



Learning by Doing: Inquiry-Based Experiential Education
The University of Tampa
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The theme of the University's QEP, **Learning by Doing**, is Inquiry-Based Experiential Education. The QEP will focus on educating students using inquiry-based approaches to problem solving through focused experiences and activities in first-year courses, programming, enhanced discipline skill based courses; and problem- and project-based undergraduate research, capstones, and internships for juniors and seniors.

Program goals are to transform the institution through:

- Enhancing the awareness, importance, and visibility of scholarship and inquiry at UT by actively promoting and supporting both faculty mentoring and student research processes;
- Increasing opportunities for student scholarship and creative work by developing more opportunities for faculty-student engagement for intensive mentoring and creative relationships;
- Engaging more students in quality internship experiences through changes in curricular requirements, strengthening of the rigor of internship outcomes, and
- Enhancing the University organizational structure to support these experiential processes.

Student learning objectives related to these overarching goals are:

- Improving critical thinking skills as defined by student approaches and problem solving measured by external and internal assessment instruments;
- Improving communication abilities as determined by improvements in writing styles and abilities as measured by qualitative scoring rubrics and national normed tests;
- Improving communication abilities in public speaking/presentation skills as measured by quantitative scoring rubrics and national normed tests;
- Attaining practical skills related to the field of inquiry, including information searching, quantitative literacy, creative thinking, and problem solving relative to projects and performance standards.

The QEP will exemplify student learning integration and project outcomes. Students will be involved and engaged in scaffolded, faculty-mentored activities in the following areas: 1) authentic undergraduate research, 2) creative work experiences in FY classes in built-in the second and third years within majors and culminates in mentored senior year project work. The QEP also includes a U.S. National Research Internship involvement for year one and two. The QEP will be fully implemented. Students will benefit from involvement in these high impact practice activities through greater learning and focused experiences for post-graduate careers.

February 2016

The Impact Report of the Quality Enhancement Plan

Section 1: Initial Goals and Intended Outcomes of the Quality Enhancement Plan

In February of 2016, SACSCOC approved The University of Tampa's Quality Enhancement Plan "Learning by Doing: Inquiry-based Experiential Education." The QEP aligns with the mission of the University, which emphasizes experiential education, and focuses on improving institutional success and student involvement in two high-impact educational practices: undergraduate research, referred to here as inquiry, and internships. The programmatic goals of the QEP were to transform the institution through the following mechanisms:

1. Enhancing the awareness, importance, and visibility of student scholarship and inquiry at the University by actively promoting and supporting both faculty mentoring and student engagement in these experiential learning processes.
2. Increasing opportunities for student scholarship and creative works by developing more opportunities for faculty-student engagement for intensive mentoring and creative relationships.
3. Engaging more students in quality internship experiences through changes in curricular requirements.



VALUE rubrics from the American Association of Colleges and Universities (AAC&U). After de
and initial classroom use, these rubrics were calibrated, validated, and examined for inter-rater







In addition, students funded by OURI to pursue faculty-mentored research were surveyed about their experience, and self-perceived gains in critical thinking were reflected in their comments. An example from one student researcher is included below:

“Getting involved in research provides a student a component in education that the classroom does not. This experience has really developed my critical thinking ability with regards to accepting or rejecting ideas. There are so many times and I would recommend this to everyone.”

The variety of assessment instruments used to measure critical thinking together indicate that inquiry-based courses and faculty-mentored research experiences have been successful in expanding students’ competency with this vital skill.

3.5 Student Learning Objective: Improve Written and Oral Communication Abilities

We also sought to measure the impact of inquiry-based courses and co-curricular research and internship experiences on students’ writing and presentation skills. Analysis of rubric scores from 2018-2019 revealed that over 70% of students were exceeding expectations (score >3) for all categories of communication in inquiry-based FYE courses and majors-level inquiry-based courses. Similar results were found for writing, with greater than 65% of students exceeding or greatly exceeding expectations for all categories in each course. However, these data also showed that FYE students were receiving higher scores than upper-division students (average scores of 4.1 for FYE and 4.1 for upper division on the presentation rubric, 4.0 for FYE and 3.9 for Majors on the writing rubric). These data were reviewed with the Undergraduate Research and Inquiry faculty committee which suggested that these results could reflect inappropriate rubric use by faculty, either by using them as grading rubrics (grades for FYE are typically very high) or applying relative expectations based on the students age or year in institution. The QEP director communicated these results with faculty teaching inquiry-based courses and emphasized the committee’s suggestions that the rubrics not be used for grading but rather applied equally regardless of the students experience level. Subsequently, rubric scores for FYE decreased to an average score of 3.4 (54% of students exceeded expectations) for the presentation rubric compared to an average score of 4.0 for upper-division students (72% exceeding expectations).



These data indicate that our students are progressing in their written and oral communication and achieve a high level of mastery after having participated in a faculty-mentored research or inquiry project.

Written communication was also examined using the Efficacy Pro discussed above. The test evaluates writing in two ways, using multiple choice questions that evaluate the students' ability to recognize correct syntax and grammar, and also a holistically graded essay. Those students who participated in inquiry-based courses as significantly higher on the writing subtest (117 vs. 112, $P < 0.0001$) and also received higher scores on the written essay (4.5 vs. 3.8, $P = 0.0024$).

Figure 3: Written and Oral Communication Rubric Data. Data are combined for AYs 18-19 and 1

Figure 4: Efficacy Pro Writing Sub-score and Essay Scores.

Taken together, these data show that our students are improving as communicators as they progress through inquiry-based FYE, upper-division courses and culminating experiences, including un



work schedules and correcting your own mistakes (4.47), enhancement of your professional credentials (4.45), readiness for more demanding research (4.45), and learning to persevere a

