

SPRING 2022

# REAL-WORLD PROBLEM SOLVING

2022 QUALITY ENHANCEMENT PLAN

March 14 – 17, 2022



**UTTyler**<sup>™</sup>

THE UNIVERSITY OF TEXAS AT TYLER

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## **EXECUTIVE SUMMARY**

The University of Texas at Tyler's Quality Enhancement Plan (QEP) aims to develop students' real-world problem-solving skills to meet the needs of our student body as well as the global demands of the 21<sup>st</sup> century. Our 2022 QEP will capitalize on existing resources and strengths to nurture students' real-world problem-solving skills in both curricular and co-curricular experiences that will prepare students for success beyond our institution.

### **Identifying a Need**

Preparation for the QEP started in 2016, driven by ongoing internal planning and assessment processes and external data gathering to illustrate student needs and opportunities for student learning improvement. The final QEP topic of real-world problem-solving resulted from campus-wide conversations and input from students, staff, faculty, alumni, and community members. The University's 2018 Strategic Plan also influenced the development of the QEP, ensuring alignment with the institutional mission and vision.

### **Vision and Goal**

The goal of the QEP is to strengthen students' problem-solving competencies through the process and application of discipline-specific knowledge in real-world contexts.

To achieve this vision, UT Tyler has articulated four interventions to strengthen students' real-world problem-solving competencies:

- Implement real-world problem-solving assignments and opportunities within a majority of undergraduate disciplines.
- Implement co-curricular opportunities to apply real-world problem-solving skills.
- Develop pedagogical frameworks and faculty development opportunities to implement real-world problem-solving teaching strategies and practices.
- Engage in an annual evaluation of QEP results and initiatives to enhance and inform future QEP strategies and action plans.

### **Student Learning Outcomes**

The above institutional goal will be assessed by the six QEP student learning outcomes, identified through a review of problem-solving literature and American Association of Colleges and University (AAC&U) best practices:

- **SLO 1:** Students will be able to construct a clearly defined problem statement with evidence of relevant real-world contextual factors.
- **SLO 2:** Students will be able to identify multiple approaches to address the problem within a specific real-world context.
- **SLO 3:** Students will be able to evaluate potential/proposed solutions based upon discipline-specific and real-world contextual factors.
- **SLO 4:** Students will be able to propose one or more solutions/hypotheses based upon discipline-appropriate support and/or evidence.
- **SLO 5:** Students will be able to implement the identified solution(s) to address the problem.
- **SLO 6:** Students will be able to evaluate results/outcomes relative to the identified problem, with a discussion of further work within a real-world context.

### **Assessment Preview**

The six identified student learning outcomes will be directly assessed using one single measure, an adapted AAC&U's Problem Solving VALUE rubric. Data from the 2020-2021 pilot study provided initial

criteria of success for each SLO. Student artifacts will be collected from QEP identified courses and assessed by faculty scoring panels. Indirect assessment measures will include the National Survey of Student Engagement (NSSE), co-curricular activity student reflections, and the Undergraduate Graduation Exit Survey.

## **INSTITUTIONAL PROCESS AND TOPIC DEVELOPMENT**

The University of Texas at Tyler relied on its ongoing planning processes, assessment reports, employment needs, and current metrics to select and envision its 2022 QEP of Real-World Problem Solving while including input from all constituents throughout the process evidenced below.

### **University Overview**

The University of Texas at Tyler (UT Tyler) was created as Tyler State College by the Texas Legislature in 1971 and became a campus of The University of Texas System (UT System) in 1979. As a regional state institution, UT Tyler serves the Tyler Metropolitan Statistical Area (MSA), Smith County, and thirteen counties in the East Texas region and Texas. UT Tyler moved up again to R2:Doctoral Universities-High Research Activity. In 2021, UT Tyler was officially named as a full member of NCAA Division II by the national committee.

In December 2019, The University of Texas System (UTS) announced plans to merge The UT Health Science Center at Tyler (UTHSCT) with UT Tyler. The following year, in December 2020, the UTS Board of Regents (BOR) announced that the SACSCOC Board of Trustees approved the operational plan to merge UT Tyler and UTHSCT at Tyler effective January 2021 while also announcing the appointment of Kirk A. Calhoun, MD, FACP as the new President. In February 2020, the UTS Board of Regents (BOR) announced intentions to launch a new medical school in Tyler. During the Spring 2021 semester, the newly aligned institutions prepared a Substantive Change Prospectus for Merger/Acquisition and hosted a virtual committee review in April. The SACSCOC Board of Trustees voted on and approved the Substantive Change Prospectus at the December 2021 Annual Meeting. Planning for alignment and revision of the respective Values, Vision, Mission, and Strategic Plan Priorities began in Spring 2021 and is still ongoing. Following the merger, the decision was made that UTHSCT would be referred to as The Health Science Center at UT Tyler (HSC). The merger and the addition of the three HSC programs align well with UT Tyler's existing mission and future planning to respond to the educational and health needs of the growing East Texas region of Texas.

In Fall 2020, the combined total enrollment headcount for the former UTHSCT and UT Tyler was 9,869, with 7,237 full-time and part-time undergraduate students and 2,632 post-Baccalaureate students. The UT Tyler Fall 2020 student body composition included 73% undergraduate students and 27% graduates. Of this population, the majority was female (62%), and the ethnicity composition of the total population included 55% White/Non-Hispanic, 11% Black/African American, 22% Hispanic, and 12% other ethnicities. Nearly 94% of the student population were in-state students from the local region, with 3% out-of-state and 3% international. Over 30% of undergraduate students were Pell-eligible.

In Fall 2021, the combined total enrollment headcount for UT Tyler was 9,687, with 7,185 full-time and part-time undergraduate students and 2,502 post-Baccalaureate students. The UT Tyler Fall 2021 student body composition included 74% undergraduate and 26% graduate students. Of this population, the majority was female (64%), and the ethnicity composition of the total population included 53% White/Non-Hispanic, 11% Black/African American, 23% Hispanic, and 13% other. Nearly 94% of the student population were in-state students from the local region, with 3% out-of-state and 3% international. Over 30% of undergraduate students were Pell-eligible.

Following the January 2021 merger with The University of Texas Health Science Center at Tyler, the newly integrated UT Tyler became the only public, regional university with a comprehensive health care system to serve the educational, research, and health needs of East Texas.

UT Tyler is the 9<sup>th</sup> [fastest growing public doctoral university](#) for the period between 2009 and 2019, growing at 55%, and the 9<sup>th</sup> for [highest transfer student percentage](#), as published in The Chronicle of Higher Education.

### **Topic Identification Background**

The QEP topic identification process coincided with the development of a new campus strategic plan to update the University's mission statement, vision statement, and comprehensive strategic plan, creating a cohesive alignment between the QEP and the future of UT Tyler. In selecting and identifying the QEP topic, consideration was given to the current deficiencies and needs of the UT Tyler student population previously identified through various reporting measures. Historically, the [Upper East Texas Higher Education Region was next to the lowest percentage of 25-34-year-old populations \(below 35%\) holding a certificate or higher postsecondary credential](#). Additionally, in Fall 2020, UT Tyler ranked #1 among all public colleges/universities in Texas as the fastest-growing college for first-time, full-time enrolled freshmen (Elias, 2021). As such, early QEP planning discussions reviewed the students currently served and how the institution, colleges, and educational program goals must guide intentional planning for academic success for our region and the rapidly changing student population.

The THECB Higher Education Regional Reports ([Regional Population Summary](#), [Regional College Attainment](#), [Regional Some College and No Degree](#)) provided additional evidence supporting the UT Tyler QEP Topic for real-world problem solving and curricular relevance to enhance UT Tyler student success. The rapid student population shifts require new strategies and deliberate planning for UT Tyler recruitment, enrollment, and retention interventions to ensure equitable access, provide meaningful academic and engagement interventions, and support graduation and professional achievement. Providing curricula with professional relevance is particularly critical for our student populations, including UT Tyler's higher percentages of First Generation, Pell-Eligible, and transfer students. These regional reports provided pertinent information and context to ensure the QEP topic remained relevant to the unique concerns and needs of our current and future student populations.

### **Topic Identification Process**

This section outlines the various phases of the QEP topic identification process.

- Phase One: Initial Planning and Identifying Viable Topics
- Phase Two: Shaping and Refining the Topic
- Phase Three: Implementation Groundwork

Planning for this QEP began in the 2016 Fall semester to prepare for the original decennial reaffirmation to be conducted in 2020. However, SACSCOC requested that UT Tyler delay the reaffirmation to 2021 because of too many reviews scheduled for that year (2020). A second delay to 2022 was requested by UT Tyler and granted by SACSCOC due to the pending merger with The University of Texas Health Science Center at Tyler (UTHSCT).

### **Phase One: Initial Planning and Identifying Viable Topics**

The process to identify the QEP topic coincided with the campus-wide planning process in the 2017 Spring semester to identify and update the mission statement, vision statement, and strategic plan. More than 20 campus-wide town-hall meetings were held to gather feedback regarding our student's development and learning needs. These meetings remained open to all faculty, staff, students, alumni, and

community leaders to inform the development of our new strategic plan and institutional mission. During the same time, a QEP topic selection committee was formed, charged with developing a survey and survey protocol to solicit feedback and discuss potential QEP topics.

The [original QEP Topic Selection Committee](#) was chaired by a Professor of Marketing in the College of Business and Technology (now Soules College of Business) within a Provost Fellow role. The committee comprised 16 members, including representatives from the undergraduate academic colleges, Faculty Senate, Information Analysis, Academic Success, University Advancement, Academic Affairs, Career and Alumni Success, Administrative Staff, College Assessment Coordinators, and Assessment and Institutional Effectiveness. Additional members included a student, an alumni representative, and the Vice Provost/Dean of Graduate School, who served as Institutional Accreditation Liaison with SACSCOC at the time. The QEP Topic Selection Committee organized three subcommittees: the QEP Topic Survey Subcommittee, the QEP Topic Communication and Marketing Subcommittee, and the QEP Process and Forms Subcommittee. The original committee chair resigned at the end of the 2017 Spring semester. As a result, the QEP Topic Selection Committee elected the College of Arts and Sciences member who was then Department Chair for Chemistry (now serves as Dean of the College of Arts and Sciences).

Initial meetings reviewed SACSCOC guidelines, university and state priorities, the successes and challenges of the previous QEP (Global Awareness Through Education (GATE)), and example QEP Reports and Executive Summaries from Texas and out-of-state peers (UT El Paso, Texas A&M University, Belhaven University, and Concordia). Particular focus was given to communicating the key requirements of a QEP to ensure alignment between QEP processes and the eventual final QEP proposal. Committee members examined UT Tyler assessment processes and instruments to determine potential topic categories. Supplementary resources consulted during the QEP topic identification process included the: [2015 NSSE UT Tyler Snapshot](#), [2016 NSSE UT Tyler Snapshot](#), [First Destination Plans, 2015-2016 Graduation Exit Survey](#), [2016-2017 Graduation Exit Survey](#), and the [UT Tyler Strategic Plan pillars](#). Details on the QEP Topic Selection Committee are provided in the following section describing broad-based support from institutional constituencies.

#### *QEP Topic Selection Committee*

The QEP Topic Survey Subcommittee met during the summer of 2017 to develop a Campus General Announcement - "[What is a QEP](#)," a "[QEP Topic Selection Survey Process](#)" information sheet, and a [draft QEP Topic Survey](#). The initial QEP Topic Selection Survey draft was discussed with the full QEP Topic Selection Committee, and revisions were made to the survey item format and the introductory statement of purpose based on committee member feedback. The survey was then shared with the President for his review, suggestions, and approval.

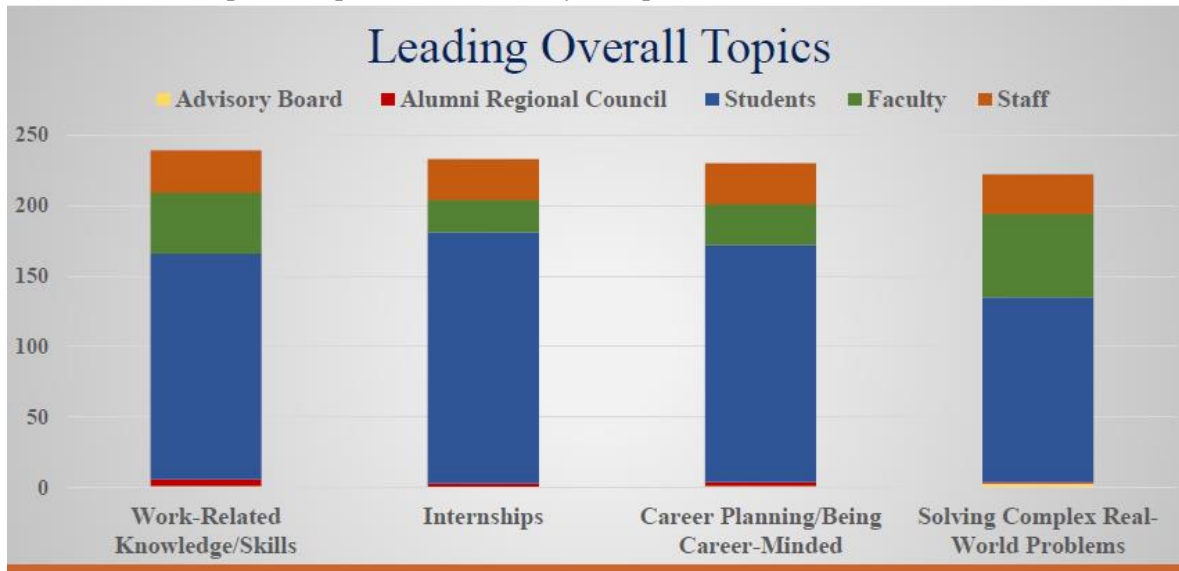
To promote awareness and knowledge of the QEP in preparation for the QEP topic selection survey, the Communication and Marketing Subcommittee contacted the student newspaper, [The Patriot Talon](#), to request an article on the QEP. Additionally, the QEP Topic Selection Committee members met with the Student Government Association Executive Officers, Faculty Senate, University Staff Advisory Council (now Staff Senate), and the Council of Academic Deans to present and discuss the QEP topic selection survey process. The Alumni Affairs Director and the Alumni Representative on the full QEP Topic Selection Committee communicated with the Alumni Regional Council to provide information on the purpose and importance of the survey. [College deans communicated information](#) about the UT Tyler QEP purpose and goal with their College Advisory Boards.

Personal emails with a link to [the Qualtrics survey](#) were sent in October 2017. The survey distribution process occurred as follows: The Provost sent the faculty emails, the Office of Student Life and Leadership sent emails to students, the Assessment and Institutional Effectiveness Office sent emails to staff, the Alumni Affairs Director sent emails to the Alumni Regional Council, and the college deans sent emails to their respective College Advisory Board Members. A student member of the QEP Topic Selection Committee set up a “QEP Survey” table in the University Center (UC) during the noon hours on a Tuesday and a Wednesday to provide students the opportunity to complete the brief survey using laptops while in the UC for their lunch hour.

Survey takers were asked to identify if they were students, alumni, faculty, staff, or community leaders and were asked to select their top five options from among 27 topic themes. The survey also included open-response items for survey responders to identify other potential topics in addition to an opportunity to provide more detail on their selection choices. A separate link was embedded at the end of the survey for survey completers to open and indicate interest in serving as QEP Volunteers to ensure the confidentiality of the survey responses.

After closing the survey, the full QEP Topic Selection Committee analyzed the full Qualtrics results. A total of 632 responses were collected with a 4% response rate for students, an 8% response rate for staff, a 20% response rate for faculty, a 29% response rate for the Alumni Regional Council, and an 8% response rate for the College Advisory Boards. The leading topics among the survey responders included Work-Related Knowledge and Skills, Internships, Career Planning/Being Career Minded, and Solving Complex Real-World Problems. Thirty-two survey completers offered potential topics not listed in the survey, although no suggestions were made more than once. Additional comments to expand on the survey completer’s topic(s) of choice were offered by 52 responders, and 104 survey responders volunteered to assist with QEP implementation planning. The QEP Topic Selection Survey Results were shared with the campus community through a PowerPoint presentation (Figure 1).

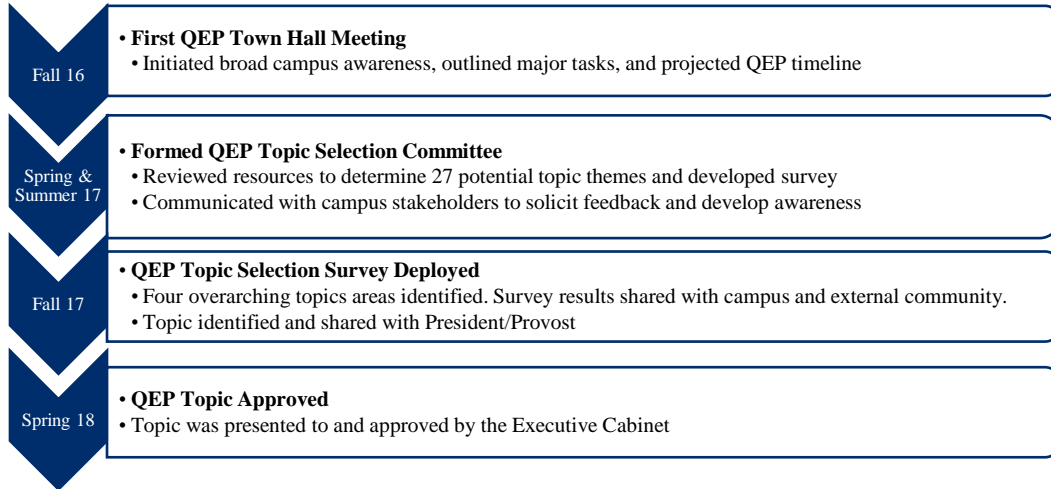
Figure 1. QEP Proposed Topic Selection Survey Composite Results



Overall, the process of identifying potential QEP topic areas continued for more than a year, informed by ongoing campus planning and evaluation efforts, and incorporating broad-based support from institutional constituencies. Figure 2 below summarizes the important dates from the topic identification process:



Figure 2. QEP Topic Identification Timeline



The following section outlines how the topic was identified, shaped, and refined to the QEP topic of “real-world problem-solving.”

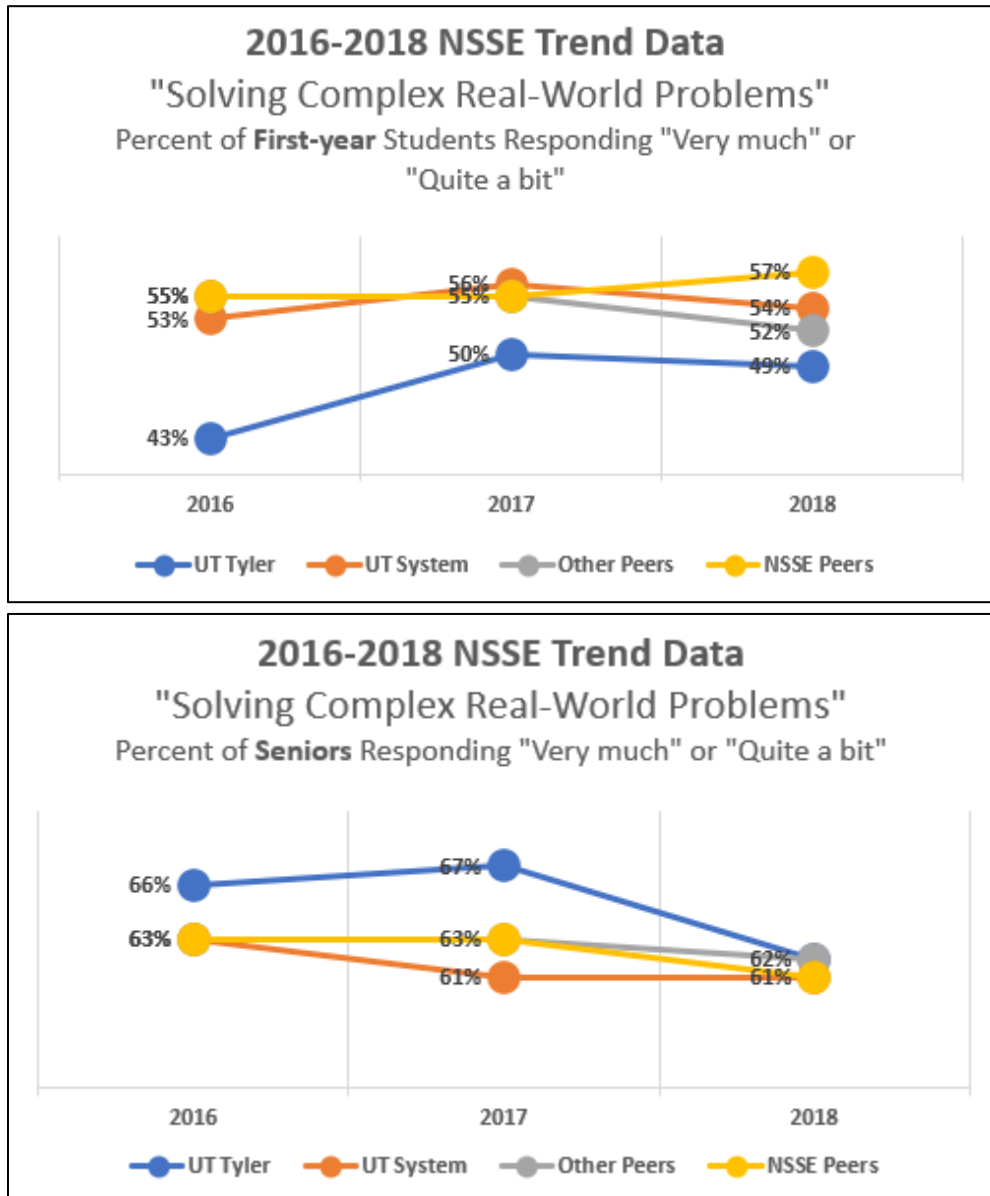
**Phase Two: Shaping and Refining the Topic**

After identifying the top four survey topics (Figure 1), the full QEP Topic Selection Committee determined no further surveys would provide significantly different results. The original committee survey process anticipated sending a series of two to three surveys, with each survey refining the topic priorities identified by responders from the previous survey results. However, the first survey results were conclusive and aligned across each of the survey participant populations to such a strong degree that the full QEP Topic Selection Committee determined further surveys could not provide additional helpful information.

In addition to the QEP Topic Selection Survey results, several other resources were reviewed in the process of refining the final topic choice. As part of the UT System, UT Tyler participates in the National Survey of Student Engagement (NSSE). NSSE 2015-18 Engagement Indicators Reports showed mixed results for UT Tyler First-Year and Senior student perceptions on their coursework Academic Challenge emphasis to “apply facts, theories, or methods to practical problems or new situations” and frequency of Reflective and Integrative Learning to “connect learning to societal problems or issues” compared with UT System, Carnegie Class, and NSSE 2-year combined peers. However, compared with the NSSE Top 50 percent and NSSE Top 10 percent, both First-Year and Senior UT Tyler students were below or significantly below both indicators all four years, suggesting an educational gap that could be enhanced.

Additionally, Figure 3 below highlights differences in “Solving Complex Real-World Problems” for First-Year and Senior students between 2016 and 2018, demonstrating differences between UT Tyler and UT System, Aspirational Peers, and Instate Peers.

Figure 3. First-year and senior student NSSE responses on their exposure to solving complex real-world problems



Past graduation exit surveys (2015-2016, 2016-2017) provided qualitative evidence supporting topic selection. While answers varied across disciplines, a common theme emerged regarding additional real-world classroom application opportunities. Sample student feedback from the survey stated, “[class] had no actual application to the real world,” and “the department is extremely heavy in the theoretical side, which is great, but would love to back it up with real-world exercises,” and “I feel that there is not enough time spent on clinical [real-world] situations compared to other schools.” These sample items indicate that while real-world application of classroom content does occur, these areas could be enhanced within UT Tyler’s current educational programs.

Additionally, UT Tyler’s ongoing evaluation efforts continue to demonstrate students’ needs and desires for enhanced real-world problem-solving in the University setting. Results from the most recent graduation exit survey (2020-2021) illustrate that while some students felt that their education prepared them for after graduation, such as, “I learned skills that I can actually use when I go to find a job” and “I appreciate everything that UT Tyler offered for me during my time there. I learned so much from faculty members and fellow classmates. I began college with little knowledge of the medical industry but feel like I will be graduating ready to perform my job.” Others, however, felt quite the opposite, indicating that more could be done to enhance the connections between classroom learning and real-world classroom application. One of the more poignant and indicative student feedback statements said,

“I can think of only a handful of classes out of the many I was required to take where a professor went out of their way to relate anything they were teaching to the “real world” (aka, the professional world, the working world). The vast, vast majority of my classes I had to take felt like pointless endeavors in replicating high school level discourse and paperwork because it was necessary to check a box next to my degree plan.”

As illustrated by UT Tyler's ongoing evaluation and assessment efforts, the QEP topic identified in 2016-2018 is an area of enhancement for our current student populations.

The QEP Selection Committee also reviewed national survey reports from the National Association of Colleges and Employers (NACE) that identified real-world problem-solving as one of the top five desired employee candidate attributes. From 2016 to 2018, problem-solving has been in the top five attributes listed in the [Job Outlook survey conducted by NACE](#). In 2018, problem-solving was at the top of the list for the [Job Outlook Survey. A Forbes report](#) reinforced the value of refocusing higher education to prepare students well for career and professional goals. Based on national survey reports, CEOs and hiring managers seek college graduates who can transfer classroom knowledge and skills into real-world settings. The survey results showed that hiring managers are more likely to hire college graduates who participated in real-world application of classroom content, such as internships, team-based research projects, and community service-learning projects.

The QEP Topic Selection Survey Results were shared with all campus constituencies ([Figure 1](#)). Based on the Qualtrics survey ([Figure 1](#)) results and the demonstrated need from institutional and national data, the committee identified real-world problem-solving as a guiding concept for the QEP topic. Committee members believed that the three other leading topics (work-related knowledge/skills, internships, and career planning) could be incorporated into the QEP topic of real-world problem solving. The topic was shared with the Provost and President in Fall 2017 to gather input and make revisions. The “Real World Problem Solving” topic was [brought to the Executive Cabinet](#), which included the President, Provost, and Vice Presidents, to approve the topic in Spring 2018. After deliberation with the committee, the President officially approved the topic. The QEP Topic Selection Committee dissolved upon completion of the committee charge.

### **Phase Three: Implementation**

While phases one and two ensured broad-based support for the QEP topic based on ongoing UT Tyler assessment and evaluation efforts, phase three focused on forming a QEP Steering Committee, developing a comprehensive implementation plan, and broad-based marketing.

### *QEP Steering Committee*

[The QEP Steering Committee membership \(2019 and 2020\)](#) included broad representation from across the campus as well as alumni and student representatives. QEP resource documents were shared with the committee members to strengthen knowledge of the QEP purpose, goals, institutional processes, and required reporting elements ([QEP Guidelines](#), [QEP Evaluative Framework](#), [SACSCOC Process for the Review of a QEP Impact Report](#), [Peer Evaluators: Selected Pointers on Developing a QEP](#)). Additionally, starting Fall 2022, the University President will attend two QEP Steering Committee meetings annually to demonstrate administrative support and ensure alignment between the UT Tyler strategic vision and the QEP goals.

Additionally, [College QEP Leadership Teams](#) were established in each College with undergraduate programs. Initial meetings were held during the 2019 semester (College of Arts and Sciences (CAS), Soules College of Business (COB), College of Education and Psychology (CEP), College of Engineering (COE), and College of Nursing and Health Sciences (CNHS)). Representatives within each college included a Lead Faculty Member to chair the team, the College Assessment Coordinator, and the College Career Success Coach. The AVP for Assessment and Institutional Effectiveness (AIE) also participated on each college team.

Institutional assessment information and updates in planning identified in QEP College Leadership Team meetings and the QEP Steering Committee were shared with campus leaders and stakeholders.

The QEP Steering Committee and the College QEP Leadership Teams were relaunched in Fall 2021, and a [full-time QEP Director position](#) was filled. In addition to the previously identified committee members, instructors of record, students, and alumni were also recruited to serve on the QEP Leadership Teams.

A [Student QEP Advisory Committee](#) was also formed to increase student awareness, buy-in, and involvement with the QEP. Announcements to join the QEP Student Advisory Committee occurred in SGA, the Honors Program, and an article in the student newspaper. See [Appendix A for a QEP Student Advisory Committee list](#).

The [SACSCOC QEP policy statement](#) and [QEP Evaluative Framework](#) were shared with the QEP Steering Committee, College QEP Leadership Teams, and the Student Advisory Committee throughout the process of developing and refining the QEP proposal. This information sharing was intentional to promote informed decision-making and support alignment between SACSCOC guidelines and the final QEP proposal.

### *Implementation Plan*

After approval from stakeholders, the QEP focus was clarified and refined:

*The goal of the QEP is to strengthen students' problem-solving competencies through the process and application of discipline-specific knowledge in real-world contexts.*

A plan emerged from ongoing discussions with faculty, the College QEP Leadership Teams, the College Deans, and the Provost Office that real-world problem-solving integrates content knowledge and skills that culminate within capstone-type experiences and junior/senior-level classes across all undergraduate programs. Although some courses may not be identified as “Capstone,” the course signature assignments and SLOs require students to complete a significant project demonstrating their ability to design, implement, and evaluate a problem within a real-world context. As a result, faculty across all undergraduate degrees were invited to propose and/or identify classes that incorporated real-world problem solving. This approach aligns with the QEP focus while also building upon current courses that

include real-world contexts. Additionally, further student impact could result from the potential “ripple” effect of comprehensive and ongoing faculty professional development on teaching and assessing real-world problem-solving, thereby benefiting students in lower-level courses with content to scaffold problem-solving knowledge and proficiency.

The QEP Steering Committee solicited feedback regarding the emerging plan from our SACSCOC consultant, faculty members, staff, students, and alumni in Fall 2021. The QEP director and QEP Steering Committee presented to the Dean’s Council, Faculty Senate, Staff Senate, and Student Government Association. Additional efforts and considerations were placed to ensure the QEP could reach distance learners and regional campus students.

#### *Marketing and Communications*

Conscious efforts were taken to increase the awareness and publicity of the QEP plan starting Fall 2021. The QEP Director worked with UT Tyler Marketing and Communications to develop a marketing campaign and collaborated with a web designer to create [a QEP website](#). The QEP was also discussed in Faculty Senate, Staff Senate, and Student Government Association meetings. Finally, the marketing subcommittee initiated a [campus-wide slogan contest](#) to develop a catchy slogan while increasing staff, faculty, student, alumni, and community members’ awareness of the QEP. Only four slogan ideas were submitted. All slogans were passed along to the UT Tyler marketing department to review and propose a marketing logo, slogan, and overall campaign based on the selected slogan. All slogan submitters received campus swag for their effort.

#### **UT Tyler’s Strategic Plan and the 2022 QEP**

In addition to faculty, staff, student input, and consideration of UT Tyler’s ongoing assessment efforts, the QEP proposal was [guided by the UT Tyler 2018 – 2023 strategic plan, vision statement, and mission statement](#). The [2018 UT Tyler strategic plan](#) includes four pillars: Student Success, Student Engagement, Research & Scholarship, and Community Engagement. The student success pillar aims to support students’ educational and career goals with high-impact, data-driven solutions. Given the QEP’s focus on real-world problem solving, which current employers identify as a need in the workplace (Hora, 2017), the QEP provides students opportunities to enhance their problem-solving competencies within a real-world context. The deliberately designed curricular opportunities proposed by the QEP plan build professional and cognitive skills that easily translate across industries and professional disciplines, as well as students’ educational and career goals. The proposed topic aligns with and supports the 2018 UT Tyler Strategic Plan pillar of Student Success by offering students opportunities to build transferable skills to help them succeed in and beyond college.

Since the merger, the University announced in 2021 a comprehensive review of the strategic plan. A new strategic planning process is currently underway, which will set the University’s trajectory for the future; student success and student engagement will remain critical components and serve as a guiding principle for the new campus strategic plan. The planned reveal of the new strategic plan is set for Fall 2022.

The University’s strategic plan and QEP proposal are likewise guided by the Texas Higher Education Coordinating Board (THECB) 60x30TX Strategic Plan for 2015-2030. The overarching goal of this strategic plan is that at least 60 percent of Texans ages 25-34 will have a certificate or degree by 2030. The second goal is to increase completion goals from institutions of higher education in Texas; the third goal is that by 2030 all graduates from Texas public institutions of higher education will have completed programs with identified marketable skills. The final goal is that by 2030, undergraduate student loan debt will not exceed 60 percent of First-Year wages for graduates of Texas public institutions.

The proposed UT Tyler Real-World Problem Solving QEP topic supports each of the THECB strategic goals: 1) Educated Population and Completion Goals - students are more likely to complete a degree when participating in meaningful experiential learning with real-world relevance in their chosen discipline; 2) Marketable Skills Goal- real-world problem solving is a desired marketable skill across all professions, and 3) Student Debt Goal - entry-level graduates who participate in real-world problem-solving learning opportunities will be prepared competitively for successful professional employment and may be more likely to procure higher First-Year wages.

## LITERATURE REVIEW AND BEST PRACTICES

Karl Popper (1999) argued that to live is to solve problems, implying that everyday life includes constant problem solving (Popper, 2013). With today's real-world problems becoming more complex and challenging due to the globalization of business and the world, the need for effective problem solving is especially relevant. Individuals involved in complex situations outside the classroom are not rewarded for rote memorization or completing tests; instead, individuals are rewarded for their ability to solve problems effectively and efficiently. Yet to become effective at problem-solving, individuals require opportunities to practice. Effective problem-solving learning comes not from learning about the process of problem-solving but from actually applying and reflecting on the process (Jonassen, 2010). As such, higher education institutions must curate intentional problem-solving learning environments (Jonassen, 2010) that allow students to struggle, engage, and learn about the complexity, construction, and boundaries of problem-solving.

The American Association of Colleges and Universities (AAC&U)'s Problem-Solving VALUE rubric defines problem-solving as "the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal." In this respect, problem-solving encompasses a wide range of cognitive activities utilized by all disciplines. Additional research and insight into problem-solving illustrate expanded dimensions, qualities, and activities of problem-solving, including:

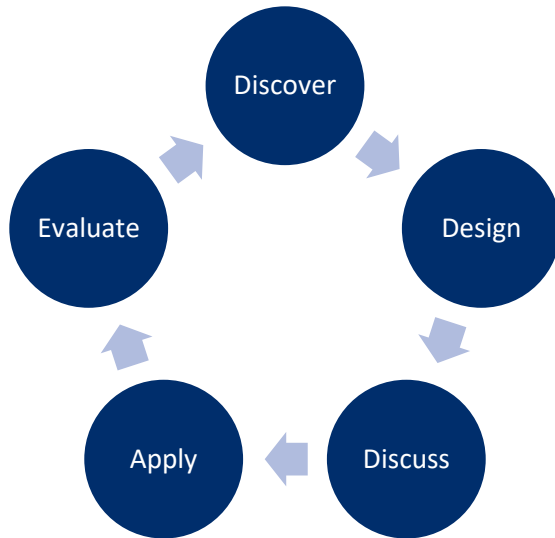
- *Framing and defining* the problem, issues, and/or intended goal
- *Gathering evidence and synthesizing sources* to support problem identification and identify strategies to respond to the problem(s)
- *Designing and planning* one or more proposed solutions, supported by evidence as defined by their field
- *Evaluating information* from multiple sources, *evaluating possible solutions* to make an informed decision accounts for various contexts and stakeholders' needs, and *evaluating* outcomes.
- *Applying* the novel or unique idea, question, format, or product within a real-world setting.

This list of key components of the problem-solving process might be visualized then, in relationship to one another in a cycle, building off one another. While the process shown in Figure 4 insinuates an orderly process, problem-solving is not always cyclical. It is not uncommon to uncover new problems or issues during the problem-solving process, requiring forward or backward movement on the cycle depending on the situation.

Through steering students to frame and articulate the goals, solutions, and outcomes of the problem-solving process in real-world contexts, we guide students to become intentional about learning while providing opportunities to connect classroom knowledge with real-world situations and experiences. The interplay between problem-solving and a real-world context adds a profound richness to students' education beyond the exercise of problem-solving on its own (Steen, 1998). Real-world problem-solving classroom projects provide students opportunities to reflect on and articulate their problem-solving

process. Moreover, this intentional reflection and application process assists students in developing the ability to transfer their knowledge and skills to adapt to new challenges. Through an intentional real-world problem-solving process, students foster self-awareness to understand how their experiences have provided them with the tools and strategies to persist and succeed beyond their undergraduate careers.

Figure 4. Dimensions of Real-World Problem Solving



### Benefit to Students

Developing real-world problem-solving in the collegiate environment has measurable benefits for students, both in and out of the classroom. First, enhancing real-world problem-solving ability builds students' learning ability and self-awareness strategies long after classes end. Since today's problems do not abide by disciplinary boundaries, real-world problem-solving requires integrating information across disciplines, fields, various classes, and life experiences (Pawson et al., 2006). Current research demonstrates that knowledge constructed during problem-solving is better comprehended and retained at a higher level (Jonassen, 2010). Engaging in such classroom experiences focused on real-world problem-solving benefits students by enhancing their ability to synthesize knowledge. This process, in turn, improves their learning and methods of how to learn. Additionally, knowledge applied in authentic, real-world contexts is more often recalled and remembered by students compared to information acquired in non-real-world environments (Jonassen, 2010).

Intentionality is critical to effective problem-solving, particularly when striving to enhance student learning (Jonassen, 2010). Drawing attention to and enhancing students' real-world problem-solving ability develops students' self-awareness about their strengths and weaknesses, strategies, and processes in overcoming problems (Loksa et al., 2016). This self-awareness, in turn, helps students strengthen their capacity for continued learning and problem-solving in postgraduate professional, civic, and educational capacities (Jonassen, 2010).

Successful problem-solving is a critical component of resiliency, particularly an important factor in psychological resilience (Allen & Roberts, 2019; Pinar et al., 2018). In a 2017 study, Garmsari and Safara discovered that independent problem solving was a significant predictor of positive mental health and wellness, suggesting that a focused effort to enhance problem-solving ability can reduce mental health issues. With the rise in mental health concerns in traditional age higher education students (Alexander et

al., 2021), enhanced problem-solving will impact more than just classroom success but offers benefits such as resiliency and increased mental health that can help students achieve institutional goals, such as graduation and retention.

### **Employer Need**

Today's economic climate illustrates that it is no longer enough to only possess knowledge of an academic subject. Instead, current labor markets illustrate the need for higher education institutions to provide student learning opportunities that build integrated skills and enhance students' employment prospects. Current critiques of higher education insinuate a lack of real-world application to or relevancy in current coursework offerings, or, further, suggest a disparity between the skills acquired in higher education by current graduates and the needed skill sets asserted by employers (Finch et al., 2018; Trilling & Fadel, 2009).

According to a 2013 survey of employers conducted and assessed on behalf of AAC&U, most surveyed employers believed higher education institutions should incorporate more emphasis on complex problem-solving. Furthermore, employers requested highlighting "problem-solving in ill-structured situations" because these learning opportunities align more closely to real-world situations (Hora, 2017). In a similar employer survey only three years later, 91% of employers indicated that problem-solving in diverse settings is a priority skill for students to acquire, regardless of discipline (Finley, 2016). Moreover, a NACE study indicated "solid problem-solving skills" remained a top skill sought by current employers (Hora, 2017). With the QEP focus on enhancing students' ability to solve problems within real-world settings, UT Tyler is working towards meeting the needs of current employers and, thereby, our students' professional needs.

Given these employers' statements and critiques, higher education institutions have increasingly incorporated real-world situations within the classroom to simulate and develop life-long learning and problem-solving skills (Morley & Jamil, 2021). The following section outlines best practices in developing classroom and collegiate environments that develop and foster real-world problem-solving curricular experiences.

### **Best Practices**

Successful institutional involvement in the proposed QEP will require a strong understanding of the appropriate learning environments that foster real-world problem-solving. In developing problem-solving learning environments, Jonassen (2010) stated, "learning should be anchored in an authentic problem that is relevant to the learner" (p. 150). Finding meaningful and authentic problems for students to wrestle with can lead to increased engagement, resulting in a deeper understanding of problem-solving. Moreover, problem-solving should be scaffolded for students, taking them step by step through the process of problem-solving. Breaking the problem-solving process into various steps allows students to reflect on the process, leading to further awareness, understanding, and application. Finally, learning environments should include an atmosphere of cooperation, where students feel comfortable taking measured risks, making mistakes, and feeling supported in using multiple perspectives (Jindal-Snape et al., 2013; Richardson & Mishra, 2018).

In their 2021 Employer Report, AAC&U recommended that higher education institutions focus on "equipping students to name and reflect upon the skills that matter" as an approach for students to communicate how their education, regardless of major, assists them in fulfilling workforce needs. The QEP structure provides opportunities for students to identify and reflect upon real-world problem-solving skills. Additionally, the QEP focus on real-life contexts follows best practices by engaging "in forms of inquiry that train the intellect through a focus on real-world problems that draw the learner into



relationship with others” (AAC&U, What Liberal Education Looks Like, p. 11). The reflection aspect proposed within the QEP structure leads faculty and students toward these best practices suggested by AAC&U.

## **QEP FOCUS, GOAL, AND STUDENT LEARNING OUTCOMES**

UT Tyler’s Quality Enhancement Plan provides opportunities for students to strengthen their problem solving skills by applying discipline-specific knowledge in real-world contexts. Considerations in developing the QEP student learning outcomes (SLOs) included 1) ensuring alignment with the UT Tyler mission and QEP goal, 2) the relevance for UT Tyler baccalaureate programs offered, 3) being data-informed with internal and external information, and 4) guidance for expected student learning outcomes through experiential experiences applying discipline-appropriate knowledge.

The SLOs were developed using higher-order cognitive proficiencies. The learning outcomes outlined below provide a general framework for problem solving and will be assessed at institutional levels. Due to the logistics associated with tracking individual learning, individual student learning and development will not be tracked over time. Additionally, the problem-solving process is not always linear, and therefore the learning outcomes were not designed to be assessed in hierarchical order. The QEP Steering Committee and the current UT Tyler College Assessment Professionals provided feedback on the SLOs before the Fall 2021 pilot study.

### **QEP Focus and Goal**

*The goal of the QEP is to strengthen students’ problem-solving competencies through the process and application of discipline-specific knowledge in real-world contexts.*

The one QEP goal spearheads a manageable QEP scope and assessment process for faculty and staff while promoting meaningful student learning. With the end in mind, the QEP goal aligns with the SLOs, intended interventions, and proposed QEP assessment for measurable student achievement.

### **QEP Student Learning Outcomes**

- **SLO 1:** Construct a clearly defined problem statement with evidence of relevant real-world contextual factors.
- **SLO 2:** Identify multiple approaches to address the problem within a specific real-world context.
- **SLO 3:** Evaluate potential/proposed solutions based upon discipline-specific and real-world contextual factors.
- **SLO 4:** Propose one or more solutions/hypotheses based upon discipline-appropriate support and/or evidence.
- **SLO 5:** Implement the identified solution to address the problem.
- **SLO 6:** Evaluate results/outcomes relative to the identified problem, with a discussion of further work within a real-world context.

The competencies described in the identified QEP goal are the six QEP student learning outcomes. The six learning outcomes align with the components of the problem-solving process. The direct link from the QEP goal to the six measurable SLOs of the problem-solving process offers a strong alignment between QEP goals, interventions, and SLOs. Classroom signature assignments and co-curricular opportunities such as the Annual Lyceum Research Showcase will illustrate student learning on these outcomes.

## **ASSESSMENT**

A QEP Assessment Committee was formed in Spring 2021, co-chaired by the Associate Provost of Assessment and Institutional Effectiveness and the Director of Assessment and Accreditation. The

creation of the QEP Assessment Committee ensured more robust assessment procedures and manageable processes to support the launch and development of QEP initiatives. Committee members include the two co-chairs, five College Assessment Professionals, and the QEP Director. The charge and scope of the committee entail:

1. Provide leadership for all QEP assessment planning, implementation, and analysis strategies;
2. Liaise with their respective College QEP Leadership Teams;
3. Prepare annual QEP Assessment Reports for the campus community;
4. Prepare the Assessment Narrative in Part V: Impact Report of the QEP as part of the FYIR Report.

The processes and procedures to assess the QEP goal and student learning outcomes are outlined below:

### **Direct Assessment**

#### *Measure*

QEP Faculty will use an [adapted AAC&U Problem Solving VALUE rubric](#) to directly assess all six QEP learning outcomes. The AAC&U VALUE rubrics are intended for institutional-level and cross-disciplinary use in evaluating and discussing student learning across disciplines, as reflected in the rubric titles to include VALUE: Value Added Learning in Undergraduate Education, and therefore deemed a useful and meaningful direct assessment measure. The Problem Solving VALUE rubric was first modified in Fall 2021 to align with the larger scope of the QEP topic, Real-World Problem Solving. Ongoing conversations were held with key stakeholders, including College Assessment Professionals, QEP Steering Committee, QEP College Teams, and students, to enhance the applicability of the Problem Solving VALUE rubric in real-world contexts. Faculty were at the core of these conversations as “faculty acceptance of, and engagement with the VALUE rubrics is foundational to their validity” (McConnell et al., 2019, p. 43). Additionally, conversations included a wide array of disciplines to maintain rubric validity across all UT Tyler undergraduate programs.

Using a single rubric across campus will provide cohesiveness to the QEP implementation and experience and streamline assessment methods to encourage successful QEP implementation. Since the original VALUE rubric focused solely on problem-solving, adaptations modified performance descriptions to include real-world contexts and situations. A definition of “real-world” was also included in the rubric ([page 1](#)) based on conversations with faculty and assessment coordinators during the Fall semester to aid with rubric calibration efforts. Although performance descriptors were slightly modified to include real-world contexts and situations, the updated rubric maintained the key dimensions of each learning outcome. In a study of VALUE rubric usage, McConnell et al. (2019) noted, “The Written Communication and Problem Solving VALUE rubrics differ the most in their use in original form and modified form. These differences may indicate issues or disciplinary preference with these rubrics, which leads to institutions having to modify them for their own needs” (p. 17). The Problem Solving VALUE rubric incurred the highest range between campuses that use the original rubric versus campuses that modify for their own needs, highlighting that modification of this rubric is often necessary across various institutions. This finding illustrates that UT Tyler is not unique in adjusting the Problem Solving VALUE rubric. Finally, to ensure that the rubric accurately assessed all six identified learning outcomes within the UT Tyler community, the rubric was used in a pilot study in Fall 2021. Results from the pilot study are discussed in the [Pilot Study](#) section.

#### *Methods*

The proposed direct assessment efforts are modeled after current and ongoing assessments of the core curriculum (i.e., general education) at UT Tyler. As part of the current core curriculum assessment

processes, the College of Arts and Sciences Assessment Coordinator collects student artifacts to be assessed by faculty scoring panels and leads an inter-rater reliability training to ensure constructs and definitions are understood similarly across the scoring panel. Following best practices, each artifact is scored by two faculty members. If any performance level score within a rubric dimension differs by more than one level, reviewers will come together to discuss score differences to identify areas of disagreement and reach a mutual understanding (Note – if a compromise could not be made, the scorers could reach out to the QEP director for a 3rd party review). Prior to the pandemic, the panel met on a pre-determined day to score student artifacts, and the Provost provided a meal for each Faculty Scoring Panel. The practice will be continued for the QEP Faculty Scoring Panels ([see budget](#)) while keeping COVID-19 safety protocols in place.

Faculty scoring panels will be convened on a semesterly basis to assess artifacts collected from the participating disciplines. Faculty will self-select to serve on the QEP Scoring Panels, and that faculty service will be considered in annual evaluations and included in Tenure and Promotion portfolios. All UT Tyler College Assessment Professionals have dean approval to view and download student artifacts in the Canvas learning management system as part of the program assessment process. This process will be used to collect the identified student artifacts for the QEP assessment. The collected student work will be coded by the QEP Director using a system developed for coding the core curriculum student artifacts. The coding includes course identification, course section, location, modality, and selected student demographics (gender, ethnicity, Pell-eligibility, first generation, and transfer). The faculty score the student artifacts “blind.” Student artifacts collected during the fall will be scored early in the subsequent spring semester, and the student artifacts collected during the spring and summer (if the course is offered) will be scored early in the subsequent fall semester.

After every scoring panel, a focus group will be held (with an optional Qualtrics survey) to improve and enhance reliability training, scoring panels, and assessment measures.

To launch the QEP Fall 2022, QEP College Teams have worked diligently to secure QEP participation from at least one discipline within each undergraduate college or school ([Table 1](#)). The QEP College Leadership Teams will continue to collaborate with program faculty to scale up participation in the QEP, using an opt-in approach. Additional resources will be provided for those programs that may require additional planning time to launch during the following four years. Following the first year, efforts will continue to scale up discipline participation to reach a majority of programs (51%+) participating by Year 5 (Fall 2026). See [Table 1](#) for a proposed implementation timeline for the first two years of QEP implementation.

#### *Pilot Study*

The QEP Steering Committee led a Fall 2021 pilot study to collect baseline data and ensure the proposed process matched the proposed learning outcomes. The department chairs for the Lit/Lang English BA, the Chemistry/Biochemistry BS, and Civil Engineering BS programs volunteered to serve as the QEP pilot programs, volunteering student artifacts from the 2019-2020 academic year. The advantage of the English and Chemistry pilot programs is that both have participated in the Core Curriculum Assessment Scoring Panel model since 2017 and have experienced faculty scorers to assess student artifacts using VALUE rubrics. Additionally, including a humanities program and a STEM program provided insight on evaluating the applicability of the Problem Solving VALUE rubric scoring criteria across the diverse disciplines and signature assignments.

Inter-rater reliability training occurred in October, co-led by the QEP Director and the Assessment Coordinator for CAS. Both have attended professional development workshops on Assessing with

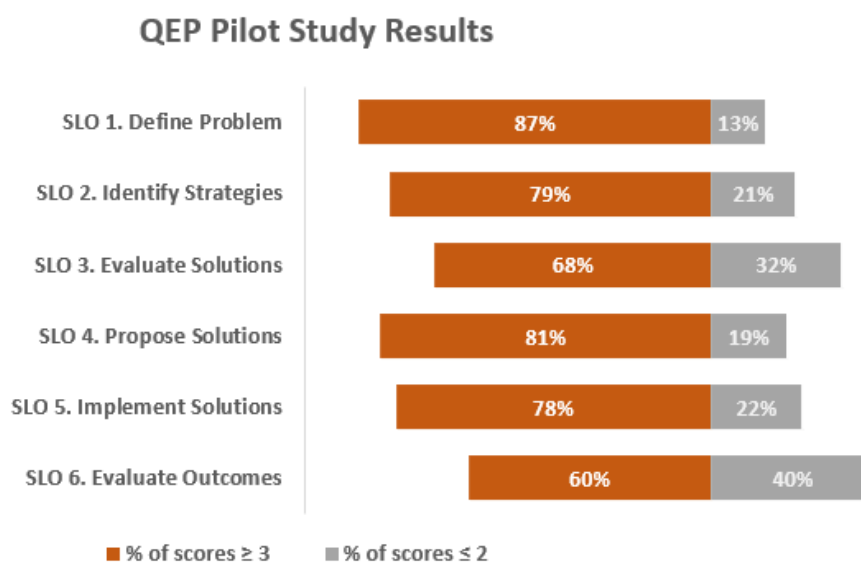
VALUE Rubrics. Artifacts were scored in early November by QEP faculty leads, instructors of record, and assessment staff. Seventy percent of artifacts were scored from each program (11 from chemistry, 10 from civil engineering, and 8 from English). The following summarizes the results and the primary lessons learned through this process.

### *Pilot Study Results*

The pilot study sample included 29 artifacts and a total of 67 students (Engineering artifacts comprised student groups of 4-5 members each). Of the students, 66% were male, and 69% were non-Hispanic. Additionally, 51% were identified as white, 31% identified as Hispanics of any race, with Asian and Black or African American representing an additional 12% of the sample (6% each). Furthermore, 39% of students were identified as First-Generation and 51% as Pell recipients.

As evidenced by Figure 5, results from the QEP Pilot Study were positive, illustrating that real-world problem solving occurs within the pilot study disciplines of Chemistry, English, and Civil Engineering. The orange bar portrays the percentage of artifacts scored at the rubric performance level of competent (3) or higher, whereas the gray bar shows the percentage scored at a rubric performance level of benchmark (2) or lower. These findings were used to [establish criteria of achievement for each SLO](#).

Figure 5. QEP Pilot Study Results



### **Criteria of Achievement**

A criterion of achievement for each SLO was established based on the pilot study scoring panel results. Each criterion is constructed using language from the AAC&U Problem Solving Rubric to align with the SLOs. The criteria of success provide a metric for the University to determine whether or not the QEP goal was met.

Course-embedded methods of assessment include, but are not limited to, case studies, research posters, group projects, and research papers. The criteria of success in Figure 1 correspond to performance level 3 (competent) of the VALUE Real-World Problem Solving rubric. Based on the analysis of the pilot study results within the QEP assessment committee from the proposed methods of assessments, the criteria for success were included (see Figures 5 and 6). Each criterion represents a reasonable stretch goal based on the pilot study results, with criteria percentages ranging from 1% to 10% above the pilot study results.

Figure 6. QEP Student Learning Outcomes and Criteria of Success

<b>QEP Focus:</b> The goal of the QEP is to strengthen students’ problem-solving competencies through the process and application of discipline-specific knowledge in real-world contexts			
Intervention:		Intentional and planned learning experiences that engage students in the process of problem solving in real-world contexts. Course-embedded methods of assessment include, but are not limited to, case studies, research posters, group projects, and research papers.	
Student Learning Outcomes	UT Tyler Students will be able to:		Criterion of Success
	<b>SLO 1</b>	Construct a clearly defined problem statement with evidence of relevant real-world contextual factors.	<i>90% of our students will:</i> Demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors.
	<b>SLO 2</b>	Identify multiple approaches to address the problem within a specific real-world context.	<i>80% of our students will:</i> Identify multiple strategies for solving the problem.
	<b>SLO 3</b>	Evaluate potential/proposed solutions based upon discipline-specific and real-world contextual factors.	<i>70% of our students will:</i> Evaluate the proposed solution(s) with evidence but do not adequately support the merits of their selected solution against the other solutions.
	<b>SLO 4</b>	Propose one or more solutions/hypotheses based upon discipline-appropriate support and/or evidence.	<i>85% of our students will:</i> Propose a solution that indicates comprehension of the problem and is sensitive to real-world contextual factors included with the problem statement.
	<b>SLO 5</b>	Implement the identified solution to address the problem.	<i>80% of our students will:</i> Implement the solution in a manner that addresses a manner that addresses multiple real-world contextual factors of the problem in a surface manner.
	<b>SLO 6</b>	Evaluate results/outcomes relative to the identified problem, discussing further work within a real-world context.	<i>70% of our students will:</i> Review results relative to the problem defined with some discussion of further work and/or considerations within a real-world context.

Figure 6 illustrates alignment between the QEP focus, QEP goal, the six measurable and observable student learning outcomes, QEP methods of assessment, and QEP achievement criteria. The alignment enables the institution to successfully track interventions and results that lead to identifiable opportunities for improvement, success, and scalability.

*Lesson Learned*

The following were lessons learned from the pilot study to inform future training and QEP initiatives.

*More Emphasis on the Problem-Solving Definition and VALUE rubric calibration*

Results from the pilot study suggested a lack of agreement on the definition of problem-solving, indicating a need for future training to focus on developing a shared understanding of definitions.

Future scoring panels will reiterate the problem-solving definitions and remind participants to analyze evidence of how the students engaged in the process of problem-solving. This focus on the *process* of problem solving may help faculty members transition more easily between various disciplines that vary in problem type.

#### *Aligning Artifacts with Rubrics*

A notable limitation of the pilot study was that artifacts gathered for the pilot study were collected before creating the real-world problem-solving rubric. Therefore, it was sometimes difficult to assess the artifacts because assignments did not ask students to engage in all identified aspects of problem-solving. Although challenging, this misalignment was helpful because it permitted faculty to see the importance of having a clear assignment aligned with the problem-solving rubric. The misalignment between the artifacts and the QEP rubric also resulted in QEP lead faculty consulting with chairs to re-confirm their QEP identified classes to promote alignment between the rubric and signature assignments.

#### *Updated Scoring Process and VALUE Problem-Solving Rubric*

Initially, the artifact scoring process was to have a 3<sup>rd</sup> rater review when score differences of more than 1 point occurred. However, AAC&U best practices advise artifact scorers to discuss score differences to identify areas of disagreement and reach a mutual understanding (Note – if a compromise could not be made, the scorers could reach out to the QEP director for a 3<sup>rd</sup> party review). This process was followed for the pilot study, leading to outstanding results. As stated by one of the artifact reviewers:

“I just wanted to let you know sending {other reviewer} and me back to discuss the paper, and our scores was INCREDIBLY helpful. Hearing her perspective made me rethink some of my scores, and I think hearing mine did the same for her. That was a way better learning experience than just having someone else come in to score, and something I will take with me into future QEP scoring.”

Discussing score differences led to an increased understanding of the QEP rubric and the problem-solving process, especially for individuals who scored artifacts different from their specific disciplines. As a result, this process will be continued for future scoring panels.

Finally, the pilot study led to a refined real-world problem-solving rubric based on conversations with scoring panel members. Specifically, dimensions for student learning outcomes 3 and 6 were modified, resulting in [an updated real-world problem-solving rubric \(revised November 2021\)](#).

#### *Graduate Student Involvement*

In recognition that the current QEP focus remains on undergraduate students, the QEP Steering Committee and QEP College Leadership Teams considered possible opportunities for graduate students to “opt-in” to participate in the QEP. A collaborative decision was made to incorporate graduate students on the scoring panels supporting the QEP SLO direct assessment efforts after the first year of implementation. As many graduate students pursue faculty or teaching roles after graduation, this provides real-world problem-solving experiences in addition to valuable professional development opportunities. Including graduate students on the faculty scoring panels after Year 1 may also alleviate the heavy workload on the scoring panels when more QEP classes are added to the bi-annual scoring queue.

College QEP Leadership Teams will work to recruit graduate students within each college. Within numerous colleges, specific measurement and assessment courses offer strong alignment for graduate students and faculty, providing an opportunity for graduate students to apply classroom to QEP assessment efforts. For instance, the Master of Science in Human Resource Development (HRD) requires all students to take a Measurement and Evaluation course. Additionally, the QEP Director will work with

the Graduate School to send out a mass email at the start of every semester to ensure every graduate student is made aware of the opportunity. There is no expectation of providing a financial incentive for graduate students. Instead, this would be an opportunity for them to add experience to their resume. Additionally, graduate students who can attend in person will receive a complimentary lunch for their time. [Appendix D](#) provides a non-exhaustive list of identified possible courses.

### **Indirect Assessment**

The current UT Tyler Undergraduate Graduation Exit Survey will be revised to include meaningful items related to students' QEP capstone experiences. UT Tyler will continue participating in NSSE and collecting survey results related to real-world problem-solving.

## **THE PLAN**

The proposed 2022 QEP intends to increase students' problem-solving strategies in curricular and co-curricular settings to promote student learning and success. This QEP offers UT Tyler the opportunity to serve students in more holistic and intentional ways, providing meaningful real-world experiences that will enhance critical problem-solving skills necessary for the 21<sup>st</sup> century.

The UT Tyler QEP will embed real-world problem-solving opportunities to provide mechanisms for students to strengthen their problem solving competencies. To achieve this plan, the University has identified four overarching strategies:

- Identify, enhance, and implement real-world problem-solving assignments and opportunities within a majority of undergraduate degrees.
- Identify and implement student co-curricular opportunities to apply real-world problem-solving.
- Develop pedagogical learning opportunities and faculty development opportunities for real-world problem-solving teaching strategies and practices.
- Engage in annual evaluation of QEP results and initiatives to enhance and inform future QEP strategies and/or action plans.

The following section includes specific action items to implement the above strategies.

### **Strategy 1: Identify and Implement Real-World Problem-Solving Assignments and Opportunities within a Majority of Undergraduate Disciplines**

During ongoing QEP discussions with faculty, College QEP leadership teams, College Deans, and the Provost Office, a plan emerged to enhance classes across a majority of undergraduate programs to develop students' real-world problem-solving competencies.

#### **Action Step 1: Prepare a QEP Summative Course List to Guide the Selection of QEP Courses and Identify the Signature Assignments**

The College Assessment Coordinators and the AIE Office prepared a baseline 2018-19 Summative Course Report and 2019-20 Summative Course Report. This report was updated in Spring and Summer 2022 within each College QEP Leadership Team, identifying 20 courses and instructors of record for start dates Fall/Spring 2022 - 2023 (10) and Fall/Spring 2023 - 2024 (10).

Discipline participation in the QEP will continue with a phase-in approach, adding additional classes each year. The QEP College Teams will meet with instructors of record to discuss course content, [Signature Assignment Guidelines](#), and course SLOs, ensuring alignment with the QEP focus, SLO, and signature assignments. The phase-in approach allows for the development of meaningful and impactful QEP Signature Assignments and classroom teaching strategies. Phase-in efforts will remain data-driven with QEP committees and faculty using data and assessment insights to inform QEP

expansion efforts. The intentional phase-in effort ensures a thoughtful and data-driven scaling of the QEP across disciplines. Future course additions past year two of the QEP will be driven by forthcoming QEP College Team conversations and informed by assessment results. Additionally, the QEP faculty cohort intervention will be instrumental in providing curricular and pedagogical resources for faculty and staff teaching and developing QEP courses.

Table 1. QEP Designated Courses with Signature Assignments

College of Arts & Sciences					
Program	Course	Syllabi Link	Signature Assignment	Start Assessment (Semester/Year)	Instructor of Record
Biology BS	BIOL 3334	<a href="#">Link</a>	Cumulative Final Essay	Fall 2023	Dr. Brent Bill
Chemistry BS	CHEM 4191	<a href="#">Link</a>	Poster	Fall 2023	Rotates
Criminal Justice BS	CRIJ 4355	<a href="#">Link</a>	Original Data Collection/Research Project	Fall 2022	Dr. Jennifer Wooldridge
Economics BA/BS	ECON 4320	<a href="#">Link</a>	Research Project/Paper	Fall 2023	Dr. Marco Castaneda
Mass Communications BA/BS	MCOM 4365 – PR / MCOM 4332 – MM Journalism	<a href="#">Link</a>	Campaign Plan/News Stories	Fall 2023	Professors Mogle and Brown
Social Work BSW	SOCW 4310	<a href="#">Link</a>	Final Project	Fall 2022	Dr. Ericka Freeman
Spanish BA	SPAN 4310	<a href="#">Link</a>	Final Essay	Fall 2022	Dr. Greg Utley

College of Education & Psychology					
Program	Course	Syllabi Link	Signature Assignment	Start Assessment (Semester/Year)	Instructor of Record
Education BS	EDUC 4640	<a href="#">Link</a>	Portfolio	Fall 2022	Cindy Sherman
Psychology BS	PSYC 4331	<a href="#">Link</a>	Research Paper	Fall 2023	Dr. Eric Stocks

College of Engineering					
Program	Course	Syllabi Link	Signature Assignment	Start Assessment (Semester/Year)	Instructor of Record
Civil Engineering BSCE	CENG 4315	<a href="#">Link</a>	Senior Design Project	Fall 2022	Drs. McGinnis & Truman
Electrical Engineering BSEE	EENG 4315	<a href="#">Link</a>	Senior Design Project	Fall 2023	Drs. Shirvaiker & Mahgoub

School of Community & Rural Health (Health & Kinesiology)					
Program	Course	Syllabi Link	Signature Assignment	Start Assessment (Semester/Year)	Instructor of Record
Kinesiology BS	KINE 3306	<a href="#">Link</a>	Case Studies	Fall 2022	Ashley Dalby
Wellness BA	KINE 3306	<a href="#">Link</a>	Case Studies	Fall 2022	Ashley Dalby

School of Nursing					
Program	Course	Syllabi Link	Signature Assignment	Start Assessment (Semester/Year)	Instructor of Record
Nursing BSN	NURS 4634	<a href="#">Link</a>	Clinical and Reflection Journal	Fall 2022	Christie Hawkins
Nursing RN-BSN	RNBS 4631	<a href="#">Link</a>	Patient Safety Simulation	Fall 2022	Vicki Jowell

Soules College of Business					
Program	Proposed Course	Syllabi Link	Signature Assignment	Start Assessment (Semester/Year)	Instructor of Record
Accounting BBA / Finance BBA / Management BBA	MANA 4395	<a href="#">Link</a>	Strategic Analysis Term Paper	Fall 2022	Dr. Al-Shammari



Soules College of Business					
Computer Science BS	COSC 4395	<a href="#">Link</a>	Team Software Project and Presentation	Fall 2023	Dr. Brown
Human Resource Development BS	HRD. 4372	<a href="#">Link</a>	EOP Individual Capstone Project	Fall 2023	TBD
Information Technology BS	CSCI 4385	<a href="#">Link</a>	Team Software Project and Presentation	Fall 2023	Rotates
Marketing BBA	MARK 4340	<a href="#">Link</a>	Business Opportunities Proposal	Fall 2023	Dr. Byun

\*Note. Some courses are listed multiple times due to some courses counting for multiple disciplines.

QEP faculty and assessment committees have discussed strategies to encourage and support discipline participation. One strategy to guide discipline participation includes hosting an annual QEP showcase, allowing faculty to share QEP learnings and real-world problem-solving teaching pedagogy. Additionally, the QEP Director will work with the library and digital learning offices to build an open-access campus repository of real-world problem-solving curriculum, assignments, and teaching strategies. This repository can be used by current and future faculty who wish to incorporate real-world problem solving in their teaching and classroom, serving as a resource for faculty and student beyond the five years of the QEP.

QEP College Leadership Teams will meet with instructors of record prior to their QEP assessment semester start date (Column 5 of Table 1). Topics to review during the meetings include the QEP Focus, QEP SLOs, QEP assessment procedures, and [QEP Signature Assignment guidelines](#). These meetings will balance information with healthy discussion to ensure course alignment with the QEP goal and SLOS, while also encouraging and maintaining faculty buy-in.

**Action Step 2: Create QEP Signature Assignment Guidelines**

The QEP Assessment Committee brainstormed operational definitions of the QEP Signature Assignment and identified common elements of quality to provide meaningful student learning across the six SLOs.

[QEP Signature Assignment guidelines](#) were developed by the QEP Assessment Committee and reviewed by QEP Lead Faculty. The guidelines strengthen alignment between the SLOs and signature assignments. Faculty and QEP Assessment Committee members will review the guidelines throughout the QEP phase-in for continuous improvement planning. The guidelines will be shared in on-boarding meetings with new QEP faculty participants.

A conscious effort will be made to incorporate student reflection in QEP signature assignments to support student learning on SLOs 3 and 6 since those were the two lowest-scoring SLOs within the pilot study. The SLOs focus on evaluating potential strategies and the implemented solution and include the verb, “evaluate.” Some programs may only require modifications to their QEP signature Assignment, as they already include evaluative aspects (i.e., peer evaluations). However, QEP College Leadership Teams will help identify and collaborate with faculty who may require additional planning and professional development related to reflection and evaluation.

Developing and employing [QEP Signature Assignment guidelines](#) supports QEP implementation efforts. The guidelines will provide consistency among Signature Assignment elements while ensuring alignment with the QEP goal, learning outcomes, and success criteria, regardless of student discipline. Faculty and QEP Assessment Committee members will continue to modify the guidelines

throughout the five years of the QEP for continuous improvement planning to meet student learning needs.

**Action Step 3: Use Data to Inform Future Directions**

After completion of the [direct and indirect assessment](#) efforts each semester, results will be shared broadly. Reports will model the QEP five-year impact report, including intended goals, changes (with data-driven rationale), student learning results, and reflections on institutional learning. First, results will be shared with instructors of record and faculty within departments to inform specific classroom strategies and policies. The goal is that the signature assignments will be refined further to enhance students' real-world problem-solving and individual programs will include real-world problem solving as learning outcomes within their classes. The benefit of the current assessment rubric is that results can highlight specific aspects of problem-solving that can be enhanced and refined. Results will also be combined across colleges and shared among all campus constituents to provide a bird's eye view and inform future directions. Sharing results and timely follow-up will be essential for continued QEP momentum and continuous improvement throughout all five years.

**Strategy 2: Implement a Co-Curricular Opportunity to Apply Real-World Problem-Solving Skills**

The QEP Steering Committee examined additional opportunities to enhance students' real-world problem-solving skills and abilities beyond the classroom. Incorporating at least one co-curricular opportunity to build real-world problem solving enhances the holistic student experience, encourages interdisciplinary thinking, and provides additional opportunities for students to strengthen real-world problem-solving skills in educational, formative environments and with minimal risks. Additionally, real-world problem solving in co-curricular activities generates structured time for students to learn from one another without the stress of grades, which can be a powerful learning tool.

**Action Step 1: Reach out to Event Stakeholders to Evaluate Interest in QEP Participation**

After reviewing co-curricular events at UT Tyler, the Lyceum Research Showcase was identified as a co-curricular activity that currently strengthens students' problem-solving competencies through applying discipline-specific knowledge in real-world contexts. It is anticipated that after a year or two of QEP implementation, additional co-curricular opportunities may occur as awareness and understanding of the QEP expands. Decisions regarding additional co-curricular activities past Year 2 of implementation will be data-driven and coordinated through the QEP Steering Committee, QEP Assessment Committee, and Student Advisory Committee to ensure the co-curricular activities align with the QEP Focus, goal, and SLOs,

*The Annual Lyceum Research Showcase –*

The [annual Lyceum Research Showcase](#) is UT Tyler's largest student research showcase, providing an opportunity for all students (undergraduate and graduate) to showcase their original research to the larger community. In the past, upwards of 300+ faculty, students, and staff have attended this annual event. The annual Lyceum consists of oral presentations in the morning and an extensive poster session in the afternoon. Since the aim of research is often to ask and attempt to answer a well-defined research problem or statement, the Lyceum aligns well with the identified QEP topic, offering an opportunity for students to build their problem-solving skills. Students of all years and disciplines are welcome to participate in the Lyceum, presenting an opportunity beyond a specified classroom for all students to improve and enhance their problem-solving skills.

**Action Step 2: Share Data to Inform Future Directions**

Assessment for the Annual Lyceum Research Showcase is still in the beginning stages. Co-curricular activity assessment plans remain largely dependent on the following stakeholders who will meet

starting Fall 2022: Lyceum Planning Committee, QEP College Leadership Team representatives, QEP Assessment Committee Representatives, and the QEP Director. The proposed assessment of the Lyceum will take an indirect assessment approach, using guided reflection questions based on elements of all six SLOs to assess student learning of the problem solving process. Guided questions and a rubric draft have been proposed to assess student learning. Academic Year 2022-2023 will serve as a pilot study for co-curricular activity assessment. The QEP Assessment Committee will determine success criteria based on the pilot study results to be applied for future years. The vision is to replicate the co-curricular activity assessment model with the Big Idea Pitch in year two, following a successful implementation of the reflection assessment process with the Lyceum Research Showcase.

At the end of the academic year, assessment results from the co-curricular event(s) will be shared broadly. Shared results will model the QEP five-year impact report, including intended goals, changes (with data-driven rationale), student learning results, and reflections on institutional learning. Results will be shared with event stakeholders to inform future improvements to enhance students' real-world problem-solving. Results can also illustrate which student populations are or are not being served to address potential student achievement and participation gaps. Sharing results and timely follow-up will be essential for continued QEP momentum and continuous improvement throughout all five years.

### **Strategy 3: Create Pedagogical Frameworks and Faculty Development Opportunities to Develop and Implement Real-World Problem-Solving Teaching Strategies and Practices**

A critical component to the success of the QEP lies in providing appropriate, intentional, and well-resourced development opportunities for faculty and staff. The QEP Steering Committee plans to work alongside Faculty Senate, Staff Senate, Department Chairs, Deans, and the Center for Excellence in Teaching and Learning (CETL) to identify and promote opportunities to enhance faculty and staff capacity to facilitate students' real-world problem-solving learning within the classroom. The following actions steps are proposed:

#### **Action Step 1: Compile Faculty and Staff Resources**

In preparation for the QEP, The Muntz Library developed Discipline-Specific [QEP Real-World Problem Solving' Lib Guide](#). The Lib Guides serve as repositories for peer-reviewed articles related to discipline-specific problem-solving classroom and co-curricular experiences and will house generic articles in support of the QEP. Faculty or staff may contribute to the Lib Guides to promote continuous expansion. Resources include publications such as the [2018 Career Readiness NSSE Brief](#), [Expanding Undergraduate Research](#), [Do Your Academic Programs Actually Develop 'Employability'? There's an Assessment for That](#), [Preparing Students for Educated Living: Virtues of Problem-Based Learning Across the Higher Education Curriculum](#), [Transitioning to the Real World through Problem Based Learning](#), [How the Great Recession Changed the Job Market for College Graduates](#), and [National Postsecondary Education Cooperative \(NPEC\) Sourcebook on Assessment, Vol. 1: Definitions and Assessment Methods for Critical Thinking, Problem Solving, and Writing](#).

#### **Action Step 2: Develop Staff and Faculty Professional Development Opportunities**

The QEP Steering Committee will align efforts with current UT Tyler faculty development and off-campus professional development opportunities to offer a wide variety of professional development opportunities focused on enhancing real-world problem-solving teaching and assessment efforts.

### *Professional Development Speakers and Workshops*

The QEP Steering Committee will collaborate with the CETL to include at least one QEP focused presentation a semester to enhance professors' abilities to teach and incorporate real-world problem solving in the classroom. Faculty on the QEP Steering Committee will coordinate inviting one presenter each semester to be included in the CETL calendar at the start of each academic year. CETL will promote awareness of events using their pre-established communication channels. Using the CETL structures already in place will aid the success of these workshops and offer a collaborative partnership that can enhance both parties.

In addition to the invited speakers, the QEP Steering Committee will also work with CETL to host a QEP workshop once a year, inviting a subject-matter expert to enhance faculty and staff skills related to the QEP. A particular focus of these workshops will be to aid assessment understanding, strategies, and efforts. The QEP steering committee has been in contact with professionals across the nation, and the generated interest has been promising. All presentations and workshops will be made available in Zoom formats to ensure faculty from off-site instructional sites can attend. Additionally, if allowed, presentations and workshops will be recorded and added to the [CETL ScholarWorks repository](#) so that faculty can refer to them afterward.

Satisfaction surveys will be sent out after each QEP designated professional development presentation and workshop with opportunities to provide feedback and suggest new topics and presenters. The QEP director will also visit and present at Faculty Senate and Staff Senate regularly to ensure constant communication with faculty and provide top-quality resources to meet faculty needs to support QEP implementation and drive student learning.

### *Faculty External Professional Development*

Lead Faculty serving on the QEP Steering Committee will be encouraged to seek out, pursue, and attend various conferences to aid their professional development pertaining to QEP topic and assessment efforts within their colleges (for budget, [see Table 3](#)). The external professional development opportunities will allow faculty to understand assessment and/or real-world problem solving at a deeper level to then incorporate their learning in their college, department, and classroom and thereby strengthen QEP and broader assessment efforts. Additionally, professional development funds could be dispersed for faculty to present QEP findings and learning at conferences, further developing their research agenda and promoting the University.

### **Action Step 3: The QEP Faculty Cohort**

The University will develop an internal grant termed, the QEP Faculty Cohort, to support real-world problem solving curriculum development. Faculty can apply for the internal grant every spring. Admission will be determined by select members of the QEP Steering Committee. QEP Steering Committee members who wish to apply will excuse themselves from the decision-making process. Preference will be given to current faculty teaching a QEP designated class and faculty will only be able to participate once. The first cohort will start in Fall 2022, with a new cohort starting every year after. The internal grant will continue for five cycles (each year) ([see Budget](#)).

The purpose of the QEP Faculty Cohort is to develop supportive peer-group cohorts to share, discuss, and learn how to develop real-world problem solving skills in the classroom. Following best practices, faculty will be offered time and tools to learn, rethink, and foster real-world problem solving classroom best practices, including curriculum redesign. Research acknowledges that course enhancement processes often result in increased student learning and satisfaction with minimum

instruction costs (Vaughan, 2010); therefore, this strategy follows best practices for faculty development.

Additionally, an intentional goal of the internal grant program is to include faculty from across the University in each cohort. A cohort that includes faculty from all colleges will lead to interdisciplinary conversations and model interdisciplinary educational efforts that better reflect problem solving in the real world and align with competencies desired by employers.

A supplementary focus will be to help faculty produce scholarly work related to real-world problem solving pedagogy or other QEP-related topics. Not only will this aid faculty with their tenure and promotion process and offer an additional incentive, but it will also add to the current real-world problem solving literature base. The QEP director can provide IRB approval and data collection support to ease the faculty’s administrative load and accelerate the scholarly process. Through the internal grant process, UT Tyler will serve as a leader in promoting and enhancing students’ real-world problem solving, continuing to enhance the real-world problem solving of students beyond the QEP five-year timeline.

The cohort model will meet a total of 12 times throughout an academic year. A Canvas course will also be created to share resources and continue conversations outside the regularly scheduled meetings. The first year anticipates 11 cohort members, building up to 20 cohort members in the following years. Faculty members will be given \$1000 to participate.

The first cohort will be co-led by the QEP Director and 1-2 faculty of the QEP Steering Committee. After the first year, the goal is for past participants to serve and lead future cohorts (along with the QEP Director) to alleviate the workload on Steering Committee members.

*Implementation Evaluation*

Evaluation of the QEP Faculty Cohort model will be assessed annually. Assessment results and feedback will be incorporated in the subsequent year to guide continuous improvement planning.

Proposed assessment and feedback gathering practices include:

- The QEP Director will administer a Qualtrics survey before the last cohort meeting to identify the strengths and weaknesses of the current QEP Cohort model practices. The last cohort meeting will review the Qualtrics feedback to formulate concrete feedback and plans for the subsequent cohorts.
- Track scholarship, creativity, and research resulting from QEP cohort participation
- Track curriculum or pedagogy changes resulting from QEP cohort participation
  - Build a UT Tyler QEP repository of QEP curriculum, educational materials, syllabi, and signature assignments, which will be updated annually with cohort members contributions.
- Faculty self-assessment at the start and end of cohort participation.

Table 2. Timeline for Goals and Action Steps

Strategy 1: Identify and Implement Real-World problem Solving Assignments in the Curriculum							
Objective	Pilot	Year 1	Year 2	Year 3	Year 4	Year 5	Responsible Party
Prepare and review the QEP course list and identify signature assignments	X	X	X	X	X	X	QEP College Leadership Teams
Collect Artifacts on a Semester/Yearly Basis	X	X	X	X	X	X	Assessment Coordinators / QEP Director
(a) Direct Assessment	X	X	X	X	X	X	Steering Committee Faculty Leads, Assessment

Strategy 1: Identify and Implement Real-World problem Solving Assignments in the Curriculum							
Objective	Pilot	Year 1	Year 2	Year 3	Year 4	Year 5	Responsible Party
							Coordinators, Graduate Students, and IORs
(b) Indirect Assessment – Graduation Exit Survey, NSSE, First Destination	X	X	X	X	X	X	Director of Assessment & Accreditation, Career Success
Inform future decisions	X	X	X	X	X	X	Steering Committee, IORs
Pilot Study	X						Steering Committee Faculty Leads, Assessment Coordinators, and IORs

Note. IORs = Instructors of record

Goal 2: Identify and Implement Real-World Problem Solving Skills Co-Curricular Opportunities							
Objective	Pilot	Year 1	Year 2	Year 3	Year 4	Year 5	Responsible Party
Reach out to event stakeholders	X	X					QEP Director
Collect Data							
(a) Lyceum		X	X	X	X	X	Honors Staff, Student Research PLC, QEP Director
Inform future decisions	X	X	X	X	X	X	Steering Committee, Event Stakeholders

Note. PLC = Professional Learning Community

Goal 3: Create Pedagogical Frameworks and Faculty Development Opportunities to Develop and Implement Real-World Problem Solving Teaching Strategies and Practices							
Objective	Pilot	Year 1	Year 2	Year 3	Year 4	Year 5	Responsible Party
Compile Faculty and Staff Resources	X	X	X	X	X	X	Library
Staff/Faculty Professional Development Presentations and Workshops		X	X	X	X	X	Steering Committee/CETL
Internal Grant: The QEP Faculty Cohort		X	X	X	X	X	Steering Committee
Inform future decisions	X	X	X	X	X	X	Steering Committee, Event Stakeholders

### PROJECTED BUDGET AND INSTITUTIONAL RESOURCES

The University of Texas at Tyler is fully committed to providing the necessary resources to ensure a successful execution of the 2022 Quality Enhancement Plan, Real-World Problem Solving. As testimony, the University created and filled a QEP Director position to lead the QEP effort and execution prior to the QEP launch in Fall 2022. Understanding that the QEP will enhance and optimize current curricular and co-curricular student learning opportunities and practices, the University will allocate existing resources and supply new resources to initiate, implement, and complete the QEP. As with all aspects of the QEP, ongoing evaluation of the budget and resources needed to accomplish our overall Goal will take place regularly. Adjustments based on that feedback will be made as necessary.

A first step when determining QEP resources was to assess the current use of human, financial, and physical resources pertinent to the QEP assessment and learning outcomes. Throughout the planning process, involved individuals remained mindful of current economic realities and the need for thoughtful stewardship. The QEP budget has been incorporated into the annual budget planning and resource allocation process to ensure long-term sustainable success.

The [total projected budget](#) for the QEP is \$1,096,064 for the pre-planning period through the five years of the QEP. The recurring funding commitment, post-QEP (steady state), is expected to total \$177,365 annually. [Table 3](#) outlines both the new (\$820,915) and existing (\$275,149) projected fiscal resources essential for the initiation, implementation, and completion of the 2022 QEP.

### **Overview of the Major Components**

#### **Awareness (\$160,248)**

QEP implementation and awareness efforts will leverage current strengths and human capital from the Marketing and Communication department to support QEP marketing. As evidenced in Table 3, marketing is budgeted each year to communicate progress and drive momentum all five years. Additionally, partnering with already established and identified campus-wide event will further leverage existing resources and awareness efforts. Finally, anticipating that the QEP may lead to new ideas and events, co-curricular funding will be made available for student-led initiatives and co-curricular events supporting the QEP.

#### **Infrastructure Development and Support (\$690,783)**

The new QEP Director position is funded through new administrative resources and responsibilities. With a newly formed QEP budget, the Provost's office administrative staff have agreed to take on budgetary reconciliation responsibility to support budgetary efforts. Assessment tracking, artifact scoring, and artifact collection will occur using already funded software (i.e., Canvas, Qualtrics) and will not incur additional costs. A student worker position will be added in Year 1 to assist with the artifact collection, storage, and preparation for assessment scoring panels. Additional students will be employed over time as the number of QEP classes added to the QEP assessment cycle grows.

#### **Faculty Assessment Support (\$37,800)**

Assessment and reporting remain an ongoing annual systematic process at UT Tyler. In replicating the current UT Tyler Core Assessment model to assess the QEP real-world problem solving learning outcomes, assessment efforts will be spread across faculty and assessment coordinators, leveraging existing university resources and workloads. Using data from the 2020-2021 academic year, approximately 1,670 students enrolled in a QEP identified course. Keeping the scoring sample size per class to 20% ensures enough data is captured to sufficiently understand and enhance student learning without overloading current faculty and staff.

Twenty percent of artifacts equates to roughly a total of 334 artifacts at Year 4 (when all courses have been incorporated) that would need to be assessed every year. That would be doubled (=668) since each artifact would need to be scored twice. If we can gather approximately 60 instructors of record, plus assessment coordinators (5) and steering committee faculty (10), and graduate students (12), each member would need to score less than eight artifacts each year ( $7.68=668/87$ ). If each artifact takes 30 minutes to assess, we will ask faculty to spend an additional 4-6 hours annually on QEP artifact scoring when incorporating time for the inter-rater reliability training.

#### **Faculty Development (\$207,233)**

New resources will be combined with existing resources to support faculty efforts to integrate real-world problem solving into QEP identified courses. Internal grants will support faculty development of real-world problem-solving classroom best practices and encourage research. Additionally, the QEP Director and Steering Committee will partner with the existing faculty development department, the Center for Excellence in Teaching and Learning (CETL), to offer tailored QEP faculty development and assessment presentations. The QEP steering committee will also coordinate professional workshops at least once a year to support faculty and staff in their QEP implementation and assessment efforts.

Table 3. Projected 5-Year QEP Budget

QEP FY22-FY27 Budget		FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27		Steady State
Item	Notes	Pilot	YR 1	YR 2	YR 3	YR 4	YR 5	Total	Annual Budget Commitment
<b>Administrative Personnel Costs</b>									
QEP Director	<i>1.0 FTE @ \$65,000, plus benefits</i>	\$84,500	\$86,613	\$88,778	\$90,997	\$93,272	\$95,605	\$539,765	\$97,995
Administrative Assistant Support*	<i>0.15 FTE @ \$35,000 annual salary, plus benefits</i>		\$6,825	\$6,996	\$7,171	\$7,350	\$7,534	\$35,876	\$7,722
Plan Assessment*	<i>0.25 FTE @ \$45,000 annual salary, plus benefits</i>		\$14,625	\$14,991	\$15,365	\$15,749	\$16,143	\$76,873	\$16,546
Marketing and Communication Support*	<i>0.10 FTE @ \$70,000 annual salary, plus benefits</i>		\$9,100	\$9,328	\$9,561	\$9,800	\$10,045	\$47,834	
Student Worker	<i>Undergraduate student worker(s) (6 hrs/week at \$10.00/hr)</i>		\$2,000	\$2,500	\$3,500	\$4,000	\$4,000	\$16,000	\$4,100
<b>Total Administrative Personnel Costs</b>		<b>\$84,500</b>	<b>\$119,163</b>	<b>\$122,592</b>	<b>\$126,594</b>	<b>\$130,172</b>	<b>\$133,327</b>	<b>\$716,347</b>	<b>\$126,364</b>
<b>Administrative Travel and Professional Development</b>									
<b>SACSCOC Summer Institute</b>									
Registration		\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$9,000	\$1,500
Transportation		\$800	\$800	\$800	\$800	\$800	\$800	\$4,800	\$800
Lodging (3 nights)		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$12,000	\$2,000
Meals		\$225	\$225	\$225	\$225	\$225	\$225	\$1,350	\$225



QEP FY22-FY27 Budget		FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27		Steady State
<b>SACSCOC Annual Meeting Dec</b>									
Registration		\$275	\$750	\$750	\$750	\$750	\$750	\$4,025	\$750
Transportation		\$0	\$500	\$500	\$500	\$500	\$500	\$2,500	\$500
Lodging (4 nights)		\$0	\$800	\$800	\$800	\$800	\$800	\$4,000	\$800
Meals		\$0	\$225	\$225	\$225	\$225	\$225	\$1,125	\$225
<b>Total Administrative Travel and Professional Development</b>		<b>\$4,800</b>	<b>\$6,800</b>	<b>\$6,800</b>	<b>\$6,800</b>	<b>\$6,800</b>	<b>\$6,800</b>	<b>\$38,800</b>	<b>\$6,800</b>
<b>Administrative Non-Personnel Expenses</b>									
Marketing/Recruiting		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$6,000	\$1,000
Office Supplies		\$500	\$500	\$500	\$500	\$500	\$750	\$3,250	\$750
Office Equipment		\$1,000	\$400	\$400	\$400	\$400	\$400	\$3,000	\$400
Qualtrics and TracDat Administration*			\$1,088	\$1,142	\$1,199	\$1,259	\$1,322	\$6,009	\$1,388
NSSE Administration*		\$5,000			\$5,000			\$10,000	
<b>Total Administrative Non-Personnel Expenses</b>		<b>\$7,500</b>	<b>\$2,988</b>	<b>\$3,042</b>	<b>\$8,099</b>	<b>\$3,159</b>	<b>\$3,472</b>	<b>\$12,250</b>	<b>\$3,538</b>
<b>Total Administrative Expenses</b>		<b>\$96,800</b>	<b>\$128,950</b>	<b>\$132,434</b>	<b>\$141,493</b>	<b>\$140,131</b>	<b>\$143,598</b>	<b>\$767,397</b>	<b>\$136,701</b>
<b>Direct QEP Activities Costs</b>									
Execution of and Data Collection from Existing Co-Curricular Activities*	<i>0.25 FTE @ \$50,000 annual salary, plus benefits</i>		\$16,250	\$16,656	\$17,073	\$17,499	\$17,937	\$85,415	\$18,385
Partnerships with ongoing and new student co-curricular activities inclusive of online undergraduate programs and at Off-Campus Instructional Sites		\$1,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$21,000	
<b>Consultant and External Reviewer</b>									
Consultant Fee		\$5,000				\$8,000		\$13,000	
External Reviewer Fee					\$3,500			\$3,500	
Travel Reimbursement					\$1,500			\$1,500	

QEP FY22-FY27 Budget		FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27		Steady State
<b>Faculty Scoring Panels</b>									
Food, Materials, etc.		\$1,800	\$3,600	\$3,600	\$3,600	\$3,600	\$3,600	\$19,800	\$3,600
<b>Professional Development-Faculty</b>									
Center for Excellence in Teaching and Learning Support*	<i>0.05 FTE @ \$50,000 annual salary with benefits</i>		\$2,500	\$2,563	\$2,627	\$2,693	\$2,760	\$13,142	\$2,829
QEP Lead Faculty - Professional Development		\$7,000		\$7,000		\$7,000		\$21,000	\$3,500
Campus Professional Development (On Campus/Virtual)		\$3,000	\$6,000	\$6,000	\$6,000	\$6,000	\$5,000	\$32,000	\$3,000
Presenter Travel Reimbursement		\$0	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$7,500	\$1,000
Program Costs (Facilities, Food, Materials)		\$800	\$800	\$800	\$800	\$800	\$800	\$4,800	
QEP Faculty Cohort – Internal Grant	<i>Internal grants to support classroom best practices</i>		\$10,000	\$20,000	\$20,000	\$20,000	\$20,000	\$90,000	
<b>Total Direct QEP Activities Costs</b>		<b>\$18,600</b>	<b>\$44,650</b>	<b>\$62,119</b>	<b>\$60,600</b>	<b>\$71,092</b>	<b>\$55,597</b>	<b>\$312,658</b>	<b>\$32,314</b>
<b>Total New Resources/Costs</b>		<b>\$110,400</b>	<b>\$123,213</b>	<b>\$142,878</b>	<b>\$144,097</b>	<b>\$156,872</b>	<b>\$143,455</b>	<b>\$820,915</b>	
<b>Total Existing Resources/Costs</b>		<b>\$5,000</b>	<b>\$50,388</b>	<b>\$51,674</b>	<b>\$57,996</b>	<b>\$54,351</b>	<b>\$55,741</b>	<b>\$275,149</b>	
<b>Total QEP Costs</b>		<b>\$115,400</b>	<b>\$173,600</b>	<b>\$194,553</b>	<b>\$202,093</b>	<b>\$211,223</b>	<b>\$199,195</b>	<b>\$1,096,064</b>	<b>\$169,016</b>

\*Denotes expanded utilization of existing resources

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## Appendixes

### Appendix A:

#### Original QEP Topic Selection Committee

2017 QEP Topic Selection Committee		
Name	Title	College/Division
Dr. Kouider Mokhtari	Professor and Chair, Reading	CEP/Faculty Senate
Dr. Amy Hayes	Assistant Professor, Psychology	CEP
Suzanne Abbey	Librarian	Library
Dr. Neil Gray	Professor and Chair, Chemistry	CAS
Dr. Hwan Shin	Associate Professor, Accounting	COB
Dr. Bill Geiger	Vice Provost, Dean of the Graduate School	Academic Affairs
Dr. Rosemary Cooper	Executive Director Career and Alumni	University Advancement
Ashley Bill	Director, Academic Success	Academic Affairs
Wendy Duncan	College Assessment Coordinator	CAS
Dave Hill	Director of Housing and Judicial Affairs	Student Success
Kelvin Woodfin	Alumni Regional Council	Alumni
Halley Graham	Student Representative	Students
Cindy Strawn	Director Institutional Analysis	Technology
Nicole Garvey	Administrative Assistant	CETL   Faculty Senate
Dr. Lou Ann Berman	AVP Assessment & Institutional Effectiveness	Academic Affairs
Dr. Barbara Wooldridge	Professor, Marketing	Chair

#### 2019 & 2020 QEP Steering Committee

2019 & 2020 QEP Steering Committee		
Name	Title	College/Division
Dr. Bill Geiger, Co-Facilitator	Vice Provost, Dean of the Graduate School	Academic Affairs
Jerry Stuff, Co-Facilitator	Vice President	Operations & Strategic Initiatives
Dr. Colleen Swain, Advisory	Associate Vice Provost, Undergraduate & Online Education	Academic Affairs
Dr. Kouider Mokhtari, Advisory	Interim Associate Vice Provost, Research & Scholarship	Academic Affairs
Rebecca McKay Johnson	Executive Director Robert R. Muntz Library	Academic Affairs
Dr. Michael Gangone	Associate Professor of Civil Engineering	COE
Dr. Matthew Kelly	Assistant Professor of English	CAS
Dr. Arturo Arce-Esquivel	Associate Professor of Health and Kinesiology	CNHS
Dr. Colleen Marzilli	Associate Professor of Nursing	Faculty Senate
Dr. Lance Williams	Chair & Professor of Biology	CAS
Dr. Anett Jessop	Assistant Professor of English	CAS
Dr. Staci Zolkoski	Associate Professor of Special Education	CEP
Dr. Frank Dykes	Director of the School of Education and Professor of Special Education	Faculty Senate
Dr. Kerri Camp	Associate Professor, Marketing & Communications	COB
Beverley Golden	Interim VP Marketing	Marketing and Communications
Dr. Kathleen Snella	Associate Dean for Academic Affairs and Clinical Associate Professor	Fisch COP
Dana Simmons	Student Money Management	Student Success
Cindy Strawn	Director Institutional Analysis	Technology

2019 & 2020 QEP Steering Committee		
Josh Menhennett	SGA President	Student Government Association
Dr. Lou Ann Berman	Associate Provost Assessment and Institutional Effectiveness	Academic Affairs
Laura Jackson	Government & Community Affairs	President's Office
Dr. Rosemary Cooper	Executive Director Career and Alumni	University Advancement
Kelvin Woodfin	Regional Alumni Council Representative	Alumni
Dr. Julie Delello	Center for Excellence in Teaching and Learning	Academic Affairs

Note. Committee membership in 2020 remained the same except Dr. Camp, Dr. Snella, and Dr. Kelly stepped down from the committee. Dr. James (Marketing Professor) served as the COB representative in Dr. Camp's place. And Dr. Colleen Marzilli (Nursing Professor) replaced Dr. Frank Dykes as the Faculty Senate representative.

2021-2022 QEP Steering Committee

2021-2022 QEP Steering Committee		
Name	Title	College/Division
Dr. Lance Williams	Chair & Professor of Biology	CAS
Dr. Michael Gangone	Associate Professor of Civil Engineering	COE
Dr. Mary Helen Fagan	Associate Professor of Management	Soules COB
Erica Conway	Clinical Instructor	SON
Dr. Arturo Arce-Esquivel*/Dr. Wycliffe Njororai Simiyu	Associate/Full Professor of Health and Kinesiology	SCRH
Dr. Colleen Marzilli	Associate Professor of Nursing	Faculty Senate
Brista Hurst-Kent	Student Information Technology Coordinator/ Staff Senate President	USAC
Dr. Anett Jessop	Assistant Professor of English	CAS
Dr. Staci Zolkoski	Associate Professor of Special Education	CEP
Leah Velarde	Director of Career Success	Student Success
Rebecca McKay	Executive Director Robert R. Muntz Library	Academic Affairs
Beverley Golden	Interim VP Marketing	Marketing and Communications
Cindy Strawn	Director Institutional Analysis	Technology
Katherine (KC) Jennings	SGA President	Student Government Association
Dr. Lou Ann Berman	Associate Provost Assessment and Institutional Effectiveness	Academic Affairs
Tonya Gaddis	Director of Assessment and Accreditation	Academic Affairs
Katie Stone	Director of Quality Enhancement Plan	Academic Affairs

\* Dr. Arce stepped down November 2021 and Dr. Njororai Simiyu volunteered to represent in his place.

QEP Student Advisory Committee 2021-2022

QEP Student Advisory Committee 2021-2022			
Name	College	Name	College
Vadeah Akmel	CAS	Robert Bennett	COB
Wyatt Schaefer	CAS	Ariana Bowlin	SON
Kelyne Arnold	CEP	Fernanda Arredondo	SON
Colton Kelley	COB	Justin Melendez	SON
Ethan Collins	COB	Katie Thurman	SON

2021 – 2022 QEP College Leadership Teams

2021-2022 QEP College Leadership Teams					
College of Arts and Sciences		College of Engineering		College of Education and Psychology	
Dr. Anett Jessop	Assistant Professor of English	Dr. Michael Gangone	Associate Professor of Civil Engineering	Dr. Staci Zolkoski	Associate Professor of Special Education
Dr. Lance Williams	Chair & Professor of Biology	Carlos Alvarez	Assessment Coordinator	Rachaelle McMinn	Assessment Coordinator
Wendy Duncan	Assessment Coordinator	Mark Stark	Career Success Coach	Pamela Rodriguez	Career Success Coach
Dawn Dearion	Career Success Coach	Christine Forisha	Librarian	Vandy Dubre	Librarian
Livia Garza	Librarian	Dnyanada Patil & Logan Smith	Student(s)	Student	TBD
Ethan Collins & Wyatt Schaefer	Student (s)	Alumni	TBD	Alumni	TBD
TBD	Alumni				
Soules College of Business			School of Nursing   School of Community & Rural Health		
Dr. Mary Helen Fagan	Associate Professor of Management	Erica Conway		Clinical Instructor	
Halley Graham	Assessment Coordinator	Dr. Wycliffe Njororai Simiyu		Full Professor of Health and Kinesiology	
Amy Russo	Career Success Coach	Christina Chatman		Assessment Coordinator	
Sarah Norrell	Librarian	Suzanne Abbey		Librarian	
Rachel Boshier/Aayusha Thapa	Students	Nyree Brockman		Career Success Coach	
Jason Cooper	Alumni	Student		TBD	

Appendix B – Topic Selection Supporting Documents and Marketing Efforts

THECB Higher Education Region Report – Regional Population Summary

Current Estimates of Regional Population and Population Projections for 2020, 2025, 2030

This page presents the most recent estimates of regional population, as well as regional population projections in Texas for all ages and the critical 60x30 age group - 25-34 years. Projections of the proportion of the population with a postsecondary credential needed to reach the 60x30 Goal are closely linked to population growth.

Table with 13 columns: Region, All Ages (2016, 2017, 2020, 2025, 2030), % Change 2016-2030, and Ages 25 Through 34 (2016, 2017, 2020, 2025, 2030), % Change 2016-2030. Includes data for High Plains, Northwest, Metroplex, Upper East, Southeast, Gulf Coast, Central Texas, South Texas, West Texas, Upper Rio Grande, and Statewide.

Sources: Texas Demographic Center. 2016, 2017, 2025 & 2030 data are projections based on .5 migration scenario from Texas Demographic Center, http://osd.texas.gov/Data/TPEPP/Projections/

Regional College Attainment

Current Estimates of 60x30 Educated Population and Projections for 2020, 2025, 2030

This page presents the most recent estimates of the proportion of Texas residents, ages 25 to 34, who have earned any higher education credential. We refer to this proportion as the "60x30 educated population". Projections of the educated population in 2020, 2025 and 2030 are based on current attainment levels in each region and projected changes in regional population.

Back to Contents

60x30 Educated Population Goal: By 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree. Estimated and Projected Educational Attainment of Texas Residents Ages 25-34, 2014 to 2030, by Higher Education Region

Table with 11 columns: Statewide, Region 1 (High Plains), Region 2 (Northwest), Region 3 (Metroplex), Region 4 (Upper East), Region 5 (Southeast), Region 6 (Gulf Coast), Region 7 (Central Texas), Region 8 (South Texas), Region 9 (West Texas), Region 10 (Upper Rio Grande). Rows include attainment percentages for years 2014, 2015, 2016, 2020, 2025, and 2030.

Sources: American Community Survey, Texas Demographic Center

Regional Some College and the No Degree

Estimated Educational Attainment of Texas Residents Ages 25 to 34 with Some College and No Degree, 2014 to 2016, by Region

This page presents the most recent regional estimates (2014 to 2016) of the number of Texas residents (ages 25-34), as well as estimates of the number of residents with different levels of educational attainment: (1) residents with some college, but no degree, (2) the THECB certificate estimate, and (3) the estimated number of residents with some college, but no degree net of the THECB certificate estimate.

Table with 13 columns: Region, Population, Ages 25 to 34 (2014, 2015, 2016), Some College, No Degree (2014, 2015, 2016), THECB Certificate Estimate (2014, 2015, 2016), and Total Some College, No Degree (subtracting THECB certificate estimates) (2014, 2015, 2016). Includes data for High Plains, Northwest, Metroplex, Upper East, Southeast, Gulf Coast, Central Texas, South Texas, West Texas, Upper Rio Grande, and Statewide.

Source: 2014, 2015, and 2016 American Community Survey, 1-Year PUMS Estimates, and THECB



**National Association of Colleges and Employers (NACE)**

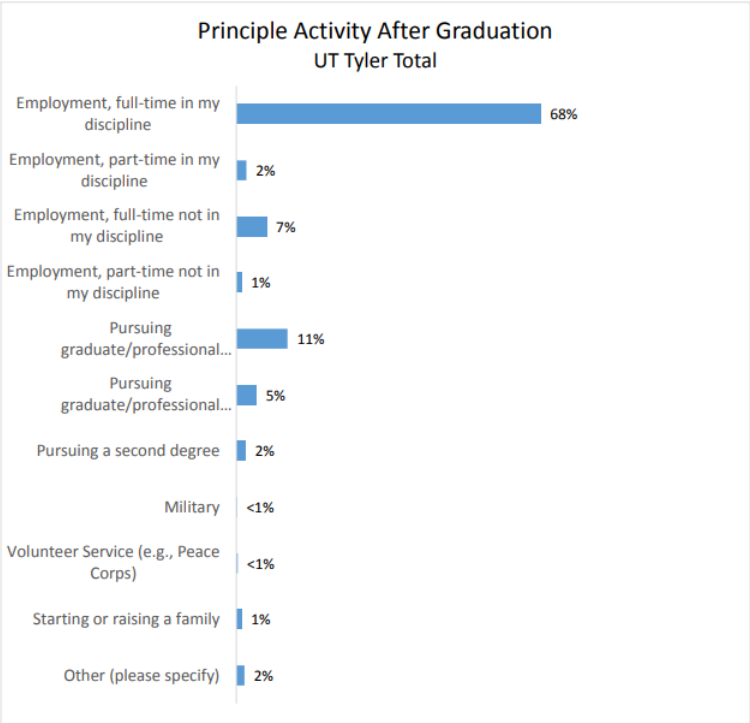
Data from employers is consistent with the proposed topic of Real-World Problem-Solving. For years 2016 - 2018, problem solving has been in the top five of the Job Outlook survey conducted by NACE. Problem solving was at the top of the list for the 2018 Job Outlook Survey.

<b>NACE JOB OUTLOOK 2018</b>	
<b>ATTRIBUTES EMPLOYERS SEEK ON CANDIDATE RESUME</b>	
<b>ATTRIBUTE</b>	<b>% OF RESPONDENTS</b>
<b>Problem-solving skills</b>	<b>82.9%</b>
Ability to work in a team	82.9%
Communication skills (written)	80.3%
Leadership	72.6%
Strong work ethic	68.4%

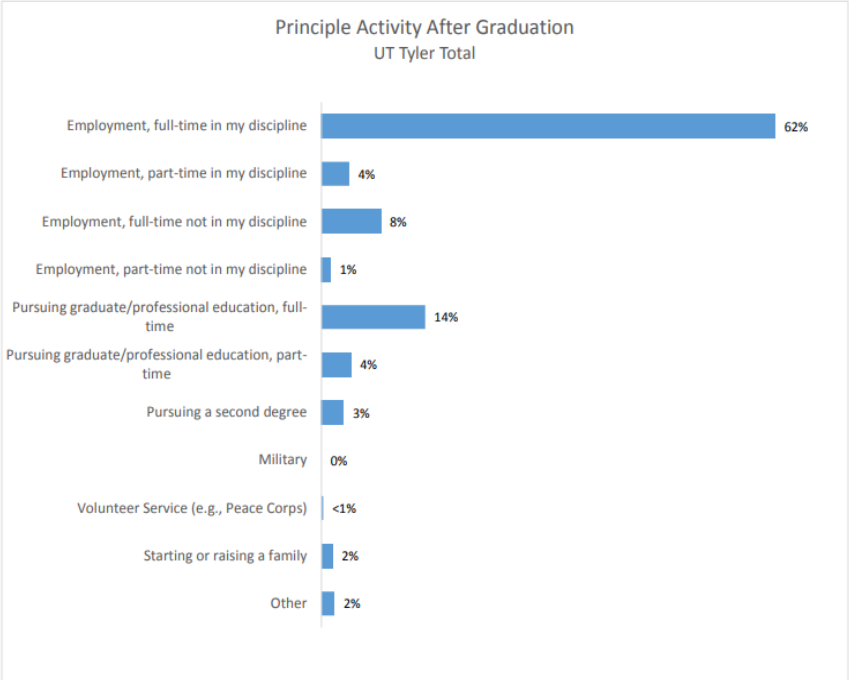
<b>NACE JOB OUTLOOK 2017</b>	
<b>ATTRIBUTES EMPLOYERS SEEK ON CANDIDATE RESUME</b>	
<b>ATTRIBUTE</b>	<b>% OF RESPONDENTS</b>
Ability to work in a team	78.0%
<b>Problem-solving skills</b>	<b>77.3%</b>
Communication skills (written)	75.0%
Strong work ethic	72.0%
Communication skills (verbal)	70.5%

<b>NACE JOB OUTLOOK 2016</b>	
<b>ATTRIBUTES EMPLOYERS SEEK ON CANDIDATE RESUME</b>	
<b>ATTRIBUTE</b>	<b>% OF RESPONDENTS</b>
Leadership	80.1%
Ability to work in a team	78.9%
Communication skills (written)	70.2%
<b>Problem-solving skills</b>	<b>70.2%</b>
Communication skills (verbal)	68.9%

**UT Tyler Graduation Exit Survey 2014 -2015**



**UT Tyler Graduation Exit Survey 2015 - 2016**



NSSE 2015 Snapshot



NSSE 2015 Snapshot  
The University of Texas at Tyler

How Students Assess Their Experience

Students' perceptions of their cognitive and affective development, as well as their overall satisfaction with the institution, provide useful evidence of their educational experiences. For more details, see your *Frequencies and Statistical Comparisons* report.

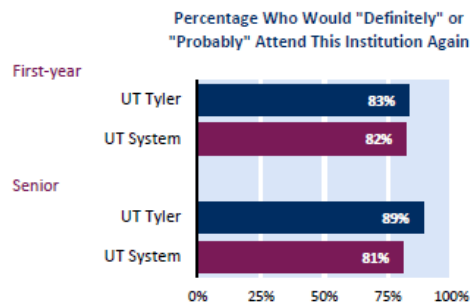
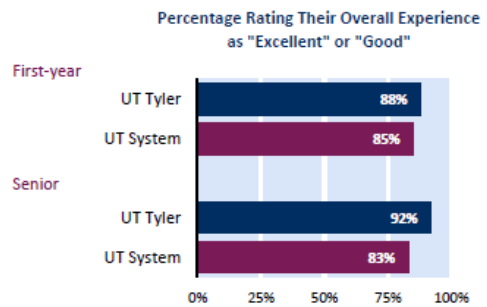
Perceived Gains Among Seniors

Students reported how much their experience at your institution contributed to their knowledge, skills, and personal development in ten areas.

Perceived Gains (Sorted highest to lowest)	Percentage of Seniors Responding "Very much" or "Quite a bit"
Thinking critically and analytically	88%
Working effectively with others	82%
Writing clearly and effectively	76%
Acquiring job- or work-related knowledge and skills	72%
Speaking clearly and effectively	71%
Developing or clarifying a personal code of values and ethics	70%
Analyzing numerical and statistical information	67%
Solving complex real-world problems	66%
Understanding people of other backgrounds (econ., racial/ethnic, polit., relig., nation., etc.)	64%
Being an informed and active citizen	60%

Satisfaction with UT Tyler

Students rated their overall experience at the institution, and whether or not they would choose it again.



Talon Article - 2017

# THE STEW

## A Quality Move

Chandler Gibson  
Talon Editor

It is time for a change. For the last five years, The University of Texas at Tyler has operated within the guidelines of a plan to improve educational quality, called Global Awareness Through Education. The five year mark on GATE has passed, and the Quality Enhancement Plan Committee is seeking student input for a new course of action.

"We're going into a very important part of the process where we're going to introduce something new," Dr. Neil Gray said.

Gray chairs the QEP Committee, which consists of faculty, staff, students, and even alumni. The



TALON: PHOTO BY UT TYLER

committee distributed a survey via Patriot Email on Tuesday, Oct. 17 to hear feedback on where the student body feels their education should be focused.

The multiple-selection topics range from finances to career training, from studying abroad to undergraduate research. It even includes an open-ended option for those who think of options not implicitly named in the survey.

"We want to make sure we get input from faculty and students," Gray went on to say. "[We wanted] to get the word out so students know there is a role for them in this because in the end, it's for them."

Gray explained that the survey is very broad, and that it is supposed to be. The committee wants to narrow down the focuses of

the student body and reintroduce the most popular topic in a more detailed setting. He and the QEP committee do not want to take any action putting a plan together until they have heard the input from the students and faculty.

Any university's QEP is essential, because it contributes to the school's accreditations. A university needs its accreditations to maintain its legitimacy as a quality institution, and its ability to function as a business in some states. Accreditations also prevent a university, college, or vocational school from becoming a diploma mill.

Diploma mills are illegal institutions that substitute academic experience for a singular fee, and are usually supported by accreditation mills. Accreditation mills sell false accreditations to diploma mills, regardless of the quality or presence of educational standards

**" [We wanted] to get the word out so students know there is a role for them in this because in the end it's for them. "**

**-Dr. Neil Gray**

the institution sets.

UT Tyler maintains a high quality of education, and is accredited by a number of agencies, one being the Southern Association of Colleges and Schools. SACS accredited UT Tyler when it was working with GATE, the former plan.

GATE focused on the education of students in a global context, encouraging Patriots to look beyond the scope of the classroom, and even East Texas, towards real-world applications of their knowledge.

"We want to make sure, just like we did last time, that everyone that has a role to play also has their say" Gray said.

Campus General Announcement - QEP Topic Selection Survey Purpose and Participation Request  
**What is a QEP?**

The UT Tyler campus community develops a Quality Enhancement Plan (QEP) as part of the 2020 decennial reaffirmation of UT Tyler. The focus of a QEP is to enhance student learning outcomes and/or student success. Our QEP should support the UT Tyler mission, strategic plan and should be embedded within the ongoing institution-wide planning and evaluation processes.

**PURPOSE OF THE QEP TOPIC SELECTION SURVEY**

The development of a successful, well-defined, and focused QEP requires significant involvement from the institutional community including students, faculty, staff, alumni, and UT Tyler community stakeholders. This involvement begins with selecting a QEP topic based on issues emerging from broad participatory input.

**SURVEY PROCESS OVERVIEW**

The QEP Topic Selection Committee has developed surveys to help identify emerging themes or topics that would enhance the UT Tyler learning environment or student learning. Faculty, staff, students, alumni, and community stakeholders will receive email invitations to participate in the survey during the 2017 fall semester.

The results of each survey will be reported sequentially as more than one survey may be needed to identify priorities. The survey data will be presented to the president, who will evaluate the results, and then make the final QEP selection.

**QEP Topic Selection Survey Process**

**What is a QEP?**

The UT Tyler campus community develops a Quality Enhancement Plan (QEP) as part of the 2020 decennial reaffirmation of UT Tyler. The focus of a QEP is to enhance student learning outcomes and/or student success. Our QEP should support the UT Tyler mission, strategic plan, and should be embedded within the ongoing institution-wide planning and evaluation processes.

**PURPOSE OF THE QEP TOPIC SELECTION SURVEY**

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**The QEP Topic Selection Committee**

The QEP Topic Selection Committee was formed in the 2017 Spring Semester. Dr. Barbara Wooldridge, Professor of Marketing, was appointed Provost Faculty Fellow to chair the committee. Three subcommittees were formed: The QEP Topic Selection Survey Subcommittee (Dr. Lou Ann Berman, Chair), the Marketing & Communication Subcommittee (Dr. Neil Gray, Chair) and the Process & Forms Subcommittee (Dr. Kouider Mokhtari).

Dr. Wooldridge announced at the end of the spring semester that she was stepping down as chair and Dr. Gray was elected to serve as Chair of the QEP Topic Selection Committee through the 2017 fall semester.

The QEP Topic Selection Committee will be discontinued and replaced by the QEP Planning and Implementation Committee once the UT Tyler QEP topic is selected. Typically, the Planning and Implementation Committees are much larger and include subcommittees on budgeting, curriculum, research, etc.

During the summer of 2017, the QEP Topic Selection Survey Subcommittee met to draft the survey. Survey items were selected based NSSE items, the UT Tyler Graduation Exit Survey items and recent QEP topics posted on the SACSCOC website. The Subcommittee presented the draft survey to the full committee in the first meeting of the fall semester. Following edits, the full committee approved the survey and the proposed survey plan for emailing campus stakeholders.

### **QEP Topic Selection Survey**

A total of 28 potential items/areas of interest were presented in a Qualtrics survey. The survey was sent by email invitation to all faculty (including part-time), staff, students, the Regional Alumni Council and to each academic college advisory board.

Responders were asked to select their preferred five topics from the list and were invited to add any topic(s) of interest not included in the list. Additionally, an optional survey item provided an opportunity for responders to elaborate on their topic(s) of choice.

Survey responders could also indicate if they were interested in serving on the QEP development and implementation once the campus community had a QEP selected. If the responder indicated yes, the survey branched to a second 1-item survey to collect name and contact information. The second survey ensured that responses for the first survey remained anonymous.

Originally, it was anticipated that a follow-up survey would need to be administered to the campus community to rank dominant items selected in the initial survey. However, the survey results showed a strong consensus among survey responders and the QEP Topic Selection Committee determined that a second survey was not needed.

### **SURVEY RESULTS**

Four interrelated themes emerged from the survey: Work-Related Knowledge and Skills, Internships, Career Planning/Being Career Minded, and Solving Complex Real-World Problems.

The QEP Topic Selection Committee reviewed drafts of the results and suggested improvements in clarity and effectiveness.

32 responders offered suggestions on potential topics, but all suggestions were mentioned only once. 104 responders, including 52 students, provided contact information and interest in serving on planning and implementation of the UT Tyler QEP.

The survey data will be presented to all campus stakeholders and the Communication & Marketing Subcommittee members will follow-up with the survey responders who indicated interest in participating in the planning and development of the QEP.

### Qualtrics Topic Identification Survey

Faculty, staff, students, alumni, and community stakeholders are invited to identify priority topics for a Quality Enhancement Plan (QEP) to enhance UT Tyler student learning and/or the student QEP First Survey

Please click the arrow to continue to the survey.

Please select your top five choices. If you don't see a preferred topic in the list, please select "Other" and specify.

- Career Planning/Being Career-Minded
- Writing-Intensive Courses
- Collaborative Assignments and Projects
- Undergraduate Research
- e-Portfolios
- Global Learning/Awareness (Must differ from previous QEP)
- First-Year Seminars and Experiences
- Common Intellectual Experiences
- Service-Learning/Community Based Learning
- Internships
- Capstone Courses/Projects
- Financial Literacy
- Application of Scientific Methods and Principles
- Supportive Campus Environment
- Managing Non-Academic Responsibilities
- Including Diverse Perspectives in Coursework
- Empirical and Quantitative Literacy
- Campus Social Activities and Participation
- Informed Citizenship
- Solving Complex Real-World Problems
- Speaking Clearly and Effectively
- Clarifying a Personal Code of Values and Ethics
- Work-Related Knowledge and Skills
- Integrative and Reflective Learning
- Higher Order Learning
- Interpretation and Appreciation of Artistic Expression
- Impacting Society and Culture
- Other (Please fill in your suggested QEP topic) \_\_\_\_\_

Would you be willing and able to serve on a future QEP Planning and Implementation Committee?

Yes      No

*Display This Question:*

*If Would you be willing and able to serve on a future QEP Planning and Implementation Committee? = Yes*

Please enter your contact information.

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Email Address \_\_\_\_\_

Phone Number \_\_\_\_\_

End of Block

---

## Topic Approval Evidence

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**From:** Laura Jackson <[laurajackson@uttyler.edu](mailto:laurajackson@uttyler.edu)>  
**Sent:** Tuesday, February 6, 2018 11:43 AM  
**To:** Lou Ann Berman <[LBerman@uttyler.edu](mailto:LBerman@uttyler.edu)>; William Geiger <[wgeiger@uttyler.edu](mailto:wgeiger@uttyler.edu)>  
**Subject:** QEP Follow-Up

Good Morning!

Cabinet members really liked "Career Planning/Being Career-Minded, but also liked "Work-Related Knowledge/Skills" and "Internships." So, the decision was that those three could be combined into one overarching QEP with a new name.

They would like y'all (or I suppose the QEP committee) to develop the name for it and send it back to Cabinet.

I hope this doesn't muddy the waters too much, but since they seem to dovetail so well with one another, I hope this isn't a major hurdle.

Please let me know if you'd like more information about the discussion. I'll be out this afternoon, but back in the office tomorrow morning.

LKJ

Laura Jackson, Ph.D.  
Assistant Vice President for  
Legislative Affairs & Strategic Initiatives  
The University of Texas at Tyler  
(903) 565-5936 (Office)  
(979) 450-1139 (Mobile)  
[laurajackson@uttyler.edu](mailto:laurajackson@uttyler.edu)



## **QEP Director Job Description and Posting**

### **Job Description**

Plan and implement a successful QEP in support of the UT Tyler Mission and Strategic Plan. The Provost Fellow leads all campus QEP efforts in collaboration with campus stakeholders and chairs the QEP Steering Committee. The Provost Fellow is responsible for fiscal stewardship of the QEP Budget and provides regular progress updates. The Provost Fellow prepares annual reports culminating in the QEP Impact Report as part of the UT Tyler Fifth Year Interim Report to SACSCOC. In addition to working with faculty, administration, staff, and students, the Director serves as the QEP liaison with the Undergraduate Council, the Faculty Senate, and the Student Government Association and provides regular progress updates. The Director will develop annual QEP progress reports and the QEP Impact Report as part of the UT Tyler Fifth Year Interim Report for SACSCOC.

### **Essential Functions**

- Provide leadership for a successful QEP in support of the UT Tyler Mission and Strategic Plan in adherence to SACSCOC expectations identified in SACSCOC Standard 7.2 including but not limited to the Topic Identification, Literature Review, and Focus of the Plan.
- Facilitate and support the College QEP Leadership Teams through regular team meetings and providing timely resources.
- Collaborate with the appropriate university staff to maintain and update the QEP website and calendar to disseminate QEP information for the campus community at large.
- Prepare and communicate regular progress reports and a QEP Annual Report.
- Chair the QEP Steering Committee and maintain committee documentation for internal planning and external reaffirmation reporting requirements.
- Coordinate and support faculty professional development activities related to the QEP.
- Collaborate with the Library for continuing development of online resources for the QEP.
- Develop QEP student outreach and marketing strategies in collaboration with student organizations and the Student Government Association.
- Coordinate with Student Success offices and in the identification and planning of QEP co-curricular activities.
- Manage the QEP budget and reporting requirements in compliance with UT Tyler policies and procedures.
- Collaborate with the Office of Institutional Analysis for QEP student achievement data analytics and reporting.
- Conduct assessment with the College Assessment Coordinators and the Office of Assessment and Institutional Effectiveness to include assessment data collection and reports shared with faculty for analysis to identify continuous improvement planning for student success.

### **Required Qualifications**

- Master's degree from an accredited university in a discipline taught at UT Tyler.
- Minimum of 5 years of related higher education experience including educational program assessment for continuous improvement of student learning.

### **Preferred Qualifications**

- A Doctoral degree from an accredited university in a discipline taught at UT Tyler.
- Minimum of 10 years of related higher education experience.
- Leadership roles in educational program assessment using Nuventive Improve Working familiarity with the Southern Association of Colleges and Schools – Commission on Colleges (SACSCOC) Principles of Accreditation, Policy Statements, and expectations for successful reporting.
- Experience in survey design and reporting using Qualtrics

## Appendix C – Assessment Rubric

### UT Tyler Real-World Problem-Solving Rubric adapted from LEAP VALUE Problem Solving Rubric

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

#### Definition

*Problem-solving* is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.

*Real-world* includes authentic situations and needs that students could expect to experience/encounter outside the classroom after degree completion that are relevant and appropriate to their discipline.

#### Framing Language

Problem-solving covers a wide range of activities that may vary significantly across disciplines. This rubric distills the common elements of most problem-solving contexts and is designed to function across all disciplines. It is broad-based enough to allow for individual differences among learners yet is concise and descriptive in its scope to determine how well students have maximized their respective abilities to practice thinking through problems in order to reach solutions. This rubric is designed to measure the quality of a process, rather than the quality of an end-product within a real-life situation or scenario.

#### Glossary

*The definitions that follow were developed to clarify terms and concepts used in this rubric only.*

- Contextual Factors: Constraints (such as limits on cost), resources, attitudes (such as biases) and desired additional knowledge which affect how the problem can be best solved in the real world or simulated setting.
- “Off the shelf” solution: A simplistic option that is familiar from everyday experience but not tailored to the problem at hand (e.g. holding a bake sale to “save” an underfunded public library).
- Solution: An appropriate response to a challenge or a problem.
- Strategy: A plan of action or an approach designed to arrive at a solution. ( If the problem is a river that needs to be crossed, there could be a construction-oriented, cooperative (build a bridge with your community) approach and a personally oriented, physical (swim across alone) approach. An approach that partially applies would be a personal, physical approach for someone who doesn’t know how to swim.
- Support: Specific rationale, evidence, etc., for solution or selection of solution.

#### UT Tyler Adaptation

UT Tyler adapted the Columbus State University (CSU) Problem Solving VALUE Rubric and the general Problem Solving VALUE Rubric by refining the elements which specifically focus on an assessment of the student’s skill in the problem-solving process versus the end-product, thereby reflecting the learning goals of DISCOVER, DESIGN, and DISCUSS. The revised instrument focuses on the problem-solving process to provide the evaluator the ability to measure the student’s skill in the **processes** of problem-solving ability.

UT Tyler Rubric for Real-World Problem-Solving (Revised October 2021)

		Accomplished	Competent	Developing	Minimal
		4	3	2	1
<p><b>DISCOVER:</b> Demonstrate high levels of analytical and reasoning skills in identifying and scrutinizing challenging problems or situations in real-world settings and in critically exploring and evaluating many possible solutions.</p>	<p><b>SLO 1. Define Problem</b></p>	Demonstrates the ability to construct a clear problem statement with evidence of relevant contextual factors as it relates to real-world scenarios.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors as it relates to real-world scenarios.	Begins to demonstrate the ability to construct a problem statement with evidence of some relevant contextual factors as it relates to real-world scenarios.	Demonstrates a limited ability in identifying a problem statement and limited relation to real-world scenarios.
	<p><b>SLO 2. Identify Strategies</b></p>	Identifies multiple possible strategies to the problem that apply within a specific real-world context.	Identifies multiple possible strategies to the problem, only some of which apply within a specific real-world context.	Identifies only a single strategy to the problem that applies within a specific real-world context.	Proposed strategy does not apply within a specific real-world context.
<p><b>DESIGN:</b> Demonstrate high levels of logic and creativity in designing reasonable solutions to diagnosed real-world problems.</p>	<p><b>SLO 3. Evaluate Potential Solutions</b></p>	Evaluates the pros and cons of proposed solution(s) with compelling support for why their selected solution was chosen over others.	Evaluates the pros and cons of each proposed solution but does not adequately compare/support the merits of their selected solution against the others.	Adequately evaluates the pros and cons of the solution they selected, but not the other possible solutions.	Does not adequately evaluate the pros and cons of the solution they selected.
	<p><b>SLO 4. Propose Solution</b></p>	Proposes a solution that indicates a deep comprehension of the problem. Solution is sensitive to all of the real-world contextual factors included with the problem statement.	Proposes a solution that indicates comprehension of the problem. Solution is sensitive to some of the real-world contextual factors included with the problem statement.	Proposes a solution that is “off the shelf” rather than individually designed to address the specific real-world contextual factors of the problem.	Proposes a solution that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
<p><b>DELIVER:</b> Articulate sophisticated and persuasive solutions of diagnosed real-world problems while reflecting on further work.</p>	<p><b>SLO 5. Implement (Potential) Solution</b></p>	Implements the solution (or hypothesizes the implementation) in a manner that addresses thoroughly and deeply multiple real-world contextual factors of the problem.	Implements the solution (or hypothesizes the implementation) in a manner that addresses multiple real-world contextual factors of the problem in a surface manner.	Implements the solution (or hypothesizes the implementation) in a manner that addresses the problem statement but ignores real-world relevant contextual factors.	Implements the solution (or hypothesizes the implementation) in a manner that does not directly address the problem statement.
	<p><b>SLO 6. Evaluates (Potential) Outcomes</b></p>	Reviews (proposed) results/outcomes relative to the problem with thorough, specific discussion of need for further work within a real-world context.	Reviews (proposed) results/outcomes relative to the problem with some discussion of need for further work within a real-world context.	Reviews (proposed) results/outcomes in terms of the problem with little, if any, discussion of need for further work within a real-world context.	Reviews (proposed) results/outcomes superficially in terms of the problem with no discussion of need for further work within a real-world context.

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## UT Tyler Rubric for Real-World Problem-Solving

(Revised November 2021)

The problem-solving process includes the student's ability to identify/discover problems; design solutions; evaluate outcomes and discuss/deliver solutions; and demonstrate high levels of insight and awareness of what was learned and what could be improved. *Evaluators are encouraged to assign a "0" to any work sample that does not address the minimal level of performance.*

		Accomplished	Competent	Developing	Minimal
		4	3	2	1
<b>DISCOVER:</b> Demonstrate high levels of analytical and reasoning skills in identifying and scrutinizing challenging problems or situations in real-world settings and in critically exploring possible strategies.	<b>SLO 1. Define Problem</b>	Demonstrates the ability to construct a clear problem statement with evidence of relevant contextual factors as it relates to real-world scenarios.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors as it relates to real-world scenarios.	Begins to demonstrate the ability to construct a problem statement with evidence of some relevant contextual factors as it relates to real-world scenarios.	Demonstrates a limited ability in identifying a problem statement and limited relation to real-world scenarios.
	<b>SLO 2. Identify Strategies</b>	Identifies multiple possible strategies to the problem that apply within a specific real-world context.	Identifies multiple possible strategies to the problem, only some of which apply within a specific real-world context.	Identifies only a single strategy to the problem that applies within a specific real-world context.	Proposed strategy does not apply within a specific real-world context.
<b>DESIGN:</b> Demonstrate high levels of logic and creativity in designing and assessing reasonable solutions to diagnosed real-world problems.	<b>SLO 3. Evaluate Potential Solutions</b>	Evaluates the proposed solution(s) with compelling support and/or evidence for why their selected solution was chosen over others.	Evaluates the proposed solution(s) with evidence and/or support but does not adequately support the merits of their selected solution against the other solutions.	Adequately evaluates the solution they selected with some evidence or support, but not the other possible solutions.	Does not adequately evaluate and/or support the solution they selected.
	<b>SLO 4. Propose Solution</b>	Proposes a solution that indicates a deep comprehension of the problem. Solution is sensitive to all of the real-world contextual factors included with the problem statement.	Proposes a solution that indicates comprehension of the problem. Solution is sensitive to some of the real-world contextual factors included with the problem statement.	Proposes a solution that is "off the shelf" rather than individually designed to address the specific real-world contextual factors of the problem.	Proposes a solution that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
<b>DISCUSS:</b> Articulate sophisticated and persuasive solutions of real-world problems, while evaluating outcomes within a real-world context.	<b>SLO 5. Implement (Potential) Solution</b>	Implements the solution (or hypothesizes the implementation) in a manner that thoroughly and deeply addresses multiple real-world contextual factors of the problem.	Implements the solution (or hypothesizes the implementation) in a manner that addresses multiple real-world contextual factors of the problem in a surface manner.	Implements the solution (or hypothesizes the implementation) in a manner that addresses the problem statement but ignores real-world relevant contextual factors.	Implements the solution (or hypothesizes the implementation) in a manner that does not directly address the problem statement.
	<b>SLO 6. Evaluates (Potential) Outcomes</b>	Reviews (proposed) results/outcomes relative to the problem with specific discussion of further work and/or considerations within a real-world context.	Reviews (proposed) results/outcomes relative to the problem with some discussion of further work and/or considerations within a real-world context.	Reviews (proposed) results/outcomes in terms of the problem with little, if any, discussion of further work within a real-world context.	Reviews (proposed) results/outcomes superficially in terms of the problem with no discussion of further work.

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## UT Tyler Rubric for Real-World Problem-Solving

(Revised June 2022)

The problem-solving process includes the student's ability to identify/discover problems; design solutions; evaluate outcomes and discuss solutions; and demonstrate high levels of insight and awareness of what was learned and what could be improved. *Evaluators are encouraged to assign a "0" to any work sample that does not address the minimal level of performance.*

	<b>Accomplished</b>	<b>Competent</b>	<b>Developing</b>	<b>Minimal</b>
	4	3	2	1
<b>SLO 1. Define Problem</b>	Demonstrates the ability to construct a clear problem statement with evidence of relevant contextual factors as it relates to real-world scenarios.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors as it relates to real-world scenarios.	Begins to demonstrate the ability to construct a problem statement with evidence of some relevant contextual factors as it relates to real-world scenarios.	Demonstrates a limited ability in identifying a problem statement and limited relation to real-world scenarios.
<b>SLO 2. Identify Strategies</b>	Identifies multiple possible strategies to the problem that apply within a specific real-world context.	Identifies multiple possible strategies to the problem, only some of which apply within a specific real-world context.	Identifies only a single strategy to the problem that applies within a specific real-world context.	Proposed strategy does not apply within a specific real-world context.
<b>SLO 3. Evaluate Potential Solutions</b>	Evaluates the proposed solution(s) with compelling support and/or evidence for why their selected solution was chosen over others.	Evaluates the proposed solution(s) with evidence and/or support but does not adequately support the merits of their selected solution against the other solutions.	Adequately evaluates the solution they selected with some evidence or support, but not the other possible solutions.	Does not adequately evaluate and/or support the solution they selected.
<b>SLO 4. Propose Solutions</b>	Proposes a solution that indicates a deep comprehension of the problem. Solution is sensitive to all of the real-world contextual factors included with the problem statement.	Proposes a solution that indicates comprehension of the problem. Solution is sensitive to some of the real-world contextual factors included with the problem statement.	Proposes a solution that is "off the shelf" rather than individually designed to address the specific real-world contextual factors of the problem.	Proposes a solution that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
<b>SLO 5. Implement (Potential) Solution</b>	Implements the solution (or hypothesizes the implementation) in a manner that thoroughly and deeply addresses multiple real-world contextual factors of the problem.	Implements the solution (or hypothesizes the implementation) in a manner that addresses multiple real-world contextual factors of the problem in a surface manner.	Implements the solution (or hypothesizes the implementation) in a manner that addresses the problem statement but ignores real-world relevant contextual factors.	Implements the solution (or hypothesizes the implementation) in a manner that does not directly address the problem statement.
<b>SLO 6. Evaluates (Potential) Outcomes</b>	Reviews (proposed) results/outcomes relative to the problem with specific discussion further work and/or considerations within a real-world context.	Reviews (proposed) results/outcomes relative to the problem with some discussion of further work and/or considerations within a real-world context.	Reviews (proposed) results/outcomes in terms of the problem with little, if any, discussion of further work within a real-world context.	Reviews (proposed) results/outcomes superficially in terms of the problem with no discussion of further work.

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**Appendix D –**

**Potential Graduate Classes to Recruit Graduate Students**

<b>Potential Graduate Classes to Recruit Graduate Students for Scoring Panels</b>		
<b>Course Number</b>	<b>Course Name</b>	<b>Semester(s) Offered</b>
ALHS 5304	Program Design and Evaluation	Spring
COUN 5340	Research and Program Evaluation	Spring, Summer
EDRM 6350	Program Evaluation in the Education Setting	Fall, Spring
EDSP 5366	Seminar: Full Individual Evaluation	Spring
HRD 5307	Measurement and Evaluation in HRD/Technology Education	Fall, Spring
NURS 5328	Evaluation in Nursing Education	Fall, Summer
COUN 5368	Assessment Techniques in Counseling	Fall, Spring
EDUC 5351	Assessment in Educational Settings	Fall, Spring
HRD 5308	Needs Assessment in HRD	Fall, Spring
PSYC 6368	Clinical and Diagnostic Assessment	Summer

**QEP Signature Assignment Guidelines**

<b>QEP Course Name:</b>		<b>Assessment Cycle: 2022-2023</b>				
<b>Instructional Site(s)/Delivery Method (Choose all that apply):</b>		<input type="checkbox"/> Tyler	<input type="checkbox"/> Longview University	<input type="checkbox"/> Palestine	<input type="checkbox"/> Houston	<input type="checkbox"/> Online-only
Quality Elements of a QEP Signature Assignment						
		First Review	Comments	Second Review (if needed)	Comments	
Assignment Organization	Aligns with QEP Focus, providing a real-world application of disciplinary knowledge.	<input type="checkbox"/>		<input type="checkbox"/>		
	Remains a natural part of the course and not a disjointed requisite assignment.	<input type="checkbox"/>		<input type="checkbox"/>		
	Provides orientation and training for students regarding real-world situations.	<input type="checkbox"/>		<input type="checkbox"/>		
	Is transparent in purpose with clear instruction.	<input type="checkbox"/>		<input type="checkbox"/>		
	Scaffolds learning based on the process of problem solving.	<input type="checkbox"/>		<input type="checkbox"/>		
	Incorporates continuous monitoring, assessment, and/or feedback to students about their performance.	<input type="checkbox"/>		<input type="checkbox"/>		
Connection to learning outcomes	Deliverable(s) offer students the opportunity to demonstrate measurable evidence for all six SLOs of real-world problem-solving.	<input type="checkbox"/>		<input type="checkbox"/>		
	Offers structured opportunities for the student to reflect regularly on what is being learned.	<input type="checkbox"/>		<input type="checkbox"/>		
	Incorporates procedures to evaluate the effectiveness of the solution as a whole.	<input type="checkbox"/>		<input type="checkbox"/>		
<b>QEP considerations, and/or additional comments:</b>						
<b>Faculty IOR Signature:</b>					<b>Date:</b>	
<b>QEP Faculty Lead Signature:</b>					<b>Date:</b>	

Student QEP Co-Curricular Activity Reflection Rubric

This rubric will be used to assess QEP Real-World Problem Solving learning outcomes in co-curricular activities.

Student Learning Outcomes	Reflection Questions	Accomplished	Benchmark	Minimal
		4	2	1
SLO 1: Construct a clearly defined problem statement with evidence of relevant real-world contextual factors.	What is the real-world research problem you addressed in your research and why is it an important problem?	Problem is described within a complex real-world context and the statement is detailed enough for clarity and cohesion. Importance of the problem is clearly communicated.	Problem is described with more than one critical limitation, such as minimal scope and relevance, incomplete logic, or limited rationale. Importance of the problem is somewhat clearly communicated.	The problem is articulated with limited clarity, cohesion, and connection to the real world. Importance of the problem is not clearly communicated.
SLO 2: Identify multiple approaches to address the problem within a specific real-world context. SLO 3: Evaluate potential solutions based upon discipline-specific and real-world contextual factors SLO 4: Propose one or more solutions/hypotheses based upon discipline-appropriate support and/or evidence.	What concepts or strategies did you consider to answer the identified research problem and what was your rationale for the one(s) you chose?	Describes multiple concepts, or solutions clearly; almost all concepts or solutions are linked to the problem stated; at least one of the concepts or solutions considers its impact within a larger context.  Rationale about chosen concept or strategy <u>clearly</u> describes <u>all four</u> of the following: -Logical assessment -Practical considerations -History of problem & attempted solutions -- Potential impacts	The concepts or solutions described are fairly clear, but they are limited in number or lack a strong connection to the problem stated.  Rationale about chosen concept or strategy <u>clearly</u> describes at least <u>two</u> of the following: -Logical assessment -Practical considerations -History of problem & attempted solutions -- Potential impacts	The concepts or solutions described are limited in number and quality; they lack clear connection to the problem or are too vague to evaluate.  Rationale about chosen concept or strategy <u>clearly</u> describes <u>one</u> of the following: -Logical assessment -Practical considerations -History of problem & attempted solutions -Potential impacts
SLO 5: Implement the identified solution to address the problem SLO 6: Evaluate results/outcomes relative to the identified problem, with a discussion of further work within a real-world context.	Describe your process of implementing the solution or conducting your research to address your identified research problem.  How did your results address or not address your problem?	Description of solution and the implementation process is focused, organized and clear.  The solution is logical, and its efficacy is articulated.  Evaluation of the solution was linked to the problem stated; and considers its impact within	Description of solution and the implementation process is focused and organized, but there are errors that detract from its clarity.  Quality of solution is difficult to evaluate. Evaluation of the solution was partially linked to the problem	Description of solution and the implementation process is disorganized and partially incoherent.  It is too vague to evaluate the quality of the solution.



	real-world research problem?  What was your most valuable take-away from your research experience?	a larger context with a discussion of further work.	stated; and considers the impact within a larger context.	Evaluation of the solution was not linked to the problem stated; and did not consider the impact within a larger context.
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