

# Impact Report of the Quality Enhancement Plan

# **Engaging Classrooms**

(Formerly Rise and Shine: Active Learning at SHSU)

Sam Houston State University March, 2025

#### SAM HOUSTON STATE UNIVERSITY

## I. EXECUTIVE SUMMARY

Across all disciplines and all levels within higher education, studies consistently indicate an increased and effective use of active learning methods in the classroom improves both student learning and student success. Yet, in spite of the overwhelming evidence of its benefit to students, faculty members nationwide are reluctant to incorporate these teaching methods into their daily pedagogy. The barriers faculty members identify preventing proper implementation are consistent: a lack of support, guidance, and the time to make the changes that have been shown to directly benefit their students.

In order to eliminate these barriers, the 2019-2024 QEP at Sam Houston State University will provide the resources, support, and motivation for full-time faculty members to integrate the evidence-based best practice of active learning in their classrooms. These will be provided through several varied faculty development opportunities. Some are new to our campus culture, while others have shown promise in smaller settings and are now ready to be scaled up and available to all faculty.

A carefully designed sequence of interventions will be available to all full-time faculty members, allowing them adequate time to develop from novice to expert in the application of active learning techniques. More flexible opportunities will be designed for faculty at all levels of active learning experience to include learning more about its use and sharing their successes. In addition, through physical classroom redesign and the availability of usable digital resources, faculty members at SHSU will lead the student-centered transformation of the campus.

Each year, up to 200 faculty members will have the opportunity to learn more about the benefits and use of active learning, which could impact every one of our almost 22,000 students. With a focus of this QEP on those critical first two years of coursework—degree attainment being linked inextricably to academic success—SHSU is well poised to prepare our graduates to enter tomorrow's workforce with a quality education.

Over five years, significant resources totaling \$3.5

million will be available to accomplish the primary goals of the QEP:

- Increase the use of active learning techniques in all levels and types of courses, resulting in:
  - Increase of the total number of faculty members using active learning.
  - b. Devotion of more class time to active learning techniques.
  - c. Greater measures of student engagement, particularly within those classrooms in which more active learning is used.
- Raise the demonstrated levels of undergraduate student success, in order to:
  - Increase the number of students successfully completing all first-year courses.
  - b. Improve success rates in first-year core courses.
- Increase the demonstrated levels of undergraduate student learning, so that:
  - a. Students, who encountered active learning in a prequel course, will perform better in the sequel course than those who did not.
  - b. Students, who encountered active learning, will perform better on concept inventories than those who did not.

The twin pillars of this QEP—a shift in the university's culture as well as the collection and dissemination of evidence of student learning and success—are designed to be mutually reinforcing. The more faculty who choose to employ active learning in the classroom, the more evidence there will be of a positive impact on student learning and success; and the more evidence there is of improved learning and student success, the more reason faculty will have to incorporate active learning techniques in their classrooms. This QEP is designed to have a self-generating, lasting, positive impact on our students and the university.

### Initial Goals and Outcomes of the QEP

Sam Houston State University's (SHSU) Quality Enhancement Plan (QEP) aimed to boost student engagement and success through active learning. The initiative sought to increase active learning across courses, improve first-year course success rates, and enhance overall learning outcomes. Specifically, the QEP plan included the following goals and outcomes.

- 1. Increase the use of active learning techniques in all levels and types of courses, resulting in:
  - a. Increase of the total number of faculty members using active learning.
  - b. Devotion of more class time to active learning techniques.
  - c. Greater measures of student engagement, particularly within those classrooms in which more active learning is used.
- 2. Raise the demonstrated levels of undergraduate student success, in order to:
  - a. Increase the number of students successfully completing all first-year courses.
  - b. Improve success rates in first-year core courses.
- 3. Increase the demonstrated levels of undergraduate student learning, so that:
  - a. Students, who encountered active learning in a prequel course, will perform better in the sequel course than those who did not.
  - b. Students, who encountered active learning, will perform better on concept inventories than those who did not.

### Changes Made to the QEP

In most respects, SHSU's QEP, *Rise and Shine: Active Learning*, has been implemented as proposed. Informed by campus feedback and initial assessment results, some changes have been made, but the fundamental goals and outcomes, design, and interventions remained substantially intact.

#### Name Change

The QEP's name, *Rise and Shine: Active Learning*, was changed to *Engaging Classrooms* to more concisely communicate that the purpose was to develop more engaging experiences for students in classrooms. Following, several of the interventions were renamed to fit the new theme: 1) Active Learning Summer Institutes became Engaging Explorations (EE), 2) Active Learning Teaching Fellowships became Engaged Learning Fellowships (ELF), and 3) Classroom Redesign became Engaging Spaces (ES). All associated program stipends and procedures remained unchanged.

#### **Changes to QEP Programs (Interventions)**

A large-scale program evaluation of interventions began in 2023 and was completed in 2024. Although other assessments were administered throughout the QEP time period, this midway point was selected for a major review to determine the effectiveness of QEP programming. This review included courses taught by faculty who had completed QEP programs. Each program was individually evaluated for faculty (IDEA course evaluation data) and student (DFQ rates) success. The results, described in greater detail in the QEP Impact section of this report, indicated that one of these goals – Engaged Learning Fellowships, formerly known as Active Learning Fellowships, had a negative impact on faculty and student success.

*Changes to the Engaged Learning Fellowship.* Of the 8,165 qualifying courses offered in 2021 and 2022, 66 were taught by faculty awarded an Engaged Learning Fellowship (ELF). ELF faculty were found to have significantly lower excellent teacher scores and significantly higher DFQ rates.

Because scores on several of the outcome measures were lower in the ELF group, the QEP team has made substantial changes to increase the accountability of Engaged Learning Fellows to improve faculty and student success. Previously, instructors could apply to be an ELF, but now instructors are invited to apply based on the quality of their completed Teaching Innovation Grants (TIGs). That is, the QEP team reviews the TIG reports and identifies the highest quality reports and their potential for impact on student engagement and success. Once selected, they complete an application. If accepted as an ELF, each

awardee meets with the QEP director and associate director of assessment to ensure the project is implemented well and has a rigorous plan for evaluation.

#### A New Program: Mini-Engaging Explorations (MiniEE)

Because of the successful results on faculty and student success from the QEP programming, Mini Engaging Explorations (MiniEE) was developed and implemented in the spring of 2023. The goal for MiniEE was to provide faculty with a preview of the Engaging Explorations by presenting active learning strategies and engaging faculty in reflection and discussions about their teaching.

#### **Assessment Changes**

Several of the assessments were replaced or reimagined. The Teaching Dimensions Observation Protocol (TDOP) was replaced with a more reliable and cost-effective instrument. TDOP required video recordings and trained coders, and the results were confusing and unreliable. The interrater reliability analyses (K = 0.22) indicated low reliability for TDOP results. Therefore, the QEP team developed a new, more reliable instrument, the Engaging Classrooms Observation (ECO), based on the TDOP. ECO was used in 18 different courses, resulting in 332 student responses. The internal consistency of the instrument was found to be excellent,  $\alpha = .93$ , and the interrater reliability was considered very strong (.87). A confirmatory factor analysis indicated an acceptable model fit and that ECO was measuring one factor—active learning. Results are even stronger for the online version of ECO, which was recently developed and piloted. In addition, students could complete the ECO midterm so the instructor could use the results to adjust their instruction that same semester. ECO also replaced the Classroom Survey of Student Engagement (CLASSE) as the CLASSE had low internal consistency on half the factors, and thus results were unreliable.

The original proposal planned to assess students' successful completion of first-year courses by the proportion of students earning a grade of C or higher. Instead, D, F, or Q-Drop (DFQ) rates were used to measure students' success in the introductory courses. DFQ rates are a reliable and commonly used measure of student success and include student drop rates, which are excluded when only looking at final grades.

The original plan included administering a faculty perception survey to assess the extent to which each participating faculty gained knowledge (familiarity and knowledge of benefits) and expanded the use of active learning techniques and the extent of university-wide engagement in active learning. Although faculty perceptions are important, it was decided to survey the students to analyze their perceptions of their instructors' use of active learning in the classroom.

Another planned indicator for Goal 1 was a baseline assessment to measure the growth in active learning. The CLASSE and EPIC surveys were intended to serve as a baseline, but both assessments, as previously mentioned, were unreliable because of low internal consistency and, as with the EPIC, negative average covariance among items. To establish a baseline, archival data related to student perceptions of the teacher and course were used. Results indicated negligible mean differences from 2019 to 2024.

Goal 3 was not measured using the indicators planned at the beginning of the QEP. Generally, the object was to increase the use of active learning techniques that will increase student learning as it relates to SHSU's general education outcomes. Though data are present in this report that establish that the QEP increased student success, the original assessment plan sought to collect data on students who encountered active learning in a prequel course to determine whether it improved performance in subsequent courses. Although longitudinal studies can suggest causal relationships better than cross-sectional studies, they are subject to confounding variables. In this case, maturation, course level, content preference, support services, change in attitude, and even course time of day are examples among the

myriad of confounding variables. Claiming that one semester of active learning would cause higher performance would require a much larger study, widespread data collection, and monitoring fidelity, and it would be costly and time-consuming.

#### **QEP Impact: Achievement of Goals and Outcomes**

The Engaging Classrooms QEP is dedicated to increasing active learning in the classroom, an evidencebased practice that has been shown to increase undergraduate student learning. The primary goals of the program are to help faculty integrate active learning into their courses and improve both student learning outcomes and student success.

**Goal 1: Increase the Use of Active Learning Techniques.** SHSU set a target to have all full-time instructional personnel trained in active learning by the end of the QEP. Between 2019 and 2024, 552 of the approximate 1,200 full- and part-time faculty at the university participated in at least one of the QEP programs. From spring 2022 to fall 2024, 339 QEP-trained instructors each taught, on average, 433 students. Over this same time period, QEP-trained instructors taught courses with 146,692 duplicated student enrollments.

Student perceptions of instructors' use of active learning techniques in courses were measured by administering ECO mid-term. The results, collected from Fall 2022 through Fall 2024, suggest that instructors who have engaged in QEP programs consistently use active learning in both face-to-face (N = 1,990) and online classes (N=613).

According to the ECO results, faculty almost always use active learning techniques in their classrooms and online; of 15 indicators of active learning, 15 were rated "most of the time" or "always" in face-to-face courses and 14 were rated "most of the time" or "always" in online courses. Thus, more class time was devoted to active learning, and students reported being engaged much of the time.

Another planned indicator for Goal 1 was a baseline assessment to measure the growth in active learning. The CLASSE and EPIC surveys were intended to serve as a baseline, but both assessments, as previously mentioned, were unreliable because of low internal consistency and, as with the EPIC, negative average covariance among items. To establish a baseline in some way, archival data related to student perceptions of the teacher and course were used. Excellent course and excellent teacher data have remained stable and strong.

		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
		Course	Course	Course	Course	Course	Course
		Mean SP22	Mean F22	Mean SP23	Mean F23	Mean SP24	Mean F24
Ν	Valid	202	246	244	280	268	263
	Missing	145	101	103	67	79	84
М		4.2837	4.2000	4.2079	4.2248	4.2726	4.2835
Med		4.3900	4.2950	4.2525	4.3458	4.3575	4.3933
SD		0.4834	0.4851	0.4796	0.5120	0.4756	0.4665

#### Table 3. Excellent Course Data from Spring 2022 to Fall 2024

		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
		Teacher	Teacher	Teacher	Teacher	Teacher	Teacher
		Mean SP22	Mean F22	Mean SP23	Mean F23	Mean SP24	Mean F24
Ν	Valid	202	246	244	280	268	263
	Missing	145	101	103	67	79	84
М		4.417	4.348	4.361	4.355	4.387	4.418
Med		4.507	4.461	4.443	4.480	4.486	4.530
SD		0.465	0.482	0.461	0.508	0.467	0.460

Table 4. Excellent Teacher Data from Spring 2022 to Fall 2024

Select questions from the Spring 2019 and Spring 2022 National Survey of Student Engagement (NSSE) were also analyzed (the next administration will occur in Spring 2026). In 2019, students rated SHSU's engagement less than that of the comparative institutions 69% of the time. However, in 2022, students reported equal to higher engagement on 94% of the items, demonstrating improved student engagement.

**Goal 2: Raise Demonstrated Levels of Undergraduate Success.** In 2023, a midpoint review of faculty and student success was conducted as a rigorous analysis to evaluate the effectiveness of QEP programming and its impact on Goal 2 related to student success. The QEP programs were compared to matched samples to determine statistical differences in faculty IDEA scores and DFQ (Ds/Fs/Q Drops) rates in courses. As detailed in the following sections, several of the QEP programs had a significant positive impact on both all level and introductory courses. Courses taught by faculty who completed the ACUE training certification and engaged in Teaching Innovation Grants (TIGs) had significantly higher IDEA raw mean, Excellent Teacher scores, Excellent Course scores, and significantly lower DFQ rates. Courses taught by faculty who completed Engaging Explorations had significantly higher IDEA raw mean scores, and those courses taught in Engaging Spaces had significantly lower DFQ rates. The Engaged Learning Fellowship did not reveal positive results and needs improvement. Of those programs analyzed, there is evidence that most QEP programs benefit faculty and students.

The DFQ rate of instructors who have participated in QEP programs is trending down, indicating improved student success (Table 5).

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		DFQ Rate	DFQ Rate	DFQ Rate	DFQ Rate	DFQ Rate	DFQ Rate
		SP22	F22	SP23	F23	SP24	F24
Ν	Valid	208	252	253	289	277	269
	Missing	139	95	94	58	70	78
М		13.99%	15.09%	13.70%	14.93%	13.40%	12.16%
Med		11.94%	13.04%	10.42%	11.88%	9.71%	9.43%
SD		12.74%	12.38%	12.67%	13.22%	13.24%	11.34%

Table 5. DFQ Rates from Spring 2022 to Fall 2024

Association of College and University Educators (ACUE) Certification Training. Of the 8,165 qualifying courses offered in 2021 and 2022, 860 of those courses were taught by ACUE faculty. Propensity score matching was used to match ACUE courses and other courses using college, rank, race, and gender as covariates. Using a distance caliper of 0.20, 854 ACUE courses were statically matched with 853 courses taught by other faculty (Control). A one-way multivariate analysis of covariance (MANCOVA) was performed on the dependent variables: IDEA mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were significantly different by group [F(4, 1,701) = 11.83, p < .001, Wilk's  $\Lambda = 0.97$ , partial  $\eta 2 = 0.03$ ] after controlling for the number of students in the course. Courses taught by ACUE faculty have significantly

higher IDEA Mean, Excellent Teacher, and Excellent Course scores, and significantly lower DFQ rates (Table 6).

		M	MD
IDEA Raw Mean	Control	4.103	
	ACUE	4.213	0.109*
Excellent Teacher	Control	4.292	
	ACUE	4.425	0.132*
Excellent Course	Control	4.211	
	ACUE	4.293	0.082*
DFQ Rate	Control	16.066%	
	ACUE	12.735%	-3.331%*

Table 6. Means and Mean Differences for ACUE Overall (N = 1,707)

\*. The mean difference (*MD*) is significant at the .05 level.

**Engaged Learning Fellowship.** Of the 8,165 qualifying courses offered in 2021 and 2022, 66 were taught by faculty who were awarded an Engaged Learning Fellowship (ELF). Propensity score matching was used to match ELF courses and other courses using college, race, and gender as covariates. Using a distance caliper of 0.20, 66 ELF courses were statically matched with 66 courses taught by faculty who had not received an ELF (Control). Initially, mean difference effects exceeded the recommended cutoff of 0.20; however, these effects were negligible after the matching process, indicating a better balance between groups.

The descriptive statistics are summarized in Table 7. A one-way multivariate analysis of covariance (MANCOVA) was performed on the dependent variables: IDEA mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were significantly different by group [F(4, 126) = 3.582, p < .01, Wilk's  $\Lambda = 0.891$ , partial  $\eta 2 = 0.109$ ] after controlling for the number of students in the course. To further investigate the dependent variables independently, univariate analyses of covariance (ANCOVA) were performed. After controlling for the number of students enrolled in the course, courses taught by ELF faculty had significantly lower excellent teacher scores and significantly higher DFQ rates.

· · · · · · · · · · · · · · · · · · ·	*	Ν	M	SD
IDEA	Control	66	4.00	0.61
	ELF	66	3.69	0.73
	Total	132	3.85	0.69
Excellent Teacher	Control	66	4.22	0.71
	ELF	66	3.86	0.91
	Total	132	4.04	0.83
Excellent Course	Control	66	4.03	0.76
	ELF	66	3.71	0.80
	Total	132	3.87	0.80
DFQ	Control	66	17.14	15.96
	ELF	66	24.61	17.05
	Total	132	20.88	16.90

Table 7. ELF Descriptive Statistics (N = 132)

Although this was the lowest sample size in the evaluation, the results still warranted concern. Because scores on several of the outcome measures were lower in the ELF group, as mentioned previously, the QEP team has made substantial changes to increase the accountability of Engaged Learning Fellows to improve faculty and student success. Previously, instructors could apply to be an ELF, but now instructors are invited to apply based on the quality of their completed Teaching Innovation Grants (TIGs). That is, the QEP team reviews the TIG reports and identifies the highest quality reports and their potential for impact on student engagement and success. Once selected, they complete an application. If accepted as an ELF, each awardee meets with the QEP director and associate director of assessment to ensure the project is implemented well and has a rigorous plan for evaluation.

*Teaching Innovation Grants (TIGs).* Of the 8,165 qualifying courses offered in 2021 and 2022, 378 of those courses were taught by faculty who had received a TIG. Propensity score matching was used to match TIG courses and other courses using college, race, and gender as covariates. Using a distance caliper of 0.20, 378 TIG courses were statically matched with 378 courses taught by faculty who had not received a TIG (Control). Initially, mean difference effects exceeded the recommended cutoff of 0.20; however, these effects were negligible after the matching process, indicating a better balance between groups.

A one-way MANCOVA was performed on the dependent variables: IDEA mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were significantly different by group [F(4, 750) = 8.162, p < .05, Wilk's  $\Lambda = 0.957$ , partial  $\eta 2 = 0.042$ ] after controlling for the number of students in the course. To further investigate the dependent variables independently, univariate analyses of covariance (ANCOVA) were performed. After controlling for the number of students enrolled in the course, courses taught by TIG faculty had significantly higher IDEA Raw Mean, Excellent Teacher, and Excellent Course scores, and a significantly lower DFQ rate (Table 8).

		M	MD
IDEA Raw Mean	Control TIG	4.042 4.236	0.196*
Excellent Teacher	Control TIG	4.262 4.461	$0.198^{*}$
Excellent Course	Control TIG	4.123 4.339	0.216*
DFQ Rate	Control TIG	17.920% 12.736%	-5.40%*

Table 8. Mean and Mean Differences for TIG Overall (N = 756)

\*. The mean difference (*MD*) is significant at the .05 level.

**Engaging Explorations (EE).** Of the 8,165 qualifying courses offered in 2021 and 2022, 737 of those courses were taught by EE faculty. Propensity score matching was used to match EE courses and other courses using college, race, and gender as covariates. Using a distance caliper of 0.20, all (737) EE courses were statically matched with 737 courses taught by other faculty (Control). Initially, mean difference effects exceeded the recommended cutoff of 0.20; however, these effects were negligible after the matching process, indicating better balance between groups.

A one-way multivariate analysis of covariance (MANCOVA) was performed on the dependent variables: IDEA mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were significantly different by group [F(4, 1,468) = 5.885, p < .001, Wilk's  $\Lambda = 0.984$ , partial  $\eta 2 = 0.016$ ] after controlling for the number of students in the course. To further investigate the dependent variables independently, univariate analyses of covariance (ANCOVA) were performed. After controlling for the number of students enrolled in the course, courses taught by EE faculty had significantly higher IDEA Raw Mean scores (Table 9).

		M	MD
IDEA Raw Mean	Control	4.017	
	EE	4.117	0.102*
Excellent Teacher	Control	4.249	
	EE	4.299	0.052
Excellent Course	Control	4.134	
	EE	4.167	0.034
DFQ Rate	Control	18.01%	
	EE	17.93%	-0.135%

\*. The mean difference (*MD*) is significant at the .05 level.

ACUE Impact on Introductory Courses. Of the 2,408 introductory (1000- and 2000-level) courses offered in 2021 and 2022, 222 were taught by ACUE faculty. Propensity score matching was used to match ACUE courses and other courses using college, rank, race, and gender as covariates. Using a distance caliper of 0.20, 223 ACUE intro courses were statically matched with 222 intro courses taught by other faculty (Control). A one-way multivariate analysis of covariance (MANCOVA) was performed on the dependent variables: IDEA mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were significantly different by group [F(4, 438) = 5.996, p < .001, Wilk's  $\Lambda = 0.948$ , partial  $\eta 2 = 0.052$ ] after controlling for the number of students in the course. To further investigate the dependent variables independently, univariate analyses of covariance (ANCOVA) were performed. After controlling for the number of students enrolled in the course, IDEA Raw Mean, Excellent Teacher, and Excellent Course scores were statistically significantly higher in ACUE courses, and DFQ rates were significantly lower (Table 10).

ACUE	-	М	SD	N
IDEA Mean	Control	3.962	0.559	222
	ACUE	4.133	0.479	222
Excellent Teacher	Control	4.172	0.664	222
	ACUE	4.417	0.483	222
Excellent Course	Control	4.071	0.658	222
	ACUE	4.257	0.553	222
DFQ Rate	Control	25.21%	21.17%	222
	ACUE	21.48%	17.25%	222

 Table 10. ACUE Intro Courses Descriptive Statistics

*Teaching Innovation Grants (TIG) Impact on Introductory Courses.* Of the 2,631 introductory (1000and 2000-level) courses offered in 2021 and 2022, 122 were taught by TIG faculty. Propensity score matching was used to match TIG courses and other courses using college, rank, race, and gender as covariates. Using a distance caliper of 0.20, 121 TIG intro courses were statically matched with 121 intro courses taught by other faculty (Control). A one-way multivariate analysis of covariance (MANCOVA) was performed on the dependent variables: IDEA Raw Mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were not different by group  $[F(4, 236) = 4.072, p < 0.01, Wilk's \Lambda = 0.935, partial \eta 2 = 0.065]$  after controlling for the number of students in the course. To further investigate the dependent variables independently, univariate analyses of covariance (ANCOVA) were performed. After controlling for the number of students enrolled in the course, courses taught by TIG faculty have significantly higher IDEA Raw Mean, Excellent Teacher, and Excellent Course scores. TIG's significance was not as great in introductory courses (Table 11).

	•	M	SD	Ν
IDEA Mean	Control	3.912	0.668	121
	TIG	4.158	0.438	121
Excellent Teacher	Control	4.085	0.773	121
	TIG	4.411	0.420	121
Excellent Course	Control	3.949	0.757	121
	TIG	4.291	0.457	121
DFQ Rate	Control	22.717%	20.626%	121
	TIG	19.026%	13.825%	121

Table 11. TIG Intro Course Descriptive Statistics (N = 242)

Engaging Explorations Impact on Introductory Courses. Of the 2,408 introductory (1000- and 2000level) courses offered in 2021 and 2022, 275 were taught by EE faculty. Propensity score matching was used to match EE courses and other courses using college, rank, race, and gender as covariates. Using a distance caliper of 0.20, 275 EE intro courses were statically matched with 275 intro courses taught by other faculty (Control). A one-way multivariate analysis of covariance (MANCOVA) was performed on the dependent variables: IDEA Raw Mean, Excellent Teacher, Excellent Course, and DFQ rates. According to Wilks' criterion, the combined dependent variables were not different by group [F(4, 544) =1.553, p = 0.186, Wilk's  $\Lambda = 0.989$ , partial  $\eta 2 = 0.052$ ] after controlling for the number of students in the course. Subsequent univariate ANCOVAs did not detect significant differences, however the tests were underpowered. Therefore, only the descriptive statistics were examined (Table 12). As can be seen, there were only marginal differences in favor of the EE faculty.

EE	•	M	SD	Ν
IDEA Mean	Control	3.887	0.630	275
	EE	3.985	0.612	275
Excellent Teacher	Control	4.139	0.733	275
	EE	4.198	0.702	275
Excellent Course	Control	3.959	0.725	275
	EE	4.033	0.705	275
DFQ Rate	Control	26.57%	21.40%	275
	EE	26.49%	21.93%	275

Table 12. EE Intro Course Descriptive Statistics (N = 550)

*Engaging Spaces (ES) Impact on Introductory Courses.* A total of 67 courses were taught in the Engaging Spaces classrooms during 2021-2022. Those courses were statistically matched to 67 others with similar faculty demographics (college, race, gender) using a distance caliper of 0.20 without replacement. A multivariate analysis of covariance was conducted to detect statistically significant differences in IDEA scores and DFQ rates while controlling for the number of students who enrolled in and completed the course. According to the results, courses taught in Engaging Spaces had a significantly lower DFQ rate (Table 13).

		M	MD
IDEA Raw Mean	Control	4.0060	
	ES	4.1104	0.098
Excellent Teacher	Control	4.3028	
	ES	4.3907	0.077
Excellent Course	Control	4.1142	
	ES	4.2907	0.164
DFQ Rate	Control	0.3091	
-	ES	0.1195	-18.800%*

Table 13. Mean and Mean Differences for ES Overall (N = 134)

\*. The mean difference (*MD*) is significant at the .05 level.

#### A New Program: Mini-Engaging Explorations (MiniEE)

Because of the successful results on faculty and student success from the QEP programming, Mini Engaging Explorations (MiniEE) was developed and implemented in the spring of 2023. The goal for MiniEE was to provide faculty with a preview of the Engaging Explorations by presenting active learning strategies and engaging faculty in reflection and discussions about their teaching. To evaluate the training itself, a post participation survey was distributed to the attendees. To determine the impact of MiniEE on faculty's use of active learning in the classroom, prior to MiniEE, each faculty was asked to distribute the Engaging Classrooms Observation (ECO) to their students. Students completed the pretest ECO by answering 15 questions about their experiences in class. Students also provided a nickname to be used on the posttest to pair the data. Three weeks after the faculty participated in MiniEE, the students completed the posttest ECO using their same nickname.

**Participation Survey Results.** The survey results suggest most of the attendees found MiniEE to be a valuable and impactful experience. When asked how likely participants would be to recommend MiniEE to a colleague, most (55%) responded positively and would be promoters of MiniEE, and 10% would likely not recommend MiniEE. The majority (70%) of the respondents claimed the workshop engaged their attention very or extremely well, and 20% moderately well. In addition, most of the open-ended comments were positive, primarily claiming they learned more active learning strategies, and they also believed the collaboration in groups was helpful. Some recommended more time on the strategies.

*Engaging Classrooms Observation (ECO) Results.* Thirty students completed both the pre and posttest and their data were analyzed using a paired samples *t*-test. Results of the paired samples *t*-test revealed one statistically significant change from pre to posttest; overall, students perceived the class to be more student-centered after their professor attended MiniEE, and the mean difference effect size was approaching moderate (d = 0.44). To achieve a positive mean shift of .44 standard deviations after only a three-hour training might be considered remarkable.

#### Reflection

Key results included training 552 faculty members in active learning, leading to widespread classroom adoption. Students reported significantly higher engagement, and by 2022, SHSU outperformed peer institutions on 94% of selected NSSE engagement survey items, up from 31% in 2019. Courses taught by faculty using active learning showed improved IDEA course evaluation ratings and lower DFQ rates, validating the program's impact.

Although direct links between active learning and sequel course performance proved difficult to measure due to confounding variables, broader trends confirmed student success gains. The 2023 launch of Mini Engaging Explorations (MiniEE) provided a preview of active learning strategies, fostering faculty

reflection and dialogue. ECO continued to evolve, demonstrating high reliability and applicability for both in-person and online courses.

The QEP has significantly enhanced teaching practices, student engagement, and academic success at SHSU. Ongoing refinement and further research will sustain and deepen its impact on learning outcomes.

The QEP development and evaluation process has led to many insights. Programs that directly involve instructors in learning active learning techniques help improve faculty and student success. Results have also indicated that programs that lack structure, cooperation, and accountability may be less effective. So, the QEP office continues to redesign programs to maximize their impact. An example of this was the creation of MiniEE as a small serving of active learning strategies, as well as a gateway to more intense program offerings. Another example is reimagining ELF and tying it to the TIG program as an invited extension.

Based on research in higher education and active learning, along with the promising impact on faculty and student success, the University is dedicated to faculty development in teaching and active learning. This is evidenced by the institutionalization of the QEP through the creation of the Teaching and Learning Center (TLC). Furthermore, the University has allocated substantial resources to build an active learning building that will serve all Sam Houston State University disciplines. In conclusion, the University has learned that developing instructors into effective teachers who actively engage students is worth the investment.