Embedded Tutoring in High-Challenge Courses

A Quality Enhancement Plan

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by

Palo Alto College

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Executive Summary

Palo Alto College is a federally designated Hispanic-Serving Institution (HSI) of approximately 11,000 students located on the southside of San Antonio, an area historically underserved by the K-12 public school system. The student population of this urban community college is 77% Hispanic, 62% female, and overwhelmingly part-time (87%).

Starting in August 2019, a series of college-wide presentations created the backdrop for the selection of a Quality Enhancement Plan (QEP) topic grounded in the College's quest for continuous improvement. Presentation topics included the 2019-2024 Strategic Plan, the College's Key Performance Indicators (KPIs), and current institutional and student data. Concurrent with the campus-wide data review, an employee survey was launched to identify possible QEP topics.

In January 2020, a student survey was conducted to identify students' perceptions of the challenges that impeded their success as learners. Four key themes emerged in both the employee survey and the student survey: a need for 1) more opportunities for active learning, 2) more supportive faculty-student connections, 3) more tutoring resources, and 4) more focus on boosting students' self-confidence. Each theme suggested numerous strategies that could serve as a QEP focus. In June 2020, a diverse cross-college group reviewed the top six most compelling strategies in a research-based forum and selected **Embedded Tutoring in High-Challenge Courses** as the College's QEP.

The topic resonated with the College's long-standing commitment to maximize academic support for students enrolled in high-challenge courses, which are defined as courses with enrollment over 100 and a Productive Grade Rate (PGR) below 70%. PGR is measured as the percent of students who complete a course with a final grade of A, B, or C. Three persistent high-challenge courses were targeted for embedded tutoring intervention: BIOL 2401Anatomy & Physiology I, and co-requisite sections of both College Algebra (MATH 1314+) and Composition I (ENGL 1301+). Co-requisites allow students, who are not yet college-ready, to take credit-bearing courses while also taking developmental education courses to improve their skills.

During the three-year QEP project, embedded tutoring will be implemented in 16 sections each semester (8 sections of MATH 1314+, 4 sections of ENGL 1301+, and 4 sections of BIOL 2401). Each summer, embedded tutoring faculty and tutors will prepare for the next academic year by attending a 2-day workshop focusing on best practices in embedded tutoring.

Four student learning outcomes were identified for the QEP: 1) demonstrated understanding of course content, 2) increased self-confidence, 3) increased sense of classroom belonging, and 4) positive perceptions of tutoring. These outcomes will be assessed quantitatively through course performance metrics and qualitatively through student survey and focus group data. Faculty and tutors will be surveyed at the end of each term to identify successes and areas for improvement.

Two Co-Directors will facilitate day-to-day implementation assisted by the QEP Advisory Committee. Ongoing overall evaluation of the QEP will be the responsibility of the QEP Oversight Committee. The College is fully prepared to allocate the necessary staffing and financial resources to ensure the success of its QEP.

Ultimately, the goal of the QEP is to implement embedded tutoring in all high-challenge courses at Palo Alto College. The 3-year QEP will provide an opportunity for rigorous, systematic evaluation of embedded tutoring pedagogy in three disciplines and create a cadre of faculty and tutor mentors to assist in expanding embedded tutoring to all high-challenge courses.

Section 1:

Introduction

Palo Alto College's QEP Planning Committee met for nearly a year to develop a Quality Enhancement Plan (QEP) that would support student success in high-challenge biology, math, and English courses by implementing embedded tutoring. For months, the Planning Committee focused on embedded tutoring (ET) best practices, an operational definition of embedded tutoring, and objective and measurable student learning outcomes.

The single most compelling theme that resonated - repeatedly - through committee conversations was "connection," specifically, the power of embedded tutoring pedagogy to promote meaningful connections for students with their peers, their tutor, their instructor, and the course content. In the operational definition of embedded tutoring crafted by the committee, embedded tutors are described as "Architects of Learning" because they are instrumental in creating a context for classroom interconnection and academic achievement.

As the Spring 2021 semester came to a close, one of the last official tasks of the Planning Committee was to decide on a slogan for the QEP. The many contending phrases suggested by committee members all, in some way, echoed the theme of "connection." Not surprisingly, the slogan selected by the group was the phrase that most explicitly depicted connection:

Embedded Tutoring = Your Bridge to Success

The bridge metaphor vividly captures the Planning Committee's vision of embedded tutoring as a vital "bridge" connecting students to course content and to participation in an authentic community of learners. These connections and interconnections promote students' academic success, course completion, and persistence in accomplishing their academic goals.

The following narrative describes the College's quest to identify and develop a QEP topic that mirrors its commitment not only to academic excellence and student success, but also to *connecting* students to yet-to-be-imagined possibilities within themselves.

Section 2:

QEP Topic Selection

Palo Alto College is a federally designated Hispanic-Serving Institution (HSI) of approximately 11,000 students located on the southside of San Antonio, an area historically underserved by the K-12 public school system. The student population of this urban community college is 77% Hispanic, 62% female, and overwhelmingly part-time (87%). The average age is 22 years, and 39% of students receive Pell Grants (*2019-2020 Palo Alto College Factbook*, *2020 Alamo Colleges Factbook*).

Founded in 1985 on the belief that education improves lives, Palo Alto College has dedicated itself to providing the southside community with accessible, affordable higher education in the arts and sciences and in technical and workforce programs. The development of the current Quality Enhancement Plan (QEP) represents a continuation of the College's 36-year commitment to academic excellence and life-changing student success.

The QEP topic selection process began in Fall 2019 and was orchestrated by a small group of College administrators and staff. The members of the QEP Planning Committee for Topic Selection included:

- Gil Becerra, VP for Student Success
- Katherine Doss, VP of Colleges Services & SACSCOC Liaison
- Dr. Mary-Ellen Jacobs, Academic Program Director
- Julie McDevitt, Director, Teaching and Learning Center
- Elizabeth Tanner, VP for Academic Success

This group worked together from August 2019 until June 2020 when the College finalized its selection of the QEP topic. Under the Planning Committee's guidance, the topic selection process was carefully constructed to intertwine two complementary strands: ***demonstrated institutional need*** and the ***voices of members of the College community.***

2.1 Demonstrated Institutional Need

Beginning at the August 2019 Convocation, a series of college-wide presentations created the backdrop for the selection of a QEP topic grounded in the College's quest for continuous improvement. Topics systematically addressed by these presentations were the 2019-2024 Strategic Plan, the College's Key Performance Indicators (KPIs), current institutional data, and relevant student data.

2019-2024 Strategic Plan

The College's 2019-2024 Strategic Plan (Appendix A) is comprised of four Strategic Directions: Community Empowerment, Employee Empowerment, Student Empowerment, and Maximize Capacity to Serve. The five goals of Student Empowerment listed below helped guide the College community in considering possible QEP topics.

Table 2.1.1: Palo Alto College 2019-2024 Strategic Plan Strategic Direction: Student Empowerment

Palo Alto College is committed to empowering students to explore educational opportunities, identify career and transfer pathways, and discover high-wage, high-demand careers. Palo Alto College meets students where they are by providing tools and strategies to address students' unique interests and to help them succeed academically and professionally. Goals: 1. Increase student completion 2. Increase opportunities for students to explore career pathways 3. Increase student transfer outcomes and improve workforce outcomes 4. Close equity gaps across student sub-populations 5. Increase student proficiency in learning outcomes

Members of the College community initiated their search for a meaningful QEP topic mindful of how the Strategic Plan defined student success.

Key Performance Indicators

The annual *Alamo Colleges Benchmarks Report* (2019) shows how the Alamo Colleges District and each of the District's five colleges compare in Key Performance Indicators (KPIs) to other Very Large Community Colleges (VLCC) in Texas and to the best community colleges in the state. Four Strategic Drivers are associated with specific KPIs as shown in Table 2.1.2.

Table 2.1.2: Crosswalk of Strategic Drivers and KPIs

Strategic Driver	**Key Performance Indicators**
Recruitment	Market Penetration, Enrollment
Retention	Student Engagement, Student Progress
Completion	Graduation, Transfer
Workforce Solutions	Workforce Success

College presentations set the stage for the QEP by highlighting KPI data from the *2019 Alamo Colleges Benchmarks Report* that aligned with the Strategic Plan's goals for "Student Empowerment." Examples of data points discussed included:

KPI: Student Progress. Productive Grade Rate (PGR) decreased from **78.8%** in Fall 2017 to **75.5%** in Fall 2018. Fall-to-Fall Persistence for the 2017 Full-Time (FT) First-Time In College (FTIC) cohort was **62.7%** while the state average was **58.5%.**

KPI: Graduation. FT FTIC 4-year graduation rate for the Fall 2014 cohort was **31.8%** while the state's best community college Lee College was **41.5%.** The number of degrees and certificates awarded increased from **1,549** in Academic Year (AY) 2017 to **1,714** in AY2018.

KPI: Workforce Success. The percent of academic students employed and/or enrolled a year after graduation was **92.3%**, which is 2.3% higher than the VLCC average of **90.0%**.
The percent of technical students employed and/or enrolled a year after graduation was **90.2%**, which is 1.4% higher than the VLCC average of **88.8%.**

Data on the Student Progress KPI generated the liveliest conversation. PGR and Fall-to-Fall Persistence became aspects of student success that the College community strongly believed could be enhanced through a well-designed QEP.

Current Institutional Data

The College's monthly Celebrate and Share Breakfast held in September 2019 provided an opportunity to present key institutional data that would serve as a context for the QEP topic selection process. The College community reviewed the *2019 Environmental Scan* and data from Institutional Learning Outcomes.

2019 Environment Scan. Annually, the Palo Alto College Office of Institutional Research, Planning, and Effectiveness gauges the impact of the demographic environment on the College by conducting an Environmental Scan that focuses on educational, economic, and social trends. This report includes an overview of the College, population and educational attainment trends, workforce projections, and legislative updates. The document provides critical information which is used during annual planning processes and guides the direction of the institution.

Table 2.1.3: Key Findings from the 2019 Environmental Scan

Topic Area	Key Findings
College Enrollment & Completion	• Palo Alto College (PAC) has experienced continuous enrollment growth at a greater rate than many other Texas two-year public institutions. Enrollment increased 16.9% from Fall 2013 to Fall 2018. • PAC graduation rates surpass state averages for full-time and part-time FTIC students. • Only 26.7% of Palo Alto College students graduate with debt compared to 30.6% statewide.
Population Growth & Demographic Shifts	• San Antonio's population is 64% Hispanic or Latino. • San Antonio is expected to nearly double in population size by 2040. • San Antonio continues to have a greater percentage of people living below the poverty level (20.0%), compared to Texas (14.9%) and the U.S. (13.1%).
Education & Income	• Educational attainment levels are lower for San Antonio residents than national rates. A higher proportion of the national population holds at least a bachelor's degree while a higher proportion of San Antonio residents have less than a high school diploma. • As educational attainment increases, the likelihood of living below the poverty rate decreases; 28% of adults 25 years and older who have less than a high school credential live in poverty, compared to 17% of adults who have a high school credential or equivalent, and 12% of adults who have some college or an associate's degree. • In San Antonio, annual median earnings of adults with some college or an associate's degree are $5,681 higher than high school graduates.

Economic Competitiveness & Workforce	• Total employment in the Alamo Workforce Development Area is projected to grow 15.5% from 2016 to 2026.

In addition, the "College Overview" section of the *2019 Environmental Scan* pinpointed two factors particularly germane to the development of a QEP:

- Palo Alto College serves the largest proportion of *economically disadvantaged* students across the Alamo Colleges District. During the 2020 Fiscal Year, 39% of PAC students received Federal Pell Grants averaging $4,407, while only 26% percent of students at Texas peer group institutions received Federal Pell Grants, and these averaged $4,134.

- Across the five Alamo Colleges, Palo Alto College serves the largest percentage of students who *do not meet state readiness standards* in one or more areas under the Texas Success Initiative (TSI). In the Fall 2018 cohort of FTIC students, 68% needed developmental education.

Data indicates that Palo Alto College students are both economically disadvantaged and academically underprepared when they enroll as FTIC students. Because these factors make academic success more difficult to achieve, supportive interventions, such as those that can be implemented within the framework of a QEP, are vital to create a context for life-changing student success.

Institutional Learning Outcomes (ILOs). According to the Texas Higher Education Coordinating Board (THECB), the goal of an institution's core curriculum is for students to "gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning" (*Texas Core Curriculum*, 2018, p.4).

The THECB specifies that each core curriculum course must include three or four of the six Core Objectives linked to the Texas Core Curriculum. These six Core Objectives are:

- *Critical Thinking Skills*: creative thinking, innovation, inquiry, and the analysis, evaluation, and synthesis of information.
- *Communication Skills:* effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- *Empirical and Quantitative Skills:* manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- *Teamwork:* the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- *Social Responsibility:* intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.
- *Personal Responsibility:* the ability to connect choices, actions and consequences to ethical decision making.

At Palo Alto College, the six Core Objectives are referred to as Institutional Learning Outcomes (ILOs) because they unite all College stakeholders around common goals for student learning. The ILOs comprise the skills and abilities that the College and the THECB believe all students need to succeed and thrive in life, in their educational careers, and in the workplace. The faculty embed lessons and assignments in their courses that allow students to practice and grow in these skills. Students also interact with and practice the skills and abilities through participation in co-curricular and extra-curricular activities.

Each year the College uses a direct, performance-based assessment to measure student proficiency in one or more ILO. Samples of student work are collected and rated using the appropriate ILO rubric. Review of ILO assessment data enables members of the College community to identify areas of academic strength and areas needing improvement. This information provided a crucial backdrop for QEP topic identification. Results of the College's most recent ILO assessments are summarized in the following table.

Table 2.1.4: ILO Assessment Results

ILO	Data Point
Critical Thinking	• **82.4%** of students were proficient in identifying and discussing an issue or problem, but • only **57.1%** were able to discuss alternative points of view related to that issue or problem.
Communication	• **86.3%** of students were proficient at developing the content and purpose in their writing, but • only **74.7%** communicated using clear, grammatically correct language, with a wide variety of word usage and sentence structures.
Empirical & Quantitative Skills	• **87.3%** of students were able to identify the problem, and **83.1%** of students were able to bring in all needed information for the problem, but • only **73.9%** of students were able to clearly present their results, and • only **73.6%** of students were able to apply their findings.
Teamwork	• Overall, **91%** of students were proficient in all three criteria of the Teamwork rubric. • However, of those that were not proficient, **76.5%** were rated as not fully engaged with the work of the team.
Social Responsibility	• **86.9%** of students were proficient in identifying and discussing a cultural issue, but • only **68.4%** of students were able to discuss alternative cultural viewpoints.
Personal Responsibility	• **74.3%** of students were proficient in identifying and discussing an ethical issue, but • only **57.7%** were able to discuss alternative ethical viewpoints.

Overall, Palo Alto College students excelled at identifying and discussing issues or problems. However, students were far less successful in discussing alternative viewpoints. Thus, the ILO assessment shone a spotlight on core skills that could potentially be enhanced through a strategically designed QEP.

Relevant Student Data

At the College's monthly Celebrate and Share Breakfast in October 2019, student data was reviewed to help identify opportunities for enhancing student success. Presentations highlighted findings from the 2019 Community College Survey of Student Engagement (CCSSE), the 2018 Ruffalo Noel Levitz Survey, the College's Student Advocacy Survey, and the Trellis Student Financial Wellness Survey.

Community College Survey of Student Engagement (CCSSE). The Community College Survey of Student Engagement (CCSSE) is a nationally administered survey that helps institutions focus on educational best practices and identifies areas for improvement in programs and services for students.

The CCSSE is administered every two years with the last administration at Palo Alto College in Spring 2019.

As illustrated in Table 2.1.5 below, the presentations to the College community highlighted five key CCSSE measures that aligned with the KPI of Student Engagement and the College's Strategic Direction of Student Empowerment.

Table 2.1.5: Alignment of CCSSE Measures and College KPIs

KPI	CCSSE Measure	National Average	State Average	PAC – Spring 2019 CCSSE
Student Engagement	Support for Learners	50.0	52.9	55.7
Student Engagement	Active & Collaborative Learning	50.0	50.9	48.2
Student Engagement	Student Effort	50.0	50.4	52.1
Student Engagement	Academic Challenge	50.0	49.2	47.5
Student Engagement	Student-Faculty Interaction	50.0	49.7	46.6

Opportunities for improvement existed in the areas of active and collaborative learning, academic challenge, and student-faculty interaction. Student responses to these three CCSSE measures foreshadowed themes that would later emerge in the January 2020 student surveys conducted to identify a QEP topic. The consistency of the student voice became an unexpected lodestar in guiding the College toward its QEP topic.

Ruffalo Noel Levitz Survey (RNL). The Ruffalo Noel Levitz (RNL) Satisfaction-Priorities Survey is a national student satisfaction benchmarking instrument which has been administered every other spring since 2008 at Palo Alto College. The last administration of the survey occurred in 2018. The aim of the survey is to evaluate students' concerns that influence student success, college completion, student recruitment, strategic planning, and re-accreditation.

Students who responded to the 2018 survey identified *four strengths* of the College:

- 82% of respondents were satisfied with their experience at Palo Alto College.
- The campus was perceived as safe and secure.
- Classes were scheduled at times convenient for students.
- Students indicated they experienced intellectual growth at the College.

Respondents indicated *two opportunities for improvement* that centered on advising:

- Students wanted advisors to be more knowledgeable about *transfer* requirements.
- Students wanted advisors to be more knowledgeable about *program* requirements.

Results of the RNL Survey reflect satisfaction with the College's instructional quality and with the campus climate. Students identified advising as an area where additional information was often needed about transfer and program requirements. The student perceptions conveyed in the RNL prompted discussion of focusing the QEP on improving students' advising experience.

Student Advocacy Survey. In December 2015, over 2,000 students responded to a survey commissioned by the College's Advocacy Center Task Force. The primary goal of the study was to quantify perceived student need for a range of services including career preparation programs, financial assistance programs, non-urgent health care, mental health services, family counseling services, and on-campus housing.

Two key findings of the Student Advocacy Survey were:

- 53.3% of respondents perceived career preparation programs to be very beneficial for students.
- 49.5% of respondents perceived financial assistance programs to be very beneficial for students.

Based on survey findings, the College's Student Advocacy Center initiated career preparation workshops and financial literacy programs. In January 2020, student surveys conducted to identify a QEP topic revealed the need for a career/transfer center as a prominent theme.

Student Financial Wellness Survey. During the Spring 2018 semester, 617 students responded to the Trellis Student Financial Wellness Survey. The purpose of the survey was to learn more about students' financial insecurity, housing insecurity, food insecurity, student loan debt, cost of attending school, and financial literacy.

Survey findings painted a compelling portrait of students' financial insecurity:

- 61% of students worry about having enough money to pay for school.
- 55% of students have run out of money three or more times in the past year.
- 70% of students are not confident they would be able to pay off their school debt.
- 71% of students say they would use financial support services offered by their school.

As revealed in the survey, the urgency of students' financial plight prompted the College to immediately invest considerable resources in its new Advocacy Center to provide students with emergency funding for day-to-day needs. A food bank was initiated at the College, and full-time counselors were hired to assist students in crisis and connect them to vital community resources. Even with these interventions, financial insecurity was a recurring theme in the January 2020 QEP topic identification survey that asked students about the challenges they faced outside of the classroom that impeded their academic success.

2.2 Voices of the College Community

Employee Voices

Concurrent with the review of institutional data that occurred throughout Fall 2019, an online employee survey was launched from 27 September through 7 October to identify possible QEP topics. The survey, which was widely publicized and open to all College employees, received 120 responses. See Appendix B for survey invitation.

The survey itself consisted of three open-ended questions about student success:

Current Student Success Initiatives

1. Are there one or two specific strategies that we are currently doing as a College - either in the classroom or beyond the classroom - that you believe contribute significantly to the success of our students?

Challenges to Student Success

2. From your perspective, what challenges to student success– either in the classroom or beyond the classroom – has the College been unable to effectively address?

3. Are there one or two specific strategies that we might implement as a College to address those challenges?

The goal of the survey was to provide data that could be reviewed by College employees to narrow the quest for potential QEP topics. A campus-wide conversation was scheduled for late October to review the survey data.

All responses were initially categorized by question and then reviewed by a staff member familiar with qualitative analysis in order to make the information obtained from the open-ended survey more manageable for review at the all-College conversation. Four thematic areas emerged that were used as the organizing structure for all survey data:

- Responses related to academics
- Responses related to advising
- Responses related to advocacy
- Responses related to the institution

At the Employee Engagement Day conversations held on 25 October 2019, *all* participants had the opportunity to review and discuss *all* survey data. The 200 attendees were divided into groups of 8-10 and remained together for the entire day. Each group participated in four roundtable conversations (two in the morning, two in the afternoon). Each session centered on one of the thematic areas: academics, advising, advocacy, or the institution. Each discussion table was provided with relevant institutional data for reference (e.g., a copy of the College's Strategic Plan, the current *PAC Factbook,* the *2019 Environmental Scan*, CCSSE and Ruffalo Noel Levitz results).

At each of the small group sessions, participants first reviewed all survey data for the topic area that would be the focus of their discussion. Data were arranged by the three survey questions. The roundtable facilitator then led the group through a session that addressed each of the following discussion questions:

- What are the top 3-5 challenges identified in the survey? Are there other challenges that were not mentioned in this category that your group feels are significant?
- Which of these challenges are being addressed by a current initiative(s)? How effectively does your group believe the current initiative is addressing the challenge? Are there other strategies for addressing the challenges?
- How workable are the strategies suggested to remedy this challenge? What other strategies could be implemented to address this challenge that were not mentioned in the survey?
- What data would support the identification of this challenge or strategy?
- Which strategic direction(s) is addressed with the identified strategy(ies)?

At the end of each small group session, the roundtable facilitator compiled the discussion results by entering information on the following Survey Monkey form.

Table 2.2.1: Survey Monkey Form

- Group Number: _____
- Theme Discussed: _____
- List the top 3-5 challenges identified by the group. List the top 3-5 strategies to address the challenges identified by the group.
- List the data identified by the group that supports the identification of these challenges and/or strategies.
- List the strategic direction(s) identified by the group that are associated with the identified challenges/strategies.

Data collected from Employee Engagement Day conversations showed that each thematic area was discussed by 18-20 different groups and that the *Academic* and *Advising* thematic areas were identified most often as the challenges the College needed to address as indicated in Tables 2.2.2 and 2.2.3.

Table 2.2.2: Academic Thematic Area

Challenges	• Students unprepared for college courses - 100% of 19 groups • Insufficient tutoring resources – 50% of 19 groups • Need to improve persistence/retention – 47% of 19 groups • Lack of student engagement/motivation– 42% of 19 groups
Strategies	• Refreshers • "Boot Camps" • Mentoring/cohort programs • Promoting support services • Tutoring embedded in courses • Growth mindset initiatives • More service and experiential learning • Internships • Cooperative/collaborative/active learning structures

Table 2.2.3: Advising Thematic Area

Challenges	• Enrollment process too complicated – 79% of 19 groups • Need for career/degree exploration – 74% of 19 groups
Strategies	• Internal application • Enrollment coaches • Streamline enrollment • Create career and transfer center

Student Voices

As data from the Employee Engagement Day conversations were being analyzed, preparations were underway to survey students at the start of the Spring 2020 semester. The survey consisted of six open-ended questions and sought students' perspective on what college success means to them, what factors enhance that success, and what obstacles they might encounter in achieving success.

Spring 2020 Student Survey Questions:

1. As a student, my definition of success in college would be . . .
2. In the classroom, I learn best when . . .
3. In the classroom, I have the most difficulty learning when . . .
4. In the classroom, one or two specific challenges I face, or may face, that might prevent me from achieving my definition of success are . . .
5. Outside of the classroom, one or two specific challenges I face, or may face, that might prevent me from achieving my definition of success are . . .
6. One or two ways PAC faculty and staff could better help me achieve my definition of success would be . . .

Rather than distributing the survey to students as an easily overlooked institutional email, the QEP Planning Committee opted to personalize the survey experience by seeking faculty volunteers who, during the first two weeks of the Spring 2020 semester, would spend a few minutes of class time having students complete the survey. Thus, at an all-College luncheon, one of the hallmark events of Convocation Week, the QEP update included an overview of the "Start of Semester Student Survey" and a request for faculty and staff volunteers who would be interested in administering the survey to their students.

The enthusiastic response of faculty and staff far exceeded expectations. Sixteen faculty and five staff assisted in administering the survey in both face-to-face and online classes. The survey, which represented a random College-wide sampling, received 830 student responses (88 online surveys and 742 paper surveys).

Survey responses were analyzed qualitatively, and the key themes that emerged are outlined in Table 2.2.4.

Table 2.2.4: Key Themes from Spring 2020 Student Survey

Survey Question	Key Themes	Sample Student Voices
1. As a student, my definition of success in college would be . . .	• Graduating • Not struggling in courses • Being comfortable in class	• Graduating and moving on to get my 4-year degree. • To really understand the material in class and use it in my future endeavors. • Finishing what I started and being able to prove to myself that I am disciplined enough to do so.
2. In the classroom, I learn best when . . .	• Learning is hands-on. • Teachers are engaged.	• Professors engage with their students. • Everything is explained, and teachers take the time to teach. • Lessons are taught with high energy and are hands-on or interactive.
3. In the classroom, I have the most difficulty learning when . . .	• Lecture • Lack of interaction/engagement with teachers and peers	• It is just a lecture, and the professor seems as if he/she does not want to be there. • The teacher speeds through lecture with no handouts to follow. • The professor is unorganized and gives very vague lessons/lectures.
4. In the classroom, one or two specific challenges I face, or may face, that might prevent me from achieving my definition of success are . . .	• Noise, distractions • Not understanding the content • Stress • Not knowing anyone • Lack of confidence • Classroom is overcrowded.	• Too many distractions • A professor who is not available whenever there are questions about the material. • Lack of confidence and lack of motivation. • Being around loud and distracting classmates.

5. Outside of the classroom, one or two specific challenges I face, or may face, that might prevent me from achieving my definition of success are . . .	• Work • Family • Personal life • Transportation issues • Time management • Stress	• The money, paying bills and having gas money. • Lack of shelter or money to provide safety. • My job and the distance between school and home.
6. One of two ways PAC faculty and staff could better help me achieve my definition of success would be . . .	• Regular meetings to discuss course progress, help me stay on track. • Availability/awareness of resources such as tutoring and non-academic support. • Help students feel comfortable enough to ask questions, be more approachable. • Keep building connections between faculty and students. • Knowing me, understanding me.	• Staying connected with students, helping. • Helping students when they need help and always putting them first. • To please let me know if I am failing at any point and what I can do to prevent that. • Understanding people's difficulties and being able to help them instead of dropping them from class.

The student survey results demonstrated a yearning for connection with faculty, advisors, and peers as a pathway to enhance student success. Understanding, flexibility, and access to academic resources, such as tutoring, and to non-academic resources, such as those provided by the College Advocacy Center to offset food, housing, and financial insecurity, were viewed as central to contributing to students' academic success. The moment had now come for the next step in the QEP topic selection process.

Intersecting Voices: Thematic Connections

In April 2020, the QEP Planning Committee presented an update to College leadership which focused on thematic connections between the September 2019 Employee Survey and the January 2020 Student Survey. Illuminating areas of mutual concern to both students and employees seemed essential to identify a QEP topic reflecting institutional need.

The Employee Survey highlighted both academic and advising challenges as the overwhelming concern. Three key themes emerged repeatedly in the student survey data. The student concerns seemed to resonate with employee concerns. These themes are illustrated in Table 2.2.5.

Table 2.2.5: Key Themes from Student Survey

Recurring Characteristics of the Best Climate for Learning	• Instruction is hands on and interactive. • Teachers are engaged and caring. • Faculty show interest in their students and build relationships with them.
Recurring Challenges to Learning	• Instruction is too fast-paced, disorganized or off-topic. • Classroom noise and distractions interfere. • Students lack confidence, are insecure, and fearful of being wrong. • Students do not understand the information and are afraid to ask questions.
Recurring Kinds of Assistance that Students Sought from Faculty/Staff	**Information** • Regular monthly meetings to discuss course progress and help students stay on track. • Make students more aware of the availability of campus resources. • Provide more resources for career exploration. **Instructional Support** • Provide more tutoring support. • Provide more quiet rooms/spaces for study. • Explain course material thoroughly. • Set clear course expectations. • Be more flexible. **Interpersonal Connection** • Help me feel comfortable enough to ask questions. • Be more approachable. • Listen to my concerns: "Know me, understand me." • Be available to help when needed. • Keep building connections between faculty and students. • Mentoring.

A careful review of the most prominent themes in both the employee survey and the student survey suggested *four intersecting themes*:

- A need to promote active learning and student engagement.
- A need to promote self-confidence and self-reflection.

- A need to promote supportive connections between faculty and students.
- A need to provide enhanced tutoring support.

Each of these four thematic intersections suggested strategies that could serve as a QEP focus as indicated in Table 2.2.6.

Table 2.2.6: Survey Themes and Potential QEP Foci

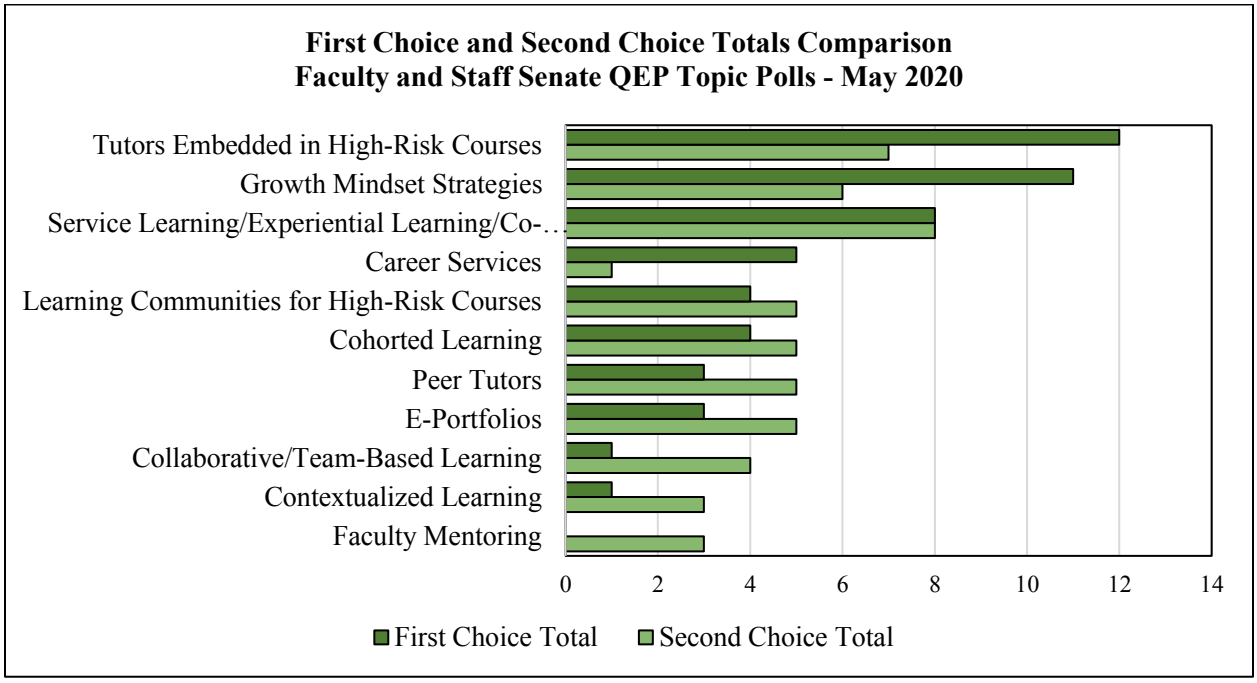
Thematic Intersection	Possible QEP Focus
Promoting active learning and student engagement	• Service learning, experiential learning, co-curricular learning • Learning communities for high-challenge courses • Cohorted learning • Contextualized learning • Collaborative/team-based learning • Opportunities for career/degree exploration
Promoting students' self-confidence and self-reflection	• Growth mindset strategies • E-portfolios
Promoting supportive connections between faculty and students	• Faculty mentoring
Providing enhanced tutoring support	• Peer tutors • Embedded tutors in high-challenge courses

The data from the 120 employee surveys and 830 student surveys were distilled to four overarching themes and 11 possible strategies. Each of the strategies was repeatedly suggested by faculty and staff at October's Employee Engagement Day, and each strategy that emerged through the collaborative exploration of institutional data and institutional need could serve as a compelling QEP topic. Of the 11 strategies, which one should the College select? Thus began the final stage of Palo Alto College's QEP topic selection process.

A Community of Voices: QEP Topic Selection Finale

In May 2020, the QEP Planning Committee surveyed members of the Faculty Senate and the Staff Senate to determine how members of the College community would rank the 11 potential QEP topics. The results are depicted in the following graph, Figure 2.2.1.

Figure 2.2.1: QEP Topic Poll Results



College leadership met with the QEP Selection Committee in late May to review the survey results. Based on the data, the top six potential strategies chosen by members of the Faculty and Staff Senate were selected as "QEP Finalists."

On 9 June 2020, a representative cross section of the College (faculty, staff, students, and administrators) met for an in-depth discussion of each of the six finalists that culminated in a vote to select the QEP topic. The six QEP topic finalists were as follows:

- Career Services
- Cohorted Learning
- Growth Mindset
- Learning Communities in High-Challenge Courses
- Experiential/Serve/Co-curricular Learning
- Tutors Embedded in High-Challenge Courses

An advocate for each of the finalists facilitated a research-based presentation linking the finalist to relevant institutional data and student need as shown in Table 2.2.7. See Appendix C for an example. Each presentation was followed by questions and extensive discussion that underscored the rationale for choosing the finalist as the College's QEP topic.

Table 2.2.7: Research Support Provided in Presentations of Six QEP Finalists

Finalist	Research Support
Career Services	• Share Center data on student participation in activities such as job and internship search skills, resume writing, and interviewing skills.
Cohorted Learning	• Student success data (PGR, retention, and completion) from cohorted programs at Palo Alto College: Veterinary Technology, Cosmetology and Health Care Administration.
Growth Mindset	• Carol Dweck's growth mindset theory was presented by Science faculty who discussed the value of using Dweck's interventions with their students.
Learning Communities in High-Challenge Courses	• Student success data (PGR, retention, and completion) from the College's *Catch the Next Ascender Program*, a learning community for FTICs.
Experiential/Service/ Co-curricular Learning	• Share Center data on student opportunities at the College for service learning (e.g., Habitat for Humanity, the Food Bank), co-curricular learning, and experiential learning through job-shadowing and internships.
Embedded Tutoring in High-Challenge Courses	• Course performance data from Fall 2019 MATH 1314 College Algebra with and without Peer Mentors/Embedded Tutors.

After in-depth discussions of each of the six finalists concluded, a vote was taken to select the College's QEP topic. "**Tutors Embedded in High-Challenge Courses**" garnered the most support.

The following graphic, Figure 2.2.2, illustrates the continuous interconnection between institutional data and the voices of the College community that characterized the topic selection process.

Figure 2.2.2: Flowchart of QEP Topic Selection Process

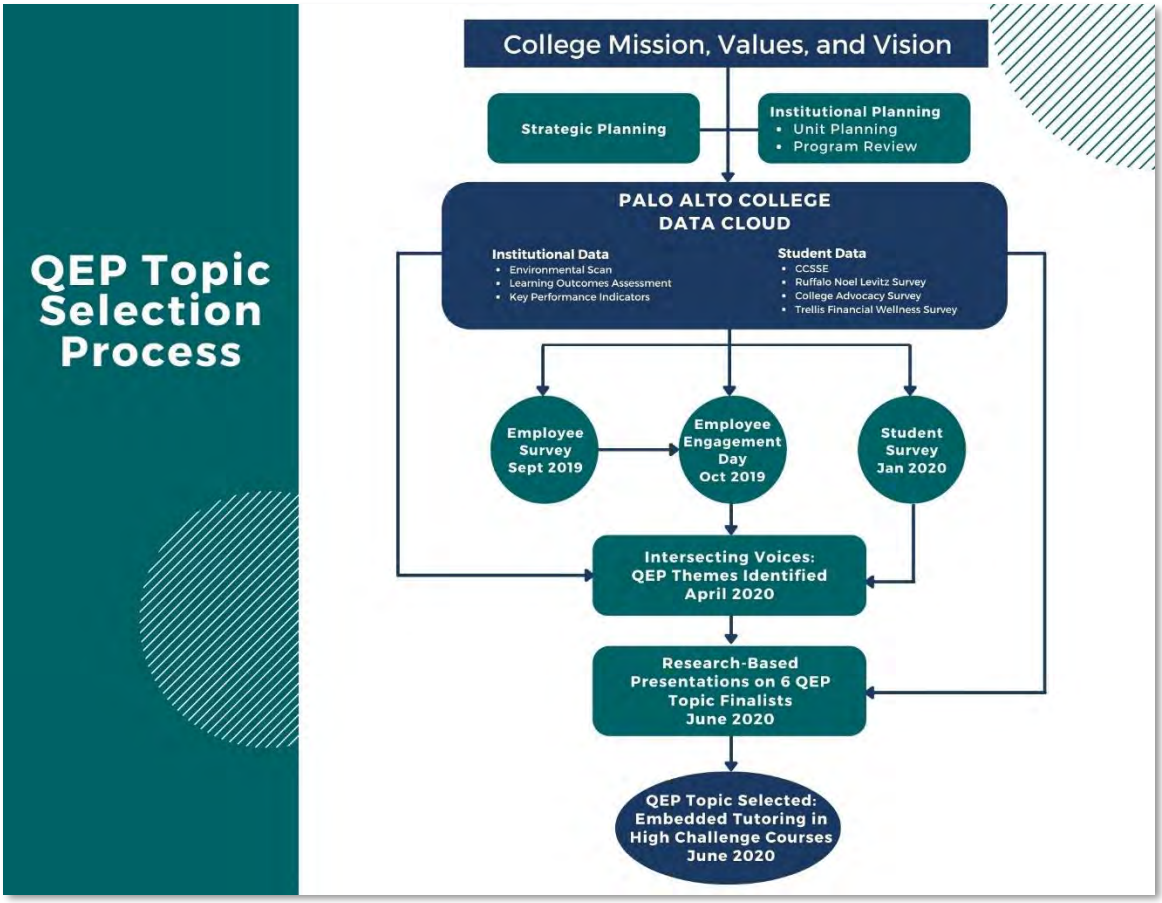


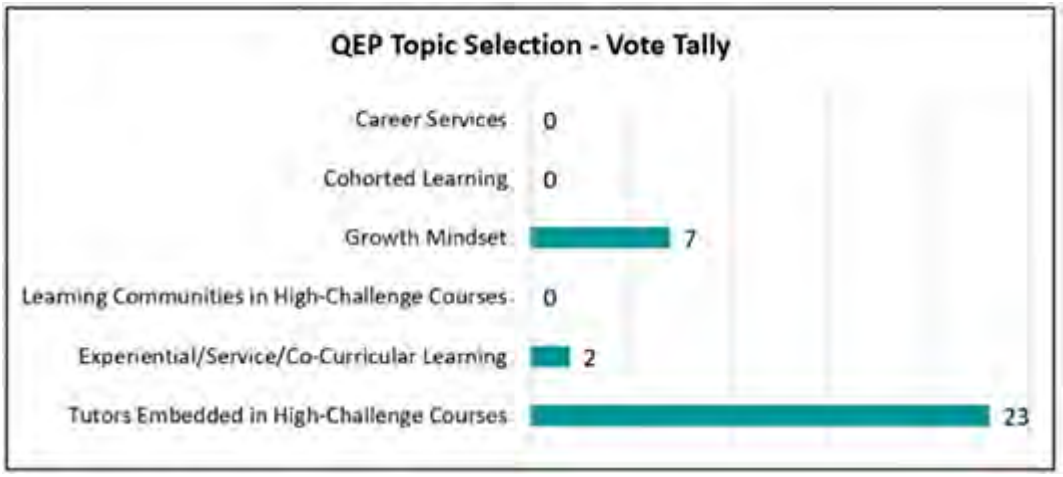
Figure 2.2.3 depicts the College-wide announcement that celebrated the selection of "Tutors Embedded in High-Challenge Courses" as the institution's QEP topic and also thanked the 32 members of the Palo Alto College community who participated in the QEP Grand Finale.

With the topic selected, the College and the QEP Planning Committee now shifted their focus to the development of an embedded tutoring QEP.

Figure 2.2.3: QEP Topic Announcement

QEP Update: Topic Selected

On Tuesday, June 9, a committee comprised of 32 members from across the college gathered to discuss the six topic finalists and to vote via Zoom poll. We are pleased to announce that **Tutors Embedded in High-Challenge Courses** was selected as Palo Alto College's Quality Enhancement Plan.



The vote represents the culmination of a 10-month topic selection process.

Many thanks to the faculty, staff, students, and administrators who participated in the final vote to determine the QEP topic:

- Elizabeth Aguilar-Villarreal, Director of Enrollment Management
- Tyler Archer, Director of Student Conduct
- Andres Arredondo, Welcome Center Coordinator
- Monica Ayala Jimenez, Dean for Student Success
- Gilberto Becerra, Vice President for Student Success
- Stephanie Castillo, Student
- Joseph Coppola, Professional and Technical Education Department Chair
- Carlos Cruz, Interim Dean for Student Success
- Katherine Doss, Interim Vice President of College Services
- Jennifer Ellison, Director of High School Programs
- Helena Fischer, Staff Senate President
- Jennifer Flores, Interim Director of Student Life
- Hector Garza, Arts and Sciences Department Chair
- Robert Garza, President
- Caroline Haring, Director of Institutional Research
- John Hernandez, Arts and Sciences Department Chair
- Pedro Hinojosa, Director of Strategic Initiatives
- Patrick Lee, Dean for Academic Success
- Nidia Lopez, SEED Advising Lead
- Tina Mesa, Dean for Academic Success
- Sitakanta Mohanty, Professional and Technical Education Department Chair
- Thomas Murguia, Director of Tutoring
- Amelia Portillo, Student
- Adam Rodriguez, Staff Senate representative
- Jackelyn Santana, Student
- Jamie Sarmiento, Staff Senate representative
- Jennifer Scheidt, Arts and Sciences Department Chair
- Ginny Stowitts-Traina, Arts and Sciences Department Chair
- Carmen Velasquez-Avila, BOLD Advising Lead
- Maria Viesca, STEM Advising Lead
- Tony Villanueva, Faculty Senate President
- Michael Ximenez, Director of Advising

Section 3:

Quality Enhancement Plan Focus

3.1 High-Challenge Courses at Palo Alto College

After 10 months of collaborative discussions, intense review of institutional data, and numerous surveys, the Palo Alto College community selected, by an overwhelming majority, "Embedded Tutoring in High-Challenge Courses" as the Quality Enhancement Plan (QEP). The topic itself resonated with the College's long-standing commitment to maximizing academic support for students enrolled in high-challenge or high-risk courses which are defined as courses with an enrollment over 100 and a Productive Grade Rate (PGR) below 70%. PGR is measured as the percent of students who complete a course with a final grade of A, B, or C. The terms high-challenge and high-risk are synonymous; thus, for consistency throughout the QEP document, the term high-challenge will be used.

Realizing that the QEP offered a unique opportunity to implement a carefully designed embedded tutoring intervention for on-campus sections of persistent high-challenge courses, the College opted to focus its QEP on BIOL 2401 Anatomy & Physiology I and two co-requisite courses MATH 1314+ College Algebra and ENGL 1301+ Composition I. Co-requisites allow students, who are not yet college-ready, to take credit-bearing courses while also taking developmental education courses to improve their skills.

In the College's quest for continuous improvement, high-challenge courses have been an increasingly visible institutional priority for discussion, data review, and innovation. High-challenge course data are now routinely presented and analyzed not only at department meetings but also at College Leadership Team (CLT) meetings. The CLT meets monthly and includes administrators, department chairs, and directors representing all three areas of the College: Academic Success, Student Success, and College Services. Members of the CLT are acutely aware of the impact high-challenge courses have on students' academic journey and are intent on providing the resources and strategies to promote student success. Interventions include Early Alert, tutoring support, and case management advising, the latter of which personalizes student-advisor interactions and proactively provides academic and non-academic resources. CLT meetings serve as an institutional forum for the regular, ongoing review and evaluation of high-challenge course data.

In 2019, the Dean of Academic Success, who oversees the Division of Arts and Sciences, convened and established a High-Challenge Course Committee composed of department chairs and lead faculty who represent the perspectives of high-challenge course instructors. The committee, which meets monthly to review data and discuss best practices across disciplines, provides another cross-College avenue for discussion and intervention in high-challenge courses.

For the past decade, department chairs and faculty leads have been responsible for developing action plans for high-challenge courses and evaluating these each semester. The Math Department's Fall 2020 High-Challenge Course Action Plan for MATH 1314 College Algebra exemplifies these action plans. See Appendix D.

With grant funding from the College's STEM Center, faculty began using embedded tutors in co-requisite courses for College Algebra in Fall 2019. MATH 1314 data from Fall 2019, when embedded tutors were initially implemented in four co-requisite sections, demonstrated improved Completion and PGR. In Fall 2020, additional external funding enabled embedded tutors to again be placed in four co-requisite sections of College Algebra. Course statistics continued to trend upward as illustrated in Table 3.1.1 below.

Table 3.1.1: Historical Data for MATH 1314 College Algebra

Semester/Year	PGR	Completion
Fall 2015	60.5%	81.7%
Fall 2016	54.3%	75.3%
Fall 2017	57.1%	76.8%
Fall 2018	49.8%	76.9%
Fall 2019*	53.1%	84.7%
Fall 2020*	64.2%	88.3%

*Embedded tutors used in co-requisite courses

Serendipitously, just prior to the selection of the QEP topic in early June 2020, the College was awarded state funding to implement embedded tutors in co-requisite sections of ENGL 1301 Composition I and MATH 1314 College Algebra. The 2020-2021 College Readiness and Success Models (CRSM) Grant from the Texas Higher Education Coordinating Board has enabled the College to collect baseline data on embedded tutoring that will be valuable for the QEP.

3.2 Tutoring at Palo Alto College

The heart of academic support at Palo Alto College is the discipline-specific tutoring provided at various campus learning centers, such as the Math Learning Center, the Science Learning Center, and the English Writing Assistance Center. Since 2015, the Director of Tutoring and his staff have been responsible for developing an annual College Action Plan (CAP) for Tutoring Services. The CAP provides an opportunity for continuous improvement through comprehensive data review and identification of the most promising tutoring strategies.

With the sudden onset of the pandemic early last year, the College closed abruptly in March 2020, and all instruction and academic support were provided remotely, including tutoring. With the on-campus tutoring centers shuttered, the Director of Tutoring and his staff re-envisioned how tutoring would be delivered for the next 16 months and developed the following options.

Case Management

Tutors were assigned a caseload of course sections. They introduced themselves to the instructor and the students via Zoom and made themselves accessible if students needed assistance.

Embedded Tutors

Grant funding (STEM & CRSM) provided embedded tutors for ENGL 1301 and MATH 1314 courses with co-requisites and for high-challenge courses in biology and chemistry. Embedded tutors participated in the Zoom class meetings where they interacted with the students and made themselves available for out-of-class tutoring sessions via Zoom.

Remote Tutoring

Students could access Palo Alto College tutors via Zoom during specified tutoring center hours.

Brainfuse

Students could use this online tutoring service at any time. The tutors are not affiliated with the College.

The multiple innovative options for tutoring inspired by the pandemic provided a trove of baseline data germane to the QEP. The Alamo Colleges Office of Institutional Research generated a detailed table for Fall 2020 comparing embedded tutoring and case management course success as found in Appendix E. Table 3.2.1 summarizes key information from the data for the six academic courses that provided embedded tutoring.

Table 3.2.1: Fall 2020 Embedded Tutoring (ET) and Case Management Course Success

Course	Tutoring Support	Number of Students	PGR	Completion
BIOL 1406	No Support	210	86.2%	94.8%
BIOL 1406	**ET**	**87**	**90.8%**	**95.4%**
BIOL 2401	No Support	119	70.6%	84.0%
BIOL 2401	**ET**	**42**	**64.3%**	**83.3%**
CHEM 1405	Case Management	90	78.9%	93.3
CHEM 1405	**ET**	**21**	**95.2%**	**95.2%**
CHEM 1411	Case Management	136	61.8%	85.3%
CHEM 1411	**ET**	**46**	**80.4%**	**95.7%**
ENGL 1301	No Support	309	59.9%	69.3%
ENGL 1301	Case Management	1273	61.0%	84.4%
ENGL 1301	**ET**	**204**	**55.4%**	**86.8%**
MATH 1314	No Support	530	63.8%	86.0%
MATH 1314	Case Management	256	64.8%	89.5%
MATH 1314	**ET**	**334**	**65.0%**	**89.5%**

In Fall 2020, embedded tutoring was implemented in six high-challenge academic courses. In four of the courses, the embedded tutoring sections had higher completion rates than sections with no tutoring support or case management. In the two other courses, BIOL 2401 and MATH 1314, the completion rates in the embedded tutoring sections were comparable to the sections without embedded tutoring support. The PGR in four of the six high-challenge courses was higher in the embedded tutoring sections. The two exceptions, embedded tutoring sections of BIOL 2401 and ENGL 1301, both had PGRs six percentage points below sections without embedded tutoring support.

Although this data is intriguing, the table itself represents a snapshot of only one semester. Tracking comparison data over six semesters, as proposed by the QEP project, would enable the institution to identify patterns and develop a more nuanced analysis of the effectiveness of implementing embedded tutoring in high-challenge courses.

Finally, the focus of the QEP itself, which evolved over 10 months of thoughtful collaboration by the College community, represents a tangible nexus of multiple institutional priorities. The QEP topic is linked to the College's KPIs, specifically its focus on improving PGR. The QEP topic also mirrors the institution's Strategic Direction of Student Empowerment, especially the goal to "Increase student proficiency in learning outcomes" (*Palo Alto College Factbook, 2019-2020*). In addition, the QEP topic blends elements of several potential QEP topic areas considered by the College community (e.g., student engagement, self-reflection, and supportive classroom connections). Perhaps most importantly, the College has selected a QEP topic that reflects the institution's long-standing, data-driven commitment to supporting student success in high-challenge courses.

3.3 Topic Selection Affirmation

In June 2021, the College's choice of a QEP topic was affirmed by a survey of educational community partners: 100% of the respondents "strongly agreed" that embedded tutoring would contribute to the academic success of Palo Alto College students (Jacobs, 2021). The top five subject areas that community partners believed would benefit most from embedded tutoring are illustrated in Table 3.1.1 below.

Table 3.3.1: Community Partners' Survey Results Subject Benefitting Most from Embedded Tutoring

Subject	Percentage of Responses
College Algebra	85.7%
English	71.4%
Chemistry	57.1%
Physics	57.1%
Biology	42.86%

The selection of MATH 1314 College Algebra and ENGL 1301 Composition I as the top two courses that respondents felt would benefit most from embedded tutoring offered a powerful affirmation of the College's QEP focus. Although community endorsement of biology was not as strong, institutional data created a compelling case for making BIOL 2401 Anatomy & Physiology I, which is a persistent high-challenge course, a candidate for embedded tutoring intervention.

Section 4:

Review of the Literature

4.1 Setting the Stage: The Genesis of Supplemental Instruction

In the mid-1960's, the University of Missouri at Kansas City (UMKC) shifted from a private to a public institution and began admitting a more heterogeneous student population (Arendale, 2002). Subsequently, institutional attrition rates climbed from 20% to 45% and prompted UMKC administrators to realize that an intervention was needed to improve retention, especially in high-challenge science courses such as Anatomy & Physiology (Widmar, 1994). After extensive research on collegiate learning and retention, Deanna Martin, a UMKC doctoral student in education, developed Supplemental Instruction (SI), an academic support program designed to improve student retention (Arendale, 2002).

Martin piloted SI in an anatomy class at UMKC in 1973, and the results were so promising that SI implementation was rapidly expanded to the Schools of Dentistry, Medicine, and Pharmacy. Martin's data as well as later research on SI consistently demonstrated that "students who participated in SI sessions scored higher on test grades and a smaller percentage of them failed or withdrew from the class than non-SI participants" (Hurley & Gilbert, 2008, p. 2).

SI focuses on courses that are historically difficult and are often labelled high-challenge or high-risk. Often these are high stakes gateway courses required as a prerequisite for more advanced course work or a prerequisite for a particular major. Arendale (2002) identified several characteristics of high-challenge courses:

- Large number of students in the course.
- Few opportunities to interact with the instructor or with other students.
- Infrequent exams that focus on complex, cognitively challenging material.
- Reading-intensive: substantial weekly reading assignments from challenging textbooks and supplementary sources.
- Voluntary, unrecorded class attendance.
- Student perception of the course as difficult.

The designation of a course as high-challenge is based solely on the calculation of course data such as retention, attrition, and PGR. The phrase "high-challenge" is not intended to cast aspersion on either instructors or students. Rather, a persistent pattern of data that places a course in the high-challenge category is indicative that academic support is required to enhance students' academic performance to meet the instructional goals of the faculty.

The beauty of the SI model as conceived by Martin is that the strategy focuses on high-risk *courses* rather than high-risk *students* and provides "a model of academic support for *all students* – where it is particularly needed – as an intervention for difficult first year courses" (Jacobs & Stone, 2008, p. v). The savvy course-centric focus of SI allows *all students* to thrive by avoiding the stigma of remediation that some students might associate with traditional assistance programs.
Intentionally created by Martin as an alternative to traditional tutoring, SI relies on peer-to-peer instruction to facilitate the development of academic skills within the context of a particular course (Hurley & Gilbert, 2008). The "tutor/facilitator provides additional instruction and practice through activities and application of course material during sessions outside of a course's regular class time" (Channing & Okada, 2020, p. 241).

SI facilitators, who are students that have been successful in the course, "do more than facilitate review sessions; they actually coach students in good student behavior by modeling the kinds of behaviors that good students practice… Skilled facilitators do more than cover course content; they demystify the process of how good students go about getting good grades" (Wilcox & Jacobs, 2008, p. ix). Ideally, the SI experience enables students to become independent learners (Burmeister, 2013).

Perhaps most importantly, SI offers a unique social dimension that fosters authentic learning:

> SI sessions provide a dynamic, collaborative approach to learning that incorporates a deeper discussion of course content with the application of important learning strategies. The outcomes of this program encourage critical thinking and changes to the way that many students approach learning. (Jacobs & Stone, 2008, pp. v-vi)

Since Martin launched SI at UMKC nearly 50 years ago, the SI model has flourished nationally and internationally. In 1981, the U.S. Department of Education recognized SI as an Exemplary Educational Practice (Hurley & Gilbert, 2008). The International Center for Supplemental Instruction at the University of Missouri – Kansas City has trained more than 1500 individuals from 30 countries to start SI programs on their campuses (Jacobs et al., 2008).

From its inception, the founders of SI decided that the model "should be modified by its users rather than its creators" (Jacobs et al., 2008, p. 81). Thus, SI's versatility, fluidity, and adaptability have enabled its dynamic global expansion. The success of SI in providing meaningful academic support has sparked numerous variations of the model. One of these is embedded tutoring, the focus of Palo Alto College's QEP.

4.2 Embedded Tutoring: A Variation on the SI Theme

Tutoring provides academic support for students, but the context differs for various models as shown in Table 4.2.1.

Table 4.2.1: Tutoring Support and Context

Type of Tutoring Support	Context for Tutoring Support
Traditional One-on-One Tutoring	Campus Tutoring Center
Supplemental Instruction (SI)	Scheduled group activities conducted outside of class
Embedded Tutoring (ET)	In-class activities and scheduled group and individual activities conducted outside of class

Context can make a significant difference as Martin discovered when she moved SI outside of the tutoring center. Students welcomed the opportunity to meet in small groups for scheduled course-related activities. However, one of the pitfalls of the SI model is that these small group sessions are optional. Thus, students can choose not to participate. Similarly, students often resist coming to the campus tutoring center to receive traditional one-on-one tutoring assistance because of their belief that support services are only for low-performing students (Tucker et al., 2020).

Embedded tutoring draws on the SI model but shifts tutoring into the classroom and makes unavoidable what Dvorak & Tucker (2017) describe as "intentionally interwoven peer learning support" (p. 43). In 2005, Spigeleman & Grobman's ground-breaking *On Location: Theory and Practice in Classroom-Based*

Writing Tutoring heralded embedded tutoring as a bridge between the Writing Assistance Center and the classroom with "writing support offered directly to students *during* class" (p. 1). Tutors go on location and are submerged in the vibrant communal lifeworld of the classroom:

> Classroom-based writing tutoring *enacts* collaboration: on-location tutors suggest language, ideas, and strategies that student writers may incorporate directly into their drafts; on-location tutors encourage collaborative conversation among writers and responders; and on-location tutors point out useful text sources from which writers may expand their arguments. (Spigelman & Grobman, 2005, p. 7)

Since the publication of *On Location*, embedded tutoring has expanded to myriad disciplines and has established a unique identity that transforms the classroom into a supportive, interactive learning environment. An embedded tutor works closely with the instructor for the duration of a course to provide *classroom support* in the academic content area and timely, individualized assistance to students who may be struggling. Tutors may attend every class meeting or their attendance may be based on the structure of the class and on student needs.

In the classroom, the embedded tutor functions as:

- A ***peer tutor*** providing support to students as they work with the class content and texts.
- A ***mentor*** helping students foster connections with support services.
- A ***model student*** demonstrating effective student behaviors and successful academic strategies. (Mission College, n.d.)

The Academic Success and Tutoring Center at Solano Community College (n.d.) provides a succinct list of the primary goals of embedded tutoring:

- To help students understand course concepts and enhance student engagement.
- To inspire students by having a class tutor who also acts as a guide and models academic behavior.
- To give students a chance for more individualized attention and feedback during class activities.
- To expose students to tutoring who may not seek it otherwise.
- To improve a student's self and academic efficacy.
- To support the growth of tutors in their educational and professional goals and offer a rewarding experience that will allow them to build their interpersonal and leadership skills through mentorship by an experienced instructor.

4.3 ET: Why It Works

Embedded tutoring builds community in the classroom by initiating collaborative learning pedagogy and fostering affective learning and non-cognitive development (Sanchez & Gavaskar, 2019). The ongoing in-class interactions between students and the embedded tutor create a genuine community of learners for the duration of the course. Unlike SI, which also provides opportunities for student-tutor interactions, the connectedness inherent in embedded tutoring extends to *all students* in the course. Consequently, classroom dynamics are profoundly altered to support the success of *all students*.

From 2011-2014, the Research and Planning Group for California Community Colleges, known as the RP Group, did extensive research to identify the key factors that contributed to student success. The group began their investigation by querying researchers and practitioners then went a step further and asked

students what qualities they believed were essential for their success. Students identified six primary "success factors" which are illustrated in Figure 4.3.1 below (Booth et al., 2013).

Figure 4.3.1: Student-Identified Success Factors

Table 4.3.1 demonstrates how embedded tutoring embodies each of these factors. The six factors are listed in the order of importance indicated by the students who participated in the RP Group's research (Booth et al., 2013).

Table 4.3.1: Student-Identified Success Factors and Embedded Tutoring (ET)

Success Factor	RP Group Definition	ET Connection
Directed	Students have a goal and know how to achieve it.	ET assists students to master course content (an immediate goal) and provides study skills and other strategies for learning so that students know how to achieve their long-term academic goals.
Focused	Students stay on track - keeping their eyes on the prize.	ET has opportunities for individualized, just in time assistance to meet immediate learning needs and keep struggling students on track for course success.
Nurtured	Students feel somebody wants them to succeed and helps them to do so.	An embedded tutor interacts with students each class period, is interested in their individual progress, and provides them with the tools to achieve success.

Engaged	Students actively participate in class and extracurricular activities.	Embedded tutors promote collaborative learning and interactions between students.
Connected	Students feel like they are part of the college community.	The classroom engagement and course success fostered by ET enables students to connect more readily with the larger college community.
Valued	Students' skills, talents, abilities, and experiences are recognized; they have opportunities to contribute on campus and feel their contributions are appreciated.	ET creates a classroom community of learners where students are recognized for their individual gifts. The embedded tutors themselves become integral and valued members of the campus community.

Embedded tutoring is considered such a powerful academic support strategy because it reflects attributes associated with best practices in undergraduate education. In a 1987 publication, Chickering & Gamson described seven principles of exemplary undergraduate education:

- Encourage contact between students and faculty.
- Develop reciprocity and cooperation among students.
- Encourage active learning.
- Give prompt feedback.
- Emphasize time on task.
- Communicate high expectations.
- Respect diverse talents and ways of knowing.

Although the article appeared over three decades ago, the principles continue to reverberate in current research. The RP Group's six success factors, published in 2013, clearly echo Chickering's underlying theme that students benefit from experiences that foster close relationships with mentors and co-learners.

Just as importantly, the impetus for the development of tutoring support strategies, such as SI and embedded tutoring, was to improve student retention. Vincent Tinto (1993), an icon in the field of retention research, identified six factors that contribute to student retention.

For Tinto, the linchpin for retention is student involvement in the college community, particularly during the critical first year. Tinto (2001) noted, "The best retention program is always a strong academic program that actively involves students in learning, especially with others" (p. 3). Learning communities, championed by Tinto since the 1990s, offer students not only involvement with faculty and peers but also a deep sense of belonging. Students who perceive themselves as members of a rich and stimulating academic environment are more likely to remain and more likely to succeed. The dense web of intentional interpersonal connections at the core of embedded tutoring offers students a microcosm of Tinto's learning community.

4.4 ET: How It Works

Connection is the heart of embedded tutoring: tutors connect with students; faculty connect with the tutor; and students connect with the instructor, the tutor, and each other. An embedded tutoring classroom is a vibrant, ever shifting landscape of learning. Most importantly, students are recognized as "whole persons, not merely as names on the roll book or roster" (Shull, 2003, p. 42).

Exactly how this connection unfolds is best illustrated by the resources for tutors and faculty created by Triton College (2021). The comprehensive summaries of the roles and responsibilities for tutors and faculty epitomize ET best practices and represent an aspirational model for all institutions interested in implementing embedded tutoring as an academic support strategy.

The Triton College Library LibGuide (2021) described the role of the embedded tutor as follows:

> Embedded peer tutors are in a unique position inside the classroom. Because they fall between the expert and novice zones, they are in a better position to relate to the student experience, and students respond to a peer tutor in a way they may not with the instructor or "expert." Tutors are most useful in helping students apply what the instructor teaches while doing assignments or "guided practice." Being present in class gives the tutor full knowledge of the instructor's lecture material, assignment expectations, and teaching style. The primary focus of the peer tutor role is to help students to understand the content of the course, but the role also includes being a guide who empowers students to take advantage of campus and community resources, as well as an academic model, demonstrating successful learning strategies and behaviors. Embedding tutors also act as co-facilitators who collaborate with and assist instructors in effective active learning activities.

The Triton College Library LibGuide (2021) then explained the key functions of the peer tutor as follows:

- Supports student learning.
- Acts as a bridge between instructor and student.
- Provides feedback on class engagement and any challenges students are facing.
- Gives students more individualized attention and feedback during class activities.
- Identifies gaps in knowledge and reinforces key concepts.
- Reinforces study skills and strategies.
- Supports students in become in [*sic*] independent and active learners.
- Supports instructor in creating a dynamic learning environment.
- Models behaviors and habits of a successful learner with a positive growth oriented [*sic*] attitude.
- Exposes students to tutoring who may not have known about it or ever seek it out.

The Triton College Library LibGuide (2021) further detailed the functions of the tutor in the classroom as follows:

- Engages in class activities.
- Offers support during class work time. Answering questions [offering] individual help, group help, being open and available for struggling students. Keeping students on task.
- Helps facilitate small group discussions during group work. Either free to circulate or assigned to a particular group to enhance their discussion/keep them on topic.
- Provides one-on-one assistance to students both during and after class.

- Provides feedback, answers questions, poses questions and encourages students to "dig deeper" during class activities.
- Offers own unique perspective in class discussions as needed.
- Collaborates on and/or presents small lectures and activities.

The LibGuide provided recommendations for tutor interaction with faculty and students as shown in Table 4.4.1 (Triton College Library 2021).

Table 4.4.1: Recommended Tutor Interactions

Tutor Responsibilities
Do's [*sic*] • Discuss with the Professor on Day One how the instructor would like you to assist with the class and what you feel your strengths are in the classroom. • Be proactive in asking the Professor any questions you might have and suggestions for how you can assist in the classroom. • Come prepared having reviewed course materials for that class meeting. • Do communicate any formative assessments of students to the professor. What are you noticing is happening in the classroom or with a particular student's progress? • Be pro-active and walk around the class to assist students. "Work the room!" Ask students if they need help but also ask them questions about the assignment. Example: Do you need help with your thesis statement? OR What did you come up with for your thesis statement? Then provide encouraging and constructive feedback to the student. • Be patient and polite with the students; be professional and respectful with the professor. Be an active listener and use conflict resolution techniques if needed. Refer students when appropriate. • Sit on the periphery of the class. Either at the side or in the back so you can move around the classroom inconspicuously and without interrupting the instructor. • Inform instructor of any absences planned or unplanned. • Be proactive in asking the instructors questions and following up with them. • Communicate, communicate, communicate.
Don'ts • Do the work for the students. Instead, use questions, demonstration, practice, examples, informal quizzes, and other approaches for the students to get it. • Teach the class anything new unless it is part of the instruction intended by the professor and under the professor's direction. • Sit idly[;] instead always find a way to be active in the class and/or to further the development of the embedded tutor model. • Take on teaching responsibilities, make copies, run errands, grade assignments • Enforce classroom management or discipline policies. Report any issues regarding classroom behavior to instructor.

The role, functions, and responsibilities of embedded tutors are clearly delineated in the materials from Triton College. Further, the summaries mirror the embedded tutoring resources from countless other colleges (e.g., Mission College, Solano Community College, University of Houston-Clear Lake, Truckee Meadows Community College, and Cosumnes River College).

The Triton College Library LibGuide (2021) also provided faculty with resources describing their roles and responsibilities when an embedded tutor joins their classroom:

> The instructor's role is primarily one of facilitator. The instructor plans and guides the tutor towards meaningful interactions with students in the classroom. The instructor's communication with the tutor plays a key function in the embedded tutoring model. This liaison is essential to its success. An instructor can best facilitate these tutor/student interactions by planning ahead and communicating either before/during class or by email before class thoughts on what activities/students/tasks the tutor should focus on for that day. The more information on student progress the tutor has, the more effective the tutor/student engagement will be. The tutor's integration into classroom practices makes the tutoring interaction feel natural and increases students' confidence in using the embedded tutor.

As with the tutor interactions, the LibGuide also detailed recommendations for faculty as shown in Table 4.4.2 (Triton College Library 2021).

Table 4.4.2: Recommended Instructor Interactions

Instructor Responsibilities
Do's [*sic*] • Make the tutor feel welcome and informed. Introduce yourself and get to know the tutor and his/her experiences, background, strengths, etc. • Introduce the tutor Day 1 of the course and ask him/her to share a little bit about themselves. Include information on the embedded peer tutor role and tutor contact information. • Feel comfortable in explaining to the tutor how you want him or her to interact with your students. Spend time explaining your expectations on an assignment or activity. What do you hope to see from the students and how can the tutor assist students to accomplish these tasks? • Provide the tutor with a copy of your syllabus and other necessary handouts prior to using them in the classroom. • Highly recommended that you add the tutor into Blackboard as either a student or a Teaching Assistant. This way the tutor will have access to course assignments and materials, and if added as a Teaching Assistant, he/she will be able to view students who are missing work and can reach out to them. You can also send the tutor the names of the students who could use additional support and a description of the concern. • Adjust your way of teaching to maximize tutor interactions. • Instructors should have a plan for incorporating the embedded tutor into large or small group activities at each class meeting. • Present tutoring as an integral part of the course[.] • Refer students to tutoring early on and regularly[.] • Incentivize students to visit tutors by offering an extra credit point on an assignment or quiz. • Provide feedback to the Learning Specialist on additional training a tutor may need[.]
Don'ts • Be afraid to communicate directly with the tutor about how he or she is doing. • Use the tutor as Teaching Assistant to teach the course or grade assignments. • Ask the tutor to lead class in your absence. • Have tutors make copies or run errands.

The detailed materials from Triton College represent exemplary practices in embedded tutoring and present a snapshot of the tutor and faculty commitments required to successfully implement this in-class tutoring strategy. Training is critical for both tutors and instructors before and during the embedded tutoring experience so that faculty can adjust their teaching strategies to incorporate a tutor-partner in the classroom who will provide occasions for collaborative learning and opportunities for individual academic support.

4.5: What the Research Says

Since its launch in 1973, SI has consistently demonstrated its effectiveness as an academic support strategy. Research has shown that students who regularly participate in SI sessions are more likely than those who do not participate to earn a grade of C or better in the course and to be retained in the class (Burmeister, 2013; Grillo & Leist, 2013). Dawson et al. (2014) systematically reviewed the SI literature between 2000-2010 to assess the effectiveness of SI. Their findings were consistent with U.S. Department of Education research that correlated SI participation with higher mean grades, lower failure and withdrawal rates, and higher retention and graduation rates.

As a variation of SI, embedded tutoring and SI research are often reported together: "Quantitative and qualitative data suggest that supplemental instruction and embedded tutoring programs facilitate learning and success in all disciplines" (Channing & Okada, 2020, p. 242). Research solely on the effectiveness of embedded tutoring is less available and more limited in scope than the extensive research done on SI. However, embedded tutoring studies reported in comprehensive bibliographies by Arendale (2017) and by the Learning Support Centers in Higher Education (2017) "suggest that these programs are associated with higher grades, better retention rates, better rates of skill transfer, and a range of positive non-cognitive and systemic outcomes" (Tucker et al., 2020, p.865).

Summaries of several studies that focus exclusively on embedded tutoring highlight its effectiveness:

- Faculty at the Royal Melbourne Institute of Technology (RMIT University) used embedded tutors in three different courses (psychology, civil engineering, and industrial design) and had experimental and control groups for each course. Two of the three courses (psychology and civil engineering) showed higher retention rates and higher grades in the embedded tutoring sections than the control sections (Chester et al., n.d.).

- Embedded tutoring was used in a U.S. history course which had a high attrition rate, particularly for those students with an at-risk profile. Students in the embedded tutoring sections outperformed their peers both in retention and in successful academic performance (Racchini, 2020).

- In Fall 2016, embedded tutoring was implemented in 23 sections of English, math, and ESL at Cerritos College. At the end of the term, students enrolled in embedded tutoring sections had a higher retention rate than students in comparable sections. In addition, students in embedded tutoring sections who also attended additional tutoring sessions had higher grades than students who did not attend additional tutoring sessions (Institutional Effectiveness, Research & Planning, 2017).

- Embedded tutors were assigned to high-risk first year gateway courses in college math, English, introductory biology, introductory psychology, and introductory statistics. Students in embedded tutoring sections had statistically higher retention rates and productive grade rates than students in sections without embedded tutors (Tucker et al., 2020).

What is not captured so easily in the research literature are the qualitative dimensions of an embedded tutoring classroom. How do students, tutors, and teachers experience the vibrant connectedness that transforms an ordinary classroom into a fluid, continually evolving community of learners?

4.6 ET: Toward a Pedagogy of Transformation

In "That Mode of Being Called Teaching," philosopher David Denton (1974) observed: "Teaching is a moment of human interconnectedness which can't be reduced to anything other than itself" (p. 104). Denton's words capture the powerful dialogic connection of the tutoring conversation that invites new ways of seeing and being in the world.

Embedded tutoring creates a context for transformation which Cranton (1992) defined as a change in assumptions, perspectives, and behaviors. Transformative learning occurs when "an individual becomes aware of holding a limiting or distorted view. If the individual critically examines this view, opens herself to alternatives, and consequently changes the way she sees things, she has transformed some part of how she makes meaning out of the world" (Cranton, 2002, p. 64).

In embedded tutoring, the catalyst for meaning-making is the back and forth dialogue which is the essence of the tutoring experience:

> Talk in tutoring provides the necessary context for what Mezirov refers to as transformational learning. Tutoring conversations can then be perceived as a space where the student-tutee ventures to (re)create his/her mental models and consequently experiences change on a number of levels. Learning in tutoring is, thus, collaborative, dialogical, and language-based. (Grzegorczyk, 2018, p. 167)

The conversation that the tutor and the student engage in is essential to the process of transformation because ideas and opinions can be shared, assumptions questioned, alternative perspectives suggested, and encouragement provided. Most importantly, the questions posed by the tutor encourage critical reflection and sow the seeds for genuine change in assumptions, perceptions, and behaviors.

Transformation is an emergent, non-linear process that cannot be taught. Cranton's elegant 2002 article on transformative pedagogy is titled "Teaching for Transformation" rather than "Teaching Transformation." Transformation, unlike many classroom strategies, resists an easy-to-follow recipe. Instead, teachers and tutors create a context "*for* transformation" to unfold. Embedded tutoring can be a powerful ingredient in a classroom designed to inspire transformation by offering intellectual challenge cushioned by authentic academic care which "repositions the learner as the architect of her lived experience" (Engward & Goldspink, 2020, p. 4).

Cranton (2002) suggests seven facets of transformative learning. Table 4.6.1 illustrates how each facet might be linked to embedded tutoring to create a classroom context deeply rooted in the critical reflection that makes learning possible.

Table 4.6.1: Embedded Tutoring Connection to Transformative Learning

Cranton's Facets of Transformative Learning	**Embedded Tutoring Link**
Creating an Activating Event	Tutor and student review work completed by the student (e.g., an essay draft, a solution to a mathematics problem, an outline for a proposed science project).
Articulating Assumptions	Through thoughtful questioning, the tutor helps students articulate their beliefs related to their work (e.g., What contributed to your beliefs about your topic? Personal experiential knowledge? Knowledge of others? Academic knowledge? What assumptions might be inherent in your beliefs?)
Critical Self-Reflection	Tutor creates opportunities – and a supportive environment - for students individually or in small groups to question their perspectives.
Openness to Alternativeness	Tutor creates a safe space for students, individually or in small groups, to discuss/try on different perspectives.
Discourse	Tutor facilitates discussion with small groups to dispassionately present all information on a topic, reflect critically on alternate perspectives, and reach an informed consensus.
Revision of Assumptions and Perspectives	Tutor supports students individually as they re-envision prior beliefs and become the architects of their lived experience.
Acting on Revision	Tutor provides students with the opportunity to act on their revised knowledge or plan how they would act on their new knowledge.

In an embedded tutoring classroom, not only students are transformed since research demonstrates the value of the experience to the tutors who can solidify their own knowledge and develop leadership skills (Dvorak, 2001). Arco-Tirado et al. (2011) found that tutors benefited by "increasing their confidence in

communicating and presenting, gaining additional experience in managing people, enhancing their curriculum vitas, and improving their ability to manage at work-placement interviews" (p. 783). Tutors not only experience the benefits of campus employment but are also valued as contributing members of the campus community. Finally, tutors build relationships across campus and develop soft skills such as empathy, problem-solving, time management, and listening skills (Cofer, 2020).

A research project on writing center tutor alumni, aptly titled "What They Take with Them," succinctly summarizes the transformative impact of tutoring (Hughes et al., 2010). Writing center alumni noted that they developed the following skills:

- A new relationship with writing.
- Analytical power.
- A listening presence.
- Skills, values, and abilities vital in their profession.
- Skills, values, and abilities vital in families and in relationships.
- Earned confidence in themselves.
- A deeper understanding of and commitment to collaborative learning. (Hughes et al., 2010, p. 14)

In an embedded tutoring classroom, transformation occurs on many levels and illuminates the densely intertwined lifeworld of students, tutors, and teachers with radiant and unexpected possibilities:

> When a student transforms her assumptions, becoming open to alternatives and new ways of thinking, it is a magical moment in teaching. We cannot teach transformation. We cannot even identify how or why it happens. But we can teach as though the possibility always exists that a student will have a transformative experience. (Cranston, 2002, pp. 70-71)

Section 5:

Developing Student Learning Outcomes

After the selection of the Quality Enhancement Plan (QEP) topic in June 2020, the 5-member QEP Planning Committee, which had orchestrated the topic selection process, was re-constituted and enlarged to 21 members that included faculty, staff, academic peer mentors, and students from across the College. Membership is listed in Table 5.1 below.

Table 5.1: QEP Planning Committee Members, August 2020-Present

Committee Role	Name and Department
Committee Co-Chairs	Thomas Murguia, Director of Tutoring Jennifer Scheidt, Chair of English
Department Chairs	Dr. Amanda Salinas, Chair of Mathematics Sara Wilkins, Chair of Science
Faculty Members	Caroline Mains & Antonio Garza (English) Virginia Nelms & Marissa Mascorro (Mathematics) Dr. Deborah Koeck & Dr. Stamatis Muratidis (Chemistry) Linda Ibarra-Gonzalez (Biology)
College Student Leaders	Karla Leija, Defranco Sarabia, Hector Saldivar
STEM Academic Peer/Coach Mentors	Brianna Mesa, Desirae Morales, Carlos Aguilar
Staff Members	Amanda Harrison, Teaching & Learning Center Cindy Morgan, Disabilities Support Service Mary-Ellen Jacobs, Academic Program Director Adam Rodriguez, Certified STEM Advisor
Ex Officio	Caroline Haring & Mauricio Garcia, Institutional Research Representatives

Tasked to develop a detailed QEP, the group began biweekly meetings in August 2020 that continued through May 2021. After carefully reviewing current literature describing embedded tutoring's best practices and occasional pitfalls, committee members focused on two tasks: defining embedded tutoring for the QEP and identifying Student Learning Outcomes (SLOs) for the QEP project.

5.1 Defining Embedded Tutoring

E.M. Forster (1910/2008), coined the famous phrase "Only connect!" (Chapter XXII). This phrase served as a vibrant touchstone for the unfolding committee conversations centered on defining the term "embedded tutoring." A form of SI, embedded tutoring is typically described in the literature as a tutor working "in the classroom under the instructor's guidance to help students understand course concepts and enhance student engagement" (Mission College n.d.).

The Triton College LibGuide (2021) on embedded tutoring specifically addressed co-requisite courses, a focus of Palo Alto College's QEP. The LibGuide explained, "Embedded tutoring in co-requisite courses will engage students in course material, increase retention and persistence, and support students as they accelerate into college level courses through the collaborative efforts of instructors and tutors" (Triton College, 2021). Perhaps even more striking to the committee members was the subsequent passage from the LibGuide: "Embedded tutoring uses active learning pedagogy and a pedagogy of care to support a classroom environment that challenges students and helps them reach new heights in their learning" (Triton College, 2021).

In reviewing the literature on embedded tutoring, the committee was captivated by the deep sense of connection which seemed to be the foundation of embedded tutoring. The singular striking feature of embedded tutoring was the active, in-class connection between the tutor and the student that set the stage for successful learning. The committee's insight was supported by Channing and Okada (2020) who noted:

> [S]ocial learning aspects to embedded tutoring and supplemental instruction are what make these approaches effective. A more competent or knowledgeable peer or professional tutor assists students who are on the verge of understanding and/or being able to apply skills to reach higher levels of understanding, analysis, and application. (p. 241)

Through ongoing conversations, committee members explored how connection provides the essential backdrop for the embedded tutoring process. The committee recognized the uniquely human dimension of tutoring because the tutor and the student share the lived experience of the classroom. Further, embedded tutors deliberately extend themselves to students to understand their lifeworld more deeply and, in so doing, can suggest resources beyond the academic.

As the committee's discussions unfolded, three distinct kinds of connection associated with embedded tutoring were identified as well as several characteristics of each.

Connection in the Classroom

- The instructor introduces the tutor to the students and makes clear the role the tutor will play in the class.
- Tutors attend class and actively participate (e.g., work with students during hands on exercises).
- Tutoring is normalized through course activities that create a meaningful student-tutor connection.
- Students are comfortable with the embedded tutor.

Connection Between Instructors and Tutors

- Training and prior planning are needed to create a partnership.
- Clear roles are established between the instructor and tutor.
- Ongoing collaboration occurs between the instructor and tutor throughout the course.
- Tutor and instructor meet weekly to plan activities and discuss student progress.

Connection Offered by the Embedded Tutor

- The tutor acts as a peer mentor who is personable, flexible, and empathetic.
- The tutor acts as an academic guide by demonstrating knowledge in course content.

- The tutor serves as a bridge to communicate student concerns to faculty.
- The tutor is trained in growth mindset, cognitive learning strategies, and soft skills.
- The tutor is aware of campus resources offering both academic and non-academic support.

Through trial and error, the committee members gradually formulated a definition of embedded tutoring that satisfactorily embodied their vision of the student-tutor connection as explained below.

Embedded tutoring provides classroom support through peer mentors who, as "Learning Architects," connect with students to:

- Engage them in understanding course content.
- Support their growth as self-confident learners.
- Enhance their feelings of classroom belonging.

5.2 Identifying Student Learning Outcomes

The definition of embedded tutoring led to the formulation of four Student Learning Outcomes (SLOs):

1. Students will demonstrate an understanding of course content.
2. Students will report an increase in self-confidence.
3. Students will develop a positive perception of tutoring.
4. Students will report an increased sense of classroom belonging.

The four SLOs underscore connection with course content; with instructors, peers, and tutors; and with a community of actively engaged learners. Connection fosters a sense of belonging and creates a context for students to succeed academically, socially, and personally.

The QEP Planning Committee agreed that embedded tutoring is a powerful portal to connection and turned its attention to developing assessment strategies to demonstrate the connections possible in an embedded tutoring classroom.

Section 6:

QEP Assessment

In any Quality Enhancement Plan (QEP), assessment is multi-layered and all-encompassing. Not only does the intervention designed to improve student learning require specific assessment strategies, but the QEP itself requires regular, systematic evaluation to maintain its integrity and its focus. What follows is a discussion of each of these two assessment strands.

6.1 Assessing Embedded Tutoring

Members of the QEP Planning Committee agreed that both quantitative and qualitative measures would be needed to assess the effectiveness of embedded tutoring (ET).

Quantitative Evaluation of Student Success

- Increased Productive Grade Rate (PGR) compared to sections without ET.
- Increased in-term retention compared to sections without ET.
- Lower absentee rate compared to sections without ET.

Qualitative Evaluation of Student Success

- Pre and post course survey to gauge students' understanding of course content, self-confidence as a learner, sense of classroom belonging, and perceptions of tutoring.
- Midterm reflection on students' experience of ET.
- End-of-term student focus group to discuss the experience of ET.
- End-of-term tutors' survey to gauge their perceptions of the value of the ET experience.
- End-of-term instructors' survey to gauge their perceptions of the value of the ET experience.

Table 6.1.1 links each of the SLOs to specific assessment strategies.

Table 6.1.1: Crosswalk of SLOs and Assessments

Student Learning Outcomes	Assessments
1. Students will demonstrate an understanding of course content.	• Pre/post survey • Midterm reflection • Student focus group • Course performance
2. Students will report an increase in self-confidence.	• Pre/post survey • Midterm reflection • Student focus group
3. Students will develop a positive perception of tutoring.	• Pre/post survey • Midterm reflection • Student focus group

4. Students will report an increased sense of classroom belonging	• Pre/post survey • Midterm reflection • Student focus group • In-term retention • Class absentee rates

The survey done by the instructors and the tutors at the end of each semester is designed to capture their experiences of embedded tutoring. Their responses will provide a window to view not only the classroom dynamics that unfolded during the semester among all participants (instructor-tutor-students) but will also provide a "big picture" window to assess the effectiveness of the QEP itself as it transpired in multiple classrooms with multiple participants.

The QEP Planning Committee members collaborated with College assessment experts to develop five research instruments that will be used in the QEP. What follows is a brief discussion of each of these instruments.

Assessment Instrument #1: Pre/Post Student Survey

The Pre/Post Student Survey consists of 23 statements that have been developed to align with the four SLOs. Students will respond to each statement with the following level-of-agreement scale:

1. True of me
2. Somewhat true of me
3. Neutral
4. Somewhat untrue of me
5. Untrue of me

This level-of-agreement scale was chosen because it personalized survey responses by requiring students to determine exactly how the statement applied to them.

Five statements focus on SLO #1, understanding of course content, and are unique for each of the three disciplines implementing embedded tutoring: BIOL 2401 Anatomy & Physiology I, MATH 1314+ College Algebra, and ENGL 1301+ Composition I. The survey example presented below highlights MATH 1314+ topics that students would be familiar with by the end of the term. Survey items were determined collaboratively by Virginia Nelms, a seasoned instructor of MATH 1314+, and Amanda Harrison, the College's assessment expert, who has extensive experience teaching high school mathematics. Similarly, relevant content-specific statements will be used in the pre/post surveys for BIOL 2401 and ENGL 1301+ students.

Seven statements were created for SLO #2, increase in self-confidence. Four statements on self-confidence were related to a student's level of comfort engaging with teachers and classmates and overlapped with the statements related to SLO #4, classroom belonging. Three of the seven statements for SLO #2 focus on academic self-efficacy defined as the individuals' belief that they can successfully achieve a designated level on an academic task or attain a specific academic goal (Schunk, 1991).

Self-efficacy has been characterized by Bandura (1986) as situation-specific self-confidence. Unique self-efficacy questions have been created for each of the three embedded tutoring disciplines. The sample survey presented below is designed for the MATH 1314+ student. Thus, the statements focus on math self-efficacy which, according to Pajares and Miller (1995), embodies three types of self-efficacy:

confidence to solve mathematics problems, confidence to succeed in math-related courses, and confidence to perform math-related tasks. The survey statements address each of these facets of math self-efficacy.

Three statements on the survey relate to SLO #3, positive perceptions of tutoring. One of the goals of the QEP is to overcome students' perceived stigma of tutoring. A tutor embedded in a course makes tutoring interactions unavoidable. Satisfying experiences with an embedded tutor can prompt students to more readily seek tutoring assistance.

Eight survey statements are linked to SLO #4, classroom belonging. For Macmillan and Chavis (1986), a sense of belonging "involves the feeling, belief, and expectation that one fits in the group and has a place there, a feeling of acceptance by the group, and a willingness to sacrifice for the group" (p. 10). Ingram's 2012 study on college students' sense of belonging used factor analysis of survey data to identify three reliable measures of belonging: social belonging, academic belonging, and perceived institutional support. Statements for this section of the survey derive from items Ingram developed related to academic and social belonging (Ingram, 2012, p. 53).

Table 6.1.2 crosswalks each of the 23 pre/post survey items with one or more SLO.
Because of the overlap between "sense of belonging" items and "self-confidence" items, these survey items were double-coded for both SLOs. The survey below was specifically created for MATH 1314+ students; thus, SLO #1 relates to "Math Understanding."

Table 6.1.2: Crosswalk of Student Survey Items & SLOs

Pre/Post Survey Items	**SLO #1 Course content understanding (MATH)**	**SLO #2 Self-confidence**	**SLO #3 Perceptions of tutoring**	**SLO #4 Classroom belonging**
1. I can identify important characteristics of a function (ex: domain/range, y-intercept, x-intercept, etc.),	X			
2. I can solve a quadratic equation (ex: $0 = x^2 - 3x - 4$).	X			
3. I can solve an exponential equation (ex: $8 = 2^x$).	X			
4. I can graph a logarithmic function (ex: f(x)=log(x)).	X			
5. I can determine a future monetary value by using the compound interest formula ($A = P\left(1 + \frac{r}{n}\right)^{nt}$.	X			
6. I feel comfortable asking other students for help.		X		X

7. When studying for a course, I often try to discuss the material with a classmate, friend, or family member.		X		X
8. Working with other students on a math problem gives me a better understanding of how to solve the problem.		X		
9. I feel comfortable asking a teacher for help if I do not understand course-related material.		X		X
10. I believe I can do well on mathematics tests.		X		
11. I feel confident solving math problems.		X		
12. I believe I will do well in future math or math-related courses that I might take.		X		
13. When I have trouble understanding material in a course, I feel comfortable asking a tutor for help.		X	X	X
14. I go to the college tutoring center when I need help understanding a concept		X	X	X
15. In general, I have a good feeling toward tutoring.			X	
16. I feel comfortable stating ideas or opinions in class.		X		X
17. I feel that our classroom tutor is easy to approach.			X	X
18. I believe that my math teacher cares about students.				X
19. I feel comfortable seeking help from a teacher before or after class.		X		X

20. I feel comfortable asking a question in class.		X		X
21. I feel a sense of belonging in my math class.				X
22. I feel like a member of the MATH 1314 classroom community.				X
23. I see myself as a part of the MATH 1314 classroom community.				X

Assessment Instrument #2: Midterm Student Survey

The Midterm Student Survey is designed as a formative assessment measure to gauge students' experience of the course at the halfway point. Based on survey results, instructional and/or tutoring strategies may be altered to better meet students' needs.

The Midterm Student Survey consists of six open-ended sentence completion items that are aligned with the four SLOs. Just as with the Pre/Post Student Survey, several items are double-coded as indicated in Table 6.1.3 below. The survey has been developed for MATH 1314+ students.

Table 6.1.3: Crosswalk of Midterm Survey Items & SLOs

Midterm Student Survey Items	**SLO#1 Course content understanding (MATH)**	**SLO#2 Self-confidence**	**SLO#3 Perceptions of tutoring**	**SLO#4 Classroom belonging**
1. One topic in the course that I need more help understanding is….	X			
2. One topic in that course that I feel confident I understand is….	X	X		
3. The best way that the instructor can help me understand college algebra is….	X			
4. The best way that the embedded tutor can help me understand college algebra is….	X		X	
5. Working with other students in the course….		X		X
6. To improve my experience in this course, I suggest….		X		

Assessment Instrument #3: End-of-Term Student Focus Group

At the end of each semester of the QEP project, the College's Office of Institutional Research, Planning, and Effectiveness will assist the QEP Co-Directors to host one end-of-term focus group that will include students from all three embedded tutoring disciplines. QEP faculty will work with the Co-Directors to identify 8-10 student volunteers to participate in the one-hour focus group session.

Focus group participants will address eight questions that center on their course experience and their perceptions of tutoring. Questions are based on the student focus group instrument used by Epstein and Draxler (2020). The responses will serve as a summative assessment of the semester and will be analyzed thematically to determine successes and opportunities for improvement. Curricular adjustments will be made the following term if needed.

As shown in Table 6.1.4 below, focus group questions are linked to the four QEP Student Learning Outcomes. Some items are coded for more than one SLO.

Table 6.1.4: Crosswalk of Student Focus Group Questions & SLOs

Focus Group Questions	**SLO#1 Course content understanding**	**SLO#2 Self-confidence**	**SLO#3 Perceptions of tutoring**	**SLO#4 Classroom belonging**
1. How did your experience in a class with an embedded tutor compare to other classes you have taken without an embedded tutor?			X	
2. Do you think having an embedded tutor had an impact on your understanding of the course content? How do you account for this?	X		X	
3. Did interacting with your classmates have an impact on your understanding of course topics? How/why did this occur?	X	X		X
4. Did you connect with your tutor? What did you connect with most? Do you think the connection had an impact on your experience of being tutored?		X	X	X
5. What advice would you give to students interested in taking a course with an embedded tutor?		X	X	

6. If you had the opportunity, would you take another course with an embedded tutor? Why or why not?			X	
7. Have your ideas about tutoring changed because of your course experience? In what way?			X	
8. Do you plan to use tutoring resources on campus in the future? Which ones?			X	

Assessment Instrument #4: End-of-Term Tutor Survey

The 13-item end-of-term survey for tutors consists of six level-of-agreement responses and seven open-ended responses. The survey is designed for tutors to reflect on their experiences during the term and provide insights on successes and opportunities for improvement. Survey questions are based on the tutor survey items used by Epstein and Draxler (2020). Table 6.1.5 provides a list of specific survey questions.

Table 6.1.5: End-of-Term Tutor Survey

Survey Questions
Part I Level-of-Agreement Responses Directions: Please respond to the following statements with one of these choices: Strongly agree Agree Neutral Disagree Strongly disagree 1. The Summer Workshop on embedded tutoring provided crucial information that enabled me to connect more fully with the students and the instructor. 2. I had a clear understanding of how my role and the instructor's role work together. 3. The instructor made me feel included in the class. 4. I was provided with course materials such as the textbook, syllabus, and assignments in a timely way. 5. The instructor and I met regularly to plan the curriculum and discuss student progress. 6. I believe that embedded tutoring had an impact on students.

Part II Open-Ended Responses

7. How did the instructor involve you in class activities?
8. What did you perceive were the students' responses to you as an embedded tutor?
9. What did you like best about your experience as an embedded tutor?
10. What did you like least about your experience as an embedded tutor?
11. What do you believe would improve your experience working as an embedded tutor?
12. What did you learn through the experience of being an embedded tutor?
13. What advice would you give to a student interested in becoming an embedded tutor?

Assessment Instrument #5: End-of-Term Faculty Survey

The 11-item end-of-term survey for faculty consists of five level-of-agreement responses and six open-ended responses. The survey is a mirror image of the instrument for tutors and is designed for faculty to reflect on their experiences during the term and provide insights on successes and opportunities for improvement. Table 6.1.6 provides a list of specific survey questions.

Table 6.1.6: End-of-Term Faculty Survey

Survey Questions

Part I Level-of-Agreement Responses

Directions: Please respond to the following statements with one of these choices:

Strongly agree
Agree
Neutral
Disagree
Strongly disagree

1. The Summer Workshop on embedded tutoring provided crucial information that enabled me to enhance the connection between the embedded tutor and the students.
2. I had a clear understanding of how my role and the embedded tutor's role work together.
3. The tutor and I met regularly to plan the curriculum and discuss student progress.
4. I believe that embedded tutoring had an impact on students.
5. I would want to have an embedded tutor in my class in the future.

Part II Open-Ended Responses

6. How did you involve the embedded tutor in class activities?
7. What did you perceive were the students' responses to the embedded tutor?
8. What did you like best about working with an embedded tutor?
9. What did you like least about working with an embedded tutor?

10. What do you believe would improve your experience working with an embedded tutor? 11. What advice would you give to faculty considering using an embedded tutor in one of their courses?

6.2 Assessing the Quality Enhancement Plan

Because of its multi-dimensionality, the QEP periodically requires an over-arching evaluation that looks holistically at all components of the QEP (e.g., curricular intervention, professional development, ongoing assessment activities) to determine the general effectiveness of the plan. Just as importantly, how is the QEP creating a peer-embedded tutoring culture at Palo Alto College? Regular assessment of the big picture is intended to examine:

- The impact of the QEP initiative on student achievement in three high-challenge courses (BIOL 2401, MATH 1314+ and ENGL 1301+).
- The effectiveness of the integration of the various pieces of the QEP.
- The progress made in introducing peer-embedded tutoring across the College in other high-challenge courses.

College-Wide Assessment of the QEP

Twice a year in October and March, the QEP Oversight Committee will consider the following operational and impact questions as shown in Table 6.2.1.

Table 6.2.1: Questions for Quality Enhancement Plan Assessment

Operational Questions	Impact Questions
• How well is the QEP meeting its timeline? • Is adequate and appropriate support being provided to faculty, tutors, and staff involved in embedded tutoring teaching and support functions? • What changes should be made in the support provided to the QEP? • Is there new research that informs any of the fundamental elements of the QEP?	• What evidence do we have to show that students in courses with embedded tutoring are being positively impacted? • How well do the data we have collected respond to the original goals for the QEP? • What evidence do we have to show that embedded tutoring is becoming integrated into the College culture? • Examining the results of our data, what is generalizable, stable, and sustainable for the College as an institution?

Assessment measures used to respond to the operational and impact questions will include:

- Course performance metrics
- Absentee rates in ET courses vs. non-ET courses

- Student survey data (pre/post and midterm)
- Student focus group data
- Faculty and tutor end-of-course survey data
- Participation rates of non-QEP faculty and tutors in the Embedded Tutoring Summer Workshops
- Frequency of use of embedded tutoring in non-QEP courses
- Tutoring Center usage data

The responses to these questions will be the catalyst for any changes in the QEP which would be authorized by the QEP Oversight Committee in consultation with the QEP Advisory Committee.

To sustain a campus-wide conversation on the over-arching goals of the QEP, an annual QEP report, including assessment data, will be presented to the Palo Alto College community in an open forum held during Convocation Week beginning in Fall 2023.

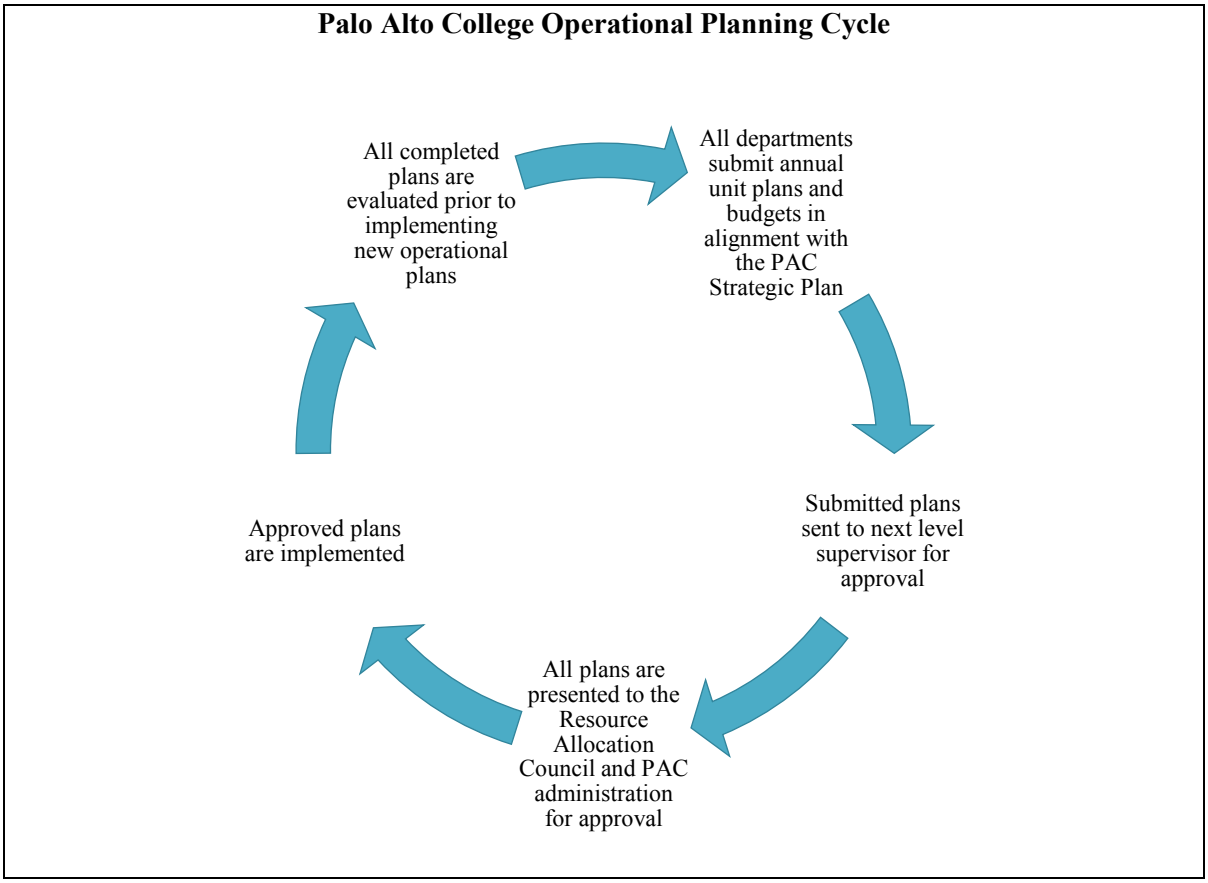
The College-wide dissemination of QEP findings and the formal and informal discussions of these findings at all levels of the campus hierarchy will help weave embedded tutoring into the daily culture of Palo Alto College so that it might be institutionally sustained far beyond the duration of the QEP.

Integrating the QEP into Institutional Planning Processes

The QEP will be woven into the fabric of the institution through its integration into the College's strategic and operational planning. Specifically, the QEP will be incorporated into the institution's unit planning cycle.

The College's strategic plan serves as the foundation for all unit planning. Each unit of the College designs its plan for the upcoming year based on its evaluation of plans from the previous year. Unit plans also address new initiatives linked to the strategic plan. Figure 6.2.1 depicts the operational planning cycle.

Figure 6.2.1: Operational Planning Cycle Flowchart



The unit planning cycle will provide two distinct opportunities to evaluate the effectiveness of the QEP:

- The QEP Co-Directors will create an annual unit plan for the QEP with specific goals and objectives tied to the strategic plan. The annual evaluation of the QEP unit plan will provide a formal assessment measure that ensures the maximum effectiveness of the QEP as an institutional endeavor.

- Each of the three departments (MATH, ENGL, and BIOL) that will implement embedded tutoring in one of its high-challenge courses will include this initiative in its unit plan. As a result, each department will contribute to QEP assessment processes by evaluating and documenting embedded tutoring interventions at the end of the planning cycle.

6.3 In Conclusion

The multiple processes involved in implementing and assessing the QEP are depicted in Table 6.3.1, which lists the specific activities that will occur during each of the three phases of the College's QEP: Pre-implementation Preparation, Implementation, and Post-Implementation Evaluation.

Table 6.3.1: Summary of the QEP Implementation/Assessment Process

QEP Task	Pre-QEP			QEP Year 1			QEP Year 2			QEP Year 3			Post-QEP Year 4			Post- QEP Year 5		
	AY 2021-2022			AY 2022-2023			AY 2023-2024			AY 2024-2025			AY 2025-2026			AY 2026-2027		
	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	SU
Implementation of embedded tutoring (ET) curricular strategies				X	X		X	X		X	X							
Collection of baseline data	X	X																
Completion of course level assessments of prior semester's classes					X	X		X	X		X		X					
ET Summer Workshops			X			X			X			X						
Teaching circles for ET faculty				X	X		X	X		X	X							
QEP assessments incorporated into unit plans					X			X			X							
Evaluation of QEP assessments incorporated into unit plans							X			X			X					
Course-level QEP assessment and refinement by ET faculty and QEP Advisory Committee					X	X	X	X	X	X	X		X					
College-level QEP assessment and refinement by QEP Oversight Committee					X		X	X		X	X		X					
	Pre-QEP			**QEP Year 1**			**QEP Year 2**			**QEP Year 3**			**QEP Year 4**			**QEP Year 5**		

Section 7:

QEP Implementation

The goal of the Quality Enhancement Plan (QEP) is to promote student success by demonstrating the potential effectiveness of embedded tutoring (ET) in high-challenge courses in three disciplines and, by so doing, set the stage to expand embedded tutoring to all high-challenge courses. Implementation of the College's QEP will extend from Spring 2022 through Spring 2027 and will be divided into three phases:

Phase I: Pre-implementation Preparation - Spring 2022 - Summer 2022

Phase II: Implementation - Fall 2022 - Summer 2025
- *ET Iteration #1 - Fall 2022 - Summer 2023
- *ET Iteration #2 - Fall 2023 - Summer 2024
- *ET Iteration #3 - Fall 2024 - Spring 2025

Phase III: Post-implementation Evaluation - Fall 2025 - Spring 2027
*Intensive post-implementation evaluation - Fall 2025 - Spring 2026
*ET Impact Report to SACSCOC - Spring 2027

Each phase is discussed in detail below and outlined in the QEP Implementation Timeline (Appendix F).

7.1 Phase I: Pre-implementation Preparation

Premises Guiding Embedded Tutoring Implementation

- ET will be implemented in three high-challenge courses: MATH 1314+ College Algebra with co-requisites, ENGL 1301+ Composition I with co-requisites, and BIOL 2401 Anatomy & Physiology I.
- The QEP project will be implemented for 3 academic years (6 semesters) beginning in Fall 2022 and ending in Spring 2025.
- ET will be implemented in on-campus, face-to-face course sections.
- Eight faculty and eight tutors will be paired each semester. Four faculty-tutor teams will be assigned to Math 1314+, while two faculty-tutor teams will be assigned to BIOL 2401, and two faculty tutor teams will be assigned to ENGL 1301+.
- Each faculty-tutor team will be assigned two sections per term.
- ET will be implemented in 16 high-challenge course sections each term of the 6 semester QEP:
    - 8 sections of MATH 1314+ each semester
    - 4 sections of BIOL 2401 each semester
    - 4 sections of ENGL 1301+ each semester

Table 7.1.1 illustrates the impact of the 3-year QEP project on students.

Table 7.1.1: Number of Students Impacted by the QEP

Course	# of Tutors per Term	# of QEP Sections per Term	% of Total Course Sections with ET	# of Students per QEP Section	# of QEP Students per Term	QEP YR 1 Fall & Spring	QEP YR 2 Fall & Spring	QEP YR 3 Fall & Spring	Total Students Impacted by QEP
MATH 1314+	4	8	42%	25	200	400	400	400	1200
BIOL 2401	2	4	50%	24	96	192	192	192	576
ENGL 1301+	2	4	17%	22	88	176	176	176	528
All Disciplines: Total Student Number of ET Students Each Academic Year									768
All Disciplines: Total Number of ET Students for the 3-Year QEP									2304

Of the three high-challenge disciplines selected for embedded tutoring, BIOL 2401 is unique because only 8 sections of the course are offered each semester. The opportunity to enhance the success of 50% of the students enrolled in the course will be life-changing for students aspiring to the health professions and an enduring source of empowerment for the community served by Palo Alto College.

Leadership Transition

At the Spring 2022 College Convocation, Palo Alto College administrators will announce two Co-Directors for the QEP. The QEP Planning Committee will disband, and the QEP Advisory Committee will be formed. The Co-Directors will assume responsibility for the day-to-day direction of the QEP and will be actively assisted by the QEP Advisory Committee, a cross-college group of faculty, staff, tutors, and department chairs with experience teaching and/or tutoring students in high-challenge courses.

Embedded Tutors and Faculty Selected for 2022-2023

In Spring 2022, the department chairs and lead instructors for MATH 1314+, ENGL 1301+, and BIOL 2401 will work with the Director of Tutoring and the QEP Co-Directors to select the eight faculty and eight tutors who will participate in the inaugural year of the QEP.

To promote consistency in the implementation of embedded tutoring, faculty (and tutors if possible) would be encouraged to participate in the QEP project for the entire academic year.

Faculty Expectations and Benefits

Faculty selected to participate in the embedded tutoring QEP will be expected to do the following:

- Attend the Summer Embedded Tutoring Workshop.
- Revise course curriculum to include opportunities for in-class tutoring.
- Ensure that the embedded tutor is provided with the course textbook, syllabus, and assignments.
- Meet with the embedded tutor during Convocation Week and at least biweekly during the semester to plan curricular activities.
- Participate in monthly teaching circles with other embedded tutoring faculty.
- Participate in data collection and analysis activities including providing class time for the completion of the Pre/Post Student Survey and the Midterm Student Survey.

- Complete the End-of-Term Faculty Survey.
- Serve as an embedded tutoring resource for faculty and others across the College.

These expectations will be discussed with each faculty member prior to individuals making a commitment to participate in the QEP.

In return, faculty will receive a professional development stipend. Compensation will be determined by Workload Units (WLUs). One WLU is equivalent to 41 hours of non-instructional time which equates monetarily to $882.00 (the MA+12 adjunct replacement cost). Each faculty member will receive $1323.00 (the equivalent of 1.5 WLUs) each academic year for their participation in the QEP.

Tutor Expectations and Benefits

Tutors selected to participate in the embedded tutoring QEP will be expected to do the following:

- Attend the Summer Embedded Tutoring Workshop.
- Meet with the instructor during Convocation Week and at least biweekly during the semester to plan curricular activities.
- Be available to students in their ET sections outside of class time for tutoring.
- Complete the End-of-Term Tutor Survey.
- Serve as an embedded tutoring resource for tutors and others across the College.

In return, tutors will earn $12.50/hour and be guaranteed maximum part-time employment of 19-hours/week. In addition, tutors will be paid $12.50/hour for participating in the Summer Embedded Tutoring Workshop and for attending planning meetings with faculty during Convocation Week. Compensation is needed for these activities because they occur when campus Tutoring Centers are closed.

Summer 2022 Embedded Tutoring Workshop

The culmination of the Pre-Implementation Phase of the QEP will be the Summer Workshop, offered in late May 2022 between the end of the Spring term and the beginning of the Summer Session. A nationally recognized embedded tutoring expert will be hired as a consultant to present a 16-hour workshop to:

- Faculty and tutors selected to participate in the 2022-2023 QEP.
- Any interested faculty and tutors not involved in the QEP.

The workshop will focus on embedded tutoring pedagogy and best practices including the use of non-cognitive strategies such as growth mindset. The second day of the workshop will be a session on establishing, developing, and maintaining a campus culture of embedded tutoring. During the workshop, faculty and tutor teams will have an opportunity to begin initial course planning for Fall 2022.

7.2 Phase II: Implementation

The College's embedded tutoring QEP will be implemented over 6 academic semesters and follow a predictable pattern. A Summer Workshop on ET best practices will prepare faculty and tutors for the upcoming academic year. During each semester, the QEP implementation cycle will follow a predicable routine as listed below:

- Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning.

- The eight faculty and tutor teams are assigned two sections per semester.
- Tutors are embedded in eight sections of MATH 1314+, four sections of ENGL 1301+, and four sections of BIOL 2401.
- Faculty meet at least once every two weeks with the tutor.
- Faculty participate in monthly teaching circles.
- Faculty facilitate data collection at the beginning, middle, and end of the term to gauge student responses to ET.
- One end-of-term student focus group that includes students from all three ET disciplines is conducted with the assistance of the Office of Institutional Research.
- An end-of-term survey on ET is completed by faculty and tutors.

7.3 Phase III: Post-implementation Evaluation

In Summer 2025, at the conclusion of the Implementation Phase of the QEP, an Embedded Tutoring Workshop will be led by a consultant with the following goals:

- Intensive review and analysis of QEP data from 2022-2023, 2023-2024, and 2024-2025.
- Discussion of lessons learned during the QEP.
- Development of a realistic, workable plan to institutionalize ET in MATH 1314+, ENGL 1301+, BIOL 2401 and other high-challenge courses.

The 2025-2026 academic year will be devoted to documenting the QEP experience and developing next steps for the institution. Activities will include:

- QEP Co-Directors, with the assistance of the QEP Advisory Committee, will review and document all QEP data and lessons learned.
- QEP Co-Directors will meet with all faculty and tutors who participated in the QEP to review and discuss overall assessment of the QEP.
- QEP Co-Directors will create an initial draft the QEP Impact Report to include a plan for institutionalizing embedded tutoring.
- QEP Oversight Committee will meet in Spring 2026 to review the initial draft of the QEP Impact Report and to consider next steps to expand the implementation of embedded tutoring to other high-challenge courses.

The hope of all involved in the QEP project is that the data collected during the three-year implementation will demonstrate the effectiveness of embedded tutoring in high-challenge courses so convincingly that Palo Alto College will make a long-term commitment to this singularly compelling student success strategy.

Section 8:

QEP Management Plan

The College's (QEP) Management Plan has three facets: project management, advisory support, and administrative oversight. Project management encompasses the day-to-day operations needed to develop and sustain the QEP. Advisory support provides ongoing guidance of the QEP implementation process. Administrative oversight refers to the overall management of the QEP itself and includes a regular review of progress in achieving QEP goals coupled with an evaluation of institutional resources to ensure ongoing support for the QEP.

8.1 Project Management: QEP Co-Directors

After final approval of the College's QEP by SACSCOC, two QEP Co-Directors will assume responsibility for launching the QEP in late Spring 2022. One Co-Director will be a staff member with the managerial and assessment experience to successfully guide the QEP. The second Co-Director is slated to be a mathematics faculty member who has participated in the QEP Planning Committee and has a deep knowledge of the College Algebra curriculum, one of the courses targeted for the QEP. The QEP Co-Directors will report directly to the Vice President of Academic Success.

The responsibilities of the QEP Co-Directors are detailed as shown in Table 8.1.1.

Table 8.1.1: QEP Co-Directors' Responsibilities

Tasks	Description of Specific Duties
Selection of Faculty and Tutors	With the support of the QEP Advisory Committee: • Work with department chairs and lead instructors to recruit faculty for AY 22, AY 23, and AY 24 to participate in the embedded tutoring QEP. • Assist the Director of Tutoring to select tutors for AY 22, AY 23, and AY 24 to participate in the embedded tutoring QEP.
Faculty and Tutor Professional Development	With the support of the QEP Advisory Committee: • Organize the Summer Embedded Tutoring Workshops to assist faculty and tutors: 1) create a classroom partnership, and 2) design classroom activities that will incorporate the embedded tutor. Workshops will be held in May 2022, 2023, and 2024. • Organize a Summer Data Review Workshop for faculty and tutors at the conclusion of the 3-year QEP project in 2025. • Coordinate Convocation Week planning sessions for faculty and embedded tutors to finalize curricular design. • Facilitate monthly teaching circles to provide embedded tutoring faculty with ongoing support. • Arrange regular check-ins with embedded tutors to provide ongoing support.

	• Serve as the professional development resource for faculty interested in participating in embedded tutoring.
Data Collection and Analysis	With the support of the QEP Advisory Committee: • Work with the Office of Institutional Research and embedded tutoring faculty to design, distribute, and collect the pre and post student survey and the midterm student reflection. • Coordinate with the Office of Institutional Research to hold one student focus group at the end of each semester of the QEP project. • Work with the Office of Institutional Research in the ongoing collection, analysis, and dissemination of qualitative and quantitative findings from the embedded tutoring QEP.
Outreach and Communication	• Co-Chair the QEP Advisory Committee and serve on the QEP Oversight Committee. • Serve as the point of contact for the College's QEP website. With the support of the QEP Advisory Committee: • Produce an annual QEP report for the College that will disseminate embedded tutoring data and will serve as the foundation for the QEP portion of the Fifth Year Interim Report.

8.2 Advisory Support: QEP Advisory Committee

The QEP Advisory Committee will meet three times each semester to provide general oversight and guidance of the evolving QEP process. Members of the QEP Advisory Committee will work with the QEP Co-Directors in the discharge of their above listed responsibilities. The QEP Co-Directors will co-chair the committee composed of the following members:

- Director of Tutoring
- Math department chair or lead faculty for MATH 1314+
- English department chair or lead faculty for ENGL 1301+
- Science department chair or lead faculty for BIOL 2401
- 1-2 QEP Embedded Tutors
- 1-2 QEP Faculty Participants in embedded tutoring
- 2 faculty experienced in teaching high-challenge courses
- 1 non-QEP tutor representing the Tutoring Services Department
- 1 Peer Mentor representing the STEM Center
- Institutional Research Representative, *ex officio*

The Advisory Committee is designed to provide ongoing operational guidance to the unfolding QEP. Collectively, committee members possess extensive experiential knowledge as teachers and tutors, particularly in the context of high-challenge courses. Committee membership has been structured so that

the group is well-prepared to address the challenges and the opportunities that will arise as embedded tutoring is implemented in three high-challenge disciplines.

8.3 Administrative Oversight: QEP Oversight Committee

The College will exercise administrative oversight of the QEP through the QEP Oversight Committee. This group will meet once a semester and will receive periodic reports (to include assessment results) from the QEP Co-Directors. The QEP Oversight Committee must review and approve any substantial change in the design of the QEP. Members of the QEP Oversight Committee will include:

- College President
- Vice President of Academic Success
- Vice President of Student Success
- Vice President of College Services/SACSCOC Liaison
- Director of Institutional Research
- Dean of Academic Success (Arts & Sciences)
- Director, STEM Center
- QEP Co-Directors
- President, Student Government Association

Committee membership includes the Palo Alto College President and administrators from the three divisions of the College - Student Success, Academic Success, and College Services. The STEM Center Director is included because of the successful Peer Mentor Program that has been developed by the Center. Student representation is an equally vital component of the Oversight Committee.

Section 9:

Financial Resources

9.1 QEP Budget Table

Table 9.1 Projected 2022-2027 QEP Budget

Item	Planning Jan-July 2022	Year 1 2022-2023	Year 2 2023-2024	Year 3 2024-2025	Year 4 2025-2026	Year 5 2026-2027	Totals
Personnel							
QEP Faculty Co-Director	$1764 2 WLU Pre-QEP	$10,584 6 WLU per term	$10,584 6 WLU per term	$10,584 6 WLU per term	$1764 2 WLU Post-QEP		**$35,280**
Cost of 8 Embedded Tutors/AY		$75,614	$75,614	$75,614			**$226,842**
Professional Development							
Annual Summer Institute	$3500	$3500	$3500	$3500			**$14,000**
Speakers/Consultants	$1000	$1000	$1000	$1000			**$4,000**
Stipends for 8 ET Faculty		$10,584 ($1323 per faculty per 1.5 WLU)	$10,584 ($1323 per faculty per 1.5 WLU)	$10,584 ($1323 per faculty per 1.5 WLU)			**$31,752**
Summer Institute Stipends for 8 Tutors	$1600	$2200	$2200	$2200			**$8200**
Summer Institute Stipend for Faculty	$2682						**$2,682**
Conference Travel and Registration							
SACSCOC Conference – QEP Co-Directors		$3000	$3000		$3000	$3000	**$12,000**
SACSCOC Summer Institute – QEP Co-Directors	$3000			$3000			**$6,000**
Marketing							
QEP Promotional Materials	$3000	$3000	$3000	$3000			**$12,000**
QEP TOTAL	**$16,546**	**$109,482**	**$109,482**	**$109,482**	**$ 4,764**	**$ 3,000**	**$352,756**

Palo Alto College's commitment to implementing its QEP is illustrated in the above budget table that specifies how institutional resources will be allocated to support the work of the QEP from Spring 2022 through Spring 2027. The total QEP budget is $352,756. The following detailed budget narrative more fully describes the institution's plan for financial support.

9.2 Detailed Budget Narrative

Personnel

Personnel is the largest QEP expenditure and totals $262,122. The bulk of personnel funding is for the eight tutors who will be embedded in high-challenge courses for the three-year (6 semester) QEP project. Tutors will be paid $12.50/hour and will be guaranteed 19-hours/week, the maximum number of hours allowed for part-time staff. The total tutoring cost is $226,842. Several institutional funding sources will be used to support tutors. One funding strand will be the allocation of 20% of the annual Tutoring Center budget for embedded tutoring (approximately $37,807/AY).

The QEP will have two Co-Directors, a faculty member and a staff member. The QEP Faculty Co-Director will be compensated for her QEP duties by receiving a 2-course (or 40%) reduction in her teaching load each term of the 6-semester implementation phase. The 2-course release is calculated as 6 Workload Units (WLUs). One WLU is equivalent to 41 hours of non-instructional time which equates monetarily to $882.00 (the MA+12 adjunct replacement cost).

In addition, the Faculty Co-Director will receive 2 WLUs as compensation during the pre-implementation period (Spring and Summer 2022) and 1 WLU/semester during AY 2025-2026 for post-implementation activities.

Unlike faculty, the QEP Staff Co-Director cannot receive WLU compensation. However, this individual will have her responsibilities re-distributed so that she has adequate time to devote to managing the QEP.

Professional Development

The total cost for faculty and tutor professional development is $60,634. The eight faculty participating in the QEP will receive a professional development stipend of $1323/AY. The stipend, which is the equivalent of 1.5 WLUs, compensates for time spent on various QEP activities during the academic year including attending the 2-day Summer Embedded Tutoring Workshop.

The eight tutors selected to participate in the QEP each year will be paid $12.50/hour for participating in the Summer Embedded Tutoring Workshop and for attending planning meetings with faculty during Fall and Spring Convocation Week. Tutors require compensation for these activities because they occur when campus Tutoring Centers are closed.

Professional development funds will also support the annual Summer Embedded Tutoring Workshops in which a nationally recognized embedded tutoring expert will be invited to: 1) present cutting edge information on embedded tutoring best practices, 2) facilitate review of QEP data, and 3) assist the College in the development of a sustainable plan for creating a campus-wide culture of embedded tutoring.

Conference Travel and Registration

A total of $18,000 has been designated for the QEP Co-Directors' annual attendance at a SACSCOC conference. In this way, the Co-Directors can remain apprised of the latest guidance on the QEP and the Fifth Year QEP Report.

Marketing

A total of $12,000 has been designated for ongoing marketing of the QEP. Expenses will include:

- T-shirts and lapel pins for students in embedded tutoring classes.
- Denim shirts and portfolios for embedded tutoring faculty and tutors.

Items distributed to students, tutors, and faculty will help develop group cohesion, inspire a spirit of collaboration, and, above all, create the tangible sense of connection which is the heart of embedded tutoring.

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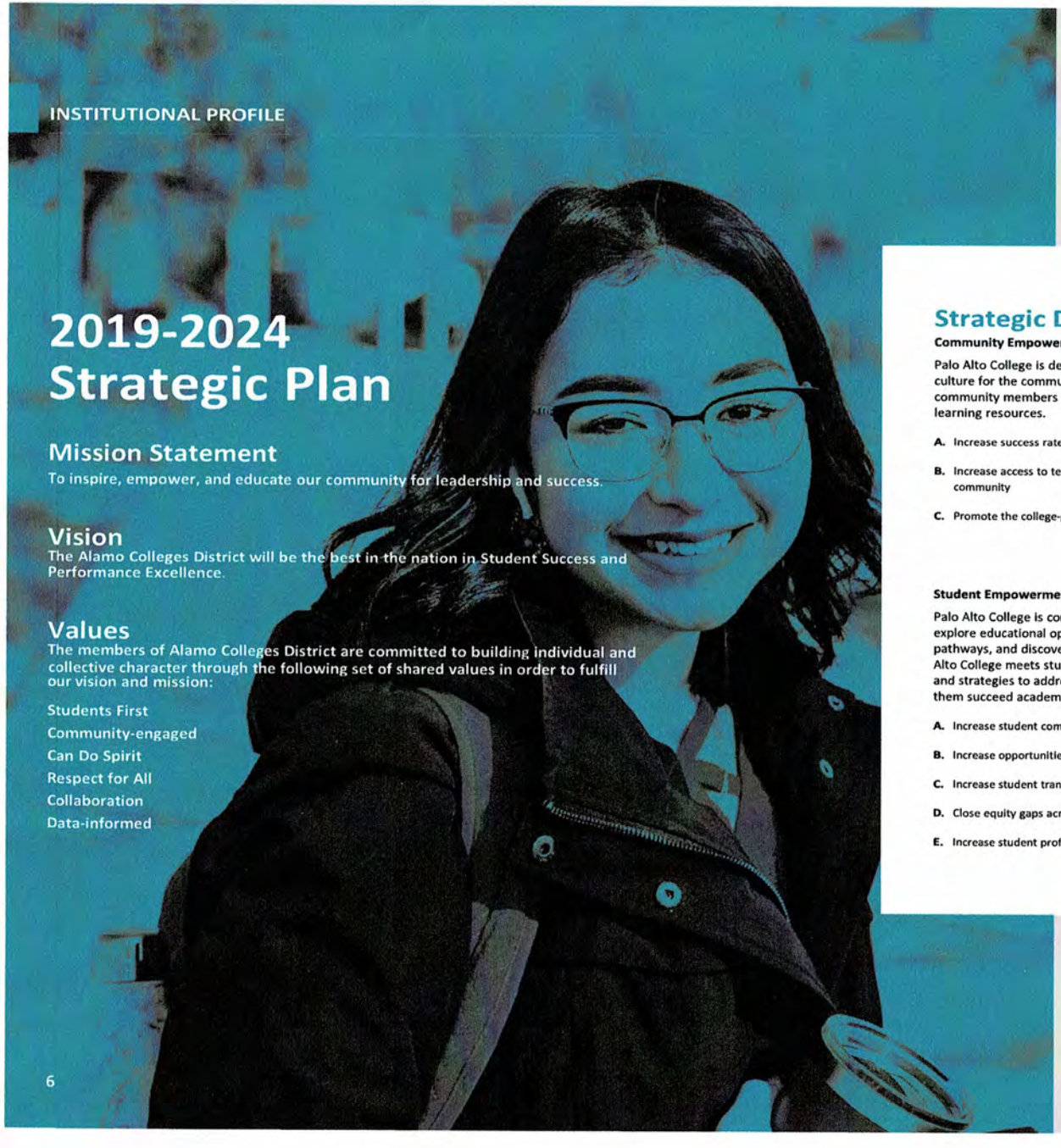
APPENDIX A:

PALO ALTO COLLEGE 2019-2024 STRATEGIC PLAN



2019-2024 Strategic Plan

Mission Statement

To inspire, empower, and educate our community for leadership and success.

Vision

The Alamo Colleges District will be the best in the nation in Student Success and Performance Excellence.

Values

The members of Alamo Colleges District are committed to building individual and collective character through the following set of shared values in order to fulfill our vision and mission:

Students First
Community-engaged
Can Do Spirit
Respect for All
Collaboration
Data-informed

Strategic Directions

Community Empowerment

Palo Alto College is dedicated to promoting a college-going culture for the community it serves by engaging and educating community members and creating access to teaching and learning resources.

A. Increase success rates in existing community programs

B. Increase access to teaching and learning resources for the community

C. Promote the college-going culture in the community

Employee Empowerment

Palo Alto College strives to maintain a culture that promotes professional growth, clear and transparent communication, and cross-college collaboration.

A. Sustain an organizational culture that supports and encourages equitable professional growth in alignment with the College's mission

B. Nourish and strengthen a culture of inclusiveness through clear and efficient communication

C. Foster an environment of shared contribution and collaborative effort in which innovation is encouraged

Student Empowerment

Palo Alto College is committed to empowering students to explore educational opportunities, identify career and transfer pathways, and discover high-wage, high-demand careers. Palo Alto College meets students where they are by providing tools and strategies to address students' unique interests and to help them succeed academically and professionally.

A. Increase student completion

B. Increase opportunities for students to explore careers pathways

C. Increase student transfer outcomes and improve workforce outcomes

D. Close equity gaps across student sub-populations

E. Increase student proficiency in learning outcomes

Maximize Capacity to Serve

Palo Alto College is dedicated to maximizing existing resources, diversifying funding streams, establishing new partnerships, and enhancing our infrastructure to support the community.

A. Develop a Palo Alto College budget model that is driven by a measurable, multi-year, planning process that includes a focus on enrollment, contact hours, and strategic fiscal stewardship

B. Secure alternative funding sources to aid in supplementing institutional activities and supporting growth

C. Develop and sustain mutually beneficial partnerships with industry, government, and non-profit sectors

D. Strengthen infrastructure by applying strategic budgeting principles to fund technology priorities and innovations, and minimize facilities' deferred maintenance costs

APPENDIX B:
EMPLOYEE SURVEY INVITATION

As part of Palo Alto College's accreditation process with the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), we need your help in building a Quality Enhancement Plan (QEP). Please complete the brief survey at the link below to help us identify key topics for a QEP. The survey will close at 5 p.m. on Monday, Oct. 7.

SURVEY >>

The QEP Planning Committee
Katherine Doss, Interim VP of College Services and SACSCOC Liaison
Elizabeth Tanner, VP for Academic Success
Gil Becerra, VP for Student Success
Julie McDevitt, Director, Teaching and Learning Center
Dr. Mary-Ellen Jacobs, Academic Program Director

ALAMO COLLEGES DISTRICT
Palo Alto College

Palo Alto College | 1400 W. Villaret Blvd. - San Antonio TX 78224 | Tel: 210.486.3100 | EEO Statement

APPENDIX C:
TOPIC SELECTION FINALIST PRESENTATION FOR EMBEDDED TUTORING

ALAMO COLLEGES DISTRICT
Palo Alto College

Quality Enhancement Plan:
Final Topic Selection

June 9, 2020

ASPEN PRIZE FOR COMMUNITY COLLEGE EXCELLENCE
RISING STAR
Palo Alto College
2019

ALAMO COLLEGES DISTRICT
Malcolm Baldrige National Quality Award 2018 Award Recipient
Achieving the Dream COLLEGE LEADER

1

Our Agenda

1. **Review of QEP Requirements**
2. **Down QEP Memory Lane: Fall 2019**
   - Data reviews, Employee Survey, Employee Engagement Day (EED)
3. **Down QEP Memory Lane: Spring 2020**
   - Student Survey, Intersection of Survey Themes, Faculty Senate and Staff Senate Polls
4. **Today's the Day! Introducing our SIX Finalists**
5. **Let the Voting Begin!**
6. **And the Winner Is.....**

ALAMO COLLEGES DISTRICT
Palo Alto College

2

4. Today's the Day!

Introducing our SIX Finalists

(in alphabetical order)

3

Finalist #6:
Tutors Embedded in High-Challenge Courses

- Tutor assigned to particular course section(s)
- Courses that students have difficulty passing or completing due to challenging nature of material
- Tutor under the instructor's guidance
- Follows 'Supplemental Instruction' (SI) model
  - Attend a weekly class session
  - Lead individual and group sessions outside of class
  - Assist students who receive an Early Alert
- Target science, math, speech (PAC)
- @PAC – Thomas Murguia, Tutoring Services

4

Finalist #6:
Tutors Embedded in High-Challenge Courses

SUPPORTING DATA FOR EFFECTIVENESS OF EMBEDDED TUTORS

Fall 2019 MATH 1314 College Algebra Performance
STEM Center Peer Mentors Served as Embedded Tutors
(Source: IRES_StudentCourse, STEM Center)

	A	B	C	D	F	I	W	Total	PGR	Completion	Withdrawal	Failure
Peer Mentor Courses	19	23	24	4	21	0	6	97	68.0%	93.8%	6.2%	21.6%
Non-Peer Mentor Courses	207	197	250	111	293	2	199	1259	51.9%	84.2%	15.8%	19.9%

5

5. Let the Voting Begin!

6

APPENDIX D:
FALL 2019 HIGH-CHALLENGE COURSE ACTION PLAN FOR COLLEGE ALGEBRA

High Challenge Course Action Plan for Fall 2020

Course Name & Number: College Algebra MATH 1314

History of PGR & Retention Averages for Courses

Semester/Year	*PGR*	*Retention (within Semester)*
Fall 2015	60.5	81.7
Fall 2016	54.3	75.3
Fall 2017	57.1	76.8
Fall 2018	49.8	76.9
Fall 2019	53.1	84.7

Disaggregated by student type:

Student Type	**PGR Fall 2015**	**Fall 2016**	**Fall 2017**	**Fall 2018**	**Fall 2019**
Transfer	64.7	56.7	62.5	54.0	46.7
Continuing	54.3	51.7	52.3	45.9	52.1
FTIC	66.7	57.4	61.0	53.9	56.3
Dual Credit	N/A	91.7	59.3	58.3	66.7

Disaggregated by instructional method:

Instructional	**PGR Fall 2015**	**Fall 2016**	**Fall 2017**	**Fall 2018**	**Fall 2019**
Face-to-face	63.8	58.1	60.3	55.2	55.4
Fully Online	39.1	33.3	33.9	28.0	36.1
Hybrid	N/A	N/A	N/A	N/A	N/A

Semester of Implementation: Fall 2020

1. Assessment of Previous Semester's Action Plan:
   It appears that the co requisite model is helping to improve the PGR as shown by the data.

2. The Action Plan:
   Departmental finals will be reviewed and modified if needed.
   Continue to use embedded tutoring in the MATH 1314 co-requisite courses. More training sessions for co-requisite courses will be offered in Spring 2019.

3. Rationale for Plan:
This plan is basically the same as the previous year's as it appears to be working as evidenced by the data.

Amanda J. Salinas, Ph.D.
Chair

October 19, 2020
Date

Bhawana Ranjan, Mei Garcia
Lead Faculty

9/28/2020
Date

APPENDIX E:
FALL 2020 EMBEDDED TUTORING
& CASE MANAGEMENT
COURSE SUCCESS DATA

Palo Alto College
Embedded Tutoring and Case Management Course Success
Fall 2020

Course	Category	A	B	C	D	F	I	IP	NR	W	Total	Productive Grade Rate	Completion Rate	Withdrawal Rate	Failure Rate
ACCT 2301	Case Management	41	31	26	-	35	-	-	-	11	**144**	68.1%	92.4%	7.6%	24.3%
ACCT 2302	Case Management	16	18	9	1	3	-	-	-	3	**50**	86.0%	94.0%	6.0%	6.0%
BIOL 1406	No Support	51	91	39	7	11	-	-	-	11	**210**	86.2%	94.8%	5.2%	5.2%
	Embedded Tutoring	26	44	9	1	3	-	-	-	4	**87**	90.8%	95.4%	4.6%	3.4%
BIOL 2401	No Support	14	38	32	7	9	-	-	-	19	**119**	70.6%	84.0%	16.0%	7.6%
	Embedded Tutoring	3	16	8	3	5	-	-	-	7	**42**	64.3%	83.3%	16.7%	11.9%
CHEM 1405	Case Management	23	33	15	4	9	-	-	-	6	**90**	78.9%	93.3%	6.7%	10.0%
	Embedded Tutoring	10	5	5	-	-	-	-	-	1	**21**	95.2%	95.2%	4.8%	0.0%
CHEM 1411	Case Management	28	29	27	20	12	-	-	-	20	**136**	61.8%	85.3%	14.7%	8.8%
	Embedded Tutoring	15	16	6	3	4	-	-	-	2	**46**	80.4%	95.7%	4.3%	8.7%
ENGL 1301	No Support	81	66	38	6	22	-	-	1	95	**309**	59.9%	69.3%	30.7%	7.1%
	Case Management	232	318	226	77	219	2	-	-	199	**1273**	61.0%	84.4%	15.6%	17.2%
	Embedded Tutoring	24	50	39	15	49	-	-	-	27	**204**	55.4%	86.8%	13.2%	24.0%
ENGL 1302	No Support	5	5	6	2	1	-	-	-	6	**25**	64.0%	76.0%	24.0%	4.0%
	Case Management	154	121	85	15	38	-	-	1	51	**465**	77.4%	89.0%	11.0%	8.2%
ENGL 2328	Case Management	10	3	-	-	2	-	-	-	5	**20**	65.0%	75.0%	25.0%	10.0%
INRW 100	No Support	13	36	36	4	29	1	-	-	30	**149**	57.0%	79.9%	20.1%	19.5%
	Case Management	15	41	27	13	37	-	-	-	32	**165**	50.3%	80.6%	19.4%	22.4%
	Embedded Tutoring	18	40	33	14	41	-	-	-	17	**163**	55.8%	89.6%	10.4%	25.2%
INRW 420	No Support	7	2	5	-	4	-	-	-	-	**18**	77.8%	100.0%	0.0%	22.2%
	Case Management	16	35	23	4	10	1	17	-	15	**121**	61.2%	87.6%	12.4%	8.3%
MATH 1314	No Support	140	109	89	32	84	2	-	-	74	**530**	63.8%	86.0%	14.0%	15.8%
	Case Management	58	59	49	16	47	-	-	-	27	**256**	64.8%	89.5%	10.5%	18.4%
	Embedded Tutoring	75	73	69	18	64	-	-	-	35	**334**	65.0%	89.5%	10.5%	19.2%
MATH 1414	No Support	54	34	52	15	36	-	-	-	53	**244**	57.4%	78.3%	21.7%	14.8%
	Case Management	11	23	14	1	6	-	-	-	5	**60**	80.0%	91.7%	8.3%	10.0%
MATH 2412	No Support	31	32	52	13	15	-	-	-	19	**162**	71.0%	88.3%	11.7%	9.3%
	Case Management	11	8	5	-	4	-	-	-	-	**28**	85.7%	100.0%	0.0%	14.3%
MATH 2413	No Support	34	13	11	2	2	-	-	-	2	**64**	90.6%	96.9%	3.1%	3.1%
	Case Management	16	19	6	1	3	-	-	-	1	**46**	89.1%	97.8%	2.2%	6.5%
SPCH 1311	No Support	5	3	4	-	4	-	-	-	3	**19**	63.2%	84.2%	15.8%	21.1%
	Case Management	125	52	22	18	33	2	-	-	25	**277**	71.8%	91.0%	9.0%	11.9%

Source: IRES_StudentCourse

APPENDIX F:
QEP IMPLEMENTATION TIMELINE
FALL 2021-SPRING 2027

QEP IMPLEMENTATION TIMELINE: FALL 2021–SPRING 2027

DATE	ACTIVITY
Fall 2021	• QEP document submitted to SACSCOC on 3 September. • QEP website launched. • Campus-wide QEP promotional campaign leading up to SACSCOC site visit. • SACSCOC Reaffirmation Team visits the College on 25-28 October. • QEP Planning Committee contracts consultant for Summer 2022 Embedded Tutoring (ET) Workshop.
Spring 2022	• QEP Planning Committee completes response to recommendations from the Reaffirmation Team. • College leadership announces selection of the two QEP Co-Directors. • QEP Advisory Committee formed. • Transition of QEP responsibilities from QEP Planning Committee to QEP Co-Directors and QEP Advisory Committee. • Department chairs and Lead Instructors for MATH 1314+, ENGL 1301+, and BIOL 2401 work with the Director of Tutoring and the QEP Co-Directors to select 8 faculty and 8 tutors for the 2022-2023 QEP. • Faculty (and tutors if possible) would agree to participate in the QEP project for *both* Fall 2022 and Spring 2023.
Summer 2022	• ET consultant presents 16-hour workshop for identified faculty and tutors, as well as any interested faculty and tutors not involved in the QEP, to discuss embedded tutoring pedagogy and best practices in ET including the use of non-cognitive strategies. The second day of the workshop will be a session on establishing, developing, and maintaining a campus culture of ET. • Faculty and tutor teams begin initial course planning for Fall 2022. • QEP Co-Directors attend SACSCOC Summer Institute.
Fall 2022	• QEP Advisory Committee meets monthly (Sept-Oct-Nov) to provide general oversight and guidance. • Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning. • Tutors embedded in 8 sections of MATH 1314+, 4 sections of ENGL 1301+ and 4 sections of BIOL 2401. Each of the 8 faculty/tutor teams are assigned 2 sections. • Faculty meet at least once every two weeks with the tutor. • Faculty participate in monthly teaching circles. • Data collection to gauge student responses to ET at the beginning, middle and end of the term. • One end-of-term student focus group conducted with the assistance of the Office of Institutional Research. • Faculty and tutors take end-of-term survey on ET experience. • QEP Co-Directors attend SACSCOC annual conference.
Spring 2023	• QEP Advisory Committee meets monthly (Feb-Mar-Apr) to provide general oversight and guidance. • QEP Oversight Committee meets in March to review Fall 2022 ET data.

	• Co-Directors contract consultant for Summer 2023 Embedded Tutoring Workshop • Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning. • Tutors embedded in 8 sections of MATH 1314+, 4 sections of ENGL 1301+ and 4 sections of BIOL 2401. Each of the 8 faculty/tutor teams are assigned 2 sections. • Faculty meet at least once every two weeks with the tutor. • Faculty participate in monthly teaching circles. • Data collection to gauge student responses to ET at the beginning, middle and end of the term. • One end-of-term student focus group conducted with the assistance of the Office of Institutional Research. • Faculty and tutors take end-of-term survey on ET experience. • Department chairs and Lead Instructors for MATH 1314+, ENGL 1301+, and BIOL 2401 work with the Director of Tutoring and the QEP Co-Directors to select 8 faculty and 8 tutors for the 2023-2024 QEP. • Faculty (and tutors if possible) would agree to participate in the QEP project for *both* Fall 2023 and Spring 2024.
Summer 2023	• ET consultant presents 16-hour workshop for identified faculty and tutors, as well as any interested faculty and tutors not involved in the QEP, to discuss embedded tutoring pedagogy, facilitate data review and initiate conversation about lessons learned during the first year of implementation. • Workshop will include presentation on the theory and practice of non-cognitive strategies such as growth mindset. • Faculty and tutor teams begin initial course planning for Fall 2023.
Fall 2023	• QEP Advisory Committee meets monthly (Sept-Oct-Nov) to provide general oversight and guidance. • QEP Oversight Committee meets in October to review 2022-2023 data. • Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning. • Tutors embedded in 8 sections of MATH 1314+, 4 sections of ENGL 1301+ and 4 sections of BIOL 2401. Each of the 8 faculty/tutor teams are assigned 2 sections. • Faculty meet at least once every two weeks with the tutor. • Faculty participate in monthly teaching circles. • Data collection to gauge student responses to ET at the beginning, middle and end of the term. • One end-of-term student focus group conducted with the assistance of the Office of Institutional Research. • Faculty and tutors take end-of-term survey on ET experience. • QEP Co-Directors attend SACSCOC annual conference.
Spring 2024	• QEP Advisory Committee meets monthly (Feb-Mar-Apr) to provide general oversight and guidance. • QEP Oversight Committee meets in March to review Fall 2023 ET data. • Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning. • Tutors embedded in 8 sections of MATH 1314+, 4 sections of ENGL 1301+ and 4 sections of BIOL 2401. Each of the 8 faculty/tutor teams are assigned 2 sections. • Faculty meet at least once every two weeks with the tutor.

	• Faculty participate in monthly teaching circles. • Data collection to gauge student responses to ET at the beginning, middle and end of the term. • One end-of-term student focus group conducted with the assistance of the Office of Institutional Research. • Faculty and tutors take end-of-term survey on ET experience. • Department chairs and Lead Instructors for MATH 1314+, ENGL 1301+, and BIOL 2401 work with the Director of Tutoring and the QEP Co-Directors to select 8 faculty and 8 tutors for the 2024-2025 QEP. • Faculty (and tutors if possible) would agree to participate in the QEP project for *both* Fall 2024 and Spring 2025.
Summer 2024	• ET consultant presents 16-hour workshop for identified faculty and tutors, as well as any interested faculty and tutors not involved in the QEP, to discuss embedded tutoring pedagogy, facilitate data review and consider lessons learned during the second year of implementation. • Workshop will include presentation on the theory and practice of non-cognitive strategies such as growth mindset. • Faculty and tutor teams begin initial course planning for Fall 2024.
Fall 2024	• QEP Advisory Committee meets monthly (Sept-Oct-Nov) to provide general oversight and guidance. • QEP Oversight Committee meets in October to review 2022-2023 data. • Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning. • Tutors embedded in 8 sections of MATH 1314+, 4 sections of ENGL 1301+ and 4 sections of BIOL 2401. Each of the 8 faculty/tutor teams are assigned 2 sections. • Faculty meet at least once every two weeks with the tutor. • Faculty participate in monthly teaching circles. • Data collection to gauge student responses to ET at the beginning, middle and end of the term. • One end-of-term student focus group conducted with the assistance of the Office of Institutional Research. • Faculty and tutors take end-of-term survey on ET experience. • QEP Co-Directors attend SACSCOC annual conference.
Spring 2025	• QEP Advisory Committee meets monthly (Feb-Mar-Apr) to provide general oversight and guidance. • QEP Oversight Committee meets in March to review Fall 2023 ET data. • Faculty and tutor teams meet for 3 hours during Convocation Week to finalize course planning. • Tutors embedded in 8 sections of MATH 1314+, 4 sections of ENGL 1301+ and 4 sections of BIOL 2401. Each of the 8 faculty/tutor teams are assigned 2 sections. • Faculty meet at least once every two weeks with the tutor. • Faculty participate in monthly teaching circles. • Data collection to gauge student responses to ET at the beginning, middle and end of the term. • One end-of-term student focus group conducted with the assistance of the Office of Institutional Research. • Faculty and tutors take end-of-term survey on ET experience.

Summer 2025	• ET consultant facilitates a 16-hour workshop for all faculty and tutor participants in the QEP project, as well as any interested faculty and tutors not involved in the QEP, to review data from 2022-2023, 2023-2024 and 2024-2025, discuss lessons learned during the QEP, and develop a plan to institutionalize ET in MATH 1314+, ENGL 1301+, BIOL 2401, and other high-challenge courses. • QEP Co-Directors attend SACSCOC Summer Institute.
Fall 2025-Spring 2026	• QEP Co-Directors, with the assistance of the QEP Advisory Committee, review and document all QEP data and lessons learned. • QEP Co-Directors meet with all faculty and tutors who participated in the QEP to review and discuss overall assessment of the QEP • QEP Co-Directors draft the QEP portion of the Fifth Year Interim Report. • QEP Oversight Committee meets in March to review draft of the QEP portion of the Fifth Year Interim Report. • QEP Co-Directors attend SACSCOC annual conference.
Fall 2026-Spring 2027	• QEP Co-Directors update the Fifth Year Interim Report. • QEP Oversight Committee reviews the updated report. • QEP Co-Directors attend SACSCOC annual conference. • QEP report finalized. • Fifth Year Interim Report submitted to SACSCOC