Pellissippi State Community College
Performance Funding 2012-2013 Standard 1F
Assessment of Quality Enhancement Plan

Review of the Quality Enhancement Plan (QEP)

Pellissippi State’s QEP, *Strong to the Core*, was undertaken to incorporate active learning strategies into core courses to increase student engagement and thereby improve student performance in the core competencies of writing, mathematics, and oral communication. The QEP was developed with input from faculty, administration, staff, and students and approved with the College’s reaffirmation of accreditation by the Southern Association of Colleges and Schools Commission on Colleges in 2012.

As originally conceived and described in a primary document and an Addendum, improvement in student performance in the competencies was to be measured by improvements in three student learning outcomes:

- Improve the ability of students in ENGL 1010 Composition I to write clear, well-organized, sufficiently developed analyses. Competency level: 70% minimum
- Improve the ability of students in MATH 1130 College Algebra to develop mathematical problem solving skills by modeling real world behavior in mathematics and other disciplines and by applying mathematical concepts to real-life problems. Competency level: 70% minimum
- Improve the ability of students in SPCH 2100 Public Speaking to plan, research and present an effective persuasive speech. Competency level: 74% minimum

The choice of these courses was guided by evidence of lower than desired success rates in two of the three courses selected, weaknesses in student critical thinking based on the [Community College Survey of Student Engagement (CCSSE)](http://www.ccsse.org), and the expressed desire by employers that graduates be proficient in communication and problem solving. As the QEP Implementation Team began to design specific approaches to implementation and to establish benchmarks, they realized a student’s abilities to think critically and to communicate are essential to improvement in the three core areas. The Team developed these questions to guide assessment of the acquisition these skills:
• To what extent do active learning strategies improve student learning in the outcomes of critical thinking and communication competence within the core courses?

• To what extent do active learning strategies increase student engagement?

• To what extent do active learning strategies impact retention, success rates, completion rates and aggregate GPA?

• To what extent can active learning strategies be applied to student support functions, such as orientation, advising, and tutoring?

A QEP director was appointed in fall 2011 to coordinate implementation, assessment, and faculty development activities, including the establishment of a Teaching and Learning Center for QEP meetings and a library of resource materials. A webpage was created to make resources readily available to faculty, and a series of weekly Brown Bag Lunches was scheduled, featuring discussion of topics relevant to the QEP. During the fall 2012 academic in-service, Fall Festival of Student Success, formal and informal Faculty Inquiry Groups (FIGs) were created to provide the framework for the exchange of ideas. Throughout the in-service activities, faculty members were introduced to methods of assessing learning strategies to determine the impact on targeted outcomes within their individual classrooms.

Description of QEP Assessment Activities and Results for 2012–2013

Both formative and summative assessments of QEP activities have been conducted. Formative assessments include Tennessee Board of Regents (TBR) General Education Assessment conducted annually in the three core courses; the semantic differential, which assesses student engagement after in-class activities; and instructor post-activity reports.

The parts of the TBR assessment that are used to measure QEP effectiveness are the following:

• a final argumentative essay in ENGL 1010 scored on the basis of five TBR learning outcomes,

• embedded questions in the MATH 1130 common final exam that assess student learning outcomes three and five from the TBR math rubric, which are indicators of proficiency in critical thinking and communication outcomes,
• a persuasive speech in SPCH 2100, with concentration on PSCC criteria (6 and 7) that have been added to the TBR rubric to measure problem-solving and oral communication specifically.

Table 1 shows formative results measured by the assessment rubrics and semantic differential.

Table 1: Formative Assessment Results

<table>
<thead>
<tr>
<th>TBR GEA* ASSESSMENT MEASURES</th>
<th>BASELINE 2010-2011</th>
<th>BASELINE FALL 2011</th>
<th>ANNUAL FALL 2012</th>
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<tbody>
<tr>
<td>English Fall to Fall All %, QEP % Satisfactory In-class Argumentative Essay</td>
<td>All n = 143 Unity 73%, Development 54%, Organization 57%, Style 49%, Documentation 46%</td>
<td>All n = 175 QEP n = 30 Unity 78.9%, Development 70.3%, Organization 76.6%, Style 58.3%, Documentation 49.7%, 36.7%</td>
<td>All n = 124 QEP n = 11 Unity 77.4%, Development 52.4%, Organization 65.3%, Style 58.1%, Documentation 51.6%, 45.5%</td>
</tr>
<tr>
<td>Additional QEP English Learning Outcome Rubric Fall to Fall</td>
<td>Developed Spring 2012</td>
<td>QEP n = 11 Diction/Word Choice 82% Satisfactory Adherence to Rhetorical Pattern of Argument 72.7% Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Math Objective 3 Critical Thinking % Successful</td>
<td>n = 768 1423/2304 61.8%</td>
<td>n = 338 618/1014 60.9%</td>
<td>n = 437 886/1311 67.6%</td>
</tr>
<tr>
<td>Math Objective 5 Communication % Successful</td>
<td>n = 768 1509/2304 69%</td>
<td>n = 338 692/1014 68.2%</td>
<td>n = 437 1014/1311 77.3%</td>
</tr>
<tr>
<td>Persuasive Speech General Education Goals 6 and 7 Meets, does better or exceeds expectations</td>
<td>n = 73 Problem Solving 78%, Oral Communication 74%</td>
<td>n = 112 Problem Solving 73.2%, Oral Communication 76.8%</td>
<td>To be reported Fall 2013</td>
</tr>
<tr>
<td>Semantic Differential IM** of 4-7</td>
<td>Written Summer 2011</td>
<td>Created and Posted Spring 2012</td>
<td>Faculty Responses IM = 4.63/5 Student Responses IM = 4.88/7</td>
</tr>
</tbody>
</table>

* GEA: TBR General Education Assessment  **IM = Institutional Mean

While the competency of achieving unity is above the 70% target mark for ENGL 1010, the formative data for the argumentative essay reflect weaknesses in development, organization, style and documentation. In 2012, the English faculty developed more specific outcomes relative to
communication and critical thinking and created a rubric to directly address these revised criteria. However, given the small sample size of the QEP course sections, it is difficult to draw conclusions at this time. To gain more appropriate data on the progress of students exposed to alternate learning strategies, the English faculty continue to refine their objectives, learning strategies, and assessments.

In the 2012 QEP progress report, the QEP mathematics faculty used the results from final exam problems related to objective 3 on the TBR rubric to measure critical thinking. After review of that data, they decided to include for QEP assessment three final exam problems for objective 5 to assess students’ competency in communicating in an algebraic language. Results for objective 5 are above the 70% competency goal, and results on objective 3 are improving. The upward swing for both objective 3 and objective 5 will motivate faculty to continue their efforts and share their results.

The speech faculty added two competencies, criteria 6 and 7, to the original five of the TBR rubric. For the QEP their emphasis has been on developing learning strategies related to these two criteria, which assess competencies in critical thinking and oral communication. The results shown exceed the 74% target; results of the most recent assessment are not yet available.

The semantic differential measures the level and intensity of students’ attitudes and opinions of engagement immediately after a learning activity in the classroom, as well as allowing for almost instant feedback for students and faculty. It encourages instructors’ adaptability, reflection, and critical analysis as well as students’ internalization of the concepts. The results of the semantic differential for 2012-2013 show a 4.63/5 average on the instructor responses, indicating that they were satisfied with the activities. Student responses of 4.88/7 indicate that they had a mostly positive attitude about the strategies, suggesting that they were engaged. Results for particular activities led faculty to repeat and/or improve those activities.

Faculty post-activity QEP reports are used to document the various active learning strategies and to report both student and instructor results on the semantic differential. These reports take a myriad of forms dependent on the activity, the assessed outcomes, and the various courses. Each discipline is developing formats for reports appropriate to the discipline’s goals and methodologies. The post-activity reports are posted on the QEP website and are available to all instructors for sharing and discussion.
The following summative assessments are elements of the overall college assessment plan, some of which are reported to TBR and THEC (Tennessee Higher Education Commission):

- **College Basic Academic Subjects Examination (CBASE)** – mandated exit exam for graduating students, which yields the largest sample of data across a wide range of disciplines; administered every semester;

- **Community College Survey of Student Engagement (CCSSE)** – mandated by TBR and THEC; administered biannually to sophomore–level students; provides limited baseline and summative information on engagement;

- **Critical Thinking Assessment Test (CAT)** – pilot conducted in spring 2013; provides data on higher order critical thinking and effective communication in real world situations.

Table 2 shows Summative Assessment Results.

**Table 2: Summative Assessment Results**

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<tbody>
<tr>
<td>CBASE</td>
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<tr>
<td>PSCC mean (IM)</td>
<td>n* = 608</td>
<td>n = 721</td>
<td>n = 877</td>
<td>n = 1041</td>
<td>n = 1186</td>
</tr>
<tr>
<td>National norm (NN)</td>
<td>S.D.** = 53.2</td>
<td>S.D. = 53.9</td>
<td>S.D. = 57.5</td>
<td>S.D. = 55.6</td>
<td>S.D. = 52.446</td>
</tr>
<tr>
<td>IM = 279</td>
<td>IM = 277</td>
<td>IM = 277</td>
<td>IM=280</td>
<td>IM=266</td>
<td>IM=265</td>
</tr>
<tr>
<td>NN = 273</td>
<td>NN = 273</td>
<td>NN = 273</td>
<td>NN=275</td>
<td>NN=276</td>
<td>NN=277</td>
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<tr>
<td>CCSSE Means report (Biannual) selected items: 5a-5f</td>
<td>2009 Table</td>
<td>2011Table</td>
<td>Results not available yet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAT Results</td>
<td>Train the Trainers</td>
<td></td>
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<td></td>
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<tr>
<td>PSCC mean (IM)</td>
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<tr>
<td>National Mean (NM)</td>
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| Note: *n = Total number of students taking the test; **S D = Standard deviation

The CBASE means for 2011-2012 and **2012–2013** show a slight downward trend, which is a concern for the College, particularly since Pellissippi State’s results have consistently been above the national mean. Because CBASE is administered to graduates and QEP strategies have been implemented only in introductory courses, there is no opportunity yet to assess the impact of CBASE on QEP results. It is expected that the QEP, as it evolves and expands to other courses, will have a positive impact on the exit exam scores.
Questions 5a–5f on the CCSSE relate specifically to the assessment of higher order thinking skills as indicators of levels of student critical thinking. For 5a–5e, the Pellissippi State mean continues to be above the mean for large colleges and for our peer cohort, but results for question 5f focusing on using information to perform a new skill are below those benchmarks. This indicates that additional learning materials need to be developed to give students opportunities to practice these skills.

In 2012 the College began to gather baseline data using the nationally validated and reliable Critical Thinking Assessment Test (CAT) to uniquely assess critical thinking, both directly and indirectly, yielding both formative and summative data. Specifically, CAT assesses the four areas of evaluation and interpretation of information, problem solving, creative thinking, and effective communication. The CAT instrument also provides further faculty development opportunities in the areas of assessment and communication. As this instrument is more widely integrated into the QEP assessment process, it will offer a more complete collection of data to assess improvement in student success.

Additionally, the QEP Implementation Team is tracking the effect of QEP active learning strategies in the college-wide areas of retention rates (fall to fall), success rates within core courses, completion rates, and aggregate GPA, all shown in Table 3.

**Table 3: Retention, Success Rates and Aggregate GPA**

<table>
<thead>
<tr>
<th>ASSESSMENT MEASURES</th>
<th>BASELINE 2010-2011</th>
<th>BASELINE 2011-2012</th>
<th>ANNUAL 2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retention rates</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>% of total Fall to Fall</td>
<td>ENGL 1010 92% MATH 1130 85.2% SPCH 2100 86.9%</td>
<td>ENGL 1010 92% MATH 1130 87.8% SPCH 2100 87.6%</td>
<td>ENGL 1010 92.5% MATH 1130 89.3% SPCH 2100 91.3%</td>
</tr>
<tr>
<td><strong>Success rates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of total Fall</td>
<td>ENGL 1010 66.8% MATH 1130 56.1% SPH 2100 75.7%</td>
<td>ENGL 1010 66.7% MATH 1130 56.5% SPH 2100 70.9%</td>
<td>ENGL 1010 64.3% MATH 1130 72.6% SPCH 2100 75.1%</td>
</tr>
<tr>
<td>% of total Spring</td>
<td>ENGL 1010 54.6% MATH 1130 55.7% SPCH 2100 72.2%</td>
<td>ENGL 1010 57.8% MATH 1130 56.6% SPCH 2100 72.8%</td>
<td>ENGL 1010 56% MATH 1130 54.7% SPCH 2100 75.8%</td>
</tr>
</tbody>
</table>
Examination of these important measures shows that slight changes are beginning to surface. Retention rates are remaining steady or improving in the core courses. Both MATH 1130 and SPCH 2100 saw significant improvement in success rates, due in some measure to increased involvement in QEP. Other indicators are stable and should begin to consistently improve as the QEP becomes more established and refined, as the students experiencing QEP strategies continue their education, and as more faculty members incorporate core QEP practices into their courses.

Improvement of the QEP Based on Assessment Results

The Implementation Team has been working throughout the last two years to strengthen and improve the ambitious QEP initiative. The number of faculty implementing QEP activities has increased each semester. CAT has been piloted in three QEP sections, and both formative and summative data will be expanded with its implementation in all three core courses. Based on data from these courses and from the post-activity reports, QEP faculty continue to develop and share active learning strategies and methods to assess their efficacy. The College is committed to continued support and expansion of professional development opportunities for all faculty, staff, and administrators.

Based on the current QEP results, the following steps have been taken:

- After reviewing the 2012 QEP report, participating English faculty limited the focus of the QEP to communication and critical thinking learning outcomes. While scores are lower in the QEP sections (as indicated in Table 1), the sample is so small that results are not really meaningful.
Moving forward, all English instructors are being trained to incorporate at least one of three designated active learning strategies and report the results.

- During 2012-2013, the mathematics faculty participating in QEP activities addressed classroom challenges by holding professional development sessions open to the entire department to share local and conference ideas and report classroom results. In addition, within the Academic Support Center, the College’s primary tutoring center, a computer lab was established to provide focused assistance with math student learning objectives and the supplemental MyMathLab computer support. The lab was used more than 370 times by 77 students during the fall semester.

- Expansion of the QEP initiative has begun in the Liberal Arts department with implementation and documentation of results across all SPCH 2100 sections and inclusion of additional Liberal Arts disciplines. Meetings every other Friday and day-long workshops twice a semester promote useful discussions among the part-time and full-time speech faculty and allow creative exploration of new tools and ideas. In spring 2013 QEP lead teachers for history, music, and theatre were trained and began incorporating and reporting on active learning strategies in their classes; they are now enlisting additional faculty in their disciplines.

Analysis of the QEP and Anticipated Activities for Next Year

Relying upon the strong leadership provided by the Implementation Team and experienced core faculty, the QEP initiative will expand in 2013–2014 to disciplines not included in the original core. The three core disciplines will take the following steps to improve their results.

The English Department, which has relied on voluntary participation in QEP implementation, will make the following improvements to move toward more well-defined strategies and specific classroom activities that all faculty employ:

- develop three student engagement activities focused on a particular grammar or mechanics skill and post the activities on the ENGL 1010 instructional café in D2L so that all faculty may easily access them and report results from their classes;
• reconsider the criteria from the QEP/TBR rubric that they are focusing on and develop activities to support the revised focus; new activities will also be posted and reported on by each faculty member who teaches ENGL1010.

The Mathematics Department has fully supported the QEP efforts since its inception and will continue to do so through the following activities:

• design activities for MATH 1130 students focused on improving their ability to analyze their own solutions to problems requiring critical thinking;
• expand active learning to faculty members who teach MATH 1030, MATH 1530, MATH 1630, and MATH 1830 and provide mentoring for those faculty by QEP leaders within the department;
• present successful QEP strategies at state and national conferences;
• hold departmental meetings throughout the year including additional training for faculty on MyMathLab, Desire2Learn and other software packages;
• develop plans to expand the focused computer support for MyMathLab at all campuses.

As leaders in the implementation of college-wide faculty development and involvement in the QEP, speech faculty will accomplish the following:

• continue and augment successful strategies for guiding students to become better critical thinkers and to present effective speeches to persuade,
• share those successful practices and strategies with colleagues across the College and state,
• collaborate with and mentor other Liberal Arts faculty as QEP expands to philosophy, sociology, and Spanish.

Summative assessment will be expanded as we implement biannual administration of the Survey of Entering Student Engagement (SENSE). This instrument provides assessment of attitudes of entering freshmen and, in connection with CCSSE, will show how students’ perceptions of engagement with the College change from their first semester to a semester in their sophomore year (fall 2013 to spring 2015).

The New Faculty Academy, an initiative conceived by the QEP director in the role of coordinator of faculty development, will enhance the training of new full-time faculty in professional and QEP best
practices throughout the first semester of employment, thus laying the groundwork for integration of new faculty into the QEP experience. This expansion of faculty in-service will allow time for instruction, active practice, and reflection on QEP techniques that encourage student growth in thinking critically and creatively and that promote students’ abilities to self-assess and to give feedback to instructors.

In addition to specific improvements outlined above, our data and process analysis during the 2012–2013 academic year has suggested these additional prospective steps:

- Employ aggressive efforts to raise student, faculty and administration awareness of the available assessment processes and the need to document stages of those, the need for clear iteration of the ties between learning outcomes and course objectives in the syllabi and in the classroom, the importance of assessing and documenting effectiveness within advising and other student services activities, and the need for continued creation of active learning strategies.

- Create effective tools, such as physical bookmarks, talking points cards, and presentation coaching, to allow administrators and staff to confidently emphasize the QEP as a major component of the college culture at every opportunity.

- Expand QEP outreach to other groups beyond students, faculty, and administration.

The overall concept of improving student engagement with active learning strategies has been well-received, creating a more dynamic culture at Pellissippi State. The QEP has helped to create awareness in faculty that students who are engaged have the ability to think more clearly and convey those thoughts more effectively both orally and in writing. New active learning strategies have been developed, implemented, improved, and shared. Faculty training has expanded, particularly with regard to promoting development of student competency in critical thinking and communication. Improvement in student attainment of these competencies has not yet been demonstrated and documented to the extent that we hope eventually to achieve, but we have had only one full year of implementation at this point and more faculty and disciplines are being involved each semester. The QEP faculty’s active learning strategies and data collection processes are helping to build a more accurate assessment of the College’s strengths and encouraging more conversation and experimentation among faculty and staff.
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