QEP ANNUAL REPORT

2013-2014

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I. Introduction

Wallace Community College (WCC) embarked on its first QEP beginning with the 2009-2010 academic year. Multiple campus surveys were distributed in order to determine institutional input as to the scope and nature of a project that would provide meaningful and long lasting impact on student learning and success throughout the institution. As a result of these surveys, numerous teams and committees and conversations were generated. After careful analysis of the survey results and institutional goals, it was determined that a project involving the transitional math course work would have the greatest impact on student learning and success.

Multiple teams and committees were developed to take a close look at the current pedagogy and practices being used in transitional mathematics courses across the nation. As a result of this reflection, the mathematics department suggested a paradigm shift in the instructional culture and practices currently in use. This shift involved a complete "redesign" in course pedagogy for these transitional math courses moving from a traditional face to face lecture model to an emporium model framed by a competency and mastery based structure. This new model would focus on students actively learning through mastery methods and the instructor would serve in the role as a facilitator, coach and tutor.

A significant number of students who enroll in Wallace Community College are underprepared for college mathematics. Therefore, the College implemented the Quality Enhancement Plan "Hooked on Outrageous Technology" Fall of 2011 on the Sparks campus. The QEP involved a redesign of the developmental mathematics courses. The redesign focused on the transition from a traditional lecture-based model to a self-paced Emporium model using the artificial intelligence engine ALEKS (Assessment and Learning in Knowledge Spaces). In the Emporium model, all lectures are replaced with a learning resource center model featuring interactive software with on-demand personalized assistance from instructors and peer tutors.

During Fall 2011, the redesigned Developmental Algebra I (MTH091) was implemented on the Sparks campus. The course was divided into learning modules. Students began each module with a comprehensive assessment to

determine their knowledge of the course content. A "pie" was then generated by ALEKS to guide the students' learning through the module. ALEKS periodically sent assessments to the students to check for retention of material learned. The assessment results could possibly affect the number of topics remaining in a student's pie. In addition, students were required to complete a notebook of practice problems for each module in addition to the practice assigned by ALEKS. Students were required to test at the end of each module before progressing to the next module. In order to test, students must complete at least 80% of the ALEKS "pie" as well as 80% of the notebook. A minimum test score of 80% was required to pass the module. If a student was unsuccessful, ALEKS homework was assigned and the student completed the homework to 100% before retesting. After the successful test score, students were moved to the next module and the process started all over.

II. List of Initial Goals and Outcomes

Central Goal of the QEP:

The central goal of the QEP is to improve student performance and success rates in transitional mathematics courses through a comprehensive redesign of these transitional mathematics courses. (MTH 090, MTH 091, MTH 092)

In attempts to reach this goal the QEP team established three primary objectives each with measurable outcomes.

Objective 1:

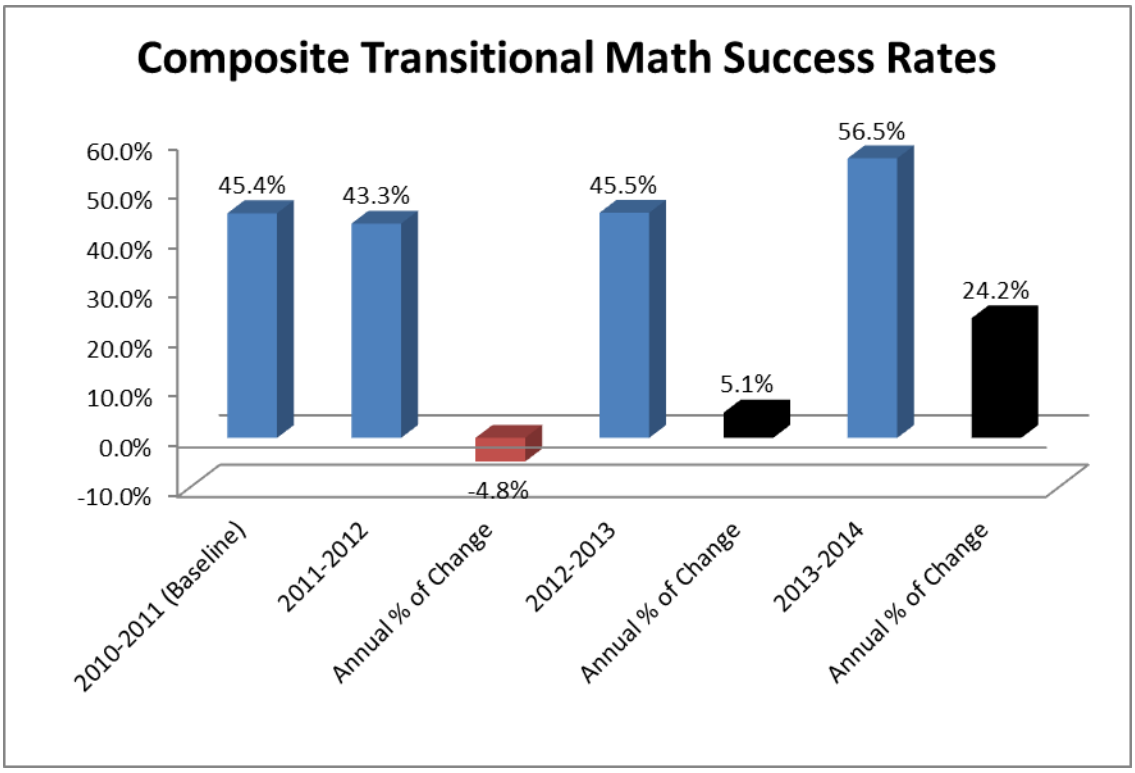
To ensure that knowledge and skills obtained in a transitional math courses is adequate for success in subsequent mathematics courses. (MTH 100)

Outcome 1A:

Student success rates for each transitional mathematics course will meet or exceed national average.

The following graph represents our baseline institutional developmental math success rates annually. (Blue bars) The red and black bars represent the annual percentage of change. At the implementation of our QEP the best estimate for a national average of developmental math success rate was 68%. It should be noted

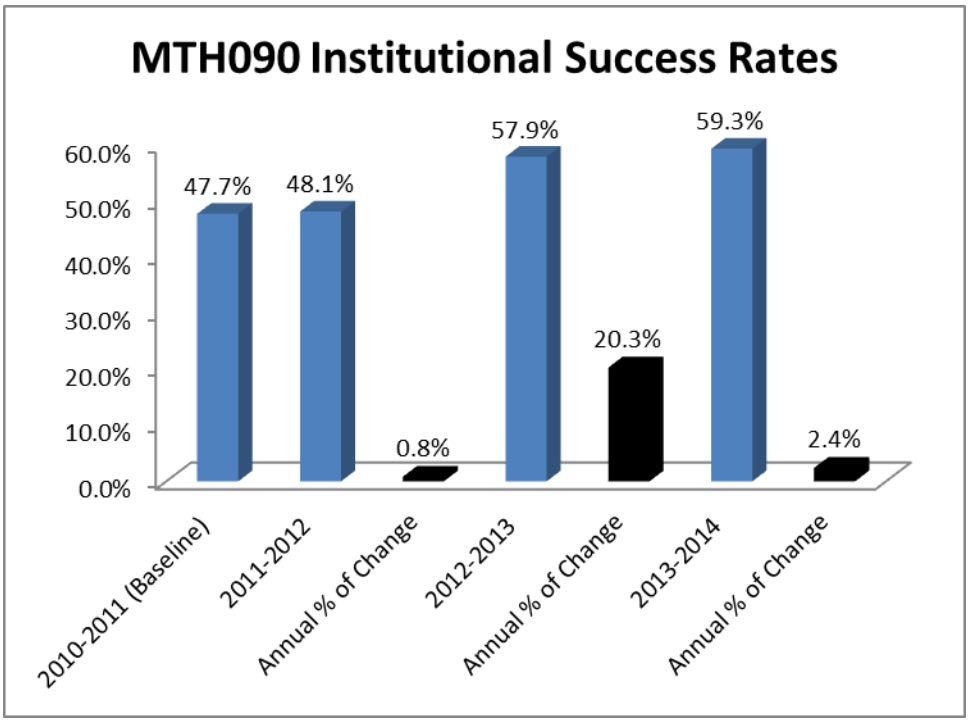
that the national average was calculated using only course completers while our statistics include all enrolled students.

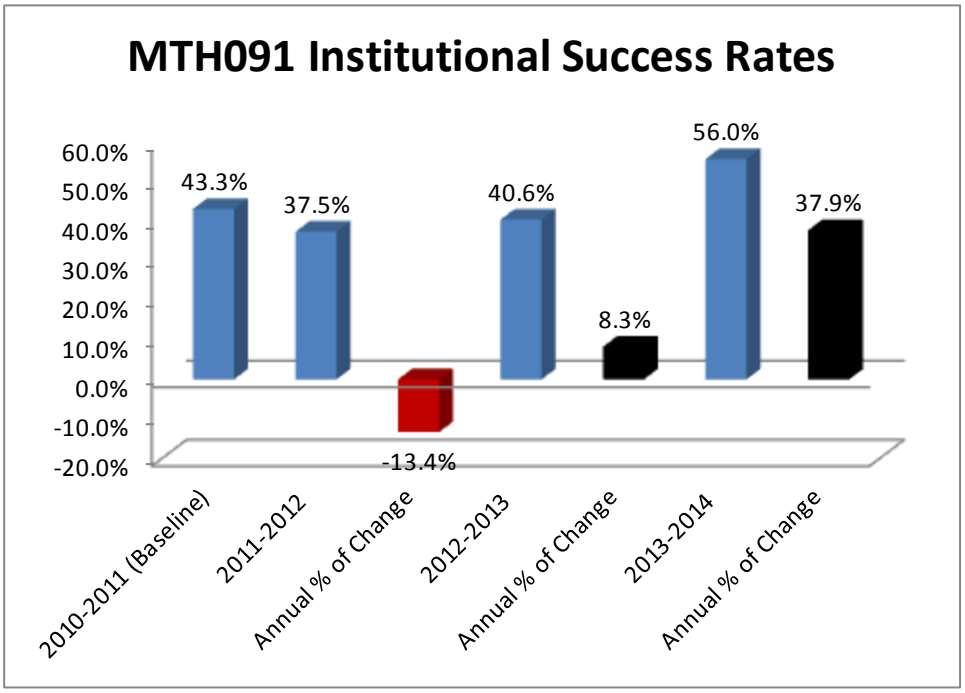


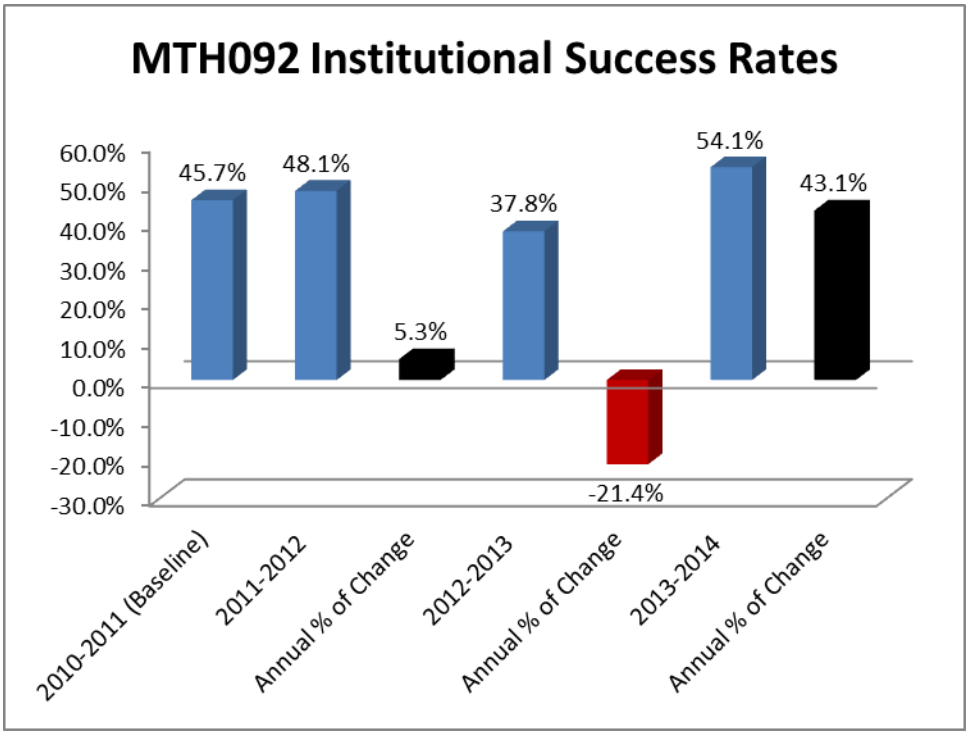
It is clear that we are not yet meeting our intended outcome of meeting and exceeding the stated national average. Much work remains to be done in order for Wallace College to meet this stated outcome.

Outcome 1B:

Student success rates will show a percent of increase of 5% annually from WCC baseline statistics (2010-2011).







As we expected the first year of implementation as compared the baseline data shows little if any gains. Research indicated that this would be the case whenever a complete course redesign is implemented. As our transitional math course redesigns continued, we began to see improvements as a result of collaborative efforts of the QEP team.

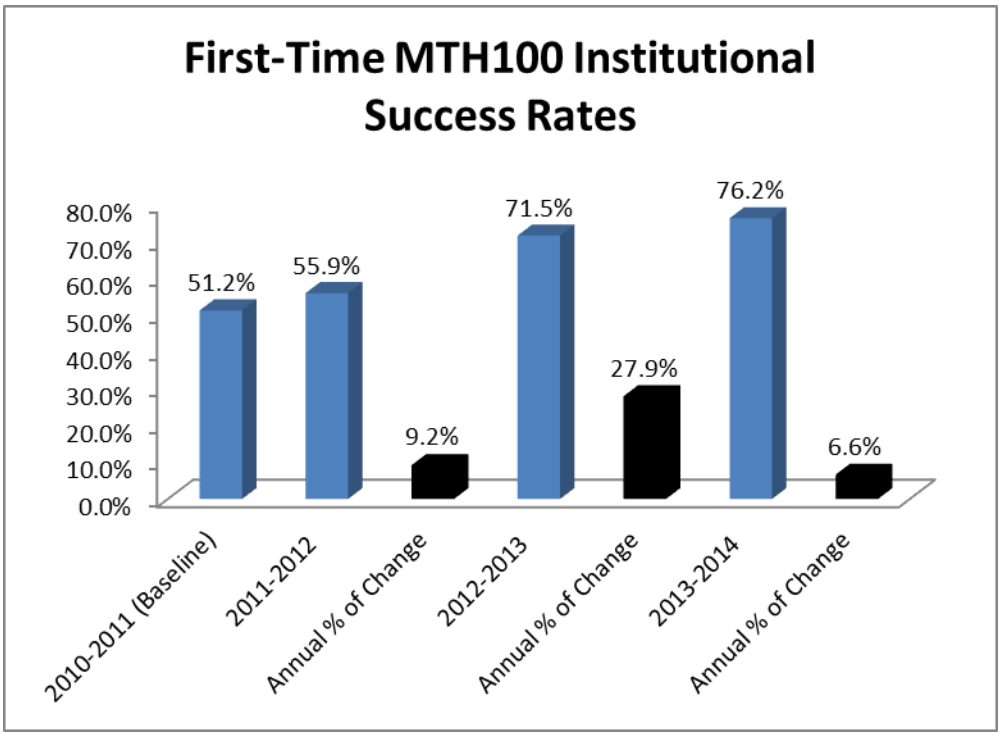
Outcome 1C:

The percentage of students completing the first subsequent (credit bearing) mathematics course (MTH 100) in a first attempt will meet or exceed national average.

We have been unable to determine a valid measure for a national average on MTH 100 success rates.

Outcome 1D:

Students successfully completing MTH 100 in the first attempt will show a percent of increase of 5% annually with respect to WCC baseline statistics (2010-2011).



Success rates for Math 100 indicate a 5% or greater increase each year as stated by this intended outcome.

Objective 2:

The establishment of programs and services to strengthen student's transitional mathematics skills and knowledge.

Outcome 2A:

100% of students will complete 80% of each module prior to moving to any subsequent module of instruction.

As a result of QEP survey results, course success rates, and student concerns, changes were implemented with respect to this Outcome. Success rates declined significantly during the first year of the implementation and it was determined that

course management and protocol for success needed to be revised. It was decided that 100% of students would need to complete 100% of each module prior to moving to any subsequent module of instruction. This protocol has remained intact to date.

Outcome 2B:

Students enrolled in transitional mathematics courses will utilize the math lab for an additional 1.25 hours per week.

In an effort to accommodate the needs of diverse students and financial aid requirements, this outcome has been modified to require appropriate additional time in our lab corresponding to the type of course offering. Hybrid courses offered during Fall and Spring terms require 1 hour of additional lab time per week, while Summer term hybrid courses require 1.25 hours per week. Courses offered without the hybrid designation do not require the additional lab hour as all time requirements are met during required class meeting times. Student attendance for the additional lab time is recorded through the Campus Track attendance and time-monitoring system, and a data base is maintained for verification of student attendance for lab time.

Outcome 2C:

80% of students will respond as “Satisfied” or “Very Satisfied” to question #2 on the QEP Student Satisfaction Survey instrument.

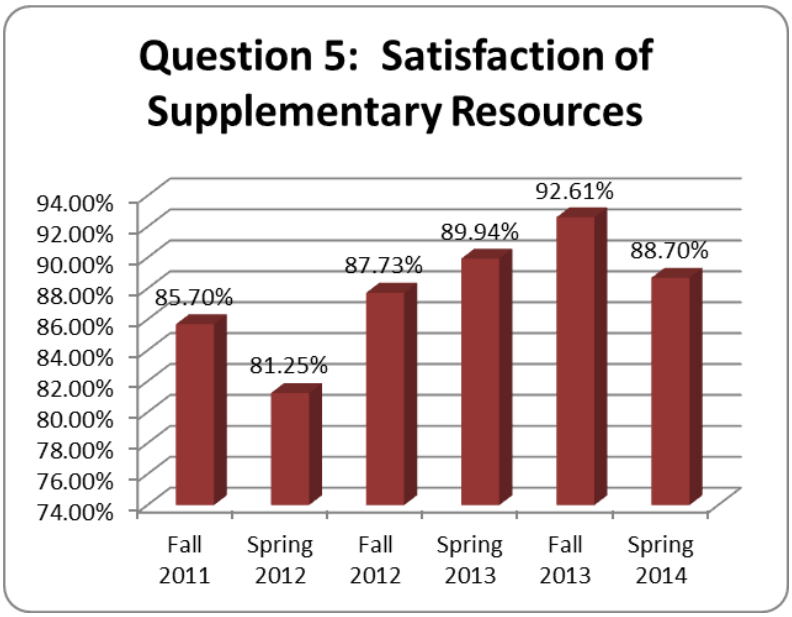
Were you satisfied with the level of staffing?

From this data, it appears as though students have been satisfied with the level of staffing in our QEP program.

Outcome 2D:

80% of students will respond as "Satisfied" or "Very Satisfied" to question #5 on the QEP Student Satisfaction Survey instrument.

Were you satisfied with the helpfulness of supplementary material?

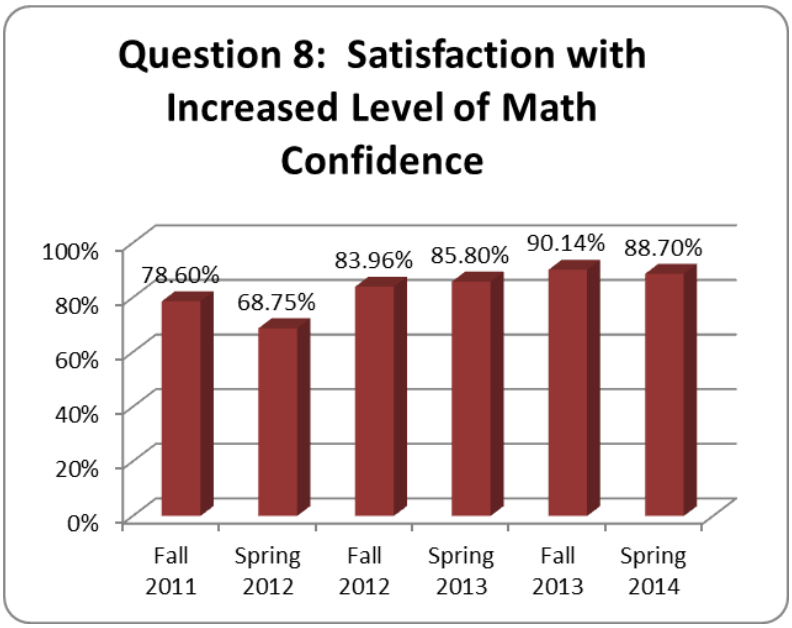


It appears from this data that students have been satisfied with the current supplementary material available for these redesigned courses. The transitional math team is continuing to develop and deploy short instructional videos associated with each ALEKS learning topic and embedded into the ALEKS courseware.

Outcome 2E:

80% of students will respond as "Satisfied" or "Very Satisfied" to question #8 on the QEP Student Satisfaction Survey instrument.

Are you satisfied with the increased level of confidence of your math knowledge and skills?



It appears students are satisfied with the increasing level of math confidence as a result of working in our redesigned classes.

Objective 3:

The implementation of tools, policies and methods enabling students to improve their study behavior in mathematics courses.

Outcome 3A:

100% of students taking a module exam will complete at least 85% of the course notebook requirement for that module. To allow for fast tracking, students scoring 80% or better on an initial assessment will be exempt from this requirement.

This outcome has been altered based on QEP survey results, course success rates, and student concerns. It was determined that it was unreasonable to expect students to complete the notebook work and complete the ALEKS work. Time would not allow completion of both components as it was originally outlined. The notebook requirement was initially implemented as an attempt to improve student study skills and organization skills. We have substituted a notebook requirement which also seeks to foster these improvements. Students are currently required to maintain a 3-ring binder containing labeled tabs for the purpose of organizing their notes and work product by Modules, and allowing a section for instructor handouts and supporting materials.

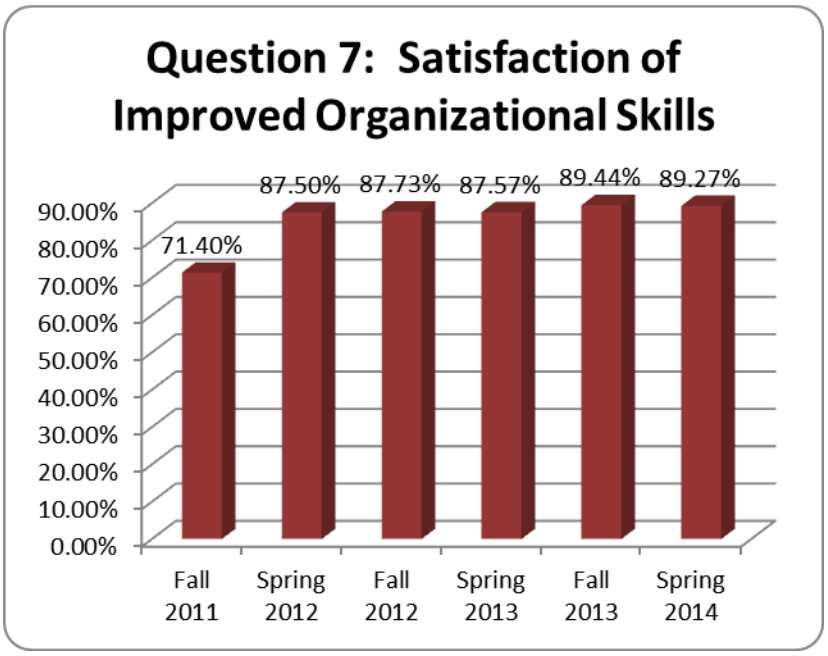
Outcome 3B:

80% of students will respond as "Satisfied" or "Very Satisfied" to question #7 on the QEP Student Satisfaction Survey instrument.

Do you find the use of the student planner helpful for the completion of your course in a timely manner?(Current survey question for 2013-2014)

Proposed alteration of survey question

Do you feel as though your organizational skills are improving as a result of this course and the emphasis upon use of a course notebook with time management and course information materials?



It appears as though students are satisfied with the course requirements designed to assist them in their organizational and time management skills.

The QEP team is working on revising this survey question due to replacement of the student planner requirement with a student course notebook requirement.

Outcome 3C:

Completion rates in transitional mathematics courses will show a percent of increase of 5% annually from WCC baseline statistics (2010-2011).

We are currently collaborating with the Institutional Effectiveness Department, to create an accurate data base search to calculate completion rates.

Outcome 3D:

Persistence rates for each redesigned course will show a percent of increase of 5% each semester.

We are currently collaborating with the Institutional Effectiveness Department to create an accurate data base search to calculate persistence rates.

III. Discussion of changes and alterations made to the QEP.

The Fall 2011 QEP survey results, course success rates, and student concerns led to changes in the redesigned courses. The use of the original course notebook component was modified due to time constraints and the presentation of problems differed significantly from ALEKS. As a result, less emphasis was placed on the notebook and more emphasis on the ALEKS pie. The success rates on the Sparks campus significantly decreased to 15.85% in Fall 2012 compared to the baseline data of 57%. Some changes were necessary to help ease the transition from traditionally taught classes to the Emporium model. The QEP committee voted to lower the "Successful" grade to 74%, which was still above the college successful rate of 70%. All students who were unsuccessful in the course would have to retake the course starting where they ended. Mini-lectures were added to help students struggling with topics and the learning process in the Emporium model.

During Spring 2012, the redesigned Developmental Algebra II course (MTH092) was implemented on the Sparks campus. The protocols for MTH092 were the same as MTH091. The Sparks campus success rate for MTH091 was 18% and 10% for MTH092 in Spring 2012. Students were still struggling with the transition from traditionally taught classes to the self-paced Emporium model. Some students were procrastinating and not attending class because the course was self-paced. These habits led to students getting too far behind to complete the course in the semester. A drop in success rates, poor class attendance, and student concerns led to more changes for Summer 2012.

Changes that were implemented in Summer 2012 included the removal of the original course notebook component for the first and second testing attempts on each module. The original notebook was used as an extra tool for students needing to attempt a module test for the third time. The ALEKS pie must now be filled to 100% in order to test in a module. The minimum test score was changed to 70% with the opportunity to earn the extra 10 points needed to be successful through a bonus point system that included points earned from students meeting instructor benchmark goals and class attendance. Less than ten topics were removed from the content because they were in previous coursework or were not a prerequisite skill for coursework that followed the current course. Because the courses are cumulative and mastery-based, assessments would cause students to have to relearn topics they already mastered. This scenario frustrated students greatly causing some students to give up. Again, the transition from traditionally lecture-

based classes to the self-paced Emporium model was difficult for many students. The mini-lectures were not helping many students because they would get behind on their pie if they attended the mini-lectures or the students would fail attend class. Summer term success rates for MTH091 were 44% and 50% for MTH092 for the Sparks campus. The success rate increase over the previous semester was encouraging but still not at an acceptable rate for the institution.

Many changes occurred Fall 2012. The implementation of the QEP on the Dothan campus began. The Transitional Studies Division was created. Mr. David Cobb was appointed as the director of the division and the QEP program, which was a change in leadership for the QEP. A developmental math instructor was hired for the Dothan campus. Two full-time math lab coordinators were hired for the Dothan and Sparks campuses.

Students met the change in MTH 091/092 course delivery from the traditional style to the Emporium style with resistance. Results from the Fall 2012 QEP survey revealed that students were dissatisfied with the lack of traditional lecture classes and the number of assessments given in ALEKS. They strongly disagreed with the non-use of calculators in class. The ALEKS calculator button becomes active when calculator use is appropriate. Some of the older students were uncomfortable with taking math courses on the computer. This was largely due to the lack of computer training and experience. Students expressed the need for more tutors to answer questions and lab coordinators to set-up tests in the Math Lab.

Based on Fall 2012 data results, students struggled in module 2 of MTH091 and modules 5 and 7 of MTH092. They were overwhelmed by the level of difficulty and volume of content in module 2. Although students were in module 5 of MTH092, non-mastery of topics during assessments could possibly pull in old topics from MTH091. This would require students to rework the old topics and resulted in students spending more time in module 5. They struggled to master many of the more complex topics in module 7.

Attendance was an issue. Some students mistakenly felt that attendance was not required since classes met in a lab setting and the course was accessible on-line. At-risk students were referred for counseling services.

Initially, students purchased a student planner. The planner contained pacing guides and other documents to help them successfully complete the course. Many students were dissatisfied with the Student Planner requirement during the 2012-2013. Students expressed frustration with being required to purchase the Student Planner in the college bookstore in addition to courseware for ALEKS. Part of this frustration was that the Student Planners were not being consistently utilized by all instructors.

At the end of the Fall 2012 semester, the Transitional Studies Division met to reflect on student achievements and challenges. The division addressed student concerns based on the QEP Survey results.

The following changes were implemented Spring 2013. Math instructors were trained to help set up tests. Additional math tutors and part-time assistant math lab directors were hired. An academic coach was hired to work with transitional students in math, English, and reading. Her responsibilities include handling student referrals, tracking attendance using a Blackboard early alert database, and helping students develop study skills. Module 2 of MTH091 was divided into two modules to help students experience quicker success.

Instructors implemented mini-lectures to address the population of students requesting a teacher in a traditional classroom. The lectures ended mid-semester due to extremely low student attendance. Students became more familiar with the explanation tools in ALEKS and began to utilize the lecture videos. As more students enrolled in the ALEKS program, there was a decrease in the number of complaints regarding assessments, non-use of calculators, and the Emporium style model.

During the Spring of 2013, the Transitional Studies and Math Divisions created and launched a Math Department Instructional Support webpage that hosts instructor-prepared instructional videos for all transitional math courses and intermediate college algebra. The Transitional Studies division researched and visited area community colleges with similar student populations. In comparison, our MTH091 and MTH092 developmental courses contained more objectives, more overlapping topics from MTH100 content, and a higher-level of topic difficulty than the comparison colleges' requirements. The division began to re-

evaluate the topics chosen for our course content. The Transitional Studies math faculty, the Math Department faculty, and Transitional Studies math professional staff discussed topics that could be removed to alleviate these concerns while continuing to prepare students for successive math courses and maintaining academic integrity.

In the Summer of 2013, the Transitional Studies Division worked to streamline MTH091 and MTH092 by removing overlapping course content. The removal of content was met with much resistance by the math department. They believed that removing content would weaken student math skills and under-prepare them for credit-level math courses. The two divisions had strong views regarding topic removal from the developmental courses. Making decisions based on student needs required flexibility from both divisions. The math and transitional studies divisions agreed upon specific topics to remove from the ALEKS modules of MTH091 and MTH092.

As a result of collaborative efforts between Transitional Studies and Math Departments at the end of Spring 2013, the MTH091 and MTH092 content was modified and restructured. Math 090 was added to the ALEKS program Fall 2013. The QEP Survey results revealed a positive shift in student attitudes. The students began to appreciate the self-paced delivery method and the ability to access coursework from home. Many took advantage of the opportunity to complete multiple transitional math courses in one semester. Students liked the option of test retakes and the ability to test anytime the Math Lab was open. Students who were unsuccessful in the course liked the option of picking up where they left off in the next semester. Many students commented that the ALEKS assessments and mastery learning helped them to finally learn math. Some students began to prefer working in a computer lab setting versus being in a traditional classroom.

During Spring 2014, the College began to offer a MTH100 tuition waiver for students completing multiple developmental math courses in one semester. As a result of the tuition waiver implementation, there was a significant increase in the number of students completing two or more courses in one semester. Students were no longer required to purchase a student planner. However, instructors continued to use the goal sheets to help students stay on pace for completion of their course. During the semester, a MTH092 student filed a complaint with the Instructional

Dean's office about having to rework MTH091 content due to non-mastery of topics on assessments. As a result of this complaint, all ALEKS assessments were cancelled until the MTH091 and MTH092 content could be separated into two independent ALEKS courses.

The Transitional Studies Division implemented the newly separated MTH091 and MTH092 ALEKS courses in Summer 2014. The new MTH092 allowed students to move faster through the course without the requirement of reworking MTH091 material. We began to embed math videos in ALEKS to allow convenient access for students.

The Transitional Studies Division is continuously seeking ways to improve the program to assist more students in the successful completion of the transitional math sequence in a timely manner while preparing them for credit-bearing math courses.

IV. Description of the impact of the QEP on student learning and the environment supporting student learning.

As a result of the QEP implementation, students are more engaged in the learning process. They no longer sit passively and observe a lecture in mathematics. They are actively reading and studying examples, looking at videos prepared by their instructors, working through math problems with immediate feedback, and asking for one-on-one assistance for specific math questions that they do not understand. Many students have truly become independent learners through this process. They can no longer fail portions of the course, but must master material before they can move on through the course to completion. Students have taken on a personal responsibility for their learning experience and have obtained skills to help them become lifelong learners. They are improving their organizational skills and gaining confidence in their math abilities. These improvements are evidenced by improved success rates in Math100, for students coming from the transitional math courses. There is now a higher incidence of collaboration and cooperation among faculty and staff in an effort to improve instruction for student benefit. The Administrative approval and implementation of a MTH100 Tuition Waiver for students who have completed more than one transitional math course in a single semester, has proven to be a major motivational factor in getting students to

accelerate through the transitional math courses. Since the implementation of the Tuition Waiver, we have seen a 178% increase in the number of students completing more than one course in one term.

From students, we are hearing a growing number of requests to implement the QEP pedagogy into the MTH100 classes and beyond. The original QEP called for MTH100 to be brought into the program during the Fall 2014 semester. As computer lab facilities are made available, the QEP Advisory team will consider the inclusion of MTH100 courses, in order for students to seamlessly move from transitional studies courses into the credit-bearing coursework.

V. Reflection on what the institution has learned as a result of the QEP experience.

The QEP has created a more collaborative and teamwork approach among instructors and involved faculty, as they are no longer teaching in independent environments. All instructors are using the same teaching materials, covering the same amount and type of material, giving the same or equivalent tests, and expecting the same mastery of all students. The QEP has fostered better organizational skills, independent learning skills, and study skills for students. These improvements should prove to impact learning across the curriculum. The Administrative approval of a Tuition Waiver for MTH100 students who have completed more than one transitional math course in a single semester, has proven to be a major motivational factor in getting students to make the extra effort to accelerate through their completion of transitional courses. Student class attendance has been and continues to be a serious concern with the large open-lab environment. The early-alert attendance protocol implemented by the Academic Coach has begun to show positive impact on student attendance behavior and success rates. A small population of students continues to be frustrated with the Emporium model of instruction and desire a more traditional lecture-based course with the inclusion of lab time.