Engaging Students to Think Critically

Quality Enhancement Plan (QEP)
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QEP Implementation Team

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I.   Executive Summary

The Pfeiffer University Quality Enhancement Plan (QEP), *Engaging Students to Think Critically,* is a composite of both engaged learning and critical thinking. Engaged learning involves student engagement in the learning process, with their object of study, with other disciplines and in the world around them. Likewise, critical thinking involves an "intellectually disciplined process" of active and skillful application, analysis, synthesis and evaluation of information gathered through observation, experiences, reflection, reasoning, or communication (all of which are activities of engaged learning). The QEP is designed such that each of dimensions of engaged learning can serve an additional goal, that of enhancing the critical thinking skills of students. Therefore, the overall goal of the QEP is to enhance student learning in the area of critical thinking through increased engagement across the curriculum.

The selected QEP topic reflects the views of the university's four primary constituency groups (students, faculty, staff and alumni) and supports Pfeiffer's mission and strong commitment to *educational excellence, service and scholarship*. The institutional data on academic performance also shows that critical thinking remains an area in need of considerable improvement.

The implementation of the QEP will include an increased focus on critical thinking throughout the general education and discipline specific undergraduate curriculum. The implementation process will include five phases. The *Information* phase (2011-2012) focuses on helping each of the university constituencies better understand the overall goals and nature of the QEP. The *Innovation* year will begin the incremental training of a select group of ten faculty members in the pedagogy of engaged learning and critical thinking. However, within five years we will increase faculty participation such that all faculty will begin to incorporate the critical

thinking student learning outcomes into their classes and become fluent in the use of individual rubrics for developing and evaluating course assignments and student learning.

The *Implementation* phase (2013-2015) involves an overall increase in activities and courses across the University, including spreading the focus of the QEP to include the Graduate and Adult Studies programs in Charlotte and the Research Triangle campuses. The plan includes a goal of increasing the number of courses which intentionally promote critical thinking to 80% by the end of year five. In year four, the *Institutionalization* year, the notion of engagement and critical thinking will permeate the university's work, creating an institutionalization of the concepts. Finally, in year five, while on-going assessment has occurred, the overall *impact* of the QEP will be determined.

In addition to the faculty development and changes within individual courses, the QEP encourages faculty and students to participate in ongoing forums, such as the annual Spring Academic Showcase, for sharing and reflecting on the products of their critical and creative thinking.

As a result of the QEP we will see a measureable increase in the students' critical thinking skills, including the student's ability to:

- Effectively evaluate information;
- Use human creativity to help solve problems;
- Use problem-solving techniques recognized by various disciplines; and
- Communicate the process and content of learning effectively.

These learning outcomes will be assessed using The Critical Thinking Assessment Test (CAT), the critical thinking skills portion of the ETS Proficiency Profile, selected items from the National Survey of Student Engagement (NSSE) and individual rubrics specifically designed to assess student learning outcomes on individual projects and assignments.

II.   Pfeiffer University's Students

Pfeiffer University's student body consists of approximately 2000 undergraduate and graduate students who come from a diversity of backgrounds. While the vast majority of our students come from North Carolina, in 2010 the student body represented 39 countries and 37 states. This class included an array of international students and students who have never ventured far from rural Stanley County (where the traditional undergraduate campus is located). Almost half of the undergraduates, on the Misenheimer campus, are student athletes (45%); at the same time almost one third of the Misenheimer students are commuters. (Pfeiffer Fact Book 2010)

Pfeiffer's long history, starting as a home-school in 1885 and evolving into its current status as a comprehensive United Methodist-related university with multiple campuses, reflects the ways that Pfeiffer remains committed to meeting the needs of an ever changing and growing community of learners. Pfeiffer attracts students who are seeking more traditional undergraduate and liberal arts education, degree completion programs, graduates studies, and professional programs. Our diverse populations and campuses offer both unique opportunities and challenges. However, each of these groups of students comes seeking an education which will help them to achieve their full academic and personal potential.

Therefore, the QEP is designed to respond to the needs of this diverse group of students who are often juggling multiple commitments along with their education. It is designed to help the faculty rethink the curriculum such that these diverse learners can become more engaged learners and critical thinkers—taking the initiative and gaining hands-on experiences across the curriculum and developing the requisite higher order thinking skills to excel in their chosen field.

III.   Process and Rationale Used to Develop the Pfeiffer QEP

Identification of the QEP Topic

The process of identifying a topic for the Pfeiffer QEP took place over the course of three academic years in order to provide for broad-based involvement of the university stakeholders including the faculty, staff, students, and alumni. The process included consulting each of these constituencies, reviewing the practices of peer and aspirational institutions, reviewing student performance on national learning assessments, and determining how the QEP could support the Pfeiffer mission. As a result of this process, the topics of engaged learning and critical thinking were combined to form the Pfeiffer QEP topic of *Engaging Students to Think Critically.*

Broad Based Involvement of University Stakeholders

For the QEP to be truly transformative input from faculty, staff, students and alumni was necessary in our search for a topic that would fit the pedagogical needs of the institution. Members from all four of these groups continually served on the QEP Selection Team, even though the membership has changed as the plan evolved.

As a means of orienting the QEP Selection Team, we invited Ross Griffith, Director on Institutional Research at Wake Forest University (now retired) to campus for a kick-off address in November of 2007. Following this introductory session the QEP Selection Team began to meet monthly in the late fall of 2007 and surveyed the constituent groups about possible QEP topics in spring term of 2008. Because of cost and distribution issues, the Team decided that this initial information gathering would be done via an electronic survey. Survey participants first read a brief description of the reaffirmation process and the QEP, and were then asked to simply suggest any ideas for a QEP topic. It was emphasized that this survey was only the first in a longer process of information gathering, but all ideas would be carefully evaluated.

The survey was completed in early March of 2008; but the results of this effort were disappointing due to the low response rates, especially from students. Nevertheless, faculty members did take part and indicated writing, critical thinking, foreign languages/globalization, distance learning, and strengthening of the first-year experience as potential QEP topics. There was no consistency in the responses of students and staff members. Due to the low response rate, it was decided that the survey would be reissued in the fall of 2008.

Additionally, focus groups with the four constituent groups were planned for the fall of 2008 semester. Alumni focus groups were scheduled over Homecoming (September 27, 2008) and the focus groups with students, faculty and staff were held a few weeks later (October 6-8, 2008). The focus groups were scheduled after the second electronic survey; thus, the focus group moderators were able to steer discussions toward a comparison of the topics that garnered the most votes in the survey. Analysis and synthesis of the results of the focus groups and the second survey results revealed that the top three topics were *engaged learning, critical thinking* and *the first-year experience.* (See Appendix A for the summary of the focus groups).

The QEP Selection Team held a run-off vote in April of 2010 using only these three topics. A total of 302 individuals responded (186 students, 61 faculty, 54 staff, and 1 alumnus). Respondents were given a brief description of the three potential topics and an online link to a more in-depth discussion of each. (See Appendix B for the Final Survey Instructions) The overall voting showed that engaged learning was marginally more popular than critical thinking among all voters combined, with the first-year experience a distant third among all constituent groups. The mean score for each was 1.65, 1.86, and 2.46 respectively, with the lower mean score indicating the more popular choice. However, a more detailed analysis showed that while

engaged learning was most popular with students (and critical thinking second), the opposite was true for faculty. (See Appendix C for fuller results of this final QEP survey.)

Overall Results of QEP Topics Survey
April 2010
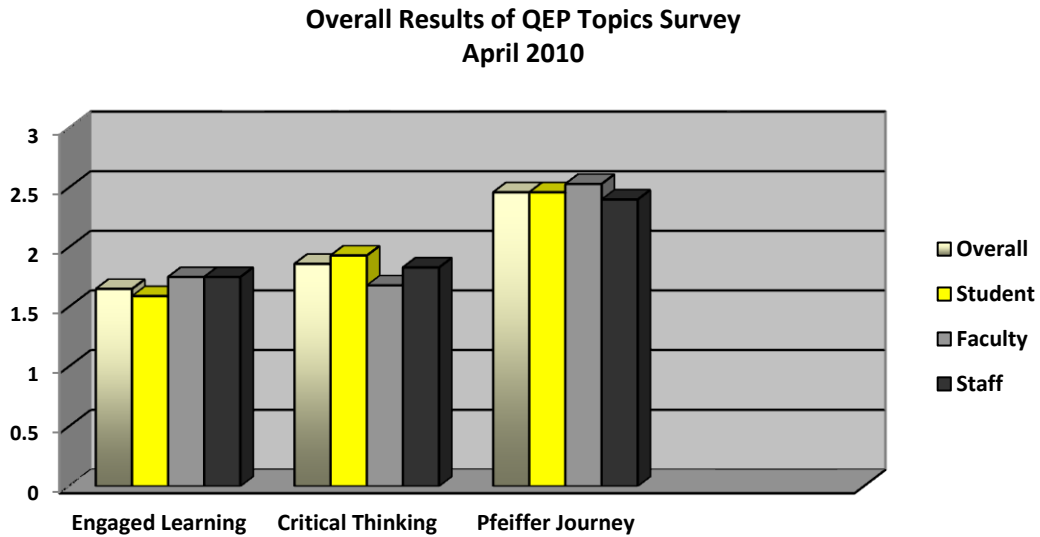
While the student input was valued heavily, the QEP Selection Team also heavily valued the point of view of the faculty, as they would be the ones charged with implementing the QEP in their teaching. Each of these perspectives also had to take into account the needs of the students; and they were also weighed in light of other indicators of academic performance (such as the institutional data which will be discussed below).

Relevant Institutional Data Supporting the Topic

As part of our process of ongoing and continuous improvement, the Office of Institutional Research conducts assessments of students across each of Pfeiffer's academic programs. The QEP Team examined the assessment results for the 2005-2009 periods.

ETS Proficiency Profile

Data from the ETS Proficiency Profile (formerly the Measure of Academic Proficiency and Progress or MAPP test) which Pfeiffer students take in the last two semesters of their degree program, shows that on average only 20% of Pfeiffer's seniors score in the proficient or marginal range on the critical thinking portion of the skills test. (Appendix D contains data on each portion of the ETS test).

Table 1. Pfeiffer University Senior ETS© Proficiency Profile Results							
Academic Year	Total Composite Score	Critical Thinking	Students Scoring			Total Students included in analysis	Percentage Students at the Proficient or Marginal Level
			Proficient	Marginal	Not Proficient		
2006-2007	444	111.98	17 (8%)	30 (14%)	169 (78%)	216	22%
2007-2008	440	111.17	11 (5%)	23 (11%)	178 (84%)	212	16%
2008-2009	442	111.89	7 (3%)	46 (20%)	175 (77%)	228	23%
3 yr. Average	442	111.68	12 (5%)	33 (15%)	174 (80%)	219	20.3%
3 yr. Composite Change	-0.4%	-0.08%	-167%	30%	-1%		4%

The ETS comparison data also demonstrates that this problem is not unique to Pfeiffer. From the ETS comparison data of seniors across all institution types from January 2006 to June 2011, we see that in the area of critical thinking only 28% of the students were considered proficient or

marginally proficient.[1] Similarly, in looking at Pfeiffer's comparative institutions, categorized as *Master's (Comprehensive) Colleges and Universities I and II* by ETS, we see that only 27% of seniors scored in the proficient or marginal range.[2] The data is equally disheartening for incoming freshman among Pfeiffer's comparative institutions, on average only 10% scored in the proficient or marginal range.[3] The overwhelming majority of students were not proficient in critical thinking skills.

National Survey of Student Engagement (NSSE)

Additionally, Pfeiffer students participate in the NSSE annually. On average 30% of Pfeiffer freshmen and seniors complete the survey. Several of the NSSE questions deal with specific issues of engagement and critical thinking. The QEP committee members focused on questions related to each topic, including questions regarding in class and out of class engagement and several dimensions of critical thinking related to Bloom's Taxonomy.

Table 2. NSSE Topics related to QEP	
Engagement	**Critical Thinking**
- Asked questions in class - Made a class presentation - Worked with students on project in class - Worked with students on project outside - Tutored - Participated in community-based - Discussed ideas with faculty outside - Discussed ideas with others outside	- Memorizing - Analyzing - Synthesizing - Making judgments - Applying

Looking at a snapshot of Pfeiffer freshmen and seniors from 2005-2008 shows that there are many areas where Pfeiffer students fall behind the National averages; however, there are few

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[1] http://www.ets.org/s/proficiencyprofile/pdf/CredS_CarnA_AllTabs.pdf (accessed 12/7/11)
[2] http://www.ets.org/s/proficiencyprofile/pdf/CredS_Carn2_AllTabs.pdf (accessed 12/8/11)
[3] http://www.ets.org/s/proficiencyprofile/pdf/CredE_Carn2_AllTabs.pdf (accessed 12/8/2011)

areas where we are "ahead of the game." (See Table 3) For the most part, Pfeiffer students are at or statistically insignificant from the national averages. However, the data reveals that there is room for improvement both at Pfeiffer and nationally. Also, it important to note that the critical thinking means includes assignments which require memorization—this is typically not classified as higher order thinking and thus the actual level of critical thinking assignments may be much lower. (See Appendix E for a fuller chart of the sample questions and mean comparisons for each question.)

Table 3. NSSE Mean Comparison Scores					
		Engagement		Critical Thinking	
Year	Class	Pfeiffer Students	National Mean	Pfeiffer Students	National Mean
2005	Freshmen	2.29	2.23	2.88	2.93
	Seniors	2.50	2.51	3.00	3.04
2006	Freshmen	2.24	2.18	2.79	2.91
	Seniors	2.50	2.43	2.96	3.02
2007	Freshmen	2.34	2.18	2.93	2.93
	Seniors	2.55	2.44	3.07	3.03
2008	Freshmen	2.34	2.22	2.90	2.96
	Seniors	2.44	2.47	3.02	3.05
All responses are on a 4-point scale with 1=never, 2=sometimes, 3=often, 4=very often.					

Reflecting on both the ETS Proficiency Profile and the NSSE data offers a different but equally compelling case for selecting a QEP which focuses on both engaged learning and critical thinking at Pfeiffer.

Supporting Pfeiffer's Mission

From its early history until now Pfeiffer has sought to provide education to students who otherwise may not have had access to formal education. And through this process, Pfeiffer has a longstanding commitment to educational excellence and life-long learning as reflected in the mission:

> *Pfeiffer is a comprehensive United Methodist-related university, with multiple campuses that are committed to **educational excellence, service and scholarship**. We value diversity and promote the attainment of full academic and personal potential through accessible undergraduate, graduate and adult study programs. The church-related vision of the University encourages our students to embrace the Christian values of human dignity, integrity and service as they become servant leaders and lifelong learners.*

In addition to the mission statement, in 2008 Pfeiffer "articulated eight major, campus-wide, proactive institutional goals that link to the University's mission and strive to improve institutional quality." Included in this list of university wide goals is an unequivocal focus on critical thinking skills, ongoing reflection on how to help students succeed, innovations in teaching and learning, and engaged learning. The university wide goals also indicate that the University leadership recognizes the essential nature of critical thinking and engaged learning across the educational programs. The Pfeiffer QEP is in line with the mission and supports two of the university goals. Of particular importance to the QEP Selection Team were the following goals related to excellence in the Pfeiffer academic experience:

> *Acquisition of Essential Competencies:* To ensure that the student body at Pfeiffer are well prepared for continued education and employment, the University should further the design and implementation of a comprehensive approach to integrated learning of essential competencies. These competencies should include communication skills, mathematics, critical thinking and computer applications.
>
> *Teaching and Learning:* Through an emphasis on instructional innovation and student success, the University strives toward excellence in teaching and incorporates appropriate developments in learning strategies, technology, and alternative education delivery systems into the university curriculum. Faculty and staff continue to produce dynamic curricula and creative approaches to learning. (Pfeiffer Fact Book 2009, p.4)

Pfeiffer's QEP topic *Engaging Students to Think Critically* builds upon the ideas of each of Pfeiffer major constituencies; responds to a much needed area of academic under performance; and serves to support the University's mission and campus-wide goals for strategic improvement.

Topic Selection and Development

After polling the university constituency groups, reviewing the indirect measures of academic performance, and discussing the many ways that the QEP could be used to enhance the ongoing mission of the University, the QEP Selection Team continued the task of determining how to refine and operationalize the two topics of *engaged learning and critical thinking.*

In the fall of 2010, members of the original selection team along with additional representatives selected by the Vice-President of Academic Affairs was reconfigured to form the QEP Implementation Team. The QEP Implementation Team met weekly during the summer of 2011. This team began initial research into best practices, assessment, and the branding/ information process–and subcommittees were organized along these lines. The descriptions of the work and results of these subcommittees are presented in subsequent sections of this document.

The QEP Implementation Team focused its summer work with an aim of culminating in the annual Fall Faculty Conference (August 2011). During the faculty conference, the Undergraduate faculty reflected together on QEP selection and development process. The faculty devoted an entire day to the QEP: it began with a brief presentation to update everyone on progress made to date and to orient new faculty members. During this segment, QEP leadership conveyed the transformative nature of the plan for Pfeiffer's academics and outlined many of the ways that faculty would be called upon to participate in the QEP. Faculty participated in a brief question and answer period and offered verbal suggestions in response to the presentation of the QEP topic. The timeline of QEP Activities and a draft of the implementation timeline were also presented (see Table 3 and Table 7 below in this report).

The second part of the day was devoted to a presentation on engaged learning and critical thinking by a nationally-known expert, Dr. Aaron Thompson of Eastern Kentucky University (See Appendix F for his curricula vita). Dr. Thompson's workshop served to offer some common language and definitions of critical thinking and engaged learning for the faculty. In particular, he discussed elements of Blooms Taxonomy and gave a brief overview of how it can be incorporated in teaching and learning across the curriculum.

In October 2011, members of the QEP Implementation team presented the topic to the Undergraduate Honors colloquium. This event helped to get more student feedback on the QEP and to engage students outside of class in critical thinking activities. The honors students offered helpful feedback on the QEP and pushed the team to clarify many key elements such as how the QEP will directly impact and transform student learning and how it will be continued across Pfeiffer's programs (beyond the Honors program and even into the graduate programs).

Information Campaign

During the 2011-2012 academic year, the Implementation team also began its more formal information campaign. In early September, the Pfeiffer *Falcon's Eye* newspaper ran the first of a series of articles carefully orchestrated to introduce students to both the general idea of the QEP and the specifics of what it means to Pfeiffer. (See Appendix G for examples). The newspaper staff also created a Facebook page devoted to the QEP and issues of the paper invite students to go there, post questions, add comments, and become better informed about the Pfeiffer QEP activities. It is also anticipated that individuals will make suggestions about the types of activities that would be useful and engaging. This joint gathering of feedback and information flow will also take place through the creation of a university website dedicated to the QEP.

Considerable thought and energy has gone into the information campaign and "branding" of the QEP. Although one slogan for the entire community has not been selected, the letters EL and CT are being used to signify the engaged learning and critical thinking themes of the QEP, resulting in the information campaign using the word ELeCTric or *EleCTric Thinking* often. This "electric" theme has also been incorporated through the use of a lightning bolt in the QEP-related printed material. (See Appendix H for examples.) The aim of this campaign is not simply to provide students, staff and faculty members with information on the university's QEP topic, but to help them become aware of the deeper meanings of both terms as it applies to student learning.

Beginning in the spring of 2012, students will have the opportunity to engage in a series of activities including scavenger hunts that are being planned in association with the QEP information campaign. These hunts would require students to move around campus following

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clues that will ultimately lead them to uncover some aspect of critical thinking. To encourage

participation prizes will be awarded to the person(s) who complete the hunt first.

Table 4. Timeline of QEP Selection Process Activities to Date	
Date	**Activity or Event(s)**
October 2007	QEP kick-off presentation by invited speaker, Ross Griffith
November 2007	Initial meeting of QEP Selection Team
Spring Term 2008	First electronic survey of students, faculty and staff designed to elicit ideas for QEP topics
Late Spring 2008	First "awareness" campaign designed for roll-out in the fall, with special emphasis on Homecoming activities
July 2008	Members of the QEP Selection Team meet with Student Development Staff to outline plans for increasing student awareness of the QEP
August 2008	Members of the QEP Selection Team meet with Residential Advisors (RA's) to outline plans for increasing student awareness of the QEP
September 2008	First electronic survey to solicit ideas for the QEP topic is repeated (due to low response rate in the spring)
September 2008	Focus groups with alumni held during Homecoming
October 2008	Focus groups held with faculty, staff and students
Fall 2009	QEP Selection Team changes membership, although all constituencies still represented
Spring 2010	Second electronic survey of preferences for the QEP is conducted, but with only the top 3 ideas from earlier surveys and focus groups
Late spring, 2010	Pfeiffer QEP chosen – Engaged Learning and Critical Thinking – as a result of a tie in the second survey voting
Fall 2010	Initial research done on best practices and assessment for the QEP topic
Spring 2011	QEP Implementation Team chosen with all constituency groups and both Pfeiffer campuses represented; a series of "faculty dialog" sessions held to solicit ideas for implementing the now chosen QEP
Summer 2011	Weekly meetings of the QEP Implementation Team with special emphasis on best practices, assessment and the information campaign
August 2011	Full day of the annual Fall Faculty Conference devoted to the QEP, including a workshop conducted by nationally-known expert on critical thinking – Dr. Aaron Thompson
Fall 2011	Presentation of QEP for Undergraduate Honors Colloquium
	Falcon's Eye Newspaper Series on the QEP

IV.   Literature Review and Best Practices

In the process of selecting a QEP topic and beginning to implement the plan, the team reviewed numerous articles and perspectives on each subject which have helped to shape the final strategies for *Engaging Students to Think Critically.* The literature review focuses on a significant discussion of the definition of each of the topics (as well as Pfeiffer's operational definitions), the growing importance of each, and the decision to combine the two.

Definitions of Engaged Learning and Critical Thinking

The literature and best practices of engaged learning and critical thinking evinces that definitions and conceptions of each abound. However, the diversity of definitions is more than an issue of semantics, it also permeates the practices of engaged learning and critical thinking. For example, a study conducted of both private and public California university faculty on their knowledge and practices of teaching critical thinking found that the vast majority (81%) could not offer a precise explanation of critical thinking; even though, a larger majority of those interviewed (89%) stated that critical thinking was "a primary objective of their instruction." (Paul, Elder, and Bartell, 1997) Therefore, one of the first tasks facing the QEP Implementation Team in their 2011 summer meetings was the generation of operational definitions of both engaged learning and critical thinking. Although these terms are not unfamiliar to faculty members, it is important to create and disseminate operational definitions so that faculty and students can fully grasp how these concepts, when put into practice, will serve to transform their learning activities, courses and assignments.

Defining Engaged Learning

Stephen Bowen (2005) outlines four interconnected conceptions of engaged learning which have become common among educators to demonstrate how engaged learning is much more than simply getting students involved in class. He outlines engaged learning as including:

- student engagement with the learning process (similar to active learning),
- student engagement with the object of study (similar to experiential learning),
- student engagement with contexts (similar to multidisciplinary learning), and
- student engagement with the human condition (similar to some forms of service learning).

The idea of **"*engagement of students with the learning process*"** has existed since education began and today teachers spend a great deal of time on this definition as they try to find new ways to get students interested in the course material. At the core of this idea of engagement is simply helping teachers hone their strategies for getting students to "pay attention." However paying attention is not the totality of engagement, particularly for educators who seek to foster what Bowen describes as transformative learning. He defines transformative learning as "learning in which students grow in response to what they have learned." (Bowen 2005). Engaging students in transformational education requires countering students' resistance to transformation and employing a concept of engagement which requires a much more intense and personal connection with learning.

On the other hand **"*student engagement with the object of study*"** is understood as a close examination of a single object or topic of interest in order to stimulate both interest and application of course concepts to in-depth learning. Historically, this type of engagement has been privileged in the natural sciences and constitutes major trajectories in empirical studies, including: direct observation, analysis, and evaluation of the object being studied.

Bowen also includes **"student engagement with the context of topics that they study,"** here he points to the ways that student must also learn to engage the larger context in which their particular problem or interest lies. As an example he mentions a student who is interested in the population of fish in a lake. In order to duly understand the population fluctuations the student might also need to study factors that influence pollution, government regulations, weather, the local economy, etc.

Connected with the student's engagement of contexts is **"student engagement with the human condition."** While engagement with contexts requires students to look broadly at other disciplines, engaging the human condition asks students also to consider the social and civic contexts of their study. In particular, it addresses questions of the ethical dimensions or "consequences of our acting on knowledge." For some educators this type of engagement is the most important and they refer to it as the "most worthy, compelling and legitimate approach to learning." Regardless of the valorization, this dimension of engaged learning reflects an understanding that all knowledge is socially constructed and thus social contexts also require consideration in the construction and evaluation of knowledge.

From each of these four dimensions, Bowen (2005) offers an image of engaged learners which the QEP committee embraced:

> *Engaged learners are those who complement and interpret what they learn from others with direct knowledge based on personal experience, who develop appropriately complex understandings situated in relevant contexts, and who recognize learning's moral implications and consequences.*

Definitions of Critical Thinking

Attempts at defining critical thinking are pervasive throughout higher education literature. The following definitions represent only a sample of the many individuals (and groups) who have attempted to succinctly define critical thinking:

- "Critical thinking is thinking that analyzes thought, that assesses thought, and that transforms thought for the better." (Paul, 2007).
- "We understand critical thinking to be purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based." (American Philosophical Association)
- "Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action." (Scriven and Paul, National Council for Excellence in Critical Thinking, 1987).
- "Good critical thinking is skillful and responsible thinking in which you study the problem from all angles, and then exercise your best judgment to draw conclusions." (Online Teaching and Learning Center, University of Maryland).
- "… the process of analyzing and assessing thinking with a view to improving it" (Paul and Elder, 2007).

While there is variation in the way experts define critical thinking, much of the literature points to similarities in the skills and actions inherent in the process of critical thinking. For example, it is important to note the continuing influence of Benjamin Bloom's Taxonomy (1956) in these definitions. Although many have built upon and subsequently extended his work, it still undergirds much of the current discussions and definitions of critical thinking. Bloom's work focuses on six levels of intellectual skill including: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. In both the original and revised models of Bloom's work these levels are considered hierarchical and build upon each other, with the possible exception of the highest two levels: synthesis and evaluation. However, both synthesis and evaluation are considered essential to "higher order thinking" or critical thinking.

In addition to the influential role of Bloom's work in these discussions, others such as Richard Paul and Linda Elder's models (1997, 2008, 2010) of critical thinking tend to pervade much of the discussions about critical thinking in use in institutions of higher education. Paul and Elder's model includes 3 components: elements of reasoning, intellectual standards and intellectual traits. They essentially propose that there are certain universal *intellectual standards* which must be applied to the *elements of reasoning* (which all thought has regardless of content), in order to develop *intellectual traits*. (Paul and Elder, 2010)

In addition to offering an operational definition of critical thinking, many models also posit characteristics associated with a student who is demonstrating critical thinking skills. Paul and Elder (2010) describe the "characteristics of a well-cultivated critical thinker" as one whom:

- raises vital questions and problems, formulating them clearly and precisely;
- gathers and assesses relevant information, using abstract ideas to interpret it effectively comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- thinks openmindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- communicates effectively with others in figuring out solutions to complex problems.

However, even as many institutions embrace their model and definitions of critical thinking, Paul and Elder also offer a word of caution in *Tools for Taking Charge of Your Learning and Your Life* (2001), "No one definition of critical thinking will do. Given the complexity of critical thinking—its rootedness in 2,400 years of intellectual history, as well as the wide range of its application—it is unwise to put too much weight on any one definition. Any brief formulation of critical thinking is bound to have important limitations."

After reviewing numerous definitions and acknowledging the limitations of any single definition, the implementation team chose to embrace a slightly modified version of the National Council for Excellence in Critical Thinking's definition:

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/ or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as <u>a reflection of</u> and guide to belief and action.

The definition selected represents the trends in the literature and best practices; as well as makes explicit the need for critical thinking to be an active and disciplined process which not only leads to higher order thinking, but reflects and guides actions.

Attending to the characteristics of a well-cultivated critical thinker, as well as the operational definition of critical thinking is essential for transforming the pedagogy of Pfeiffer faculty and learning outcomes of Pfeiffer students. Later in this report we discuss further how this definition and characteristics connects with our assessment of improved critical thinking in students.

The Growing Significance of Engaged Learning and Critical Thinking

In reflecting on definitions and trends related to engaged learning and critical thinking, the team observed that a number of SACS institutions have used engaged learning as their sole QEP topic. A significant amount of research (e.g., Schuh, 2011) indicates that students who work in small groups on joint projects (e.g., Light, 2011) and who do more than just listen in class (e.g., Chickering & Gamson, 1987) succeed in college a higher rate than do other students. Furthermore, educational satisfaction levels are significantly higher for students who are actively engaged with the material (e.g., Schreiner & Louis, 2011) and who get to know their professors at a personal level (e.g., Schuh, 2011). All of these indicators are an integral part of engaged learning, as defined above.

Where critical thinking is concerned, again research has shown it to be crucial to the attainment of a higher order of mental functioning in students. Students who are involved in critical self-awareness (Astin, 1993; Kuh, 2000) and/or who are explicitly taught the fundamentals of critical thinking (Bloom, 1956; Paul & Elder, 1997) are significantly more likely than other students to be active citizens and to think at a measurably higher level than students who do not. These generalities hold true in general education as well as within specific disciplines (Dunn, Halonen & Smith, 2008).

Through the centuries critical thinking was regarded as primarily within the provenance of philosophy, and indeed the concept was understood and espoused by Socrates as he employed his famous method of questioning. More recently, numerous sources indicate that the need for colleges and universities to produce critical thinkers has never been greater. For instance, many books have been published that point out that critical thinking is lacking in today's students and that try to address this problem (e.g., Kytle, 1986; Kelley, 1988; Ruchlis, 1990; Pinto & Blair, 1993; Whyte, 2004).

In recent years educators as well have come increasingly to the realization that developing critical thinking in our students is one of our primary aims and responsibilities. In 1980 Dr. Glenn Dumke, Chancellor of the California State University system implemented policies so that critical thinking was required to be formally taught throughout all 19 campuses in the system.

In 2000 the United States Congress, through the National Center for Education Statistics, proposed critical thinking as one of the goals that college graduates would attain. Specifically, Goal 6.5 stated that, "the proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively and solve problems will increase substantially." This

particular goal was, in turn, incorporated into a larger, overarching goal that stated, "by the year 2000 every adult American . . . will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship." Thus Congress indicated that critical thinking skills are fundamental to a properly functioning citizenry.

In addition to educators and politicians, business leaders too have begun to give voice to critical thinking as one of the key attributes that they look for in employees. As a result, schools of management and departments that award business degrees of all kinds are teaching critical thinking more and more (Elder, 2011). This is true of both American schools such as Harvard (Datar, et al., 2011) and Canadian schools as well (Martin, 2010). In fact, Roger Martin, Dean of the Rotman School of Management at the University of Toronto has made critical thinking the intellectual centerpiece of the school's program.

Combining the Two
Engaged Learning as Pedagogy & Critical Thinking as Student Learning Outcome

Building on the above sections, there can be little doubt that critical thinking is not only a student learning event; it lies at the very heart of such learning. Critical thinking is centered on students becoming engaged in an examination of their own thought processes with the ultimate aim of improving those processes; student learning is clearly the focus and aim of critical thinking.

Similarly, engaged learning is both an educational process and product, which describes activities undertaken within and outside of formal learning environments and catalyzes engagement with an array of objects and contexts of learning. In this sense, engaged learning can both require and foster higher order thinking in order for a student to fully engage their learning process, the object of their research, the contexts of the subject, and the human condition.

Where the connection of engaged learning and critical thinking is concerned, the Pfeiffer University faculty are of the mind that the two concepts feed into each other in a complementary fashion. That is, engaged learning can be a <u>method</u> of pedagogical instruction whereby students are guided to uncover debates and challenges within a discipline or area of interest. Used in this fashion, students who undertake library research exercises or empirical research, for example, might well discover that they need to rethink their topic in light of new information. Or they might find that challenges exist to their preconceived notions that serve to take their thinking to a higher level. On the other hand, it is just as possible that critical thinking might occur first and that this more enlightened thinking might, in turn, lead students to undertake more engaged learning or more in-depth research. In short, we recognize that either can come before the other.

Engaged Learning   **Critical Thinking**
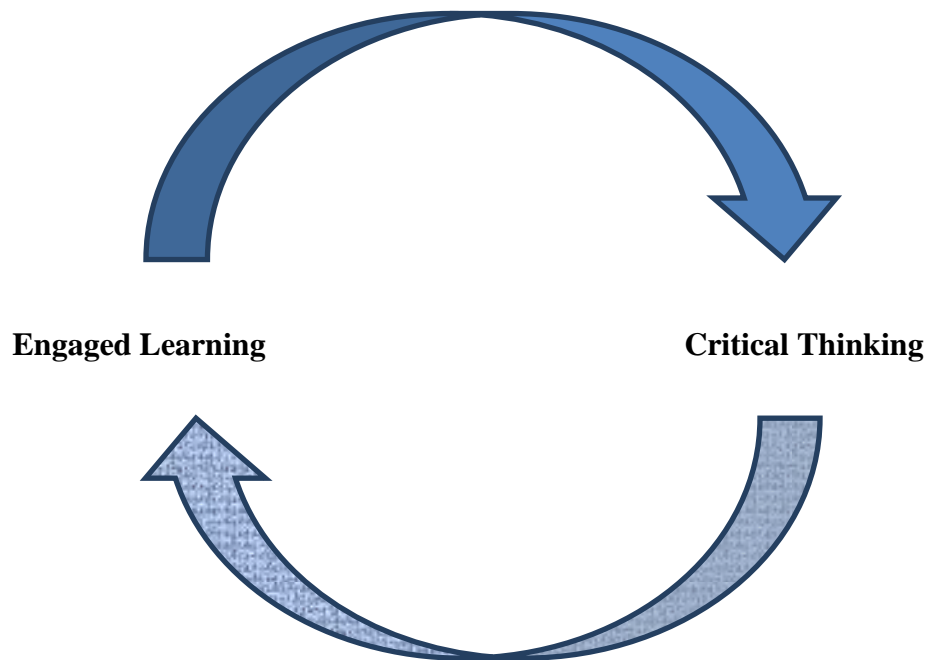
However, while the team explored literature which supports both the process of critically thinking catalyzing engaged learning and engaged learning leading to critical thinking, for the Pfeiffer QEP we chose to emphasize the latter. The rationale for this decision again lies primarily in the identified needs of students the committee most wanted to impact. It also takes into consideration that if we are truly fostering engaged learning (and not just active learning), we will by definition participate in processes which promote critical thinking.

Best Practices for Engaged Learning and Critical Thinking

During the spring term of 2011 a good deal of information was gathered about other institutions, both SACS members and non-members, that had used engaged learning and/or critical thinking as they improved the academic programs of their schools. The purpose of this information gathering was to get general information on programmatic changes, assessment instruments, degree and placement of emphases and budgetary outlays. During the summer of 2011 meetings, the best practices subcommittee of the QEP Implementation Team undertook this task in earnest and in much more detail. In addition to information contained in the QEP portions of these schools' websites, on occasion phone conversations took place as well. (See Appendix I for the list of institutions consulted). In addition to consulting the QEPs of various schools, Pfeiffer consulted nationally known expert in the area, Dr. Aaron Thompson (see attached vita, Appendix F), to help shape the QEP. The paragraphs below contain a distillation of the themes and ideas gleaned from this combined best practices search, as well as conversations with Dr. Thompson.

Research at other institutions shows that engaged learning is sometimes referred to as "active learning," a form of engagement with course materials and topics of personal intellectual interest outside of the classroom that fosters a depth of contact with the topic at hand. It is both

student-centered and institution-centered in that it includes an institution-wide encouragement of non-traditional learning that allows students to become truly engaged with the material. Given definitions of engaged learning implemented at other institutions, and keeping in mind the expanded definition of the term from Bowen described above, the committee explored the following activities as examples of engaged learning, which should be fostered and expanded at Pfeiffer (and which can be used to promote critical thinking):

- internships
- service-learning
- experiences with cultures outside one's own
- mentored research via empirical data collection efforts
- in-depth library research
- co-taught and multidisciplinary courses
- clusters of classes centered around a common theme

Despite the fact that Pfeiffer has a history of service learning, best practices research revealed many ways that this service learning can be expanded such that it better exemplifies and supports our goal of *engaging students to thinking critically.*

As noted above, in order to understand best practices of critical thinking, we must explore the desired characteristics, skills and actions of critical thinkers; and seek to assess or improve upon each. Research also suggest that in order to truly foster critical thinking in students these skills should not be taught apart from the core or traditional courses, but should be included and reinforced across the students' learning experiences. In particular Huitt (1998) argues that even though it is possible to offer specific critical thinking skills courses, these skills are best developed when they are cultivated and practiced in connection with a "specific domain of knowledge." Huitt further affirms that it is not enough to simply teach the skills; he states that *what you measure is what you get*. This indicates that critical thinking must be connected with significant and clearly specified expectations and assessments (as will be discussed below).

V. Desired Student Learning Outcomes

The university is combining engaged learning to drive improvement in critical thinking as its QEP and argues that the combination of these can be viewed as both process and as outcome. The student learning outcomes that derive from this point of view are described in terms of students' critical thinking; the work of the faculty will be to more fully engage students in a variety of activities that will cause students to think critically. How the university will assess the degree to which these outcomes have been attained by students will be addressed in a later section of this report. The learning outcomes are adapted from the work of Tennessee Technological University whose work on critical thinking follows closely the operational definition of critical thinking used by Pfeiffer.

Student Learning Outcomes

The student will:

- Effectively evaluate information.

- Use human creativity to help solve problems.

- Use problem-solving techniques recognized by various disciplines.

- Communicate the process and content of learning effectively.

VI.   Assessment Plan

The assessment of the student learning outcomes for the QEP will be accomplished by a combination of one nationally-known assessment instrument for critical thinking, several questions from the National Survey of Student Engagement (NSSE), the critical thinking subscale of the ETS Proficiency Profile and individual rubrics designed to assess both faculty-made assignments and student work samples. Following the discussion of the selection/creation of the instruments, a summary will show the inter-connectedness of the instruments and the processes of using them in coordination.

National Assessment Instruments

The QEP Implementation Team subcommittee on assessment looked into a number of assessment instruments where critical thinking is concerned. The object was to locate one assessment instrument for critical thinking that could be used to assess the degree to which the student learning outcomes for critical thinking had been accomplished. The subcommittee considered, in turn,

- the California Critical Thinking Skills Test (CCTST) published by Insight Assessment,
- the Collegiate Learning Assessment (CLA) published by the Council for Aid to Education,
- the International Critical Thinking Reading and Writing Test (ICTRWT) published by the Foundation for Critical Thinking and
- the Critical Thinking Assessment Test (CAT) published by Tennessee Technological University.

The assessment subcommittee presented examples of each test to the QEP Implementation Team in order to help the team decide which of the tests seemed to match our proposed students learning outcomes most closely. Other factors that were considered included

costs, degree of training required and ease of integration into the culture of the university. After

a good deal of thought, the CAT was chosen as our primary external assessment instrument.

According to information from Tennessee Tech, the CAT is "a unique tool designed to

assess and promote the improvement of critical thinking and real-world problem solving skills."

The instrument was designed with the assistance of the National Science Foundation and that

factor too entered into the decision.

The choice of the CAT as the primary external assessment instrument for critical thinking

has implications for budgets and faculty / staff resources. This is because the test will be scored

by members of the Pfeiffer community, primarily faculty members, and this will require the

assessors to receiving training in scoring the test. This feature is an important link in the

"closing the loop" process and can be seen in the following graphic.

Closing the Loop in Assessment and Quality Improvement

Assess Student Performance

Improve Student Learning

Increase Faculty Awareness
of Student Weaknesses
(Faculty Participate in Test Scoring)

Increase Faculty Awareness of Best Practices

© 2007 Tennesee Technological University
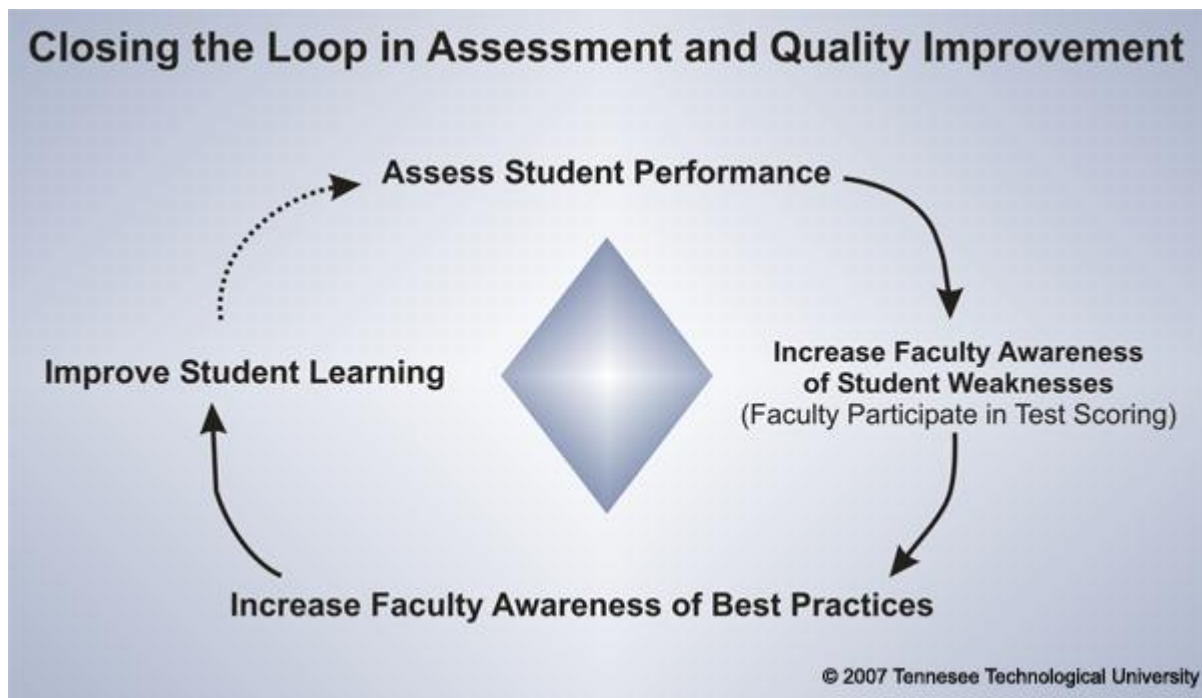
The figure below shows how the CAT is designed to address the major elements of Bloom's Taxonomy of Cognitive Skills (1956).
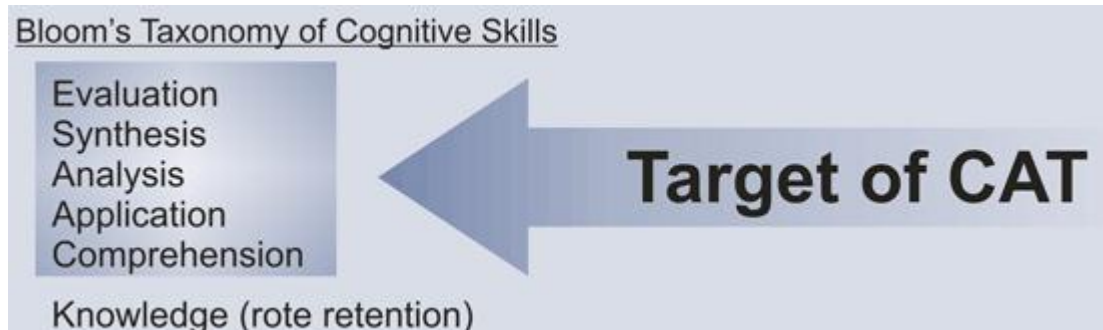
ETS Proficiency Profile

Pfeiffer has for years used the Measure of Academic Proficiency and Progress (MAPP) as an instrument during senior exit testing, and although this instrument has now changed to the ETS Proficiency Profile, Pfeiffer seniors still take it. One of the subscales of the Profile is critical thinking and in addition to the CAT, these subscale scores will continue to be monitored for changes once the QEP has been implemented.

The National Survey of Student Engagement

Pfeiffer has participated in the NSSE for many years and thus, unlike the CAT, a good bit of baseline data has been gathered. A number of questions from the NSSE specifically address student engagement in academic life and these questions will be monitored in order to uncover any improvements in the degree of engagement of students with academics. (See Table 2 above for list of specific topics of relevance.)

It should be stated here that like all institutions Pfeiffer evaluates its faculty along a number of important dimensions (e.g., teaching, advising, scholarship, service) on an annual basis and as a result of the QEP the university will begin to include the degree to which faculty

members incorporate the QEP into their teaching in their annual evaluations. As important as this is, nonetheless it is *faculty* assessment. The NSSE will remain one of the primary instruments for assessing *student* engagement.

Internal Measures

The institution's faculty and students will have access to two generalized rubrics that provide descriptors of the elements that lead to critical thinking and engagement. For faculty, a rubric has been drafted that describes what an engaging assignment includes. The elements include the criteria of level of student engagement, reflective practice, the level of cognitive ability, the level of affective ability, and the level of student-directedness. Descriptors for meeting the standard, exceeding the standard, and not meeting the standard are provided. Faculty assignments that are purported to engage students and drive critical thinking, to be included in the exploratory projects and eventual full implementation of QEP, will be reviewed by the QEP director for appropriate level of standard. For student work samples, a rubric has been drafted that provides criteria and standards for the results of student effort. Again, the descriptors provide examples of the levels of work that meet standard, exceed standard, or do not meet standard. Faculty will use this generalized rubric as is, or derivations of it in primary trait analysis scales, to share with students prior to and following the assignments. Over time, as the rubrics are used again and again, students and faculty will both naturally internalize the contents of the rubrics to help focus on engagement that leads to improved critical thinking.

The assignment rubric will be used to judge the quality of the faculty assignment while the critical thinking rubric will be used to provide feedback about individual student work. These rubrics will be made available to faculty members and they will be trained on their use by the

Director of the QEP. The draft rubrics and a list of schools from which other rubrics have been

obtained, for review and consideration, can be found in Appendix K.

The overall assessment of the elements of the QEP will be carried out with a number of

data collection points, summarized in the table below.

Table 5. Summary of Assessment Plan		
	Students	Faculty
Direct measure	Student work graded by critical thinking rubric	Assignments graded by assignment rubric
Indirect measure	NSSE, ETS, CAT	IDEA results around engagement

Students' efforts at improving their critical thinking skills will be directly measured by

internal rubrics applied to their work samples. Indirectly, their skills will be measured by

responses to specific questions on NSSE, the ETS subscale on critical thinking, and results of the

CAT. The direct measures will be used to help faculty provide formative and summative

feedback to students and to help determine grades for the students.

Faculty work on increasing engagement will be measured internally by the rubric

designed to gauge the engagement qualities of the assignments they produce for students. Faculty

work will be assessed indirectly by the results of the IDEA evaluations performed by students,

looking specifically at those items that address the level of engagement and interaction. Both

measures will be included in the annual performance evaluation of faculty by administration.

It is believed that, over time, the number of faculty-created assignments judged to meet

standard will move from a baseline of zero currently to a minimum of 30 in the first year, with

increments of an additional 30 per year over five years.

It is further believed that the percentage of students whose work meets standard on any given assignment will move from an unknown baseline currently to a minimum of 70% the first year of implementation with an increment of 2% per year over five years.

Scores on the external measures (NSSE, CAT, ETS, and IDEA) will be collected in the first year. A goal of 2% improvement per year on each instrument over baseline will be set as a goal.

At the conclusion of each academic year, the collection of data points will be reviewed by the QEP director, the Office of Institutional Research, and the deans, to determine what progress has been made and to determine what faculty development in terms of assignment construction and course delivery might be appropriate. The Office of Institutional Research, which has responsibility for the administration of all external measures, will review data to ensure that response rates are appropriate for each instrument and that the method of administration provides the best response rates. The external data will be aggregated for inclusion in the annual institutional fact book and will be dis-aggregated to provide each faculty individual and each program collectively with a perspective of student progress and opinion. Collectively, faculty will review these data to determine appropriate changes to curriculum and delivery.

VII. Implementation Plan

After reviewing the literature and best practices of other institutions, two ideas emerge as essential for framing the Pfeiffer QEP: (1) we affirm that critical thinking skills can be taught and that (2) engaged learning serves as an effective pedagogical tool for teaching critical thinking skills. However, in order for Pfeiffer's QEP of *Engaging Students to Think Critically* to come to fruition a number of actions must be implemented. First, critical thinking and engaged learning must become infused throughout the general education and upper level major curriculum. Part of this work will include training faculty in the best practices of engaged learning and teaching for critical thinking skills. This will also include increasing the number of courses which explicitly and intentionally attend to these issues, and by extension increasing the number of courses a student will take which are intentionally designed around engaged learning and critical thinking. Second, but of equal importance, a successful QEP will also include offering faculty and students consistent and ongoing forums for engagement inside and outside of class and for presenting the products of their critical and creative thinking. Finally, the leadership and faculty must continue the process of ongoing assessment and reflection on the direct and indirect measurements of the Student Learning Outcomes (outlined above in this document) and QEP activities to ensure that our efforts and implementation of the QEP are producing the desired outcomes.

Faculty Development

Pfeiffer faculty members are essential to the successful implementation of the QEP. It is in their classrooms and laboratories, curricular decisions and assignments that the vast majority of the direct impact and weight of the QEP will be actualized. Therefore, in addition to soliciting

their buy-in for the QEP topic, there must be a rigorous and ongoing plan for faculty development in *Engaging Students to Think Critically.* Faculty members will need training on how to integrate both engaged learning and critical thinking into their teaching. This training must focus on a number of things, including the operational definitions of terms; utilizing the pedagogy of engaged learning; reorienting their classrooms and courses to foster the habits of critical thinking; the use of data to make decisions about curriculum changes; and the use of rubrics to assess assignments and student learning. In order to accomplish this, faculty will participate in several training opportunities offered through the Office of Academic Affairs.

Each academic year, beginning in August 2012, the annual Fall Faculty Conference will have a focus on the development, implementation, and scoring of assignments that drive critical thinking. The three-day event will, of course, have other items of interest to faculty such as new policies/procedures and departmental meetings, but the emphasis will be engaging students to think critically. Examples of assignments that require students to think critically will be shared and discussed; faculty will calibrate the use of internal rubrics designed to provide feedback to students; faculty will collaborate on the development of assignments and activities particular to their own disciplines. In addition to these in-class types of assignments, faculty will have the opportunity to make connections across courses and across disciplines to develop out-of-class service-oriented activities that are in-line with the institutional mission of developing servant-leaders.

Throughout the academic year, a Faculty Learning Community will have the opportunity to meet in an informal setting to continue to share ideas and shape activities. This interaction among faculty will help to strengthen assignments and feedback to students. The planned monthly meetings will highlight one faculty member's work and allow for critique and questions

by other faculty engaged in the community. The first targeted group of faculty will be those involved in the innovation year of 2012-2013. This group of pioneers will set the stage to become mentors in subsequent years for other faculty who wish to incorporate more engaged activities in their own classrooms. The communities offer a supportive atmosphere in which members can discuss research and practice in different approaches to delivering opportunities for students to enhance their critical thinking.   The structure of these communities allows for faculty to exercise flexibility and freedom in the particular aspects of teaching and learning they explore and to further collaboration around best practices. The faculty development plan also includes a stipend for faculty members who volunteer and are selected to participate in the innovation program, and participate in the Faculty Learning Communities and QEP training. This stipend will serve as an incentive for faculty participation and to cover any resources required for individual projects and activities.

In the spring of each academic year, as part of the annual Spring Academic Showcase, students and faculty will demonstrate their work with an increasing emphasis on critical thinking. This showcase provides an opportunity for younger students to see what senior-level research and projects are like and an opportunity for faculty to show their research as well. Additionally, lower-level students will be encouraged to show examples of their work, particularly work that demonstrates a change in the students' critical thinking abilities. Also in the spring, following the semester, the Spring Faculty Conference will be instituted. This conference will focus solely on faculty work around critical thinking – the development of assignments, how well they worked, and what the faculty believe was added to the course as a result. The timing of this event is important: it allows other faculty some time to reflect on their colleagues' work and determine for themselves what changes in their own courses may be valuable.

For all faculty development related to engagement and critical thinking, the institution will rely on the QEP director, to be hired, and the Associate Vice President for Academic Affairs who has fifteen years of experience in faculty development. After the first year, those faculty who are in the innovation group will be designated as mentors to other faculty and will begin sharing their experiences in the development and delivery of engagement and critical thinking activities.

Faculty Use of Data

The institution has, for years, collected data from the ETS Proficiency Profile (previously the MAPP and the Academic Profile) and from NSSE (National Survey of Student Engagement). The institution will also begin using the CAT (Critical Thinking Assessment Test) for an additional data point. These external measures, along with internally-developed and standard rubrics, will provide a robust data set for the analysis of engagement and student critical thinking. As the institution grows in its reliance on data-based decision making, part of the annual Fall Faculty Conference will be devoted to the presentation, discussion, and analysis of data from these instruments. Faculty will see trends over time, highlights and lowlights, and specific areas for targeting of improvement. These data will suggest needed changes in expectations, in assignment development, and in methods of appropriate feedback.

The Director of Institutional Research and the QEP Director will be the point persons for the dissemination of these data and will facilitate the discussion around trends and positives/negatives. The Directors will be on the agenda for each Fall Conference and Spring Conference and will participate regularly throughout the year in the Faculty Learning Community dedicated to engagement and critical thinking.

Faculty Implementation Over Time

While the goal of the QEP Implementation team is for all faculty members to participate in the QEP and incorporate engaged learning and critical thinking into their pedagogy and course design, the implementation team has designed an incremental system of faculty leadership, training, and participation. The system is designed both to allow for the QEP leadership to practice continuous improvement (and thus revise and refine the training process each year) and to offer sufficient time and resources to build faculty buy-in and expertise in these areas.

During the academic year 2011-2012, the campus will be in an information stage, helping all constituencies to understand the nature and purpose of the QEP. During 2012-2013 the innovation year will include only ten faculty members. In the next five years we will increase faculty participation such that all faculty members, including graduate faculty will participate in training and on-going reflection on reorienting their assignments and course structures to intentionally enhance engagement and critical thinking. In years two and three, the implementation years, the activity ramps up to have a broader impact on students. Also beginning in year three, the campuses located in Charlotte and RTP will become more fully involved, through the School of Adult Studies and the Graduate School. With some already existing crossover in faculty and programs, the topics will not be "new" to these campuses. Also, with the on-going faculty development activities, all faculty will have already had multiple opportunities to begin making changes to their practice. In year four, the institutionalization year, the notion of engagement and critical thinking will be broad-based and permeate the university's work, creating an institutionalization of the concepts. Finally, in year five, while on-going assessment has occurred, the overall impact of the QEP will be determined.

Table 6: Summary of Incremental Increase in Faculty Participation			
Year	New Faculty	Total Faculty	% Courses
2012-2013 **Innovation**	10	10	10%
2013-2014 **Implementation**	12	22	20%
2014-2015 **Implementation**	18	40	40%
2015-2016 **Institutionalization**	20	60	60%
2016-2017 **Impact**	20	80	80%

Assessing faculty participation and work

The work of the faculty will be guided and evaluated by the Faculty Handbook. In support of that process, there will be formative and summative assessment points. The QEP Director and committee will provide formative feedback to individual faculty members around their courses and assignments. Over the course of the informational and innovation years the QEP Director and committee will develop criteria by which courses may be designated as an "engagement leading to critical thinking" course. As a faculty member wishes to have his/her course designated as an "engagement leading to critical thinking" course, the course syllabus and assignments will be submitted to the committee. The committee determines if the materials meet the intent of the institution's critical thinking standard. If so, the course is offered to students; if not, the committee provides feedback to the faculty member for changes.

Additionally, and in support of faculty work, this peer review process is extended to the Spring Academic Showcase and to the Spring Faculty Conference in which faculty observe and critique each other's work. Finally, the Office of Institutional Research will provide annual updates to progress on critical thinking through the collection, analysis, and dissemination of all data internal and external. This data will help to provide the basis for on-going update to the courses and assignments designated as driving students to improve their critical thinking.

The summative assessment (i.e., the annual performance review) will be conducted as described in the Faculty Handbook. As faculty are first selected and later expected to participate in the development and use of critical thinking assignments in their courses, the deans and directors of the various schools/departments will determine the extent to which faculty have embraced the thrust of the QEP. Faculty will be encouraged to identify, as part of their annual professional goals, how they will demonstrate their knowledge and participation in the QEP, particularly the engagement of students to improve their critical thinking. As part of this, faculty will be expected to engage in the faculty development opportunities available to them at the university, utilize the internal rubrics, analyze and report data from their own courses, and use the services of the QEP Director in enhancing their courses. While there are many directions in which faculty time and energy are pulled, the QEP must be central to their thinking in order for it to have the transformative effect desired.

Table 7. Timeline of QEP Implementation Process		
Phase	**Dates**	**Activity or Event**
Information	Fall 2011	Assessment sub-committee develop rubrics for use in undergraduate pilot courses
		Faculty members recruited to explore use of rubrics
	January 2012	Information Campaign Scavenger Hunt activities
		Train Faculty exploratory group in use of rubrics
	Spring 2012	Faculty Exploration - Meets monthly for reflection on the process and strategizing with QEP leadership
		CAT leaders selected and attend training workshop
		Faculty and Student Academic Showcase - Exploratory faculty participants present their preliminary reflections on using the draft rubrics in their classes
		Faculty members/volunteers recruited for participation in 2012-2013 QEP specific Faculty Learning Community - Applications made available through the Office of Academic Affairs - Deadline for submission August 1, 2012
		Hire QEP Director and appoint QEP committee
Innovation	Summer 2012	QEP Director and assessment subcommittee review pilot faculty findings and incorporate changes into the rubrics and/or training schedule for 2012-2013
		QEP team plans workshop and training for fall faculty conference and training
	August 2012	QEP presentation during Fall Faculty Conference
		2012-2013 QEP specific Faculty Learning Community selected
	Fall 2012	Training of new faculty members in use of rubrics
		Pfeiffer CAT leaders offer training for other faculty members selected to score the test.
		Provost works with Deans to suggest revisions in the faculty evaluation process to included faculty participation, service, teaching and learning activities related to the QEP (for adoption during the 2013-2014 year)
	April 2013	Administer first round of CAT tests Selected faculty members convene to score test and reflect on the process - Establish baseline scores - Plan percentage increase for each year
Implementation	Fall 2013 to Spring 2015	QEP Director and leadership team continue to review participation and performance across the University
		Develop faculty training workshops and themes for upcoming year
		Faculty participation increases incrementally
Institutionalization	Fall 2015 to Spring 2017	QEP expanded to include Charlotte and RTP faculty and students
Impact	AY 2016-2017	Report to SACS on the progress of the QEP

VIII. Organizational Structure

Once the QEP topic has been accepted, the Director of the QEP (new hire) will assume the leading role in its implementation. He or she will help generate and coordinate QEP-related activities, both within and outside the classroom. This individual will report directly to the Vice President of Academic Affairs who will exercise oversight capacity in her role as the chief academic officer of the university. This individual will work closely and collaboratively with the Director of the Office of Institutional Research, the Deans and Directors of the schools and degree programs, the Francis Center for Servant Leadership, the library, the residential life staff and the Office of Student Affairs in order to create programs that are related to the student learning outcomes of the QEP. The QEP Director and Associate Vice President for Academic Affairs will work in tandem to offer faculty development and on-going assessment (as described above).

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                    │ Provost / VP of Academic Affairs │
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              │ QEP Director │ ─ ─ ─ ─ │     QEP      │
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Office of Institutional Research	Deans / Directors of all schools	Office of Student Affairs	Residential / Student Life	Francis Center for Service Learning	The Library

Faculty
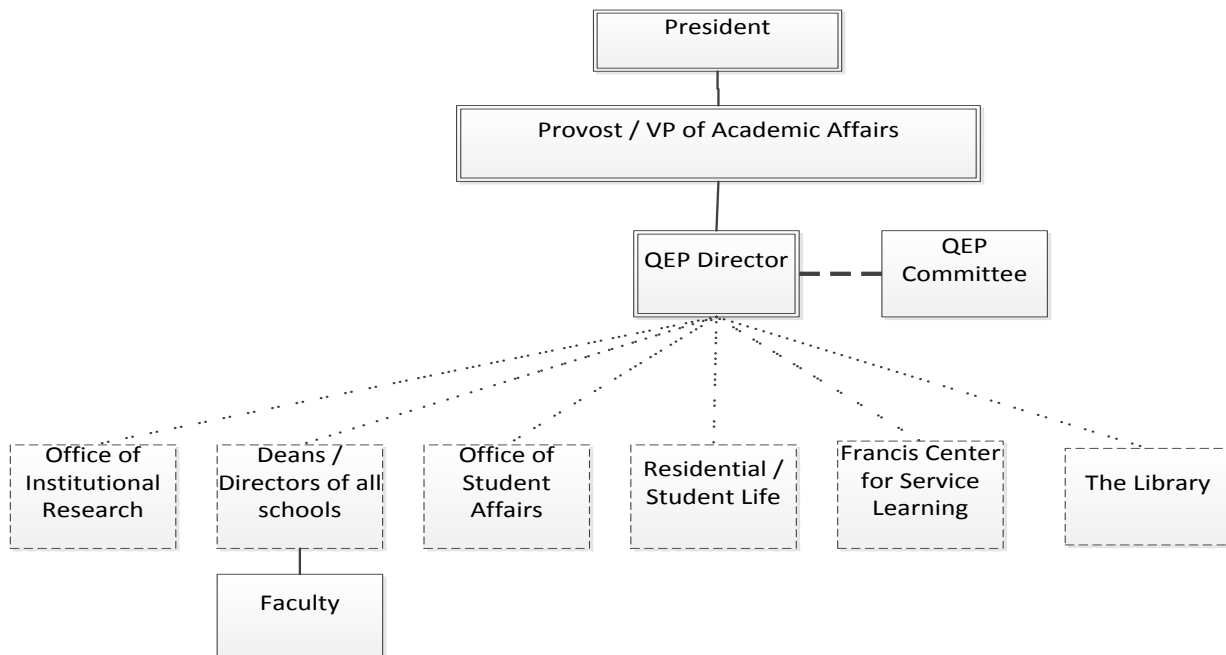
IX.   Resources

The resources required to make the QEP operational include several that are already in place, but many others that will have to be brought to the campus. Among those that are already in place (and already budgeted) include the university participation in the annual NSSE survey, annual participation in the ETS Proficiency Profile test, as well as the staff members already on the payroll who administer these surveys and tests. Among those that will be new to the university include the QEP Coordinator, the Critical Thinking Assessment Test and all aspects of faculty training.

The primary resource needed in the near future is a QEP Coordinator. To date the selection of, development of and implementation of the QEP has entirely been in the hands of faculty, students and staff. But these individuals have other commitments at the university and will not be expected to run the day-to-day operations of the QEP once it is fully operational. For that a coordinator is essential. It is envisioned that he or she will have:

- an adequate budget,

- operational control over the particulars of the QEP implementation and

- a physical space that would allow the office to become something of a "lending library" with the books, DVDs and other materials as the office might purchase.

A detailed budget for the first five years of the QEP implementation is presented below.

X.   Budget for Quality Enhancement

Table 8: Budget for Quality Enhancement						
Activity	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015	Year 5 2015-2016	Year 5 2016-2017	Total
QEP Director *Salary from current faculty line	$50,000	$50,000	$50,000	$50,000	$50,000	**$250,000**
Faculty Development Workshops	$10,000	$10,000	$10,000	$10,000	$10,000	**$50,000**
Purchase of Books and DVDs	$250	$250	$250	$250	$250	**$1,250**
Purchase CAT	$2,800	$2,800	$2,800	$2,800	$2,800	**$14,000**
Faculty Stipends	$3,600	$4,200	$4,800	$5,400	$6,000	**$24,000**
Train the Trainer Workshops	$1,500	$1,500	$1,500	$1,500	$1,500	**$7,500**
Information Campaign	$500	$500	$500	$500	$500	**$2,500**
Duplication, etc.	$250	$250	$250	$250	$250	**$1,250**
TOTAL Expenses	**$68,900**	**$69,500**	**$70,100**	**$70,700**	**$71,300**	**$350,500**
Current QEP Budget	$25,000	$25,000	$25,000	$25,000	$25,000	**$125,000**
Current Salary Budget	$40,000	$40,000	$40,000	$40,000	$40,000	**$200,000**
Total Budget Dollars	**$65,000**	**$65,000**	**$65,000**	**$65,000**	**$65,000**	**$325,000**
Remaining Funding Needed	**$3,900**	**$4,500**	**$5,100**	**$5,700**	**$6,300**	**$25,500**

XI. Summary and Anticipated Benefits

Since its founding in 1885 Pfeiffer University has maintained a commitment to "educational excellence, scholarship and service" by providing accessible degree programs to a diverse community of learners. Pfeiffer's Quality Enhancement Plan, *Engaging Students to Think Critically,* supports this commitment by engaging our students in an array of experiences which will enhance their critical thinking skills and prepare them for a lifetime of excellence as they continue to utilize these skills in their everyday lives.

As noted throughout, the focus of the QEP lies primarily on enhancing student learning; however, we anticipate that this composite focus on engaged learning and critical thinking will benefit Pfeiffer students, faculty, and entire community of learners in several significant ways including:

- Increased engagement in courses

- Improved critical thinking skills among students, as demonstrated by improved student learning and performance on course assignments and national assessments of critical thinking skills.

- Innovation in pedagogical strategies across our undergraduate and graduate curriculum.

- Increased collaboration between faculty and students within and outside of the classroom.

The impact of the QEP will be experienced directly as students begin to take courses, across our undergraduate and graduate curriculum, which will be modified to include an explicit focus on improving student learning and critical thinking. These courses will incorporate assignments and rubrics which require students to think about their learning and begin to practice many of the habits of mind of critical thinkers.

With regards to faculty, the QEP provides incentives, structure, and support for reflecting with colleagues on their current pedagogy and curriculum. Faculty development is essential to the success of the QEP and we anticipate that the effect of these QEP related faculty development opportunities will encourage faculty in their ongoing reflections on their teaching and will help them to more fully reflect on ways that they can create a climate of engaging students deeply and broadly and a climate of inviting students into the process of knowledge evaluation and creation.

We anticipate that the annual process of sharing faculty and student research, during the Spring Academic Showcase and elsewhere, will become only one of many opportunities for students and faculty to connect beyond the classroom and to experience the excellence and diversity of the Pfeiffer community of learners.

The successful implementation of the QEP will benefit students, faculty and Pfeiffer as a whole by offering us an opportunity for focused and sustained attention to an area of academic performance that is in need of improvement, and which will better prepare our students to thrive in the classroom and in their chosen vocations. Pfeiffer strives to develop a cadre of servant leaders with the "Nature to Serve and the Knowledge to Lead," the QEP supports this endeavor as we work together as a community to better engage students and enhance the critical thinking skills necessary for future success.

XII.   Bibliography

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XIII. Appendices

Appendix A: Summary of Preliminary Focus Group Findings
October 2008

Faculty Focus Group (October 6, 2008)

Participants: David Heckel, Gerald Poplin, Joyce Edwards, Jonathan Hutchinson, Sylvia Hoffmire, Jewell Mayberry

Issues: Writing, critical thinking/inductive reasoning, engaged learning, oral communication

QEP Suggestion(s): Combination of the above. Begin with the freshman experience, tie in communication skills, thinking skills, research skills. Make it integrated and cross-disciplinary. A "core" experience.

Staff Focus Group (October 9, 2008)

Participants: Amy Brown, Micki Thompson, Robin Listerman, Paula Morris, Gloria Downey, Blake Martin

Issues: Writing, lack of cultural diversity, first year experience, resources (especially the library), professionalism (e.g., resume writing)

QEP Suggestions: A series of "core" experiences tailored to the intellectual, maturational and professional level of students as they move through the university.

Alumni Focus Group (September 27, 2008)

Participants: Sharon Bard, Kelly Dierker, Tony Inskeep, Michelle

Issues: Professionalism, public speaking, critical thinking

QEP Suggestions: Critical thinking embedded in and spread across the curriculum. Emphasize good decision-making.

Student Focus Group (October 8, 2008)

Participants: 8 students with one student moderator

Issues: Culture Credit program, Need for more faculty in particular areas.

Appendix B: Invitation to Final Electronic Survey

<u>Quality Enhancement Plan</u>

This fall Pfeiffer University will embark on a bold new direction in the education of its students. We are going to choose one area of student learning to concentrate on as we find new ways for students to grow, but we need your help in deciding what that area will be.

We have narrowed the long list of possible QEP topics down to three: **Engaged Learning, Critical Thinking and The Pfeiffer Journey.**

We would like for you to <u>read a brief description</u> of each of the three possible topics and then vote on your personal favorite by taking a brief online survey. To read the descriptions just click on the link below or type it into your browser's address window.

http://pfeifferqep.com/

When your are done familiarizing yourself with the three options, go to the survey link, give us a little information about yourself and then vote. There is a link to the survey on the Pfeiffer QEP website, but it appears on the line below as well.

http://www.surveymonkey.com/s/6X22VJF

Your ideas and input are important to our success! We cannot make this happen in any meaningful way without the support of everyone, so be sure to take the survey today!

Thank you for your time and your vote.

The Pfeiffer QEP Committee
Don Poe, Ph.D., Chair

Appendix C: Results of Final Electronic Survey

Pfeiffer QEP Voting Results (as of April 27, 2010)

Note: Respondents rated the three potential QEP topics as their first, second or third choice. Results were then summed using the above scale (i.e., 1 "point" for a first-place vote, 2 for a second-place vote and 3 for a third-place vote). Finally, the sum was divided by the appropriate number of respondents in order to return the votes back into a three-point scale. <u>The more favored</u> a particular topic was, the <u>lower</u> its mean

Breakouts by Group

1. Student Breakout
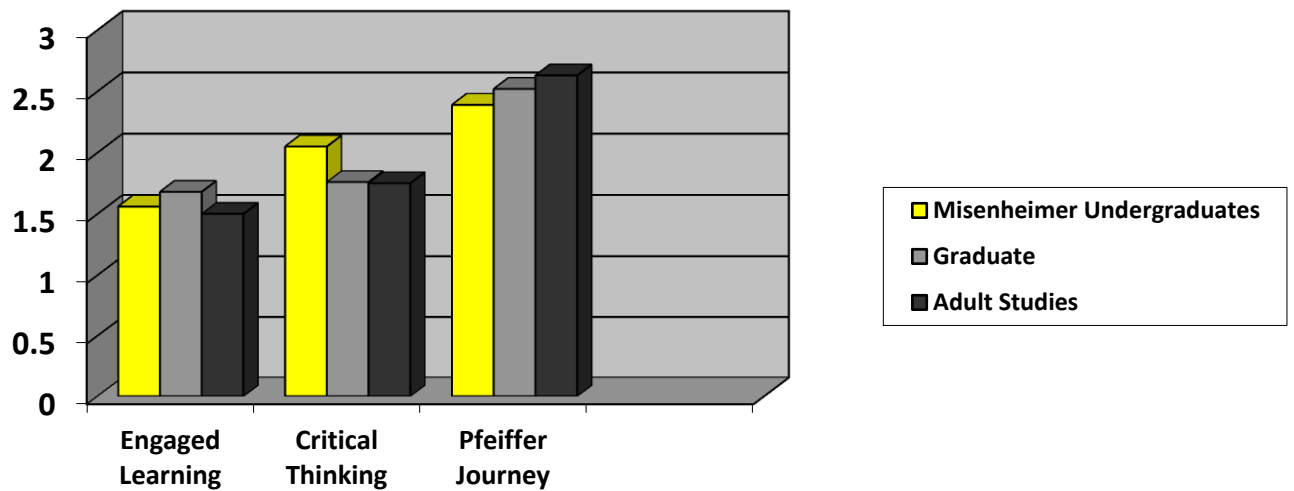
2. Faculty Breakout
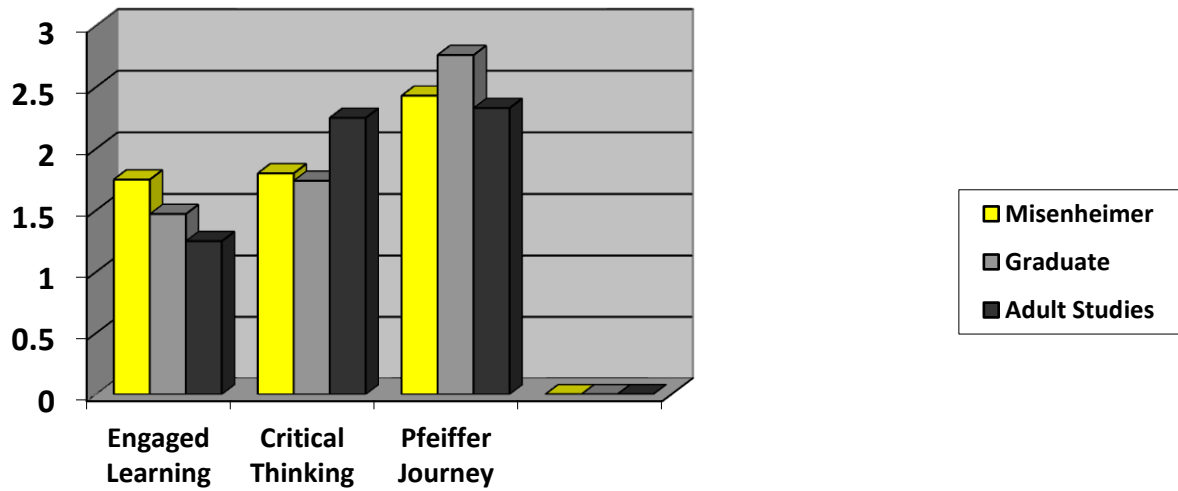
3. Staff Breakout

Appendix D: ETS Proficiency Profile Data

ETS° Proficiency Profile
2006-2007 Academic Year
Summary of Scaled Scores
To show the ability of the group taking the test

Pfeiffer University   **Cohort Name:** Combined
Abbreviated   **Close Date:** Combined
Test Description: **Student Level:** More than 90 semester hours or more than 145 quarter hours
Number of students tested: 227
Number of students included in these statistics: 216
Number of students excluded (see roster): 11

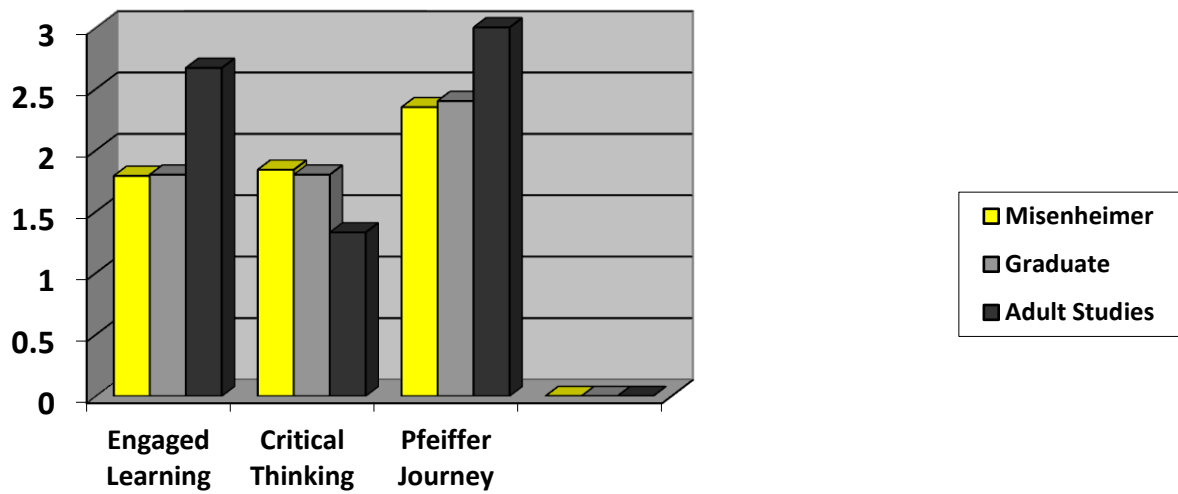|	Possible Range	Mean Score	95% Confidence Limits* for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile
Total Score	400 to 500	443.45	442 to 445	19.06	430	440	456
Skills Subscores:							
Critical Thinking	100 to 130	111.98	111 to 113	6.27	108	111	116
Reading	100 to 130	118.26	117 to 119	6.69	113	118	124
Writing	100 to 130	114.48	114 to 115	4.66	112	114	117
Mathematics	100 to 130	111.97	111 to 113	5.79	107	111	116
Context-Based Subscores:							
Humanities	100 to 130	115.38	114 to 117	6.21	111	115	120
Social Sciences	100 to 130	113.95	113 to 115	5.74	109	114	119
Natural Sciences	100 to 130	115.15	114 to 116	5.54	111	117	120

*The confidence limits are based on the assumption that the questions contributing to each scaled score are a sample from a much larger set of possible questions that could have been used to measure those same skills. If the group of students taking the test is a sample from some larger population of students eligible to be tested, the confidence limits include both sampling of students and sampling of questions as factors that could cause the mean score to vary. The confidence limits indicate the precision of the mean score of the students actually tested, as an estimate of the "true population mean" - the mean score that would result if all the students in the population could

ETS® Proficiency Profile

2007-2008 Academic Year

Summary of Scaled Scores

To show the ability of the group taking the test

Pfeiffer University **Cohort Name:** Combined

Abbreviated **Close Date:** Combined

Test Description: Combined **Student Level:** More than 90 semester hours or more than 145 quarter hours

Number of students tested: 225

Number of students included in these statistics: 212

Number of students excluded (see roster): 13

	Possible Range	Mean Score	95% Confidence Limits* for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile
Total Score	400 to 500	442.19	440 to 444	16.68	432	440	451
Skills Subscores:							
Critical Thinking	100 to 130	111.17	110 to 112	5.64	107	111	115
Reading	100 to 130	117.87	117 to 119	6.26	113	118	123
Writing	100 to 130	114.34	113 to 115	4.32	112	114	117
Mathematics	100 to 130	112.17	111 to 113	5.25	108	112	116
Context-Based Subscores:							
Humanities	100 to 130	114.95	114 to 116	5.98	111	113	120
Social Sciences	100 to 130	113.29	112 to 114	5.54	109	113	116
Natural Sciences	100 to 130	114.74	114 to 116	5.61	111	114	120

*The confidence limits are based on the assumption that the questions contributing to each scaled score are a sample from a much larger set of possible questions that could have been used to measure those same skills. If the group of students taking the test is a sample from some larger population of students eligible to be tested, the confidence limits include both sampling of students and sampling of questions as factors that could cause the mean score to vary. The confidence limits indicate the precision of the mean score of the students actually tested, as an estimate of the "true population mean" - the mean score that would result if all the students in the population could somehow

ETS® Proficiency Profile

2008-2009 Academic Year

Summary of Scaled Scores

To show the ability of the group taking the test

Pfeiffer University **Cohort Name:** Combined

Abbreviated **Close Date:** Combined

Test Description: Combined **Student Level:** More than 90 semester hours or more than 145 quarter hours

Number of students tested: 226

Number of students included in these statistics: 218

Number of students excluded (see roster): 8

	Possible Range	Mean Score	95% Confidence Limits* for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile
Total Score	400 to 500	443.06	441 to 445	18.16	430	440	453
Skills Subscores:							
Critical Thinking	100 to 130	111.89	111 to 113	5.61	107	111	116
Reading	100 to 130	118.01	117 to 119	6.31	113	118	123
Writing	100 to 130	114.17	113 to 115	4.93	112	114	117
Mathematics	100 to 130	112.37	111 to 113	5.91	108	112	116
Context-Based Subscores:							
Humanities	100 to 130	114.65	113 to 116	6.61	109	115	120
Social Sciences	100 to 130	114.18	113 to 115	5.23	111	114	119
Natural Sciences	100 to 130	115.29	114 to 116	4.93	111	114	120

*The confidence limits are based on the assumption that the questions contributing to each scaled score are a sample from a much larger set of possible questions that could have been used to measure those same skills. If the group of students taking the test is a sample from some larger population of students eligible to be tested, the confidence limits include both sampling of students and sampling of questions as factors that could cause the mean score to vary. The confidence limits indicate the precision of the mean score of the students actually tested, as an estimate of the "true population mean" - the mean score that would result if all the students in the population could
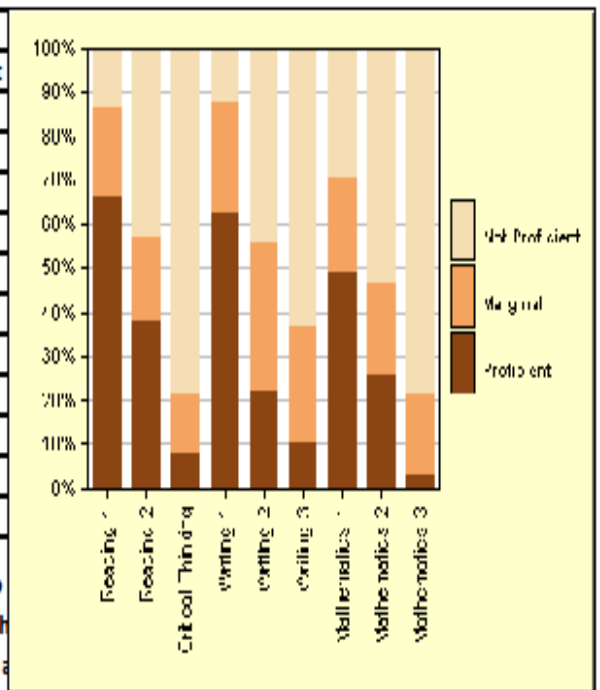
ETS° Proficiency Profile

2006-2007 Academic Year

Summary of Proficiency Classifications

To show how many students are proficient at

each level

Pfeiffer University	**Cohort Name:** Combined
Abbreviated Form	**Close Date:** Combined
Test Description:	**Student Level:** More than 90 semester hours or more than 145 quarter hours

Number of students tested: 227

Number of students included in these statistics: 216

Number of students excluded (see roster): 11

Skill Dimension	Proficiency Classification		
	Proficient	**Marginal**	**Not Proficient**
Reading, Level 1	66%	20%	14%
Reading, Level 2	38%	19%	43%
Critical Thinking	8%	14%	78%
Writing, Level 1	63%	25%	13%
Writing, Level 2	22%	33%	44%
Writing, Level 3	11%	26%	63%
Mathematics, Level 1	50%	21%	29%
Mathematics, Level 2	26%	21%	53%
Mathematics, Level 3	3%	18%	79%

The skills measured by the ETS° Proficiency Profile test are grouped into levels - three proficiency levels for writing, three for mathematics, and th combined set of skills involved in reading and critical thinking. The table show the number and percentage of students who are proficient, marginal, and not proficient at each proficiency level in reading and critical thinking, writing, and mathematics. A student classified as marginal is one whose test results do not provide enough evidence to classify the student either as proficient or as not

ETS° Proficiency Profile
2007-2008 Academic Year
Summary of Proficiency Classifications
To show how many students are proficient at
each level

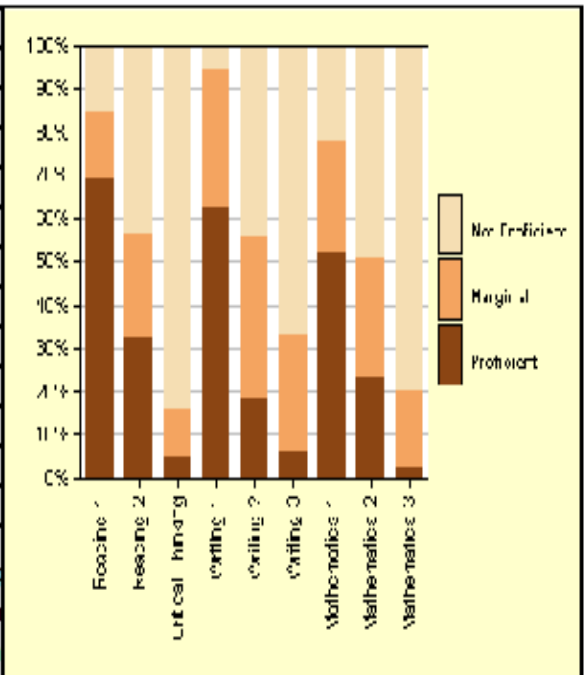| Pfeiffer University	Cohort Name: Combined
Abbreviated Form	Close Date: Combined
Test Description:	Student Level: More than 90 semester hours or more than 145 quarter hours

Number of students tested: 225

Number of students included in these statistics: 212

Number of students excluded (see roster): 13

Skill Dimension	Proficiency Classification		
	Proficient	Marginal	Not Proficient
Reading, Level 1	69%	15%	16%
Reading, Level 2	33%	24%	43%
Critical Thinking	5%	11%	84%
Writing, Level 1	63%	32%	6%
Writing, Level 2	18%	37%	44%
Writing, Level 3	6%	27%	67%
Mathematics, Level 1	52%	25%	22%
Mathematics, Level 2	23%	28%	49%
Mathematics, Level 3	3%	17%	80%

The skills measured by the ETS° Proficiency Profile test are grouped into
levels - three proficiency levels for writing, three for mathematics, and th
combined set of skills involved in reading and critical thinking. The table a
show the number and percentage of students who are proficient, marginal, and not
proficient at each proficiency level in reading and critical thinking, writing, and
mathematics. A student classified as marginal is one whose test results do not
provide enough evidence to classify the student either as proficient or as not

ETS° Proficiency Profile

2008-2009 Academic Year

Summary of Proficiency Classifications

To show how many students are proficient

at each level

| **Pfeiffer University**	**Cohort Name:** Combined
Abbreviated Form	**Close Date:** Combined
Test Description:	**Student Level:** More than 90 semester hours or more than 145 quarter hours

Number of students tested: 236

Number of students included in these statistics: 228

Number of students excluded (see roster): 8

Skill Dimension	Proficiency Classification		
	Proficient	Marginal	Not Proficient
Reading, Level 1	68%	18%	15%
Reading, Level 2	37%	17%	46%
Critical Thinking	3%	20%	77%
Writing, Level 1	62%	27%	11%
Writing, Level 2	19%	37%	44%
Writing, Level 3	8%	23%	68%
Mathematics, Level 1	48%	26%	26%
Mathematics, Level 2	23%	25%	52%
Mathematics, Level 3	4%	16%	79%
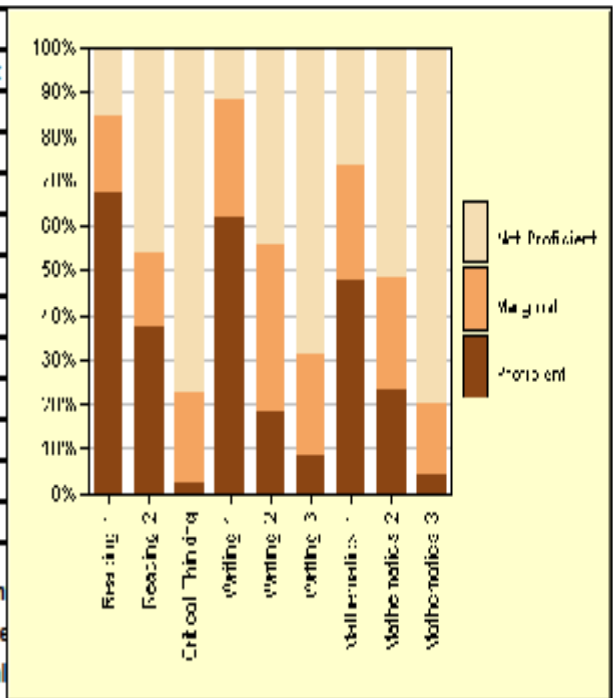
The skills measured by the ETS° Proficiency Profile test are grouped in
proficiency levels - three proficiency levels for writing, three for mathe
and three for the combined set of skills involved in reading and critical
The table and graph show the number and percentage of students who are
proficient, marginal, and not proficient at each proficiency level in reading and
critical thinking, writing, and mathematics. A student classified as marginal is one
whose test results do not provide enough evidence to classify the student either

Appendix E: NSSE Questions related to the QEP

QEP Questions from NSSE

Mean Comparison

Engagement

	2005 - 31%				2006 - 27%				2007 - 28%				2008 - 23%				2011 - 34%			
	Pfeiffer FR 2005	National FR 2005	Pfeiffer SR 2005	National SR 2005	Pfeiffer FR 2006	National FR 2006	Pfeiffer SR 2006	National SR 2006	Pfeiffer FR 2007	National FR 2007	Pfeiffer SR 2007	National SR 2007	Pfeiffer FR 2008	National FR 2008	Pfeiffer SR 2008	National SR 2008	Pfeiffer FR 2011	National FR 2011	Pfeiffer SR 2011	National SR 2011
1a. Asked questions in class	3.07	2.86	3.38	3.16	2.84	2.78	3.29	3.06	3.11	2.74	3.43	3.03	3.05	2.78	3.38	3.07	2.72	2.81	3.53	3.10
1b. Made a class presentation	2.39	2.28	2.90	2.88	2.20	2.23	2.88	2.80	2.38	2.21	2.96	2.77	2.57	2.27	2.77	2.80	2.36	2.26	2.77	2.77
1g. Worked with students on project in class	2.39	2.40	2.43	2.52	2.44	2.40	2.49	2.51	2.48	2.40	2.57	2.52	2.35	2.41	2.35	2.52	2.37	2.44	2.55	2.56
1h. Worked with students on project outside	2.31	2.43	2.33	2.77	2.19	2.36	2.38	2.75	2.15	2.38	2.32	2.75	2.32	2.40	2.41	2.75	2.51	2.45	2.38	2.79
1j. Tutored	1.61	1.72	1.72	1.94	1.77	1.67	1.94	1.69	1.55	1.69	1.88	1.88	1.68	1.70	1.58	1.88	1.71	1.69	1.66	1.87
1k. Participated in community-based	1.87	1.54	2.23	1.76	1.74	1.50	1.94	1.69	2.04	1.52	1.90	1.69	1.93	1.60	2.14	1.74	1.90	1.58	1.74	1.73
1p. Discussed ideas with faculty outside	1.78	1.86	2.14	2.16	2.05	1.81	2.18	2.08	2.12	1.84	2.31	2.08	2.03	1.91	2.15	2.12	1.94	1.86	2.35	2.08
1t. Discussed ideas with others outside	2.87	2.73	2.85	2.88	2.67	2.68	2.92	2.84	2.89	2.66	2.99	2.83	2.76	2.69	2.74	2.84	2.52	2.76	2.95	2.90
Engagement average	2.29	2.23	2.50	2.51	2.24	2.18	2.50	2.43	2.34	2.18	2.55	2.44	2.34	2.22	2.44	2.47	2.25	2.23	2.49	2.48

All responses are on a 4-point scale with 1=never, 2=sometimes, 3=often, 4=very often.

Mean Comparison

Critical Thinking

	2005 - 31%				2006 - 27%				2007 - 28%				2008 - 23%				2011 - 34%			
	Pfeiffer FR 2005	National FR 2005	Pfeiffer SR 2005	National SR 2005	Pfeiffer FR 2006	National FR 2006	Pfeiffer SR 2006	National SR 2006	Pfeiffer FR 2007	National FR 2007	Pfeiffer SR 2007	National SR 2007	Pfeiffer FR 2008	National FR 2008	Pfeiffer SR 2008	National SR 2008	Pfeiffer FR 2011	National FR 2011	Pfeiffer SR 2011	National SR 2011
2a. Memorizing	2.89	2.85	2.79	2.70	2.88	2.87	2.89	2.74	2.82	2.88	2.72	2.75	2.66	2.90	2.74	2.75	3.07	2.95	2.71	2.80
2b. Analyzing	3.02	3.09	3.08	3.24	2.89	3.06	3.05	3.22	3.05	3.07	3.32	3.23	3.02	3.10	3.24	3.24	2.95	3.17	3.15	3.31
2c. Synthesizing	2.85	2.87	2.93	3.06	2.69	2.83	2.96	3.01	2.86	2.85	3.14	3.02	2.78	2.89	2.94	3.05	2.93	2.95	3.03	3.11
2d. Making judgments	2.70	2.84	3.00	2.99	2.72	2.82	2.83	2.94	2.92	2.84	2.97	2.96	3.01	2.90	3.02	3.01	2.93	2.95	3.27	3.25
2e. Applying	2.92	2.99	3.20	3.19	2.77	2.98	3.07	3.17	3.01	3.01	3.21	3.18	3.04	3.03	3.18	3.19	3.08	3.09	3.27	3.25
Critical Thinking average	2.88	2.93	3.00	3.04	2.79	2.91	2.96	3.02	2.93	2.93	3.07	3.03	2.90	2.96	3.02	3.05	2.99	3.02	3.09	3.14

All responses are on a 4-point scale with 1=very little, 2=some, 3=quite a bit, 4=very much.

Appendix F: Curriculum Vitae for Dr. Aaron Thompson (Shortened)

Aaron Thompson

Office: 1024 Capital Center Drive, Frankfort, KY, 40601   **Office Phone**: (502) 573-1555 ext. 259
Home: 172 Wildcat Drive, Richmond, KY 40475   **Home Phone**: (859) 200-2860
Email: aaron.thompson@ky.gov

Academic Preparation
Ph.D., Sociology, University of Kentucky   **1992**
     Areas: Work, Gender, and Inequality: Organizational Behavior; Stratification,
     Race and Ethnic Relations. Dissertation: "Views on affirmative action inside the university:
     The relationship between authority and attitudes."
MA, Sociology, University of Kentucky   **1990**
BA, Political Science & Sociology, Eastern Kentucky University   **1978**
Honorary Degrees
Doctor of Humane Letters,
Union College   **2011**
Certifications and Affiliations
Faculty, Illinois Law Enforcement Executive Institute
Ethics and Integrity Train-the-Trainer Program, United States Department of Justice
Onsite Assessment Team Leader Training, the Western Regional Institute for Community Oriented
  Policing
Certified Family Life Educator (CFLE), Designated by the National Council on Family Relations
Certified Trainer for Police Organizations, Kentucky Law Enforcement Council
Missouri Post Certified (Police Officer Standards and Training)

Administrative Experience
Senior Vice President for Academic Affairs   **2010 - present**
Council on Postsecondary Education
Vice President for Academic Affairs   **2009-2010**
Council on Postsecondary Education
Associate Vice President for Academic Affairs, University Programs   **2005-2007**
Eastern Kentucky University
Associate Vice President for Academic Affairs, Enrollment Management   **2001-2005**
Eastern Kentucky University
Assistant Vice President for Academic Affairs/Executive Director of Student Success   **1999-2001**
Institute
Eastern Kentucky University
Acting Director of Academic Advising & Academic Testing   **2000**
Eastern Kentucky University
Coordinator of Academic Success/Retention   **1997-1999**
Eastern Kentucky University
Academic Experience
Professor, Department of Educational Leadership & Policy Studies   **2007-2009**
Eastern Kentucky University
Professor, Department of Anthropology, Sociology, & Social Work   **2002-2007**
Eastern Kentucky University
Associate Professor, Department of Anthropology, Sociology, & Social Work   **1997-2002**
Eastern Kentucky University
Assistant Professor, Department of Human Development & Family Studies   **1993-1997**
University of Missouri – Columbia

Appendix G: Sample *Falcon's Eye* Newspaper
http://media.pfeiffer.edu/falconseye/Dec11.pdf

NEWS

Vandalism and Thefts Continued

Brady of the Misenheimer Police said. "Students can also play their part by locking their doors."

Along with the burglaries, the bathrooms in Merner dormitory were recently vandalized with spray paint.

"Repairing or replacing those vandalized doors is going to cost several hundred dollars, dollars that could certainly be better spent for the benefit of our students," Dean of Students Russ Sharples said.

Pfeiffer's facilities department is working hard to maintain and improve the campus, but University leaders insist that in order to provide a quality living and learning environment the entire community must band together to put an end to the vandalism.

"I'm asking for a commitment from all students to ensure this environment flourishes," Sharples said.
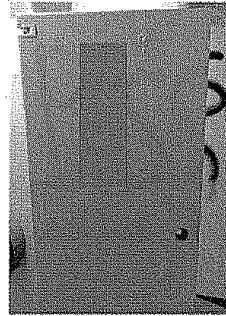
THE QEP: GOING BEYOND JUST THE FACTS

By Shea McDonnell

Walking around campus students are likely to have noticed the new posters splattered everywhere. These posters are yet another way of creating awareness for the Quality Enhancement Plan (QEP) that Pfeiffer is enacting to help with its reaccreditation process. Pfeiffer's QEP is engaged learning and critical thinking. Professor Joshua Cross has created the unique posters in hopes of attracting more awareness to the QEP.

"The QEP committee wanted to have visuals so there were not just words hanging out there, that there were pictures as well," Cross explained.

Four posters have been released so far and they have an historical connection.

"The posters that are out now are inspired by the WPA posters from the Great Depression, which were initiated by the government to share information with the people about job opportunities, how to spend their free time, and other things. The current posters have the same premise. The ones that are out now are strictly informational, in terms of informing what the QEP actually is," Cross said.

This spring the QEP committee will be releasing additional posters which will be more interactive with students.

"Come this spring all students are going to be enrolled in an Alternate Reality Game (ARG), which will be based as a scavenger hunt and the poster that will be coming out then will serve as clues and riddles that go along with the game," Cross previewed.

In addition to the new posters, there will also be a new website designed to offer further information on the QEP and its relevance to all those associated with Pfeiffer.

"Linked off the Pfeiffer Website there will be a stand alone website for the QEP, and that website is where you will be able to find a link to the Alternate Reality Game," Dr. Don Poe said.

This website is being designed to help those who desire more information about the QEP and are unsure of where to find answers.

"The website will have tabs on it that will explain the history of the QEP, the reaccreditation process and the importance of this process to not only students and staff, but alumni as well," Poe said.

Appendix H: Examples of Information Campaign Posters
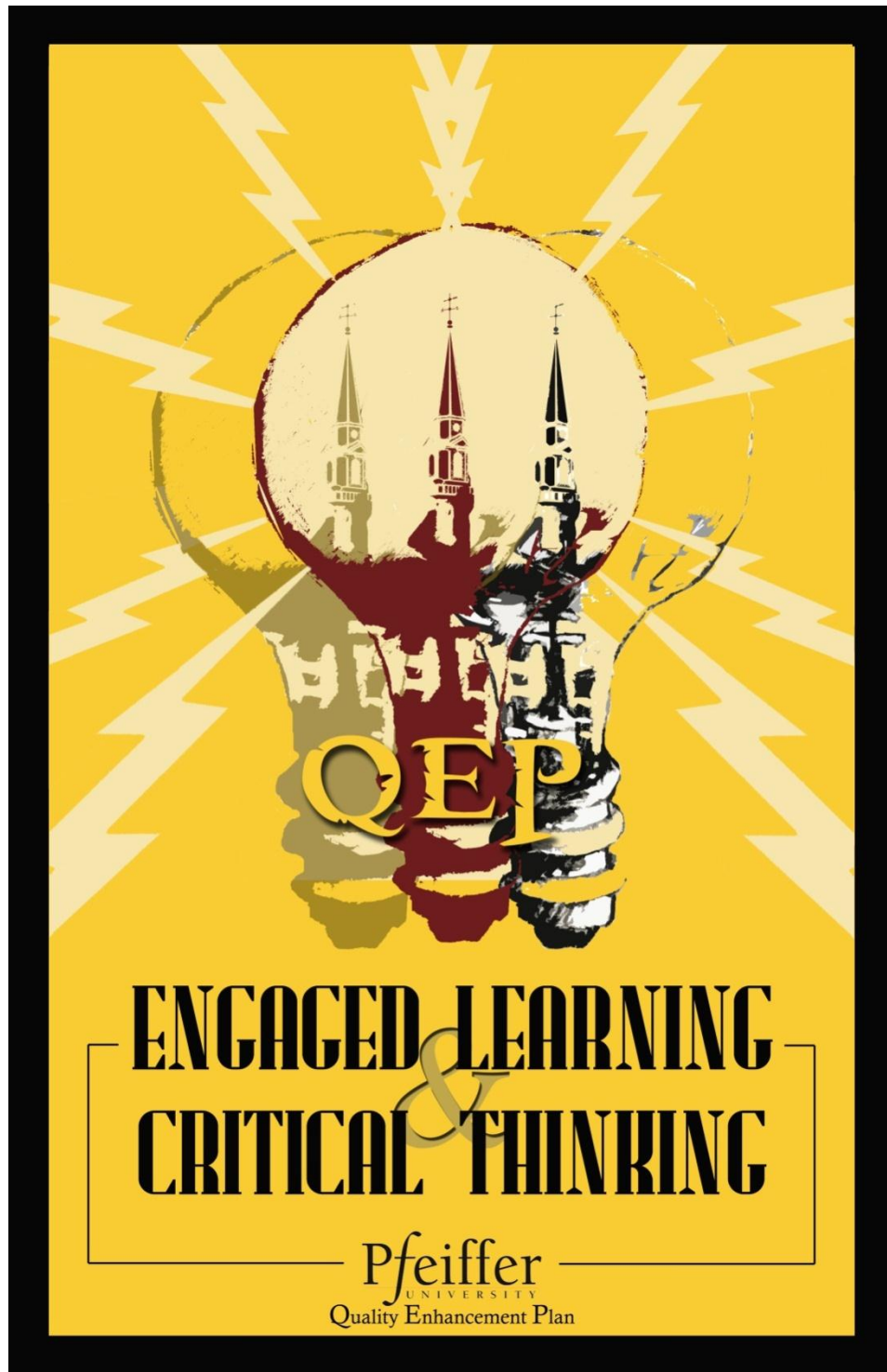
Appendix I: Peer and Aspirational Schools Consulted

The QEP programs of the following schools were consulted during this effort:

Engaged Learning	Critical Thinking
Furman University	Bethel College
Western Kentucky University	Cape Fear Community College
Southern Methodist University	Howard College
Mercer University	Madisonville Community College
Lander University	Meredith College
Belmont University	University of the Cumberlands
University of Houston	University of Louisville
Trinity Valley Community College	University of Houston – Clear Lake
Sul Ross State	North Carolina A&T University
University of North Carolina – Asheville	University of Tennessee - Chatanooga
North Central Regional Education Laboratories	Florida A&M
	St. Petersburg College
	South Georgia College
	Georgia State University
	New College of Florida
	Angelina College
	Surry Community College

Appendix J: Institutions & Other Sources for Assessment Rubrics

Arkansas State University at Jonesboro

Bowling Green State University

California State University at Fresno

Foundation for Critical Thinking (Critical Thinking Competency Standards)

Northeastern Illinois University

Santa Clara University

University of Charleston

University of Louisville

Valencia Community College

Appendix K: Draft Evaluation Rubrics

Table 8. Draft evaluation matrix for assignments that engage students to think critically			
The descriptors below indicate what the assignment does for/to students			
Criteria	Needs Work	Meets Standard	Exceeds Standard
Level of student engagement	Engages students for standard homework assignments; asks students to be involved in gathering and understanding basic knowledge/facts.	Engages students in and out of class at instructor direction; cultivates one-on-one relationships between student and faculty.	Engages students in and out of class at their own direction; requires students to work independently of instructor to gather and analyze information; provides for active teaching/learning strategies; provides for service-learning opportunities tied to course content.
Reflective practice	Does not cause students to consider their own assumptions, thought processes and practice;	Causes students to reflect and comment on their own work, acknowledge assumptions and biases; causes students to investigate and act on curiosity.	Requires students to reflect on their thought processes, and make changes to their habits based on this reflection; encourages students to analyze personal and professional development ideas.
Cognitive ability level	Requires students to recall and describe; provides questions that require students to recall and describe.	Requires students to analyze and critique.	Requires students to evaluate and synthesize; stretches students' abilities.
Affective level	Requires students to observe and discriminate; allows students to be inactive learners.	Requires students to respond and value; requires in-class discussion or hands-on experiments.	Requires students to organize and characterize; requires students to internalize the content and process; causes students to be excited about coming to class.
Level of student-directedness	Expects students to follow instructor's guidelines.	Permits some student input into assignment requirements.	Encourages and expects student interaction between instructor and students; encourages student-to-student interaction and/or peer teaching.

Table 9. Draft Critical Thinking Matrix - 11/15/11			
Criteria	**Needs Work**	**Meets Standard**	**Exceeds Standard**
Evaluating Information	Confuses facts and inferences; Unable to grasp numerical relationships in graphs; Misunderstands the limitations of correlational data; Confuses appropriate and inappropriate conclusions.	Distinguishes facts from inferences; Interprets numerical relationships in graphs; Understands the limitations of correlational data; Identifies appropriate and inappropriate conclusions.	Analyzes confounding data; Differentiates correlation and causation; Identifies and attacks fallacies; Evaluates conclusions of others; Synthesizes information into coherent arguments.
Creative Thinking	Makes faulty alternative interpretations for data; Unable to grasp new information to support/contradict a hypothesis; Gets confused with new information when trying to change a problem.	Identifies alternative interpretations for data; Identifies new information that might support/contradict a hypothesis; Explains how new information can change a problem.	Identifies and attacks problems or opportunities; Develops strategies for data collection and analysis; Develops and tests hypotheses; Combines multiple facts / sources of information; Combines and extends existing ideas, thoughts, or theories.
Learning & Problem Solving	Confuses relevant/irrelevant information; Unable to blend information to help solve problems; Misunderstands new information; Confuses skills hindering them from solving real-world problems.	Separates relevant/irrelevant information; Integrates information to solve problems; Learns and applies new information; Uses mathematical skills to solve real-world problems.	Searches appropriate framework for problem-solving; Seeks and analyzes multiple sources of information for more complex problems; Solves more complex problems by combining learned skills.
Communication	Withholds ideas; Describes ideas disjointly; Presents answers to mis-identified problems.	Communicates ideas effectively; Uses information and presentation appropriate to intended audience; Uses proper grammar and spelling; Keeps audience's attention.	Presents clear and concise information; Uses appropriate media to deliver message; Mechanics are without error; Argues against competing ideas.

Appendix L: Description of Faculty Learning Communities (Fall 2011)

Faculty Learning Community (FLC)
Fall 2011

Description: The primary goal of a Faculty Learning Community (FLC) is to explore a specific topic area or theme as it relates to best practices in teaching and learning. This goal is achieved by providing safe, supportive communities wherein members can engage in research, scholarship of teaching and learning, and service to explore new approaches to teaching. Faculty learning communities will convene during the fall 2011 semester to explore innovative uses of the Apple iPad and other electronic tablets for teaching and learning, to address these diverse goals.

Outcome: This FLC includes a specific focus on how mobile tablets can enhance teaching and learning across a wide variety of disciplines/areas of interest. The FLC is intended to encourage faculty to explore whether mobile tablet technology enhances or enables our ability to:

- Promote student engagement in the classroom, lab, or in the field
- Facilitate critical thinking among students, in class and beyond.
- Facilitate small group collaboration in idea creation and sharing or information search, analysis, and visual representation
- Provide access to and manipulation of digital content, including open e-textbook content initiatives

Expectations:

FLC members will be required:
☐ to attend and actively participate in all meetings
☐ to implement iPad activities into their courses
☐ to develop and participate in the scholarship of teaching and learning as it applies to iPad use
☐ to disseminate their practices and findings

FLC Time-line:

- **September 2011:** FLC call for applications forwarded to Enoch Park
- **Mid-Late September 2011:** Selection of (grant) recipients (Selection committee: TBA – Provost, Assoc VPAA, Director DL, Faculty rep, etc)
- **Late September-Early October 2011:** FLC Meeting, invite grantees and volunteers (faculty with/ without their own device) total 10-15
- **October 2011:** discussions and idea sharing

- **November 2011:** discussions and idea sharing
- **January 2012:** discussions and idea sharing
- **February 2012:** Preliminary Update
- **April 2012:** Follow up / 2011 participation assessment
- **June-July 2012:** Preparation for Conference / external presentations
- **August 2012:** Presentation at Fall Faculty Conference (Action research/ report, best practice, course design, etc)

Sample Criteria of selection
- Rationale / pedagogical importance
- Application for critical thinking/ engaged learning
- Details and concrete plan for the pilot
- Potential to enhance teaching and learning experience, both for faculty and students
- Scalability to expand to program/ department/ college/ campus level implementation
- Potential contribution to the respective discipline

Teaching and Learning with Mobile Tablets
Faculty Learning Community
Application

Please complete this application (up to 3 pages) and send it as an attachment together with short vitae (up to 5 pages) to facultymobile@my.pfeiffer.edu

Due date: *September 14, 2011*

Name
Campus Address
Preferred Phone
Email

1. What work have you done in this area to date and what would you hope to accomplish through your work with the *Teaching and Learning with Mobile Tablets FLC*?
 	
   2. Please provide a specific example of target class name and number, a class activity, name and price of the applications you plan to use, and demonstrate how and why this activity will help you meet your objectives.
 	
   3. Explain if there are additional or alternative activities, in case the original plan finds any difficulty during the pilot
 	
   4. Explain your plan of pilot evaluation in terms of usage/ outcomes/ effectiveness
 	
   5. Discuss your plan for disseminating what is learned locally, regionally, or nationally through presentations or publications. (include target conference or publication)

Note: *By submitting this application, I indicate my intention to attend all meetings of the learning community and to actively engage in the work of the FLC in exchange for access to the iPad/Mobile technology kits for the classroom.*