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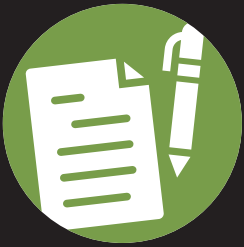
QUALITY ENHANCEMENT PLAN

Comprehensive Review 2020-2023

MATH

to a

DEGREE



Math to a Degree

Quality Enhancement Plan

Comprehensive Review 2020 - 2023

Lamar University

September 2023

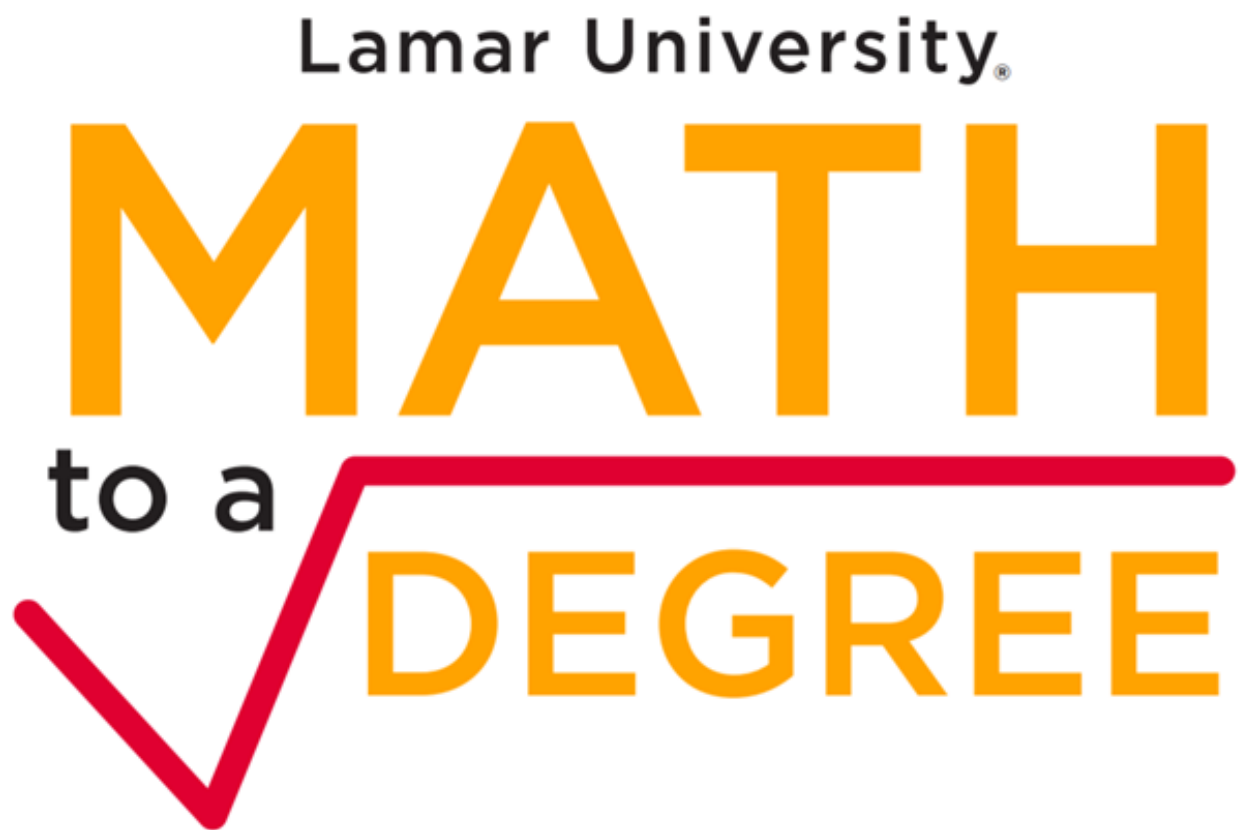


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EXECUTIVE SUMMARY

Lamar University's Quality Enhancement Plan (QEP) fulfills the University's mission to support "student success by engaging and empowering students with the skills and knowledge to thrive in their personal lives and chosen fields of endeavor." Furthermore, Lamar's proposed QEP seeks to improve student performance by reducing barriers to success in mathematics courses by placing students in courses appropriate to their field of study. Through collaborative efforts in involving institutional constituencies, progress has been made toward accomplishing the goals set forth in the QEP. Specifically, progress has been enhanced by utilizing effective centralized advising and a systematic process implemented by faculty and department chairs based on best practices inherent in mathematics pathways principles. This comprehensive review looks back at the past three years and highlights both the progress and changes that have been made to effectively implement this plan and improve student success at Lamar University.

The student success outcomes and goals set forth by the QEP are outlined below:

QEP STUDENT SUCCESS OUTCOMES (SSOs)

SSO #1: All department chairs will sign a Declaration of Intent identifying a Mathematics Pathway for their students. Produce one-page visual handouts recommending pathways.

SSO #2: Fall-to-fall Retention of First Time in College (FTIC) Students will improve from a five-year baseline of 61%.

SSO #3: Percentage of FTIC students who complete their first college-level mathematics course within the first two semesters will increase from a five-year baseline of 58%.

SSO #4: Percentage of FTIC students who complete two college-level mathematics courses within the first two years will increase from a five-year baseline of 18%.

SSO #5: Number of college readiness mathematics hours taken by FTIC students in their first year will decrease from a two-year baseline rate of 0.85 credit hours per FTIC student.

SSO #6: Percentages of FTIC students who earn 30 or more and 24 or more credit hours in their first year will increase from a five-year baseline of 11% and 47% respectively.

QEP GOALS

Following consultations with program faculty, each department chair will select a Mathematics Pathway for program majors that aligns with their chosen area of study. Non-STEM department chairs will choose a non-algebraic pathway.

The success of Math to a Degree will depend largely on centralized advising that is respectful of students' needs. The systematic process begins when faculty and department chairs agree upon which mathematics pathway best suits the academic and career goals of their majors. By enrolling in the appropriate pathway, students will save time and financial resources on the way to degree completion.

ASSESSMENT

SSO #1: Declarations of Intent by College

College	Number of programs	Completed Declarations of Intent	Completion rate
COFAC	18	16	89%
COEHD	10	6	60%
COE	6	6	100%
COAS	29	20	69%
COB	19	19	100%
Total	82	67	82%

SSO #2: Fall-to-fall Retention Rates of FTIC Students

Starting term	FTIC students	Enrolled next fall	Retention rate
Fall 2020	1,287	677	53%
Fall 2021	1,356	769	57%
Fall 2022	1,283	754	59%

SSO #2-A: Fall-to-fall Retention Rates of FTIC Students with At Least One College-Level Math Course Success in Their First Year

Starting term	FTIC students with math core success	Enrolled next fall	Retention rate
Fall 2020	707	492	70%
Fall 2021	813	608	75%
Fall 2022	782	572	73%

SSO #2-B: Fall-to-fall Retention Rates of FTIC Students with No College-Level Math Course Success in Their First Year

Starting term	FTIC students with no math core success	Enrolled next fall	Retention rate
Fall 2020	580	185	32%
Fall 2021	543	161	30%
Fall 2022	501	182	36%

SSO #3: Completion of First College-Level Math Course in Their First Year

Starting term	FTIC students	Completion	Completion rate
Fall 2020	1,287	707	55%
Fall 2021	1,356	813	60%
Fall 2022	1,283	782	61%

SSO #4: Core Math Completion of FTIC Students in Their First Two Years

Starting term	FTIC students	Completion	Completion rate
Fall 2020	1,287	293	23%
Fall 2021	1,356	348	26%

SSO #5: College Readiness Math Hours Taken By FTIC Students in Their First Year

Starting term	FTIC students	Total College Readiness Math hours taken	Total college Readiness Math hours / FTIC student
Fall 2020	1,287	658	0.45 hrs / student
Fall 2021	1,356	1,390	1.03 hrs / student
Fall 2022	1,283	1,356	1.06 hrs / student

SSO #6: Earned Credit Hours (ECH) by FTIC Students in Their First Year

Starting term	FTIC students	ECH \geq 30	ECH \geq 24
Fall 2020	1,287	171 (12%)	493 (38%)
Fall 2021	1,356	202 (15%)	530 (39%)
Fall 2022	1,283	209 (16%)	550 (43%)

Approximate translation of Earned Credit Hours into time to graduation: ECH \geq 30 ~ 4-years to graduation and ECH \geq 24 ~ 5-years to graduation.

The QEP Assessment Committee

The Assessment Committee began their data assessment work at the meeting with the members of the Steering Committee, the Senior Business Analyst from Information Technology, and the Data Analyst for the QEP in October 2021. A half-time data analyst for the QEP was hired in September 2021. At the meeting the data requirements for the QEP Student Success Outcomes were established. The senior business analyst provided the first dataset to the assessment committee in November 2021, later updating it in January 2022. With the updated dataset, the assessment committee had a meeting to evaluate the initial data's findings and to discuss new data requirements in the recommendations from the external evaluator. The assessment committee concluded that the additional data requirements justified new datasets. Concurrently the data analyst, using the initial dataset, produced the first preliminary report on assessment data in April 2022. Upon reviewing the report, the assessment committee decided to pursue additional data at the meeting in June 2022 and recognized a challenge in data collection. After the second preliminary report in August 2022, the Director of Institutional Research and Reporting agreed to undertake the task of data collection for the QEP in September 2022, and later became a member of the QEP assessment committee. In October 2022, the assessment committee produced the third preliminary report on assessment data that fulfilled the data requirements.

In November 2022, the assessment committee combined the preliminary reports and produced the QEP Comprehensive Report: 2020 – 2022. The comprehensive report has been distributed to the QEP community and the leadership at Lamar University. Following production of the report, the assessment committee gathered in December 2022 to discuss modifications to the plan, pilots, and next steps. Changes include suggestions to add or modify student success outcomes by including the use of earned credit hours as a proxy for retention rate and incorporating data related to diversity, equity, and inclusion. The committee also recommended: (a) surveying students and faculty members who take and teach QEP mathematics courses and (b) launching an on-demand homework help service for the evening, extending traditional math tutoring services. During the April meeting in 2023, the assessment committee outlined the survey questionnaire for the QEP faculty and recommended an update for the QEP website at Lamar University for timely dissemination of QEP resources and publications. Also at this meeting, the Director of the QEP reported that visual flyers of Math Pathway information were available to the TSI workshop for local high school students and will be distributed to incoming freshmen at New Student Orientations in the summer of 2023.

MATH TO A DEGREE: SNAPSHOT BY THE NUMBERS

Summary of Student Success Outcomes

SSO	Measure	Baseline	Rate	*Difference
SSO #1	Completion of Declarations of Intent	100%	%	%
SSO #2	Fall-to-fall retention rate	61%	59%	–2%
SSO #3	First college math completion in one year	58%	61%	+3%
SSO #4	Core completion in math in two years	18%	26%	+8%
SSO #5	College readiness hours / FTIC student	0.97 hrs	1.06 hrs	–0.09 hrs
SSO #6	Earned credit hours ≥ 30 in one year	11%	16%	+5%

*Positive rate difference (+) indicates improvement from the baseline rate whereas negative rate difference (–) indicates needed improvement.

Total Number of Students in QEP Math Courses

Year	Non-algebraic	Algebraic	Total
2019 – 2020	866	2,517	3,383
2020 – 2021	770	2,432	3,202
2021 – 2022	724	2,686	3,410
2022 – 2023	698	2,604	3,302

Average success rates are: 72% for non-algebraic and 71% for algebraic courses respectively.

HIGHLIGHTS OF ACTIVITIES IN YEAR 4 [2023 –]

Marketing Math Pathways

- One-page visual handouts for Math Pathways were produced and distributed to students, advisors, and parents through multiple channels including the TSI workshop for local high school students, New Student Orientations in Summer, the Annual Resource Fair and the QEP website.



Math Pathways to a Degree at Lamar University

MATH 1332 and MATH 1342 are designed for students who will need quantitative and statistical reasoning skills in their future careers. These courses are designed to develop critical thinking skills, helping you to understand and question mathematics and data presented to you in your field or in everyday life.

MATH 1332 and PSYC 2317 are designed for students who will need to develop critical thinking skills and fundamental concepts in probability and statistics with appropriate applications. PSYC 2317 expands this by examining wider varieties of data and furthering your statistical understanding.

MATH 1314 and MATH 1316 are for non-STEM students who need the fundamentals of algebra and trigonometry. These courses are frequently part of your pre-professional plan of study and required for graduate school. These courses, therefore, provide you with the foundation needed for entrance exams into those programs as well as the foundational math needed for your plan of study at LU.

MATH 2311, MATH 2312, MATH 2413, and MATH 2414 form our STEM pathway. These courses are designed for future engineers, STEM majors, and others who expect to have math-heavy careers. These courses form the foundation of information you will need in your upper-level engineering, physics, and chemistry courses.

MATH 1324 and BUAL 2310 are designed for students on the business pathway. These courses provide the basic algebraic tools and business concepts needed for students who are interested in pursuing marketing, accounting, finance, and other business fields. MATH 1324 presents algebraic concepts using business applications, immediately showing students why these tools are necessary in their future careers.

MATH 1314 and MATH 1350 are designed for future teachers. MATH 1314 provides the algebraic basics necessary for students who will seek certification to teach elementary school, while MATH 1350 builds the necessary conceptual framework for many topics that you will someday teach, including multiple explanations of familiar topics.

LAMAR.EDU/QEP

MATH PATHWAY

MATH 1332 (Contemporary Mathematics I)
MATH 1342 (Statistics)

MATH 1332 and MATH 1342 are designed for students who will need quantitative and statistical reasoning skills in their future careers. These courses are designed to develop critical thinking skills, helping you to understand and question mathematics and data presented to you in your field or in everyday life.

Art and Communications Majors

Majors include:
Music, Communication, American Sign Language, English, History, Studio Art, and Graphic Design.

Jobs and career opportunities include:
Interpreter, Multimedia Specialist/Journalist, Community Relations, Graphic Designer, Photographers, and Digital Artist.

Interdisciplinary Majors

Majors include:
Nutrition, Fashion Merchandising, Hospitality Administration/Culinary Arts, Physical Education, Exercise Science, and Family Studies.

Jobs and career opportunities include:
Nutritionist, Dietician, Visual Merchandiser, Adoption Specialist, Athletic Coach, Fitness Coordinator, and Personal Trainer.

Scan to learn more



- One-page visual handouts for each Math Pathway were produced and distributed through multiple channels. In this sample math pathway handout, two meta-majors, Art and Communication and Interdisciplinary, along with their majors and jobs and career opportunities are presented. For example, prospective students who pursue American Sign Language as their major are recommended to follow this math pathway. The pathway description is also provided.

Artwork by Amada Toups and Michelle Lancaster – Creative Services; Jobs and career information by Haley Tyson – Career and Testing Center

Data Equity Fellowship Project

- “Impact of Student Success in Core Curriculum on Fall-to-Fall Persistence Rate”
Theresa Hefner-Babb, Ed.D., Lamar University
Jarrod Rossi, MS, MBA, Lamar University

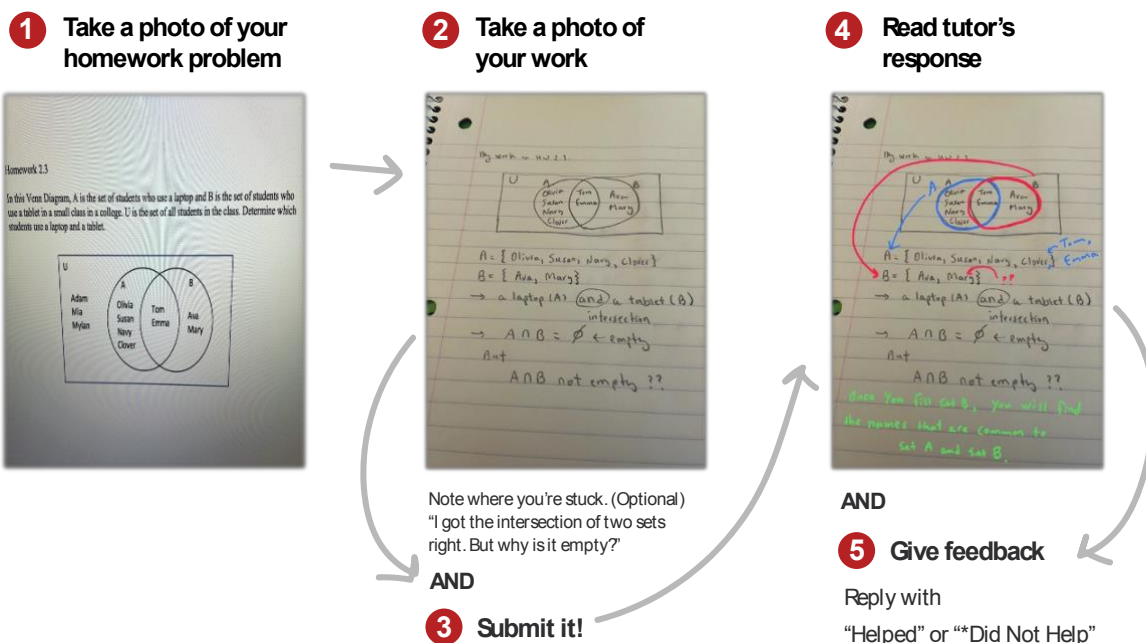
Our project will provide data to support the 2023-2033 strategic plan goal to promote evidence-based student success interventions by creating a student success scorecard (dashboards) to provide disaggregated data on student success, retention, institutional receptivity and excellence in all academic programs. Results from the initial data (Spring 2018-Spring 2023) focused on core curriculum courses with a 35% or higher QDF rate, including MATH 1314, 1324, 1332, 1342 and 2311. Baseline data indicates equity gaps for First Generation students and a need to examine Math courses taught in person on campus versus online.

 Impact of Student Success in Core Curriculum on Fall-to-Fall Persistence Rate Theresa Hefner-Babb, Ed.D., Lamar University Jarrod Rossi, MS, MBA, Lamar University NORTHWEST COMMISSION ON COLLEGES AND UNIVERSITIES		
 Lamar University, Beaumont, Texas Project Topic Area(s): Address equity gaps, Identify equity gaps, advising focus Project Description Our project will provide data to support the 2023-2033 strategic plan goal to promote evidence-based student success interventions by creating a student success scorecard (dashboards) to provide disaggregated data on student success, retention, institutional receptivity and excellence in all academic programs. Due to time limitations, we are focusing on the core courses with the highest QDF rates. Our project will investigate the data related to students in these courses to determine if equity gaps exist. With this information we can learn how the university, college, and the academic department can impact the success of students in core courses and reduce equity gaps.		
Institutional DEI and Data History <ul style="list-style-type: none">• Mission/strategic plan DEI language: None due to SB 17 limitations. Revised strategic plan includes 2.b.iii. “Promote evidence-based student success interventions at the university, college and department levels.”• Institutional responsibility for Data: Institutional Research and Reporting• Institutional responsibility for DEI: Not permitted by SB 17. Responsibility for reporting equity data will be under Academic Affairs.• Brief summary of previous institutional DEI-related initiatives: Prior to this fellowship the university did not have DEI-related initiatives aside from an Office of Diversity and Inclusion. Current office of Diversity, Inclusion and Community Relations will be renamed in July.	Project Process and Methodology <ul style="list-style-type: none">• Evidence Based Practices: Intensive, individualized support for students off track on early warning indicators (in place); Co-requisite support; Implement DEI Data Tracking and analysis to determine where disparities and inequities exist• Project Leader: Office of Accreditation and Assessment• Others: Data Equity Fellowship committee• Data Resources<ul style="list-style-type: none">• Information Technology and IRR via PDF project• Budget - Quality Enhancement Plan budget <p>Research question: How does First Generation success in core courses impact the fall-to-fall persistence rate?</p> <p>Methodology Quantitative data methods will be used due to the timing of the project. We will evaluate historical data and data from the current academic year.</p> <p>Data Collection & Sourcing IRR provided a data set from Banner. We will use the entire FTIC non transfer population. Data will be collected from the last 5 years to get a baseline of the First Gen students versus the overall population.</p>	Progress and Lessons Learned <ul style="list-style-type: none">• We are using a data set from Spring 2018 – Spring 2023• Due to the extensive nature of the core curriculum, we will start by using 20 courses with a QDF rate of 35% or more.• Courses examined for trends based on diversity and socio-economic status without faculty or student identifications• The Texas Legislature passed SB 17 restricting funding for DEI Offices and related programming in May. Data collection is permitted within limitations.• We need to clarify our language with regards to equity, determine what data we want to collect and how we want to better serve our students.• We have our baseline data for the project which indicates equity gaps for First Generation students with the highest percentages for Black students. The data gathered coincides with the makeup of the student population.• Another area to examine closer is the success rate of students taking core courses on campus versus 100% online.
Plans for scaling and sustaining the work • Why is the data being collected? 1. Our intent is to provide data for the university to use to monitor the key performance indicators and to be prepared if the current DEI proposal in SACSCOC goes into effect in 2024. 2. To identify equity gaps affecting student persistence determine action plans to address improving courses, student success rates, and academic supports. 3. The long-term goal is to create a rolling five-year student success scorecard for all academic programs to inform student success interventions.		

New Student Success Initiative

- The QEP launched a pilot program – On-demand Evening Homework Help in spring 2023. Help is provided through asynchronous question and hint exchanges in pictures by students and tutors. The Message feature in Blackboard Learn has been utilized. The service has been offered to all sections of MATH 1332, 2311, 2312, and 1324. To advertise the program, the Director of the QEP gave in-class demos in all classroom sections. Mr. Long recorded the demo video and made it available in all online sections.

Blackboard support by Tim Smith and Ed Long – Digital Learning



On-demand Evening Homework Help (**New Service!)

Who: All students enrolled in MATH 1332, MATH 2311, MATH 2312, and MATH 1324 Spring 2023

Where: Math 1332, 2311, 2312, or 1324 On-demand Evening Homework Help Course in Blackboard (You're enrolled)

Hours: Sunday and Monday (3:00 - 6:00 PM and 8:00 - 11:00 PM), Tuesday and Wednesday (8:00 - 11:00 PM) - may change

** is service is supported by the Quality Enhancement Plan at Lamar University as a new student success initiative.

See back for more information

*In case of "Did Not Help," you may resubmit your questions with more detailed information.

Despite limited participation by students, when we conducted the student survey after the launch, some students responded positively. One student says:

"I am very glad Lamar is taking initiative to help students out. I recommend increasing the advertising for this though..."

- The QEP supported pilot program, On-demand Evening Homework Help, led to an idea of building an On-demand AI Tutor. *Dr. Kang and Dr. Jackie Jensen-Vallin submitted a proposal titled, “On-demand AI Tutor: Humans in The Loop,” – An AI Tutor learns and finetunes human tutor responses to provide students with homework help in real time – for DARPA’s AI Tools for Adult Learning: Tools Competition (<https://toolscompetition.org/darpa/>). The proposal advanced to Phase II competition, but it did not make it to the finalist round.

*Other team members include Mr. Tim Smith and Mr. Ed Long from Digital Learning.



The summary of the proposal: On-demand AI Tutor (OAT) aims to solve one challenge: when students are stuck working on math homework in the evening, where can they go for on- demand assistance? OAT will provide timely, problem-specific hints when traditional teaching resources are unavailable. Throughout a college math course, OAT will collect images of students’ work-in-progress as well as corresponding hints from human tutors. As OAT amasses sufficient data, it builds its own systems to match optimal human tutor responses to questions in real time.

Communicating the QEP with Students and Faculty

- We surveyed students who took QEP math courses during fall 2022 and spring 2023 to collect student voices. A total of 68 students responded to the survey. The findings are:
 - 73% of the participants said that they were aware of math pathways.
 - 20% of the participants indicated that they were either somewhat concerned (14%) or very concerned (6%) of core math requirements toward their on-time degree completion whereas 80% of them answered not concerned at all (30%), not concerned (18%), or neutral (32%).
 When asked what services you wish you had at Lamar University for those who are concerned of their on-time degree completion, their comments include: conflict of

math and science classes, how/where to find services, and difficulty with statistics. In the general comment section, one student stated the importance of having an excellent teacher in his MATH 1324 course:

“Mr. Jonathan D. Hodges is an excellent math teacher, and if I didn't have him for MATH 1324 I honestly do not think I would have passed. If more math teachers taught the way he did, I honestly think I would feel more confident about the math classes I take.”

- We surveyed faculty members who taught QEP math courses during the past academic year. Two faculty members participated in the survey. The findings are:
 - In-person is believed to be best for student success among in-person, online, and hybrid delivery modalities.
 - All selected “Agree” (5-point Likert scale) when asked whether their students are doing well toward the completion of core math requirements.
 - The question of corequisite courses should be in-person yielded mixed results – Strongly agree and Disagree.
- We shared the QEP Comprehensive Report 2020 – 2022 with the QEP faculty members and had a virtual Q/A session in spring 2023. The report is now available on the QEP website for future reference.

LESSONS LEARNED AND RECOMMENDATIONS

Challenges in Logistics and Execution

The ultimate goal of the QEP is to place students in appropriate pathways. The logistics of moving forward from the signed Declarations of Intent to the delivery of major-specific pathways to the advisors was one challenge. The second challenge is the buy-in of the advisors. Advisors actively work with and enroll students in courses, whether they are in their chosen pathways or not. We need to convince advisors that the recommended pathway is in their students’ best interest.

The Implementation Committee recognized these challenges and included five action items in the original QEP. Thus, our recommendations are to refocus our resources on these action items. They are as follows:

Recommendations (1-3):

- We acknowledge getting a complete list of Declarations of Intent and degree plans with chosen math pathways is a moving target. We create a system to track changes to degree plans, but we move forward with the most up-to-date lists.
- We continually update a post with the up-to-date major-specific pathway information online and make it available to advisors at all times.
- We use all resources – all-in-one flyers, individual flyers, and their digital copies of math pathway information on the QEP website – to advertise recommended math pathways to all stakeholders.

Challenges in New Student Success Initiative

The QEP focuses on student success in mathematics courses on their way to degree completion. The Math Shop, a drop-in math tutoring center, has been an important student support component. However, there is a need for extended student support outside normal operating hours. Homework is an integral part of all mathematics courses, and most students work on their homework problems outside campus during evening hours when tutoring service is unavailable. As a response, in the spring of 2023, the QEP launched a new initiative, “On-demand Evening Homework Help.” See New Student Success Initiative section for the details of the initiative. Student participation rate during the spring semester did not meet our expectations. A few lessons learned in this pilot:

- Lack of consultation with faculty members who teach the courses before the launch.
- Eager to launch the program in spring even if it was originally planned for the summer.
- Late start of the program in the semester

We also learned that most courses offer online homework system for students. Thus, when students work on homework problems, they might be offered sufficient support even during the evenings.

Recommendations (4-5):

- We modify the way we provide help, moving away from asynchronous exchanges of pictures between students and tutors, offering synchronous web conference style help on-demand in the evenings.
- Following the second run of the program, we continue to look for ways to help students outside classrooms.

Need for Smaller Cohorts in College Readiness Courses

Students in college readiness courses must be co-enrolled in a college credit-bearing course. This pairing provides students with the foundational content hand-in-hand. Success in the college readiness course implies student success in the paired college level course. A key component of college readiness courses is students' engagement in interactive learning with their peers and an instructor. To promote active learning in the classroom, we recommend smaller cohorts in the QEP college readiness courses.

CHANGE IS INEVITABLE

The QEP involves continuous improvement and requires flexibility and an openness to change as the plan is implemented and subject to new challenges. Instead of resisting changes triggered by these challenges, the University has embraced new strategies to be accessible to all stakeholders while still producing valuable Student Success Outcomes.

MODIFICATIONS TO THE PLAN

Examination of the Plan

- The QEP will be modified using recommendations from the QEP Evaluator and based upon lessons learned from the 2021 – 2023 academic year.
- Goal – Mathematics Pathways:
There are still degree plans that cannot find a pathway that works for their students. Problems with pre-requisites and determining a track that works for the students is the challenge. Degree plans in COEHD and COAS related to the health sciences need pathways that work for them.

Refocusing of the Plan

- The focus of the QEP remains student success in mathematics courses on their way to degree completion. The objectives of the QEP need to be revised based on recommendations from the evaluator. A particular recommendation is use of earned credit hours within two semesters to quantify students' academic progress (SSO #5) and persistence (SSO #2). Data collection and analysis was conducted for this purpose. The 5-year baseline rates of 11% and 47% were set for those FTIC students who earned 30 or more and 24 or more credit hours in their first year. This new outcome has been added to the list of Student Success Outcomes: SSO #6 – Percentages of FTIC students who earn 30 or more and 24 or more credit hours in their first year.

Modifications to the Original Plan

- Student success in the QEP will be modified to incorporate data related to diversity, equity, and inclusion to determine how to increase math success across the student population. Through a partnership with the National Student Clearinghouse the Assessment Committee will be able to review 5 years of historical course data and new data to look for trends and ways to meet the goal of the QEP. Following the initial results of Data Equity Fellowship Project, we will examine the way to incorporate the findings into a student success outcome.
- The original plan offered two non-algebraic math pathways for non-stem majors: MATH 1332 – MATH 1342 and MATH 1342 – PSYC 2317. While the latter with a strong emphasis on statistics was thought to appeal to non-stem majors, this pathway has yet to be adopted by a program or department. The psychology department selected MATH 1332 – PSYC 2317 for their majors and another program in nutrition, hospitality & human services department selected the same pathway. Due to these outcomes combined with consultations with the former QEP Director and also the mathematics department chair led us to offer the new non-algebraic pathway: MATH 1332 – PSYC 2317 instead of MATH 1342 – PSYC 2317.
- SSO #4 – Percentage of FTIC students who complete two college-level mathematics courses within the first two years – is a strong indicator of student success, but only if students are required to take two math courses. When we examine the records of signed Declarations of Intent we observe that a sizable proportion of them requires only one math course. Accordingly, we need to modify SSO #4 to account for this fact.

Changes to the Leadership

- QEP Director – Dr. Jeremy Alm – November 2017 – May 31, 2022; Dr. Kye Kang – November 2022 –
- Provost – Dr. Brenda Nichols retired June 30, 2022; Dr. Daniel Brown started as Provost on July 1, 2022
- Senior Associate Provost / Associate Provost – Dr. Joseph Nordgren returned to full time teaching in Fall 2020. Dr. Daniel Brown served as Associate Provost until July 2022 when he became Provost.
- The university did a national search for a new Senior Associate Provost in Fall 2022 with emphasis on experience with Mathematics and student success. Dr. Samuel Jator became Senior Associate Provost in October 2022. He will serve as ex-officio on the QEP Assessment Committee and work closely with the QEP Director.

Committee Changes

- The QEP Implementation Committee ended its service in March 2021 when the QEP was approved.
- The QEP Assessment Committee from November 2022 – present included Dr. Kye Kang, Dr. Samuel Jator, Dr. Freddie Titus, Dr. Theresa Hefner-Babb, Dr. Jackie Jensen-Vallin, Dr. Kyle Boudreaux, and Mr. Jarrod Rossi.

NEXT STEPS

- Continue to collect and organize Declarations of Intent.
- Plan and execute concerted effort to advertise recommended math pathways to students, advisors, and parents.
- Provide advisors with math pathway flyers organized by meta-majors for ease of use during student orientation and individual advising sessions.
- Continue to survey students and QEP faculty and seek to identify best teaching practices.
- Assess and analyze data of confirmed math pathways taken by students during QEP years.
- Incorporate data related to diversity, equity, and inclusion to determine how to increase math success across the student population and use the results to establish a student success outcome.
- Collect and organize assessment data for the final QEP Impact Report.

TIMELINE

2020 - 2021 – Year 1

- January – QEP submitted with Focus Report
- February – SACSCOC On-site visit canceled due to COVID Pandemic
- Math courses were taught virtually due to the epidemic.
- February 2021 – Smartform created for academic departments to submit Declarations of Intent
- March 2-4 – QEP Approved by virtual On-Site SACSCOC team.
- October – QEP participated in the Cardinal Boo recruiting event.
- Pilot one section of MATH 1324

- Participation in new student orientation events during Summer

2021 - 2022 – Year 2

- February – QEP participated in the Lamardi Gras recruiting event.
- April – Dr. Samuel Jator (Austin Peay State University) presents a workshop on Math Pathways.
- May 31 – QEP Director resigned to assume position as Associate Dean of the College of Arts and Sciences.
- June 1 – Dr. Jackie Jensen-Vallin named Interim Chair of the Department of Mathematics
QEP data gathered and analyzed by Dr. Kye Kang

2022 - 2023 – Year 3

- Summer 2023 review AY 2022/23 data from Math courses.
- September – new IRR director hired.
- September – Lamar University joins the Postsecondary Data Project with the National Student Clearinghouse. DEI Fellowship with focus on student success in Math starts.
- November – Dr. Samuel Jator joins Lamar University as Senior Associate Provost and Dr. Kye Kang named QEP Director; QEP revised based on recommendations from the QEP Assessment Committee (Spring 2023)
- Work with remaining departments to establish Math Pathways that work for health and social sciences fields.
- November – QEP Comprehensive Report 2020 - 2022
- Continue work on the fellowship plan and gathering data from PDP.

2023 - 2024 – Year 4

- January – Launch new student success initiative - Online Evening Homework Help.
- March – Meet with the UAC leadership to discuss marketing of QEP and Math Pathways to advisors, students, and parents.
- April – Communicate the QEP implementation and reports with the QEP faculty.
- April – Create flyers with math pathway information and make them available to advisors, students, and parents during new student orientations.
- July – Attend the SACSCOC Summer Institute 2023.
- August – Attend the annual Resource Fair at Lamar University.
- August – Fellowship plan completed.
- September – QEP Comprehensive Report 2020 - 2023
- December – Survey students and QEP faculty
- December – Attend the workshop on QEP Impact Report at the SACSCOC Annual Meeting 2023

2024 - 2025 – Year 5

- March 2025 – QEP report due to SACSCOC

Appendix A: A Brief History of the QEP at Lamar University

In 2015 Dr. Melissa Hudler initiated a process for selecting and developing Lamar University's QEP in preparation for a 2019 SACSCOC reaffirmation on-site visit. The QEP Committee invited proposals and conducted a vote on three topics, none of which had the support of the campus community. Soon after, Dr. Hudler resigned as QEP Director to return to full-time teaching and Dr. Judith Mann was appointed to the position in January 2017. Dr. Mann formed a new broad-based Steering Committee that proposed a new QEP titled *WINGS of Success* with the focus on providing support systems for students struggling in math courses, including co-requisite.

During the 2017-2018 academic year, events unfolded that raised concerns about the proposed WINGS of Success QEP. First, SACSCOC Standard 7.2 changed to focus on student success or student learning outcomes, which did not align with the student support focus of WINGS of Success. Next a new state law required the use of co-requisite college readiness courses, making WINGS of Success a legal mandate and no longer eligible as a QEP. Finally, in October 2018 the Provost appointed Dr. Jeremy Alm QEP Director.

Under his leadership Dr. Jeremy Alm constituted a third steering committee, reviewed the requirements for a QEP under the revised SACSCOC Standard 7.2, and chose to keep the mathematics focus. The Committee sought input from students, administration, college deans, department chairs, faculty, staff, and student support services. Outside consultants, Dr. Brian Loft from Sam Houston State University and Dr. Rebecca Goosen from San Jacinto Community College provided their professional guidance about establishing mathematics pathways as they relate to student achievement. Following discussions, the QEP Steering Committee proposed Math to a Degree to University leadership.

Appendix B: Math Pathways: Non-algebraic and Algebraic

Non-algebraic pathways	Algebraic pathways
MATH 1332 – MATH 1342	MATH 1314 – MATH 1316
MATH 1332 – PSYC 2317	MATH 2311, 2312, 2413, 2414 (Precalc/calc)
	MATH 1324 – BUAL 2310
	MATH 1314 – MATH 1350

Appendix C: College Abbreviations

College abbreviation	College
COFAC	College of Fine Arts and Communication
COEHD	College of Education and Human Development
COE	College of Engineering
COAS	College of Arts and Sciences
COB	College of Business

Appendix D: Math Pathway Breakdown of Declarations of Intent

Non-algebraic pathways	Algebraic pathways	Algebraic pathways	One math pathway
24	19	19	16

Appendix E: QEP Committee Rosters 2022 –

Beginning with November 2022 the QEP will have two committees:

Steering Committee

Dr. Theresa Hefner-Babb – Asst. Provost Accreditation & Assessment
 Dr. Kye Kang – QEP Director
 Dr. Samuel Jator – Senior Associate Provost
 Dr. Daniel Brown, Provost
 Dr. Jackie Jensen-Vallin – Chair, Department of Mathematics
 Dr. Jeremy Alm – Associate Dean, College of Arts & Sciences

Assessment Committee

Dr. Kye Kang – QEP Director
 Dr. Theresa Hefner-Babb – Asst. Provost Accreditation & Assessment ex-officio
 Dr. Samuel Jator – Senior Associate Provost – ex-officio
 Mr. Jarrod Rossi – Director of University Assessment
 Dr. Jackie Jensen-Vallin – Chair, Department of Mathematics
 Dr. Freddie Titus – Vice President for Strategic Initiative and Community Relations
 Dr. Kyle Boudreaux – Executive Director - Data, Analytics, Reporting, and Analysis

Appendix F: QEP Budget (Revised)

	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024
Student Asst	4,500	9,000	9,000	9,000
QEP Director			38,909	
Stipend	20,000	14,399		20,000
Travel	7,830	8,000	8,000	8000
Benefits Pool				5,650
Other Expenditures	24,575	25,000	25,000	25,000
Total	56,905	56,399	80,909	67,650



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