QEP Impact Report

I. Brief Description

The general goal of our QEP, *Student Engagement Through Active Learning Strategies*, was to engage students more deeply in the learning process through active learning strategies, helping them gain the knowledge, skills, and behaviors needed to make the most of their college experience. This goal was partitioned into three major objectives:

1. Acculturate students to the policies and procedures of a university, from navigating registration to declaring a major.
2. Enrich students' academic growth through active learning pedagogies and related extracurricular activities.
3. Improve student performance in three key "bottleneck" courses (MATH 1301-College Algebra, ENG 1302-Composition II, HIST 1305-US History I) in part by expanding our Supplemental Instruction (SI) Peer Tutoring Program.

Our three major objectives were supported by 11 learning outcomes, which are discussed in Section III of this report.

A few highlights, each discussed more fully below, are 1) excellent progress by College Algebra students in mastering the course and its learning objectives, 2) innovation on the part of the Composition faculty in addressing issues of persistence, 3) a notable increase in the level of student engagement on the part of HIST 1305 students, and 4) positive results of the Freshman Summer Success Program, whose participants outperformed the corresponding full freshman cohort, leading us to expand this program in 2012 to serve approximately one-third of the entering class.

II. QEP Activities

Our first major objective (and Learning Outcomes 1-4) was addressed by the Enhanced Transition Program, which had several elements, including linking selected Welcome Week activities to the academic curriculum, and implementing a Freshman Summer Success Program (FSSP).

In support of efforts to transition students into the academic culture of the University, we have instituted a number of activities during Welcome Week that connect students with faculty and academic resources on campus. For instance, *Pizza with the Profs* allows students to visit with and ask questions of faculty and advisors from the college in which they might declare a major. Participants in *Gator Quest* and *Are you Ready to be a Gator?* events visited various university offices, learned how the University functions, and practiced the proactive strategies of academically successful students.

Originally piloted in 2006 through an external grant, the FSSP became a QEP initiative in 2007. Beginning with 39 students, the program reached its enrollment goal of 150 entering freshmen in 2011 (481 participants total). This four-day extended orientation introduces a cohort of entering freshmen to academic coursework through sample courses in math, composition, and reading. While introducing students to discipline-specific content, these courses also clarify the expectations students should have about academic work load and navigating the University. Students engage with faculty, academic advisors, financial aid and career counselors, student ambassadors, and SI peer tutors, and they become familiar with campus services and resources. We invite parents to attend the first day, recognizing their importance in their children's academic success. Reinforcement activities and social gatherings occur throughout the academic year to help students develop community ties and to acculturate them to UHD. Beginning in 2010, FSSP students were invited to attend Fast Start, an additional week of academic training designed to better prepare them for their first math, English, or reading-intensive courses. In the first year, 27 students participated in Fast Start. The second year, 35 students participated.

Most of our work in the Active Learning Interventions component of the plan (which addressed our second major objective and Learning Outcomes 5-7) took the shape of faculty development. Since 2007, the QEP-funded Curriculum Development Grant Program has awarded grants to 25 faculty for reassigned time, equipment, or stipends to develop or adapt reusable active learning curriculum materials for various courses, with preference given to proposals targeting "threshold" courses, in which success is essential in order for a student to succeed in subsequent courses. Courses were funded in all UHD colleges and ranged from developmental English to Differential Equations. QEP funds have also sent more than 25 faculty and staff to various professional conferences. QEP assisted with the annual New Faculty Orientation Day sponsored by University College by providing partial funding and making presentations on teaching and learning topics. Finally, we used QEP funds to develop an Active Learning/Student Engagement Resource Collection, in cooperation with University College and the W. I. Dykes Library. The collection contains more than 100 new books and more than a dozen new professional journals.

The QEP budget originally allocated a small amount of money for invited speakers or specialists in active learning and student engagement. But because of the number and quality of curriculum development proposals received, we chose to spend most of this money instead on funding additional projects. Nevertheless, the University has invited several notable speakers on student success during the QEP, including Vincent Tinto, Mark Taylor, Lauro Cavazos,

Saundra McGuire, and Joe Cuseo.

A large portion of the work of the QEP has revolved around the three targeted courses that data identify as significant barriers to student success (bottleneck courses): MATH 1301, ENG 1302, and HIST 1305.

MATH 1301. Two key strategies provide the foundation for changes in this course: the expanded use of peer tutoring and a revised curriculum. The revised curriculum is the byproduct of a new textbook, which was adopted in Fall 2007 after being extensively class-tested in 2006-2007. The new textbook employs a contemporary function-based approach, with much greater attention devoted to understanding mathematical notation, interpreting results in practical contexts, technology, and mathematical modeling.

The QEP sponsored weekly brainstorming sessions for faculty to design custom problems to better tailor the online homework to our syllabus and promote conceptual understanding rather than rote symbolic skills. The QEP employed an upper-level student to program these problems, and nearly 200 new problems were created.

The QEP has sponsored various other activities aimed at improving results in MATH 1301: 1) final exam review sessions, which typically attract about 250 students per semester; 2) development of an Algebra Student Web Page; 3) Beginning with some tentative pilots in 2009, the QEP now conducts each semester a MATH 1301 Final Exam Double-Take, allowing students the option of taking a proctored online version of the MATH 1301 final exam, in addition to the regular in-class paper-and-pencil version, and keeping the higher of the two scores. 4) The QEP sponsored numerous trips for faculty to attend various teaching and learning conferences.

ENG 1302. There has been notable readiness on the part of the Composition faculty to innovate. The QEP funded numerous curriculum development projects related to ENG 1302, devoted to diverse topics such as peer review techniques, the use of poetry as an underlying theme for the course, the workshop model practiced in an e-classroom setting, and several "intended majors" sections centered on topics relevant to a particular discipline or related group of disciplines. In Fall 2006, the QEP provided a small amount of funding when the English department invited a consultant (Valerie Balester from Texas A&M University) to evaluate ENG 1302 and make recommendations. Dr. Balester met with the faculty, reviewed syllabi and course materials, and conducted a focus group with current students.

In Spring 2011, the Director of Composition served as the ENG 1302 QEP Lead Teacher and organized a series of three faculty development workshops which had two aims: 1) The development of pedagogical strategies appropriate to composition instruction that specifically encourage the sort of student engagement and collaborative learning that can result in student success, and 2) the professional development of faculty through peer communication, collaboration, and classroom observation. These workshops were motivated by awareness of the long-term student retention problem in ENG 1302. Although most who complete the course pass it, a significant number exit from the course without formally withdrawing. Thirteen instructors actively participated in the workshops and processes. Five additional instructors participated to a more limited extent.

HIST 1305. Initially, differences among history instructors in teaching methodology, course content, and other aspects of their syllabi hampered the ability to institute programmatic innovations. Instructors did not use a common text or syllabus. Moreover, there was not a consistent overall assessment instrument because final exams in the course are instructor-written.

To remedy the assessment problem, instructors agreed in Fall 2008 to devote a certain portion of the final exam to multiple choice questions including a common subset devoted to each learning objective (although the exact questions may vary from instructor to instructor). We have therefore been able to measure the rates of learning outcome mastery in the same fashion as in MATH 1301, by mapping questions on the final exam for each section to one or more of the objectives.

A team of four history faculty likewise agreed to collaborate on experimenting with curricular modifications and new teaching strategies in the course. The QEP provided several stipends or reassigned time to these faculty on a rotating basis to advance the experiments. In Fall 2010 all adjunct instructors began using a common textbook, and full-time faculty are encouraged to use this text.

In addition to the new textbook, the QEP Lead Teacher followed math's example and instituted online homework. The expectation was that by Fall 2011, all HIST 1305 faculty would require some form of online homework. In Summer 2010 the Lead Teacher developed a common test bank of multiple-choice questions for the 14 chapters covered in HIST 1305 with the goal of making it easier for HIST 1305 faculty, especially adjuncts, to meet the online homework expectation. This change was initiated in Fall 2010 and continued in Spring 2011.

In Spring 2011, the history faculty agreed to include a writing requirement in HIST 1305 (and in all lower-division history courses).

III. Results, Follow-Up Activities, and Additional Outcomes

Since UHD's QEP began, retention rates for full-time entering freshmen have increased, as shown in Table 1.

Table 1: Improvement in Retention Rates Since QEP Began		
Year	**One-semester**	**One-year**
2006	78%	56%
2007	82%	57%
2008	86%	61%
2009	83%	59%
2010	87%	60%

Learning Outcome 1. *Students will demonstrate that they know and understand the University's basic academic policies and procedures (and demonstrate an ability to navigate successfully through basic registration procedures).*

Pre-tests and post-tests distributed at the FSSP are used to assess this outcome, based on questions such as:

- What should I consider when I'm deciding how many credit hours to take each semester?
- What are course prerequisites and why are they important?
- Where is the Academic Support Center and what type of assistance does it offer?
- What are the benefits of maintaining a 2.0 or higher GPA?
- What is the process for officially dropping a class?
- What does the phrase, "core classes," mean at UHD?

In Summer 2011, FSSP participants scored an average of 29% on the pre-test but had improved to 75% on the post-test.

Learning Outcome 2. *Students will demonstrate skill in managing those factors (unrealistic course loads, not following withdrawal procedures, ignoring prerequisites) that are most likely to get them into academic difficulty.*

The response from participating students to the FSSP has been overwhelmingly positive. The 2011 Student Survey showed more than 90% answering "Yes" to each of the following questions:

1. Has this experience changed or modified your perspective on college and what it takes to be successful?
2. Did this program help to alleviate some anxieties/fears about starting college next month?
3. Do you feel better prepared to meet the academic challenges of college?
4. Have you learned some strategies to help you become a better college student?

More importantly, an examination of the academic progress of the FSSP student cohorts provides other measures for assessment. A survey of more than 20 "momentum" milestones for entering freshmen (measured after three long semesters), shows that FSSP students typically outperform the corresponding full entering freshman cohort in almost every category. For example, 67% of the Fall 2009 FSSP students enrolled for Fall 2010, compared with 54% for the entire 2009 freshman cohort. Likewise, FSSP students were more likely than the entire freshman class to complete all developmental requirements (75% vs. 58%) and more likely to succeed in the credit-bearing curriculum (with 38% completing 30 credit hours, compared to 25% for the entire freshman class). This relative success was achieved even though the 2009 FSSP cohort was not significantly better prepared for college than the entire freshman cohort, as measured by the number of students required to take at least one developmental course (78% vs. 81%).

Change from original QEP: Originally we planned to administer the *Your First College Year* (YFCY) survey to entering freshmen to help assess Learning Outcomes 1, 2, and 4. But during the years of the QEP, UHD settled into an every-third-year schedule of administering the National Survey of Student Engagement. The overlap between the two surveys plus our concern about survey fatigue led to our decision not to administer the YFCY.

Follow-up: In Summer 2012, funding for the FSSP will be roughly doubled to accommodate two cohorts of 150 participants each, or roughly one-third of the normal entering freshman cohort. We will thereby satisfy the rule-of-thumb that an intervention must reach one-third of its target population to achieve a significant effect.

Additional outcome: In 2010, in collaboration with the national Achieving the Dream (AtD) initiative, the QEP Student Success Specialist (originally titled Active Learning Faculty Specialist) was instrumental in developing UHD's first First-Year Common Reading Program and Freshman Convocation designed to foster faculty/student interaction and to create intellectual and social community among entering freshmen. Approximately 600 students attended the first Freshman Convocation in 2010, which focused on Malcolm Gladwell's book, *Outliers: The Story of Success*. Students were given the book earlier in the summer and were asked to write an essay about it. Twenty students were recognized at a September awards ceremony for their outstanding essays. Students also attended a four-hour Convocation program in August that included an assembly with the President, deans, faculty, and a student speaker and a two-hour small-group faculty-facilitated discussion of Gladwell's book. Various follow-up events were held during the academic year. For 2011, the common reading was Rebecca Skloot's book, *The Immortal Life of Henrietta*

Lacks.

The one-semester retention rate for full-time freshmen attending the 2010 Convocation was 90% versus 83% for full-time freshmen who did not attend.

Learning Outcome 3. *Students entering with a TSI obligation will satisfy that obligation within twelve months of their initial enrollment.*

The Texas Success Initiative (TSI) is the state's program for tracking the progress of students who place into developmental courses. We assess this outcome by the percentage of students who satisfy their developmental coursework obligation in each of the three developmental disciplines within three long semesters of matriculation. We have tracked the success rates for entering freshman cohorts since 2003. In math there has been clear improvement. In the Fall 2003 cohort, only 40% completed their developmental math courses, but in the Fall 2010 cohort, 49% completed. In English, there is less evidence of progress. Since 2003, rates of completion of developmental English courses have ranged from 71% to 78%, showing no trend. Similarly in developmental reading courses, completion rates have ranged from 79% to 87%, showing no trend.

In collaboration with the AtD program, the QEP helped sponsor or support numerous pilots, programs, or practices aimed at fostering success among developmental students. Many of these pilots were quite successful, especially accelerated developmental linkages, which allow students to complete all their developmental requirements in a given subject in a single semester, or their developmental requirement plus a credit-bearing course in the core curriculum in a single semester. SI peer tutoring, supported by the QEP, played a vital role in conducting these pilots.

Another of these activities is the recent adoption (Fall 2009) in UHD's two developmental algebra courses of the same online homework and testing platform (*MyMathLab*) that has proven successful in MATH 1301. A positive result of adopting this common online homework platform for first-year algebra courses is the C-or-better passing rates for students continuing from the prerequisite course. For example, the C-or-better passing rate for students in MATH 1301 who continued from MATH 1300 (Intermediate Algebra) rose from 36% in Fall 2009 to 48% in Fall 2010. A similar increase occurred in the C-or-better passing rate for students in MATH 1300 who continued from MATH 0300 (Beginning Algebra).

Despite some signs of progress in the aggregate measures for progress in the three developmental subjects, the University has taken additional steps to allow students to bypass or accelerate completion of developmental requirements. Entering freshmen are now allowed one free retake of the placement tests. In Summer 2010, about 350 students retook the Accuplacer math placement test, and 144 of these (41%) were able to score high enough to move up at least one course level. However, only 110 actually enrolled in the higher level course (some did not take any math and some stayed with their initial placement). Of these 110, 75 were able to enroll in a credit-bearing math course instead of a developmental course. Of these 75, 85% passed the credit-bearing math course (72% passed with C or better). The QEP has assisted in this effort by offering free math placement test workshops in conjunction with Freshman Orientation for the past four years. These workshops are conducted by the Coordinator of SI.

Follow-up: After an initial pilot, in Fall 2011 the prerequisite for MATH 1310 (Math for Liberal Arts Majors) was changed from MATH 1300 (Intermediate Algebra) to MATH 0300 (Beginning Algebra), which increased the enrollment in MATH 1310 by 75% in Fall 2011 and hence significantly increased the enrollment in credit-bearing core curriculum math courses.

Additional outcome: Several of these pilots and programs helped form the basis for a $100,000 grant received in 2010 by the QEP Director and the QEP Student Success Specialist. This grant was funded by the Walmart Minority Student Success Initiative "to improve academic progress and long-term academic success for two experimental cohorts of 150 first-generation first-time-in-college students during their freshman year by providing a comprehensive set of discipline-specific 'high-impact' educational experiences that offer different types of support for students at various levels of preparation in the foundational skill areas of mathematics, reading, and writing."

Learning Outcome 4. *Students will demonstrate understanding of the purposes of the support services offered by the University and show that they are able to access them.*

Please see the results for Learning Outcome 1, which are also relevant for this learning outcome.

Learning Outcome 5. *Students will apply the techniques of engaged learning in the classroom.*

The primary vehicle for assessing Learning Outcomes 5-7, which were addressed by the Active Learning Interventions component of the plan, was the National Survey of Student Engagement (NSSE). The NSSE was conducted once prior to the implementation of the QEP (in 2003) and then again twice during the plan, in 2008 and 2011.

Because much of the focus of the QEP interventions was on students in the three bottleneck courses, we administered a separate survey to students in those courses asking some of the same questions about active learning and student engagement that appear on the NSSE. This survey was administered in Spring 2007, Spring 2009, and Fall 2011.

Tables 2-4 allow for comparing responses to these questions by students in the bottleneck courses with responses by the entire samples of UHD first-year students and seniors. ENG 1302 was not included in the Fall 2011 survey because the level of student engagement and active learning in that course already appeared relatively good according to the previous two surveys.

Table 2: Comparison of All First-Year & Senior Students with Bottleneck Students on NSSE Questions							
1 = Never, 2 = Sometimes, 3 = Often, 4 = Very Often	NSSE			Bottleneck Courses			
	2003	2008	2011		2007	2009	2011
Asked questions in class or contributed to class discussions							
Mean of UHD first-year students	2.87	2.90	2.78	ENG 1302 mean	2.94	3.09	
Mean of UHD senior students	3.07	3.20	3.17	MATH 1301 mean	2.74	2.68	2.34
				HIST 1305 mean	2.34	2.32	2.52
Made a class presentation							
Mean of UHD first-year students	2.20	2.09	2.12	ENG 1302 mean	1.90	1.93	
Mean of UHD senior students	2.88	2.88	2.82	MATH 1301 mean	1.30	1.36	1.18
				HIST 1305 mean	1.21	1.22	1.46
Worked with other students on projects during class							
Mean of UHD first-year students	2.56	2.53	2.50	ENG 1302 mean	2.91	2.94	
Mean of UHD senior students	2.58	2.62	2.67	MATH 1301 mean	2.48	2.24	2.34
				HIST 1305 mean	1.62	1.74	2.35

These data show that although there was little change among all first-year and senior students on these measures from 2003 to 2011, there was notable improvement for HIST 1305 students on all three measures from 2007 to 2011.

Learning Outcome 6. *Students will practice effective study skills outside of class.*

Table 3: Comparison of All First-Year & Senior Students with Bottleneck Students on NSSE Questions							
1 = Never, 2 = Sometimes, 3 = Often, 4 = Very Often	NSSE			Bottleneck Courses			
	2003	2008	2011		2007	2009	2011
Came to class without completing readings or assignments							
Mean of UHD first-year students	1.96	1.95	1.93	ENG 1302 mean	1.92	1.93	
Mean of UHD senior students	1.94	2.08	2.00	MATH 1301 mean	1.96	2.07	1.91
				HIST 1305 mean	2.07	2.10	2.02
Worked with classmates outside of class to prepare class assignments							
Mean of UHD first-year students	2.12	2.11	2.18	ENG 1302 mean	2.24	2.26	
Mean of UHD senior students	2.81	2.84	2.73	MATH 1301 mean	2.10	2.03	2.02
				HIST 1305 mean	1.77	1.87	2.12
Discussed ideas from your readings or classes with others outside of class							
Mean of UHD first-year students	2.70	2.67	2.85	ENG 1302 mean	3.03	3.14	
Mean of UHD senior students	2.84	2.80	2.89	MATH 1301 mean	2.98	2.86	2.91
				HIST 1305 mean	2.82	2.73	2.97
Discussed grades or assignments with instructor							
Mean of UHD first-year students	2.72	2.68	2.60	ENG 1302 mean		1.95	
Mean of UHD senior students	2.75	2.76	2.80	MATH 1301 mean		2.21	1.86
				HIST 1305 mean		1.49	1.64

These data show that students in the bottleneck courses reported discussing ideas outside of class more frequently than the overall first-year sample.

Learning Outcome 7. *Students will demonstrate an ability to use technology, such as electronic communication and collaboration tools.*

Table 4: Comparison of All First-Year & Senior Students with Bottleneck Students on NSSE Questions							
1 = Never, 2 = Sometimes, 3 = Often, 4 = Very Often	NSSE			Bottleneck Courses			
	2003	2008	2011		2007	2009	2011
Used an electronic medium to discuss or complete an assignment							
Mean of UHD first-year students	2.55	2.39	2.45	ENG 1302 mean	3.26	3.22	
Mean of UHD senior students	3.12	3.00	3.05	MATH 1301 mean	2.67	3.18	3.56
				HIST 1305 mean	1.80	2.03	3.14
Used email to communicate with an instructor							
Mean of UHD first-year students	2.73	2.93	2.94	ENG 1302 mean	2.93	2.82	
Mean of UHD senior students	3.22	3.23	3.36	MATH 1301 mean	2.15	2.54	2.06
				HIST 1305 mean	1.74	1.75	2.38

These data show that students in the bottleneck courses reported using an electronic medium for coursework more frequently the overall first-year sample. In part this may reflect the impact of online homework in MATH 1301 and HIST 1305.

Learning Outcome 8. *Students will demonstrate mastery of MATH 1301 basic learning objectives.*

Superior progress toward QEP goals for course and learning objectives has been achieved in MATH 1301. The target C-or-better passing rate for this course was 45% with 50%, on average, mastering each learning objective for the course. With a base semester low of 41% for the C-or-better passing rate in Fall 2006, we have shown steady improvement to 55% for Fall 2011. Similarly, the number of students earning at least a C on the departmental final exam improved from a base semester rate of 27% to 43% in Fall 2011. Even among the weakest students, we showed improvement, with a base semester high of 15% scoring below 50% on the final exam to a Fall 2011 figure of 9%. Partly as a result of these improvements, the percentage of entering freshmen completing their core curriculum math requirement within five long semesters of matriculation has increased by 10 percentage points, from 38% for the Fall 2003 cohort to 48% for the Fall 2009 cohort. Preliminary data indicate that this measure may again increase significantly for the Fall 2010 cohort.

Outcome measures for individual course learning objectives are also excellent, with mastery of seven out of 11 objectives exceeding the QEP target rate in Fall 2010 (versus just one in Fall 2006).

Learning Outcome 9. *Students will demonstrate mastery of ENG 1302 basic learning objectives, as demonstrated in a final major research paper.*

The target C-or-better passing rate for ENG 1302 was 60% with 60%, on average, mastering each learning objective for the course. While we have not reached that goal, we have made progress, from a low of 47% passing with at least a C in Fall 2006, to a high of 57% in Fall 2010, and slight dip to 55% in Fall 2011. There has also been some modest, yet distinct, improvement in certain other aggregate measures of learning, such as the percentage of students completing the major assessment for the course (a research paper).

In Spring 2009 the English department revised the course outcomes to more closely correlate to the college-level research paper, which is the major objective of the course. The department assessed these outcomes in Spring 2009 by selecting 75 research papers at random and having each paper read by two readers. Results for individual learning outcomes were disappointing, with mastery of only one of the five learning objectives meeting the 60% QEP target rate. Finally, the percentage of entering freshmen completing their core curriculum English requirement within five long semesters of matriculation has remained essentially constant, around 48%.

Learning Outcome 10. *Students will demonstrate mastery of HIST 1305 basic learning objectives.*

The target C-or-better passing rate for History 1305 was 60% with 60%, on average, mastering each learning objective for the course. Despite the improvement in the active learning measures for HIST 1305 noted above, the C-or-better passing rate for Fall semesters since 2006 has averaged 55% with little variance. Outcome measures for individual course learning objectives are disappointing, with mastery of none of the six learning objectives meeting the 60% QEP target rate in Fall 2009. Thus, the percentage of entering freshmen completing their core curriculum history requirement within five long semesters of matriculation has shown little change, rising from 30% for the Fall 2003 cohort to 33% for the Fall 2009 cohort.

Follow-up: In Spring 2011, UHD received a $260,000 grant from the Texas Higher Education Coordinating Board that will extend and expand some of the efforts initiated by the QEP in MATH 1301 and HIST 1305. The grant will also focus on three additional freshman bottleneck courses. The grant places a renewed focus on faculty development for student engagement in the classroom and on peer tutoring. Another important grant activity is developing a more robust early-alert system to quickly identify at-risk students and ensure that they take advantage of the full range of

available support services. The current online early-alert system is an additional outcome of the QEP. More than 800 students were referred to Academic Advising using this system in Fall 2011. In Spring 2012, UHD will transition to a commercial software system for making early-alert referrals.

Learning Outcome 11. *SI leaders will strengthen their own academic skills in the subject area and boost their teaching and communication skills.*

Supplemental Instruction (SI) is the peer tutoring strategy used to support the bottleneck, and other, courses. About one-third of the QEP budget has been devoted to this program, with an average of 35 sections each semester supplied with SI leaders (peer tutors).

According to surveys conducted three times during the the QEP, SI leaders overwhelmingly either agree or strongly agree that being an SI leader has: 1) Made them more confident about expressing themselves in oral presentations; 2) Strengthened their own study skills/habits; and 3) Strengthened their knowledge of the subject matter in the courses in which they tutor. Thus, for the SI Leaders, themselves, the SI program may be considered one of the most effective student success interventions at UHD. Of the 83 students who have served as SI leaders since the inception of the QEP through Spring 2011, 58% have graduated, 24% remain as current students, and 4% have transferred to other institutions.

Surveys given twice during the QEP (2006 and 2008) indicated a high degree of popularity for the program with both students and faculty. For example, students in SI sections indicate by large margins that they agree or strongly agree that SI sessions were helpful and that they would like to take other classes with SI leaders. The number of student visits to the SI Tutoring Center is typically more than 900 for a long semester.

SI seems to have a particularly strong positive effect in MATH 1301. For example, for the 2010-2011 academic year, 58.9% of students in SI sections passed with a grade of C or better, and students in SI sections averaged 72.7 on the final exam (613 students). By comparison, 45.0% of students in non-SI sections passed with a grade of C or better and students in non-SI sections averaged 67.9 on the final exam (1000 students). SI also seems to have a positive effect in ENG 1302. For example, for the 2010-2011 academic year, 67.4% of students in SI sections passed with a grade of C or better and 75.7% of students in SI sections turned in the research paper, which is the major course assessment (255 students). By comparison, 55.8% of students in non-SI sections passed with a grade of C or better and 65.3% students in non-SI sections turned in the research paper (862 students).

Follow-up: In Summer 2011, the SI Tutoring Center was renovated and expanded.