ensure “that ULM’s students will be intellectually well-equipped to complete their chosen programs of study, as well as to find a meaningful place in today’s rapid-paced, integrated world” (Undergraduate Catalog, 2008-09 78; “Engage the Possibilities” 11).

Figure 11: Level of Thinking Required in Redesigned Courses

<table>
<thead>
<tr>
<th>Bloom’s Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remembering facts</td>
<td>87%</td>
</tr>
<tr>
<td>Demonstrating an understanding of knowledge</td>
<td>100%</td>
</tr>
<tr>
<td>Applying knowledge to practical problems or in new situations</td>
<td>60%</td>
</tr>
<tr>
<td>Breaking down complex ideas into simpler parts</td>
<td>73%</td>
</tr>
<tr>
<td>Synthesizing and organizing ideas, information, or experiences in to new, more complex interpretations</td>
<td>100%</td>
</tr>
<tr>
<td>Making judgments and drawing conclusions about the value of information, arguments, or methods</td>
<td>73%</td>
</tr>
</tbody>
</table>

The increased engagement of students in courses implementing active learning strategies is encouraging to the faculty and administration who have been involved in the QEP. Faculty spent considerable time and resources to redesign courses and embed active learning strategies, and the enriched academic environment nurtured by the QEP project has offered students the opportunity for learning to think critically and apply learning to situations other than classroom work. ULM’s Strategic Plan implemented in 2013 stated, “The University of Louisiana at Monroe seeks students who find value in our programs and prepares them to compete, succeed, and contribute in an ever-changing global society through a transformative education.” The pedagogies embedded in the university’s courses designed around active learning strive to offer that transformative education by creating an enriched learning environment requiring students to think critically and, thus, prepare them for success after their classroom experiences are over.
A reflection on what the institution has learned as a result of the QEP experience

The QEP addressed the mission of the university, which is to provide classroom experiences that will enable students to compete and succeed in the real world. Faculty whose curriculum and instruction are based in pedagogies requiring active learning establish enriched learning environments where students are taught how to think critically, preparing them to become learners who can apply critical thinking skills to new situations and circumstances.

Adoption of the QEP did not occur without some failure in achieving the original concept. As mentioned above, the data management system’s inherent flaws caused the QEP committee’s decision to discontinue its use. The original model of course redesign with peer reviews was carried out effectively, but the data that showed how well the use of active learning was planned did not indicate any student learning outcomes that would show that the QEP’s main goal would be met. It then became necessary to move from reviewing courses to collecting data on how well the courses were impacting student learning.

All involved learned lessons during the QEP course redesign project. Through faculty development and training for those who were selected for redesign, faculty became aware of the wide array of active learning strategies and activities. Many may have been skeptical about relinquishing the “sage on the stage” role of being mostly a lecturer, but after learning the value of incorporating active learning and allowing students to have a greater role in their learning, some of the faculty became advocates of the redesign process. It is important to note that prior to launching the QEP redesign project a number of ULM faculty had already been engaged with incorporating innovative pedagogies. Those faculty became the advocates for active learning and helped support the project from the beginning.

Active learning continues to be the focus of faculty development and faculty innovation at planned university faculty development sessions, and by faculty who continually seek to improve the quality of teaching and learning. At the beginning of the QEP redesign project many faculty quickly adopted the activities that could be implemented with ease. For example, activities such as a “Think-Pair-Share” or class discussions could be used without much preparation, while employing small group activities, hands-on work, problem solving, use of classroom response systems, and case studies might require training and support for the faculty to confidently use them to augment lectures. With a multitude of offerings, faculty development was made available to anyone, whether in the redesign project or not, to give training and support in using active learning. Many of those who became advocates of innovation in teaching and learning went beyond the first strategies used and moved to more complex, large-scale use of active learning, such as scavenger hunts, reenactments, interviews, and competitions. Those innovative faculty continue to seek more and better ways to improve the learning experience for students.

Two interesting consequences of the adoption of active learning across a broad spectrum of the core courses have emerged as the QEP has matured. The first, learning about and implementing the Flipped Classroom concept has several faculty engaged in disrupting the status quo in instruction and, as a result, more faculty are preparing to launch a flipped classroom in the near future. The second is the University Library’s long term project has begun the process of evolving into a digital library. While this is not active learning, one of the consequences of reducing the physical holdings is that space is being rededicated to provide student group study rooms, classrooms, meeting and seminar rooms all equipped with innovative technology and the intention of further promoting active learning.

ULM’s Quality Enhancement Plan, “Engage the Possibilities,” has made active learning a part of the institution, allowing students the opportunity to engage in learning, application, analyzing, and evaluating knowledge. The goal of improving student learning continues at this institution.
Figure 12: Sample Schedule of University Week Faculty Development Featuring Active Learning and Technology

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Welcome and Introduction</td>
</tr>
<tr>
<td>9:15</td>
<td>Faculty Engagement Overview</td>
</tr>
<tr>
<td>9:30</td>
<td>Active Learning Techniques and Tools</td>
</tr>
<tr>
<td>10:15</td>
<td>Break</td>
</tr>
<tr>
<td>10:30</td>
<td>Technology in the Classroom</td>
</tr>
<tr>
<td>11:15</td>
<td>Group Discussions</td>
</tr>
<tr>
<td>12:00</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>14:00</td>
<td>Panel Discussion: Best Practices</td>
</tr>
<tr>
<td>15:00</td>
<td>Field Trip to Local Educational Technology Center</td>
</tr>
<tr>
<td>17:00</td>
<td>Closing Remarks and Feedback Session</td>
</tr>
</tbody>
</table>

Notes: All sessions will be held in Room 101. Lunch and refreshments will be provided. Participants are encouraged to bring their devices for hands-on practice.