DEVELOPMENTAL STUDIES PROGRAM REVIEW

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SECTION I

Program Goals

The departments offering developmental courses in English, mathematics and reading have independently agreed upon a clearly defined set of objectives for each of the developmental courses they offer. These objectives exist formally in writing and are included as Attachment 1 to this document. The Developmental Studies program, as a whole however, does not have a formal list of general goals which would apply to all disciplines with developmental offerings.

Throughout 1995, the National Association for Developmental Education (NADE) put forth considerable efforts to develop a common set of goals and definitions for the developmental education profession. The general goals which resulted from NADE’s research are as follows:

1. To preserve and make possible educational opportunity for each post secondary learner.
2. To develop in each learner the skills and attitudes necessary for the attainment of academic career and life goals.
3. To ensure proper placement by assessing each learner’s level of preparedness for college course work.
4. To maintain academic standards by enabling learners to acquire competencies needed for success in mainstream college courses.
5. To enhance the retention of students.
6. To promote the continued development and application of cognitive and effective learning theory.
In addition to setting the above goals, NADE also formulated the following definition of developmental education:

“Developmental education is a field of practice and research within higher education with a theoretical foundation in developmental psychology and learning theory. It promotes the cognitive and affective growth of all post-secondary learners, at all levels of learning continuum. Developmental education is sensitive and responsive to the individual differences and special needs among learners. Developmental education programs and services commonly address academic preparedness, diagnostic assessment and placement, development of general and discipline-specific learning strategies, and effective barriers to learning.”

A review of the individual course objectives for MA01, MA06, MA07, EG09, EG10, RE09 and RE10 included in Attachment 1 shows conformity with these goals. The college catalog descriptions for these courses which are located in Attachment 2 also adhere to NADE’s goals.

Since our developmental studies program as a whole does not currently have a set of general goals, a recommendation of this committee will be that the program use NADE’s recommendations as a basis for developing a concise set of objectives. The current lack of general goals for the program is largely due to the fact that each developmental course is confined within the department offering the discipline which the course falls under. There is virtually no networking among the different disciplines’ developmental studies faculty. This situation can be remedied by the formation of separate developmental studies division or via the appointment of a dedicated
administrator to serve the college as a Dean of Developmental Studies. Linkage among our developmental studies courses and faculty is very much needed and desirable.

In considering the options mentioned above, the committee recognized that suggesting the formation of a separate developmental studies division might be too major a jump at this point. However, having our developmental studies courses centralized under one administrator, even if the courses continued to reside in their individual departments, would bring the college closer to the “learning community” model advocated by many experts in the field. An example of such a “learning community” is the college admission program (CAP) at St. John’s University. The program is technically a pre-admission program since students are not officially admitted into the university until exiting the program. While in the program, students take all their developmental English, reading and mathematics courses with the same classmates. This fosters a support group and a familiarity not gotten when each class is separately enrolled. The students move as a group from class to class. They learn to work together and invariably those students most in need of help in one class are stronger in one of the others, and they can all help each other. The three instructors with the common group of students meet frequently to discuss each individual student’s progress, and to decide what further measures might need to be taken. The program is separately administered from any other academic department. The CAP faculty are unique to that program and are not members of another department. This allows the program to seek out instructors uniquely skilled in developmental studies. In our own setting a central administrator overseeing developmental studies could call for periodic meetings of discipline wide developmental faculty and require faculty to complete mid-semester progress reports on
developmental students for the purpose of determining when some intervention might be necessary.

While our course objectives conform with the goals of the “industry,” the means through which we achieve these goals vary widely. An examination of a sample of individual instructor’s course outlines from college wide developmental classes showed significant variation, particularly in mathematics. The variations were not in content, but rather in course policies such as the number and weight of class exams, the presence or absence of a final exam and its weight, and the inclusion or exclusion of homework and class participation in the calculation of the final grade. Many believe that such variation is a problem and that standardization is needed. However, there is another school of thought as well. Dr. Stanford Goto, a visiting professor at the Teachers College of Columbia University, a nationally known expert on developmental education served as a consultant to our program review committee. Dr. Goto does not advocate a carbon copy approach but rather the sort of variety we currently have. He believes that the variety together with different instructors, different policies and different modes of instruction allow us to better meet the needs and learning styles of a wide variety of students. Both the standardized and varied approaches can be formulated in a manner which adheres to NADE’s standards. There are obvious advantages and disadvantages to both approaches. Perhaps the college’s Developmental Studies Committee could be charged with investigating these options and determining which one is better for our developmental student population.

The sample of instructor’s course outlines which the program review committee examined showed total uniformity in one area. Namely, the numeric grade requirements
for students to be assigned a grade of S, SA, SB, SC, R or U were consistent, at least on paper, across all course outlines. Outlines for English courses had the greatest uniformity in the area of assessment. While there were variations in the number and type of writing assignments, the majority consisted of several papers and a portfolio to be assessed at the end of the semester.

Attachment 2 contains catalog descriptions of the college’s developmental courses.
SECTION II

Curriculum

In an effort to evaluate whether the developmental program’s curriculum is relevant and up to date in relation to the program’s goals, comparisons were made with developmental programs at other colleges. The data needed to make these comparisons was collected through interviews with appropriate administrators at other colleges via phone and site visits. All schools investigated by the committee are SUNY and CUNY units. The developmental courses and programs examined fall roughly into two categories:

(i) Developmental programs which function as a separate department consisting solely of developmental courses and the faculty who teach these courses. Examples of college’s with developmental programs in this category are Monroe Community College and Adirondack Community College.

(ii) Developmental programs in which developmental courses are offered as needed by appropriate departments across the campus. Examples of colleges with developmental programs in this category are Suffolk County Community College and Broome Community College.

Approximately half of the colleges examined have a separate department of developmental studies and the other half have their courses offered by the appropriate department. None of the larger community colleges with enrollment in excess of 10,000 students rely solely on individual departments to conduct their developmental studies courses. Some colleges combine reading and writing into one department. There are also
some colleges, such as Queensborough Community College and Dutchess Community College, which use a combination of the two categories described above.

In addition to the categories we subdivided our sample into, there are a number of colleges throughout the country implementing programs called “learning communities” into their developmental curriculum with some success. Learning communities basically consist of a program in which students register for a block of courses together. These courses may be linked by a common theme such as “Mind and Body” or “Nutrition” or they may simply be linked by the fact that they are developmental courses. A learning community may consist of two or more developmental courses, a developmental course and a content course, or any combination of courses. The learning community approach offers a number of noteworthy benefits to students. One advantage is that a block of shared courses centered around a central theme gives students a coherent educational experience rather than an unconnected array of courses. Students share as a community of learners a body of knowledge that is itself connected. Another benefit is that students get to know each other quickly and work closely as they come to share the experience of trying to learn the material of the shared courses. Colleges which have successfully adopted the learning community approach in the area of developmental education include LaGuardia Community College, Seattle Central Community College and Shoreline Community College. The committee recommends that we look further into this approach.

Detailed summaries of developmental education at the colleges studied are included in Attachment 3 to this document. Attachment 4 is a tabular summary of some of the particulars of the colleges discussed in Attachment 3. What follows below is a
comparison of some of the features of the colleges summarized in the attachments as well as descriptions of approaches which are unique.

All of the community colleges examined have some method for placing students into the developmental program. The ACT ASSET placement test is the method most frequently used. Generally all students wishing to matriculate are required to take the test. However, there are some exceptions to this requirement. Hudson Valley Community College waives the examination for students with above average SAT/ACT scores, Broome Community College uses high school grades along with ASSET scores for placement, and Westchester Community College only administers the test to full-time students. Other types of placement examinations are also widely used. The following variations existed among the colleges the committee studied:

- All CUNY units administer the CUNY Freshman Skills Assessment Test.
- Monroe Community College and Nassau Community College administer the Accuplacer test to all students. Monroe Community College waives the examination for those students who score in excess of 1000 on the SAT or have college level transfer credits.
- Sullivan Community College administers the WEEPT or CAT tests selectively to students who have not shown competency through regents and/or SAT/ACT examinations.
- Orange Community College administers the college level assessment/college board test to all students.
- Some colleges administer their own placement examinations. For instance, Adirondack Community College administers their own examination to
students who apply with weak high school grades. Rockland Community College also has developed a placement test of their own which they administer to all applicants. They do grant mathematic waivers to students who have in excess of 520 on the mathematics SAT and/or 80 or above on the course III regents examination.

It would be worthwhile for the Developmental Studies Committee in conjunction with Academic Advisement and Testing to periodically review our current placement examinations and procedures for the purpose of determining the efficacy of our current placement process.

Most of the community colleges in our study offer similar developmental course sequences in Mathematics, Reading and Writing. However, some of the colleges in our sample offer unique approaches which the Developmental Studies Committee should take a closer look at. The committee recommends that the Developmental Studies Committee be charged with examining alternate placement criteria and approaches in an effort to make informed recommendations to our college. A summary of the unique approaches our study exhibited are as follows:

- Adirondack Community College’s developmental program is part of their “Freshman Experience Program.” Their developmental studies program is an intense one semester, non-credit program consisting of classroom instruction and one-to-one tutoring in reading, writing and mathematics. Upon successful completion of the program, the student is either placed in a conventional academic program or begins the “College Survival Program.” The College Survival Program is a credit-bearing program. It is geared toward students
with motivational problems. Typically students in the program often have weak high school transcripts but high SAT scores. Participants enroll in a mathematics course, a writing course, a course from the students major and a core course which is integrated into the program. The Fall 1998 core course was Cultural Anthropology. During that semester students in the program worked on their own cultural autobiography and read Frank McCourt’s Angela’s Ashes and Anna Quindlan’s Black and Blue. The course was team taught by the students’ mathematics instructor, writing instructor and a counselor.

- Dutchess Community College’s developmental program is called “College Study Skills.” All College Study Skills (CSS) courses are administered by Academic Services. If a student places into three CSS courses, he or she will be advised, registered and tracked by Academic Services for the student’s first semester. During this developmental semester, the student’s advisor will be assigned from a small group of specially trained faculty advisors. The student is monitored very closely during this semester but is not coddled. Students who place into less than three CSS courses are not made part of this highly controlled semester and are advised by a faculty member in the student’s declared major. Dutchess Community College also has an intense summer program called Smart Start. This program is free to students. In the spring, students who take the college’s placement test and score poorly are invited to participate in Smart Start. The students meet for six weeks, Monday through Thursday, five and one-half hours per day. The program consists of classes in
grammar/writing, reading and mathematics. Two of the four days are
traditional lecture classes and the other two are computer assisted. Dutchess
Community College believes this program is very palatable for students. It
features a team component and develops camaraderie between students and
faculty. Throughout Smart Start instructors meet regularly to cross-pollinate
information. At the end of the six weeks, students may re-take the placement
test provided that they regularly attend and satisfy all the criteria of the
program. A number of students are placed out of developmental courses as a
result of Smart Start.

- Hudson Valley Community College does not have a formal developmental
  studies program. Students who are “weak in three” (Hudson Valley
  Community College’s term for students who test poorly in reading, writing
  and mathematics) are assigned to a special advisor within the Individual
  Studies Department. The student is strongly encouraged to take
developmental courses to cure gaps in their preparation indicated by their test
scores. However, the student is not required to take these courses and may
elect to enroll in all college level courses. The college’s research shows that
students in many of the technology programs are highly motivated and have
an aptitude for the material. The students are able to succeed with help from
their instructors who teach them specific reading and vocabulary techniques as
well as technical writing skills geared to their program. Three years ago, the
Learning Assistance Center at the college instituted a summer program
dubbed Smart Start. A group of targeted students, identified by weak
placement test scores or referred by an advisor, begin school three weeks before the start of the fall semester. The program runs four days a week from 8:00 a.m. to 1:00 p.m. and includes lunch. The students spend one hour and fifteen minutes on reading/writing, one hour and fifteen minutes on arithmetic or algebra, and the remaining time in workshops which cover such topics as study skills, class etiquette and library orientation. Examination of students who have participated in the program have shown a good rate of retention and success in the classroom.

- Monroe Community College’s developmental program is called the Transitional Studies Program. It is intended for those students who lack the academic background to pursue the program of their choice. Depending on the student’s placement test results, a student may be enrolled in all transitional studies courses or may be able to enroll in college level courses for which he or she is prepared along with transitional studies courses. Transitional studies faculty advise, register, instruct and provide support for those in the program. These faculty also evaluate the student’s courses and credits near the end of the semester. A change to another college program may be made as a result of this evaluation. The Transitional Studies Department serves both students who are in the program as well as those in degree or certificate programs.

- At Rockland Community College, students who fail the English placement test are placed in a program called College Skills. There are two levels of College Skills. A student who scores slightly below “true passing” on the
reading section but scores at least a minimal pass on the writing sample is enrolled in ENG101R. ENG101R is a college level course that provides extra emphasis on reading skills. Students who fail all sections of the English placement test take nine credit equivalent hours consisting of three credit equivalent writing, reading and grammar courses. A master teacher teaches the bulk of the three components. Additional reinforcement is provided via a couple of hours per week in a computer laboratory staffed by a professional assistant. The students in College Skills are permitted to take certain college level courses while in the program. For the lowest scoring students, these courses could consist of art and physical education, for example. Students who score at the next level may have permission to take a science course.

- Sullivan Community College in recent times has shifted away from homogeneous groupings of students to those that are more heterogeneous in nature. The vehicle they use is a Freshman Seminar course which is required of all students. In addition to their freshman seminar course providing an introduction to the campus, library, internet, e-mail and study skills, it also has a strong career component. During the course students take the Meyer-Briggs career assessment test. Freshman seminar classes are grouped by division. For example, a student in the paralegal studies program will be grouped with other paralegal students and their seminar will have an emphasis on the law and legal issues. Those studying commercial art will have a computer graphics component added to their seminar while early childhood education majors will spend time at a day care facility. Sullivan Community College
believes that this approach not only provides exposure to the career which the student aspires to enter but also helps students to bond with other students in their program as well as with the faculty who will be teaching them. The college has conducted studies which indicate that developmental students are happier and perform better when grouped with students functioning at the college level. Since the institution of the new approach to freshman seminar courses, the college found that their first semester drop out rate of 14% - 17% diminished. They now boast that of the students who are identified as developmental upon entering their college, 46% either complete their program or leave with a 2.0 or better GPA in college level courses.

- Bronx Community College has a group of special programs referred to as their coordinated freshman programs. These programs include the Freshman Initiative, University Summer Immersion and Intersession Workshops. The Freshman Initiative is intended for entering freshmen who require at least three developmental courses in English, reading, mathematics or communication. Students take only one of these subjects at a time for approximately four weeks and by the conclusion of the semester the participating students have each taken three courses. Class size is limited to twenty students. The program also provides in-class tutoring and peer counseling. The University Summer Immersion program offers developmental courses in basic skills for entering freshmen and first-year Bronx Community College students whose assessment tests indicate a need for such preparation. Courses are offered both day and evening on an
intensive basis. Results of the courses are included in student transcripts. The
Intersession Workshop is offered in June and January. It provides the
opportunity to take an ESL or remedial course which the student did not pass
during the regular semester. Students are enrolled in one subject at a time in
smaller classes supported by tutoring, counseling and an intensive academic
format.

As part of our curriculum study, the committee conducted three student surveys
and two faculty surveys. The first student survey was distributed to students who were
currently enrolled in developmental course(s) at the time they completed the survey. A
blank survey and tabular summaries of findings are contained in Attachment 5. The
results of the survey can be summarized as follows:

**Results for current in-class survey**

**Goals**

In order to assess factors affecting students’ academic success within the
Developmental Studies program, the Office of Institutional Research in collaboration
with the Developmental Studies Program Review Committee developed and administered
a series of surveys. The present survey measured student satisfaction with academic and
career goals as well as instructional and non-instructional programs and services offered
by the college.

The questionnaire assessed four main topics:

1) Students’ educational goals and level of commitment to these goals
2) Students’ perceived level of psychosocial support provided by their family and their school community

3) Students’ need for support in terms of academic skills, career counseling, physical handicap, financial aid, transportation, and child care

4) Students’ assessment of their experience within the developmental program

Procedure

The in-class survey (attached) was administered in the Spring 2000 semester to students in the Developmental Studies program at that time. A total of 853 surveys were completed.

The Sample

Students enrolled in developmental math (MA01, MAL1, MA07, MAL2, MA06, and MALA), developmental reading (RE09 and RE10), and developmental writing (EG09 and EG10) completed the survey. At the time of the survey, 627 respondents were enrolled in developmental math (513 traditional, 114 mediated), 349 were enrolled in developmental reading, and 227 were enrolled in developmental writing. Up to 351 respondents concurrently enrolled in more than one developmental class during the survey semester.

Demographic data indicate that more than half of the respondents were female (61.4%). Of those who reported ethnicity, the sample was predominantly White (68.6%), and the largest minority category was Hispanic (13.7%) followed by Black (10.7%). Most of the students in the sample were between 18 and 22 years of age (70.4%). The largest proportion of respondents had earned a General (Non-Regents) diploma (77.6%) in high school. A majority was enrolled full-time (66.7%) carrying 12 or more credits.
The majority of the respondents were single/never married (83.6%). Sixteen percent of the respondents were “parents of minor children.” Nearly all the respondents reported some employment (90.5%), with more than half working 25 or more hours per week (53.5%). Approximately one-third reported that they work 35 or more hours per week (32.1%). For demographic information according to developmental enrollment, see Table 1.

Overall Results

Students’ educational goals and goal commitment

The majority of respondents reported that their primary educational goal upon entering SCCC was to complete an associate’s degree at SCCC (71.6%), with 48.8% of the respondents reporting that they intend to complete an associate’s degree at SCCC and then transfer to a bachelor’s degree program. Table 2 shows respondents’ educational goals upon entering SCCC according to developmental enrollment (Spring 2000).

On their goal commitment, the majority of respondents stated that they were “definitely planning to complete an SCCC associate’s degree” (76.5%). More than half of the respondents were “definitely planning to complete a bachelor’s (4-year) degree” (62.4%) as well. Of the respondents who were “definitely planning to complete a bachelor’s (4-year) degree”, 82% planned on completing an associate’s degree at SCCC. Further, when asked to evaluate the statement: “I am certain that I will obtain a degree from SCCC,” 70% of the respondents “agreed” or “strongly agreed” with the statement. Moreover, in response to the statement: “I am absolutely certain that I will obtain a degree,” the majority of the respondents (79%) “agreed” or “strongly agreed” with the statement. For further details regarding respondents’ commitment to completing an
associate’s degree at SCCC according to developmental enrollment (Spring 2000), refer to Table 3. Table 4 shows respondents’ commitment to completing a bachelor’s degree at another college according to developmental enrollment (Spring 2000).

When asked to respond to the statement: “I have no doubts about whether I want to come back to school at SCCC next year.” 67% of the respondents “agreed” or “strongly agreed” with the statement. Nineteen percent were “neutral,” 6% “disagreed,” and 7% “strongly disagreed” with the statement. All of this suggests little doubt in the minds of the respondents as to desire to return to SCCC.

In response to the question: “I often think that finishing my degree is just not worth the pain and hassle.” The majority of the respondents (72%) “disagreed” or “strongly disagreed” with the statement. Sixteen percent were “neutral,” 7% “agreed,” and 5% “strongly agreed” with the statement.

Students’ perceived level of psychosocial support provided by their family and their school community

A high percent of respondents indicated that their families “believe that (they) should go to college” (85.5%), and that their families give them “lots of encouragement to do well in school” (78.4%). The majority of respondents reported that they require no help with “learning how to cope with personal or family problems” (57.5%) as well.

Seven questions focused on the students’ relationships with the school community. Forty-five percent “agreed” to “strongly agreed” with the statement: “If I run into problems at school, there are people at SCCC who I feel would listen to me and help me.” Forty-two percent “agreed” to “strongly agreed” with the statement: “I am
fairly satisfied with the quality of the close relationships I have with people at SCCC.” Additionally, 42% of the respondents “agreed” to “strongly agreed” with the statement: “I know quite a few people at SCCC who are interested in the same things that interest me.” Thirty-seven percent “agreed” to “strongly agreed” with the statement: “There are not enough people I have met at SCCC that I could count on as ‘true friends.’” Thirty-five percent of the respondents “agreed” to “strongly agreed” with the statement: “I do not know enough people at SCCC that I can let know about the ‘real me.’” Twenty-three percent “agreed” to “strongly agreed” with the statement: “I wish there were more people at SCCC with whom I could talk about things that are bothering me.” Fifteen percent of the respondents “agreed” to “strongly agreed” with the statement: “Too many people I meet at SCCC seem unfriendly and distant.” Table 5 displays the mean and median responses for the measures of psychosocial support as perceived by the respondents.

**Students’ need for academic assistance and career counseling, and assistance related to their physical handicap, learning difficulty, and financial aid needs.**

Respondents indicated that they needed at least “some help” in the following areas: mathematics (65%), writing (49%), reading (38%), speaking (32%), and tutoring for college course work (30%). Additionally, respondents reported that they required at least “some help” with the following career counseling issues: “learning more about educational or training requirements for the job/career that interests them” (52.8%); “identifying career areas that fit their skills, abilities and interest” (42.4%); and “deciding what to do with their life” (39.7%). Further, 12% of the respondents indicated that they
needed at least “some help” in obtaining special services for a physical handicap or learning difficulty, with 6% indicating that they require “a lot of help in this area.” The mean and median responses given for the measures indicating students’ need for support in academic skill areas, career counseling, physical handicap, learning difficulty, and financial aid are presented in Table 6.

Students’ assessment of their experience within the Developmental Mathematics program

The percentage of respondents initially placed in MA01, MA06, and MA07 was 56%, 13%, and 31%, respectively. Approximately half of the respondents were either uncertain of (26%) or did not expect (25%) the need to take a developmental math course, and nearly half the respondents (49%) expected that they needed to take developmental math. Seventy-four percent indicated that they found the level of difficulty ranged from “about right and (they) were prepared to take it” to “very easy and elementary, and (they) were very well prepared to take it.” Twenty percent found the class “somewhat difficult and (they) were not completely prepared to take it.” Only 6% were “not prepared” to take the class and therefore found the course “very difficult.” Table 7 presents measures of respondent’s level of expectation and perceived difficulty according to initial development placement.

Sixty-six percent of the respondents reported that they never met with their instructor outside of class; 23% indicated that they rarely met with their instructor; 9% indicated that they often met with their instructor; and 2% reported that they met with their instructor very often. Sixty-five percent of the respondents reported that, on average, when enrolled in developmental math, they did not spend time at the campus
tutoring center; 23% reported that they spent 1 to 3 hours; 7% spent 4 to 6 hours; and 5% spent 7 or more hours per week at the center.

Respondents demonstrated two interpretations of the questions, “How many times have you enrolled in developmental math (or reading or writing)?” One interpretation included the present enrollment as one of the reported course enrollments. The second interpretation included only enrollments previous to the present enrollment. When asked, “How many times have you enrolled in…” it appears that 21% of the respondents, on average, did not include the course they were enrolled in at the time of the survey. Thus, inferring enrollment from this survey is problematic.¹

Comparison between traditional and mediated math classes MA01 and MAL1, and MA07 and MAL2

Respondents who had taken math were asked to rate the effectiveness of instruction relative to venue (traditional or mediated). Seventy-three percent had taken math in a traditional format, 19% in a mediated format, and 9% in both traditional and mediated formats. Among respondents who had taken traditional math, 73% rated the teaching effectiveness in their traditional developmental math class as “effective” or “very effective.” Among respondents who had taken Mediated math, 59% rated the teaching effectiveness in their mediated math class as “effective” or “very effective.” A

¹ Similarly phrased questions were found in the reading and writing sections of the survey instrument. On average, respondents misinterpreted the question 12% of the time in both the reading and writing sections of the questionnaire. As with math, further analysis was problematic.
comparison of these teaching effectiveness ratings indicates that a significantly higher percent of respondents in the traditional venue rated that instructional venue effective \( (Z=3.33, p<.001) \), see Figure 1. Further, effectiveness ratings among just those respondents that had taken developmental math in both mediated and traditional venues indicated that 58% of these respondents rated traditional developmental math class as effective; whereas, 42% of the group rated mediated developmental math class as effective, see Figure 2.

Respondents who had experienced both venues were asked more specifically to compare the teaching effectiveness of the two venues. Fifteen percent found both venues equally effective. More than one-third found the instruction “somewhat more effective” (13%) or “much more effective” (23%). Nearly one-half reported that the instruction was “somewhat less effective” (15%) or “much less effective” (34%).

Students assessment of their experience within the Developmental Reading program

At the time of the survey 33 respondents (9.5%) indicated that they were currently enrolled in RE09 and 316 respondents (90.5%) indicated that they were currently enrolled in RE10.

Within the sample, 55% were initially placed in RE10 and 45% of the respondents were initially placed in RE09. More than one-third responded that they “did not expect that (they) needed a course in developmental reading” (38%), the balance were “uncertain that (they) needed developmental reading” (40%), or “did not expect that (they) needed developmental reading” (26.7%). With respect to level of difficulty, most students indicated that they found the level of difficulty “about right and (they) were
prepared to take it” (35%). Twenty-four percent found the course “somewhat easy and elementary and (they) were very well prepared to take it,” and 33% indicated that the course was “very easy and elementary and (they) were very well prepared to take it.” Only 7% found the course “somewhat difficult and (they) were not completely prepared to take it,” or “very difficult and (they) were not prepared to take it.” Table 8 provides respondents’ level of expectation and perceived difficulty according to initial reading placement.

Overall, 82% of the respondents rated the teaching effectiveness of their reading class at least “moderately effective” to “very effective.” Thirteen percent of the respondents found the teaching instruction in their reading class “somewhat ineffective.” Most respondents indicated that they never (68%) or rarely (23%) met with their instructor outside of class. The largest percentage of respondents (45%) reported that they did not go to the Reading Lab or Academic Skills Center outside of class. Twenty percent report spending 1 to 3 hours in the Reading Lab or Academic Skills Center, 7% spend 4 to 6 hours; and 28% spend 7 or more hours in the reading lab per week. Additionally, 76% of the respondents rated the teaching effectiveness of their reading labs at least “moderately effective,” with 29% rating the effectiveness of their developmental reading labs as “very effective.” Sixteen percent of the respondents found the teaching instruction in their reading labs as “somewhat ineffective.”
Students’ assessment of their experience within the Developmental Writing program

At the time of the survey 27 respondents (12%) indicated that they were currently enrolled in EG09, and 200 respondents (88%) indicated that they were currently enrolled in EG10.

Within the sample 74% were initially placed in EG10, and 26% reported that their initial writing placement was EG09. Approximately one-third expected “that (they) needed to take a developmental writing course” (37%), the balance were “uncertain that (they) needed developmental writing” (34%), or “did not expect that (they) needed developmental writing” (28%). With respect to level of difficulty, most respondents indicated that they found the class “about right, and (they) were prepared to take it” (45%). Forty-one percent found the class “somewhat easy and elementary, and (they) were well prepared to take it,” or “very easy & elementary, and (they) were very well prepared to take it.” Fourteen percent reported that they found the classes “somewhat difficult and (they) were not completely prepared to take” or “very difficult and (they) were not prepared to take it.” Table 9 provides respondents’ level of expectation and perceived difficulty according to initial developmental writing placement.

Overall, 84% of the respondents rated the instruction in their developmental writing class at least “moderately effective” with 44% reporting their instruction as “very effective.” Ten percent found the instruction “somewhat ineffective.”

Most respondents indicated that they never (55%) or rarely (30%) met with their instructor outside of class. The largest percentage of respondents (54%) reported that they did not go to the Writing Lab or Academic Skill Center outside of class. Twenty-
three percent report spending 1 to 3 hours, 11% spend 4 to 6 hours; and 12% spend 7 or more hours in the writing lab per week.

A second student survey was conducted among non-returning developmental students to assess their reason for leaving and their evaluation of the program. The survey and some tabular summaries can be found in Attachment 6. An analysis of the survey yielded the following:

**Non-Returning Student Survey (of developmental studies program)**

**Goals:**

To determine the reasons that developmental students leave SCCC.

To assist in the evaluation of the existing developmental program.

To facilitate improvement of the developmental program.

**Procedure:**

A one-page (front & back) scannable survey was mailed by the Developmental Studies Program Review Committee to all students who had enrolled in developmental courses in the Fall 1999 semester and failed to re-enroll at SCCC in the Spring 2000 semester. Non-returning students were asked to return completed surveys by mail. Return envelopes were provided.

**Sample:**

Surveys were returned by 158 former developmental studies students (male n=40, female n=107, no response=11). The largest number of the respondents were formerly enrolled at the Ammerman campus (Ammerman n=73, East n=18, West n=54, no response n=11). The majority of respondents were over 25 years of age (60.5% overall, 20% 26-30, 21.5% 31-39, 19% 40+); only 24% of respondents were in the traditional
(17-21) age group. Seventy-four percent of respondents were either uncertain of their need to take a developmental course or expected to take a developmental course (expected=52%, uncertain=22%, did not expect=26%). Students age 26 or older were significantly more likely to have “expected that I need to take a developmental course” ($\chi^2(2, N=137) = 12.248, p=.002$).

**Results:**

**Original purpose in enrolling at SCCC.** A large majority of respondents indicated that their original purpose in enrolling at SCCC was to “complete a degree or certificate program” (76%). Twelve percent of students stated that they enrolled to “take a few courses and then transfer to another college.” Very few said that they enrolled to “take a few job-related courses” (3.5%), “take a few courses for self-improvement” (5.5%), or with no definite purpose (3.5%).

**Perceived effectiveness of developmental courses.** A large majority of respondents (83.2%) indicated that developmental math courses were at least somewhat effective, (Somewhat effective 31%, Effective 34.5%, and Very effective 17.7%). Students age 25 or younger were more likely to say that math courses were “not at all effective” ($\chi^2(3, N=113) = 8.440, p=.038$). Most respondents (72.2%) stated that developmental reading courses were also at least somewhat effective. (Somewhat effective 20.8%, Effective 33.3%, and Very effective 18.1%). Similarly, respondents (76.6%) said that developmental writing courses were at least somewhat effective, (Somewhat effective 18.2%, Effective 37.7%, and Very effective 20.8%). See Table X.
Reasons for leaving SCCC. Most commonly, respondents indicated that “personal problems or family responsibilities” (26.6%) and/or “health-related problems (personal or family)” (23.4%) were their reason(s) for leaving SCCC. Similarly, respondents frequently stated that they “encountered unexpected expenses and could not afford tuition” (17.7%), experienced “conflict between demands of job and college” (17.1%), and/or “tuition and fees were more than I could afford” (17.1%). Less than 5% said that they left SCCC because they “I wasn’t satisfied with the course requirement” (3.8%), “I couldn’t get into the program I wanted” (3.2%), “I was uncertain about the value of a college education” (3.2%), and/or “the major I wanted was not available at SCCC” (1.9%). Students age 25 or younger were more likely to indicate that they left SCCC because “I wanted a break from college” ($\chi^2(1, N=157) = 6.243, p=.012$) and or they “decided to attend another college” ($\chi^2(1, N=157) = 6.856, p=.009$). For additional information about reasons for leaving SCCC, see figure.

Plans for the following (2000-2001) year. Most commonly, respondents indicated that they planned to "re-enroll at SCCC" (50%). Nearly half stated that they planned to “work full-time” (47%). Less than 20% said that they planned to “work part-time” (11.5%), to “enroll at another college” (17%), and/or had “other plans” (14%). Students age 25 or younger were more likely to “plan to enroll at another college” ($\chi^2(1, N=157) = 14.710, p<.001$). Eleven of the 26 students who indicated that they left SCCC because they “decided to attend another college” actually “plan to enroll at another college” in the 2000-2001 year.
A third student survey was geared towards graduates of the developmental studies program. Attachment 7 contains the survey and related charts. The results were as follows:

**SCCC Graduate Survey (of the developmental studies program)**

**Goals:**

To assess the post-SCCC employment and education of those former developmental students who received a SCCC degree.

To determine how well the developmental program prepares students for entry-level college coursework.

To facilitate improvement of the developmental program.

**Procedure & Sample:**

The one-page scannable survey was mailed by the Developmental Studies Program Review Committee to students who received a SCCC degree from 1990 to 1999 having accomplished developmental coursework (N=5300). Graduates were asked to return completed surveys by mail. Return envelopes were provided. Surveys were returned by 406 graduates.

**Results:**

**Employment.** A large majority of respondents indicated that they are currently “employed full-time (30 or more hours per week)” (74%). Fourteen percent responded that they are “employed part-time (less than 30 hours per week)”. Of those who claimed employment, 43% said that their occupation is “highly related” to their program of study at SCCC, 35% that their occupation is “somewhat related”, and 22% that their occupation is “not related” to their previous SCCC program of study. The remaining 12% of
graduates stated that they were not employed at the time of the survey (6% seeking employment and 6% not seeking employment) and 1 individual was retired.

**Education.** The largest proportion of respondents indicated that after graduating from SCCC, they “earned a bachelor’s degree” (42%). 29.5% said that they “did not enroll in another college”. Nearly as many enrolled in another college (18.5% were “currently in another college”, 6% “left before earning a bachelor’s degree”). It should be noted that this sample includes an over-representation of transfer students (66.5%), where only 39.2% of a 1995-1996 cohort of former developmental students who graduated from SCCC transferred. A few of the respondents (4%) indicated that they “returned to SCCC” following graduation. Of those who went on to further college education, the majority of respondents enrolled full-time (73%). In fact those who earned a bachelors degree were significantly more likely to have enrolled full-time rather than part-time ($X^2(3, N=233)=35.381, p<.001$). The most common post-SCCC-graduation college majors reported were Elementary Education (6.2%), Business Administration & Management (4.4%), Accounting (4.2%), Psychology (3.7%), and Criminal Justice/Criminology (3.0%). A majority of respondents indicated that their “ultimate educational plans” were to “earn a master’s degree” (50.3%). 35% said that they ultimately plan to “earn a bachelor’s degree”, and 14.7% said that they plan to “earn a doctoral or professional degree”.

**Perceived effectiveness of developmental courses.** Reaction to being placed in a developmental non-credit pre-college level course was evenly distributed, with 32.1% of
respondents who “did not expect I needed to take a developmental course”, 33.2% who were “uncertain about my need to take a developmental course”, and 34.8% who “expected I needed to take a developmental course”. A large majority of respondents (91.9%) indicated that developmental math courses were at least somewhat effective, (Somewhat effective 30.5%, Effective 33%, and Very effective 28.4%). Similarly, respondents (91.2%) said that developmental writing courses were at least somewhat effective, (Somewhat effective 30.8%, Effective 41.2%, and Very effective 19.2%). Most respondents (82.4%) stated that developmental reading courses were also at least somewhat effective, (Somewhat effective 35.7%, Effective 31.9%, and Very effective 14.8%). See Table 2.

Surveys were also presented to developmental faculty and all full-time faculty. The survey and tables for the developmental faculty is located in Attachment 8 and gave rise to the following results:

Developmental Faculty Survey Results

Goals:

To determine how well the developmental program prepares students for entry-level college coursework.

To evaluate the existing developmental program.

To facilitate improvement of the developmental program.
**Procedure:** The one-page scannable survey was distributed by the Developmental Studies Program Review Committee to all developmental faculty. They were asked to return completed surveys to the Office of Institutional Research and Assessment.

**Sample:**

Surveys were returned by 67 developmental faculty ($N_{\text{math}} = 44$, $N_{\text{reading}} = 13$, $N_{\text{writing}} = 10$).

**Results:**

The survey addressed 3 disparate areas of the developmental program (math, reading, and writing). The following results represent the responses of the developmental faculty within each area.

**Developmental Math**

The majority of respondents (63.6%, 28/44) taught an average of 1 developmental course each semester, with 34.1% (15/44) who taught 2 and 1 individual (the remaining 2.3%) who averaged 3 developmental courses each semester.

More than 92% of respondents felt that the placement test in math functioned “adequately” or better. While 7.3% respondents felt that placement tests functioned “poorly”. However, only 51.2% of respondents indicated that “the Developmental Studies program prepares students in pre-college/developmental math skills for college-level courses” “adequately” or better. And 48.9% of respondents indicated that developmental students were “poorly” or “not at all” prepared for college-level courses. See Table XM.
A large majority (78.6%) of respondents indicated that “passing scores on standardized exit tests (should) be required of students in each developmental area prior to enrollment in subsequent college-level courses”. Less than 22% indicated that they should not be required, and 2 individuals did not respond to this item. The “SRU” grading system is considered at least “moderately” adequate by 64.3% of respondents, with the remaining respondents believing it to be at least “a little” adequate. Most of the respondents (71.4%) “think the current developmental sequence is adequate to meet remediation goals” (2 individuals did not respond to this item). However, 61.9% of respondents indicated that “the addition of intermediate developmental courses would improve the developmental sequence” (2 individuals did not respond to this item). Very few (1, 2.4%) respondents preferred a computer mediated developmental “delivery” system, and a minority (38.1%) preferred the traditional lecture/discussion format. A combination of both methods was the “delivery” system of choice for 59.9% of respondents. See Table YM.

Developmental Reading

The majority of respondents (30.8%, 4/13 each) taught an average of either 1 or 2 developmental courses each semester, with 23.1% (3/13) who taught 5 and 1 individual (the remaining 7.7%) who averaged 4 developmental courses each semester.

More than 92% of respondents felt that the placement test in reading functioned “adequately” or better. While 7.7% respondents felt that placement tests functioned “poorly”. However, only 32.1% of respondents indicated that “the Developmental Studies Program prepares students in pre-college/developmental reading skills for
college-level courses” “adequately” or better. Moreover, 66.7% of respondents indicated that developmental students were “poorly” prepared for college-level courses. See Table XR.

About half (46.2%, 6/13) of respondents indicated that “passing scores on standardized exit tests (should) be required of students in each developmental area prior to enrollment in subsequent college-level courses”. The remaining half 53.8%, 7/13) indicated that they should not be required. The “SRU” grading system is considered at least “moderately” adequate by 38.5% of respondents, with 46.2% of respondents believing it to be at least “a little” adequate. While 2 individuals (15.4%) thought it was “not at all adequate”. Most of the respondents (75%) “think the current developmental sequence is adequate to meet remediation goals” (1 individual did not respond to this item). However, 61.5% of respondents indicated that “the addition of intermediate developmental courses would improve the developmental sequence”. None of the respondents preferred a computer mediated developmental “delivery” system, and a minority (23.1%) preferred the traditional lecture/discussion format. A combination of both methods was the “delivery” system of choice for 76.9% of respondents. See Table YR.

Developmental Writing

The majority of respondents (88.9%), 8/10 each) taught an average of 1 developmental course each semester, with 1 individual (the remaining 11.1%) who averaged 2 developmental courses each semester, and 1 individual who did not indicate an average teaching load.
All (100%) respondents felt that the placement test in writing functioned “adequately” or better. However, only 42.9% of respondents indicated that “the Developmental Studies program prepares students in pre-college/developmental writing skills for college-level courses” “adequately” or better. And 57.2% of respondents indicated that developmental students were “poorly” (28.6%) or “not at all” (28.6%) prepared for college-level courses. See Table XW.

A small majority (60%, 6/10) of respondents indicated that “passing scores on standardized exit tests (should) be required of students in each developmental area prior to enrollment in subsequent college-level courses”. While (40%, 4/10) indicated that they should not be required. The “SRU” grading system is considered at least “moderately” adequate by half of the respondents, with half of respondents believing it to be at least “a little” adequate. Most of the respondents (70%) “think the current developmental sequence is adequate to meet remediation goals”. However, 60% of respondents indicated that “the addition of intermediate developmental courses would improve the developmental sequence”. None of the respondents preferred a computer mediated developmental “delivery” system, and a minority (33.3%) preferred the traditional lecture/discussion format. A combination of both methods was the “delivery” system of choice for 66.6% of respondents (1 individual did not respond to this item). See Table YW.

A survey of all full-time faculty resulted in the following summary (also see Attachment 9).
Full-Time Faculty Survey (of the developmental studies program)

Goals:

To determine how well the developmental program prepares students for entry-level college coursework.

To evaluate the existing developmental program.

To facilitate improvement of the developmental program.

Procedure:

The one-page scannable survey was distributed by the Developmental Studies Program Review Committee to all full-time faculty (N=322). They were asked to return completed surveys to the Office of Institutional Research and Assessment.

Sample:

Surveys were returned by 119 full-time faculty, 101 of which indicated discipline. Cross-discipline comparisons were not possible as very few disciplines returned sufficient forms to support this type of analysis.

Results:

Not surprisingly, 25-40% of respondents either “did not know” the answer to any one question, or felt that any one question “was not applicable” to their response. The survey addressed 3 disparate areas of the developmental program, and faculty in many disciplines may not have opportunity to evaluate student performance in all of these areas.
The following discussion of the results for area of the Developmental Studies program excludes “did not know” or “was not applicable” responses in the calculation of proportions. See Table X for itemized responses.

**Developmental Math.** More than 86.9% of respondents felt that the placement test in math functioned “adequately” or better. While 13% respondents felt that placement tests functioned “poorly” or “not at all”. Similarly, 73.8% of respondents indicated that “the Developmental Studies program prepares students in pre-college/developmental math skills for college-level courses” “adequately” or better. And 26.2% of respondents indicated that developmental students were “poorly” or “not at all” prepared for college-level courses.

**Developmental Reading.** More than 77% of respondents felt that the placement tests in reading functioned “adequately” or better. While 23% respondents felt that placement tests functioned “poorly” or “not at all”. Similarly, 67.6% of respondents indicated that “the Developmental Studies program prepares students in pre-college/developmental reading skills for college-level courses” “adequately” or better. And 32.4% of respondents indicated that developmental students were “poorly” or “not at all” prepared for college-level courses.

**Developmental Writing.** More than 67.1% of respondents felt that the placement tests in writing functioned “adequately” or better. While 32.9% respondents felt that placement tests functioned “poorly” or “not at all”. Similarly, 65.8% of respondents
indicated that “the Developmental Studies program prepares students in pre-college/developmental writing skills for college-level courses” “adequately” or better. And 34.2% of respondents indicated that developmental students were “poorly” or “not at all” prepared for college-level courses.

Most respondents (56.3%) use 20% or less of their class time “to cover skills/abilities taught in developmental courses” (12% indicated 21-30% of class time and 13% indicated more than 30% of class time). Nearly 20% of respondents did not answer this item.

A large majority (76%) of respondents indicated that “passing scores on standardized exit tests (should) be required of students in each developmental area prior to enrollment in subsequent college-level courses”. Less than 20% indicated that they should not be required, and 4% did not respond to this item.

The committee examined instructional methods and use of new educational technologies in each of the developmental areas. Our findings were as follows:

**English**

While EG09 and EG10 are generally taught in the same way on all three campuses, there is not a standardized exit tool. At the East campus, low enrollment often necessitates that EG09 and EG10 courses to be combined. Determination of whether or not a student can pass from EG09 to EG10 is made by the individual EG09 instructor. Teaching methodologies include questioning, journal writing, reader response, double-entry journals, oral discourse, dialogue entries, oral presentations, listing, mapping, reading/writing workshops, individualized and whole class instruction, collaborative
groups and pairs, projects designed to develop active learners, reading and writing strategies, and grammar instruction. During the 1995 and 1996 academic years, a committee of English faculty from Suffolk County Community College teamed up with local high school English faculty to develop what is now known as Project Write. The project uses a holistically scored final portfolio of student writing to clearly formalize student writing expectations upon exiting an EG10 course. The portfolio represents a culmination of the best writing the student can produce at the end of the course. Four specific pieces of writing make up the portfolio: 1) a cover letter that introduces the portfolio and/or explains the student’s thoughts about writing, 2) revised, typed pieces of writing that the student has worked on for some time, and 3) one-in-class, handwritten, 40-minute timed writing that the student produces from a series of prompts given out each semester. The portfolios are submitted by students at the end of the semester and are read by at least two different instructors. First each EG10 instructor reads his or her own student’s portfolios and scores each with a “pass” or “no pass” grade. This instructor then submits these portfolios (with the grade) to a site where a second instructor will read and grade them. Finally each project write instructor attends a meeting where portfolios are returned to the original EG10 instructor and “third reads” take place to determine the status of portfolios that received split votes. The portfolio method has proved successful since it allows for different teaching methodologies, involves students in the process of writing, encourages communication among colleagues and promotes higher standards by giving students the chance to revise.

Project write participation is mandatory for all EG10 instructors at the Ammerman Campus. All EG10 students must pass the project write final portfolio
before they can be admitted to EG11. Although it is not mandatory, all East Campus
EG10 instructors currently participate in the project write portfolio method. Various
local high schools have their senior English classes participate in the project write
program. If the senior’s portfolio passes, the student is automatically eligible to take
EG11 at Suffolk County Community College. At the West Campus, EG10 is presented
as a workshop. Students are required to write frequently in and out of class, exchange
and discuss written work with peers, and rewrite and type selected essays. Writing and
reading assignments include narration and description, explanation and opinion, and text
analysis. All writing (free writes, journals, exercises, responses to reading) must be
maintained in a single notebook. Four formal essays are written by the student
throughout the semester. Students submit a final portfolio which contains their best two
in class essays, a rewrite of their weakest essay, and a two-page reflexive essay which
introduces the portfolio.

For the most part, EG09 and EG10 instructors do not incorporate technology into
their teaching methodologies beyond encouraging their students to develop word
processing skills. Some encourage e-mail use and research on the internet. At the
Ammerman Campus, there are a few EG10 classes taught in computer labs. These
classes do use more technology. The instructors’ syllabi are online and students use
e-mail to discuss assignments with their peers as well as their instructors. Students create
their own website so they may “publish” their essays on the web, thereby expanding their
sense of audience. They also use the internet for research and idea generation. The use
of the project write portfolio system has been deemed a most appropriate method of
assessing student writing by faculty surveyed and developmental expert Stanford Goto
who consulted with the committee. The system encourages uniform standards for the
course, provides a forum for instructors to dialogue about the teaching of writing, and
encourages students to strive for improvement. The committee believes that it would be
beneficial if this programmatic approach was taken to all of the colleges developmental
writing courses.

Placement into EG09, EG10 or EG11 (non-developmental) is based on a student’s
score on a timed essay and a CPT sentence-sense test given prior to initial registration.
Since the Fall of 1994, the criteria for placement has been as follows: student scores on
the timed essay and on the CPT sentence-sense test are weighted 50/50%. Student essays
may score between 2 and 12 points. Student CPT sentence-sense scores range from 20-
120 but are rescaled to between 1 and 12 points. The essays and sentence scores are
combined to become the students’ composite placement score and this composite score
determines placement. Students scoring between 3 and 8 are placed in EG09, students
scoring between 9 and 13 are placed in EG10, and students scoring between 14 and 24
are placed in EG11. The Office of Institutional Research and Assessment conducted a
study to evaluate the performance of students who were initially placed in EG09 or EG10
with students who placed directly into EG11 on their performance in EG11. The study
focused on students enrolled in EG11 from Fall 1990 through Spring 2000. Attachment
10 contains tabular and graphical presentations of the results of this study. Pass rates
were significantly higher for non-developmental students than for developmental students
in EG11. Students placed in EG09 has higher D or failure rates in EG11 than those
placed in EG10. Students placed in EG10 had higher D or failure rates in EG11 than
those directly placed in EG11. There was no significant difference in withdrawal rates
among the three groups. Evidence supports the predictive validity of the current placement criteria for performance in EG11.

**Reading**

RE09 and RE10 instructors independently use a variety of instructional methods depending on the academic readiness of a class, student learning styles, specific learning tasks and specific text materials. These methods include traditional lecture/class discussion, instructor directed skill lessons, graphic aids to help comprehension, underlining, annotating, note taking, mapping, outlining and summarizing. Other methods being tried include the following:

**Schema Activation**: This is a method where readers do not passively absorb information from written text but rather actively use their own schemata (knowledge structures) to build meanings with text as a stimulus. Instructors urge students to make predictions about what they are about to read on the basis of skimming, prior knowledge of a given topic, and interacting with the text while reading.

**Metacognitive awareness**: In this method readers learn to monitor and regulate their own reading comprehension. In doing so they know when and where to use certain strategies to solve some problems in the reading process. Instructors help foster such metacognitive awareness by helping them to make predictions about what they are going to read, visualize what they read, self test their own understanding and correct their own mistakes.

**Portfolio Assessment**: This method is sometimes used as an alternative to or in conjunction with standardized tests. It helps document students’ efforts in particular
learning situations and provides an ongoing record of students’ accomplishments in a variety of settings.

**Customized Assistance and Self-Paced Learning:** Here students are guided in their self-paced learning in the Reading Enrichment Center (Ammerman) or Academic Skills Center (East and West). Professional Assistants are available to help students. Computer software packages are used to accommodate the various needs of students at different levels of reading.

No study has been done by the discipline to evaluate the effectiveness of the various methods being tried.

Placement into RE09, RE10 or a recommendation to take RE11 is based on the student’s scores on a CPT Reading Comprehension test given prior to registration. Since the Fall of 1995 the criteria for placement has been as follows: Students scoring between 0 and 65 are placed in RE09 (scores below 59 are reviewed for possible ESL or LD placement), students scoring between 66 and 76 are placed in RE10, and students scoring between 77 and 84 are strongly encouraged but not required to take RE11.

Considerable work has been done to validate and establish the usefulness of the CPT Reading Comprehension Test (CPT-R; College Entrance Examination Board, 1990) at SCCC. The first two of the following three study summaries (articles appended) report and discuss the results of an ongoing research effort to empirically establish the cutoff points for the CPT-R. The final study provides empirical evidence that exposure to the reading program produces meaningful improvement in student reading comprehension.
1. **Validating College-level Reading Placement Test Standards** by Napoli and Wortman, 1995 (see A-15, p.349).

Scores on the CPT-R were found to be predictive of performance in Introductory Psychology (a reading intensive college-level course), as well as overall grade point average. In addition the study identified specific points (cut-offs) on the CPT-R distribution as predictive of successful (score = 75 for “C or better outcomes) and unsuccessful (score <75 for “below C outcomes) academic outcomes. Based on these results a cutoff score of 80 (slightly higher than the identified value to accommodate for measurement error) was adopted.

2. **The CPT-Reading Comprehension Test: A validity Study** by Napoli, Raymond Coffey, and Bosco, 1998 (see A-16, p.355).

The CPT-R was found to have concurrent validity with both the DRP and the Nelson-Denny. Because both the DRP and the Nelson-Denny are criterion-referenced tests (ie., they have established a relationship between test scores and grade-level reading performance), it is possible to confer such meaning to scores on the CPT-R as well. Regression equations were used to equate scores on the CPT-R with DRP scores and grade-level performance standards, as well as Nelson-Denny Comprehension scores and grade-level performance standards (see Table 4). In addition, the previously established CPT-R placement cut-point (score = 80) was confirmed.

3. **A Critical Multiplist Evaluation of Developmental Reading Instruction at Suffolk Community College** by Napoli, Wortman, and Norman, 1994 (see A-17, p.361).

Three studies were presented which lend support for the positive effects of developmental reading courses on students’ reading comprehension levels. The first
study compared overall college grade-point averages of students placed in developmental reading with those non-developmentally placed, and found that students who took developmental reading performed better than their initial reading scores would have predicted. The second study looked at two groups of students placed in developmental reading, finding that students who actually took developmental reading achieved higher overall college grade-point averages than similarly placed students who did not take developmental reading. And the third study looked at the improvement in CPT-R scores for a group of developmental reading students before and after developmental reading courses, finding that significant learning had occurred. These three studies provide a confluence of evidence for the effectiveness of the Developmental Reading program.

**Mathematics**

Developmental courses represent approximately forty-three percent of all the mathematics courses offered at Suffolk County Community College. They are basically divided into two levels; Basic Mathematics (MA01) and Elementary Algebra (MA07). In Fall 1995 the tri-campus Developmental Mathematics Committee proposed MA06, a special topics course which combined MA01 and MA07. MA06 was designed for students who could benefit from an accelerated review of arithmetic skills before beginning studies in Elementary Algebra. In 1996, MA06 was made a regular offering of the college. In 1998, a college wide committee with the full support of the Vice President of Academic Affairs joined in a partnership with Academic Systems to provide a new approach to the teaching of Developmental Mathematics. This new approach makes use of a computer-based interactive instruction system. It enables Developmental
Mathematics students to learn in a self-paced student centered environment. The course is run in a computer lab setting and has a class size of 28. The lab is staffed by and instructor and a professional assistant. Instruction is provided via interactive computer software, a set of workbooks, and by the instructor and professional assistant working with students both individually as well as in groups. Although the objectives for these courses are the same as those of the traditionally delivered MA01, MA06 and MA07, the project utilizes a new concept referred to as the “seamless” approach. This approach allows a student who completes the requirements for the course he or she initially was placed into to begin the next required course during the same semester. For instance, a student who successfully completes MA01 can immediately begin MA07. There is no guarantee, however, that the student will be able to finish the second course she starts. However, the student can re-register for the following semester and begin the course where he left off at the end of the previous semester. Thus, the student can “seamlessly” move through his or her mathematics courses. This “seamless” approach serves three different student populations. First it provides an incentive for those students who are able and willing to complete two courses in one semester. Second it is a valid method of delivery for the student who can complete the course requirements in one semester. Lastly, and most importantly, it provides students who cannot pass a developmental math course in one semester with a means to complete the course over two semesters. It is hoped that retention will be improved with this new delivery method. An evaluation of Academic Systems Mediated Learning Mathematics courses at the college as well as an analysis of traditional and mediated mathematics course grades is currently being developed by the Office of Institutional Research and Assessment.
A study of the Office of Institutional Research and Assessment several years ago followed thousands of students as they moved through their courses. The result was a list of cutoff CPT scores for success in the various mathematics offerings of the college. These guidelines have been proven to be an effective set. The summary of these findings can be found in Attachment 11. Attachment 11 also contains tables and graphs resulting from a statistical study on performance outcomes according to a student’s initial mathematics placement (MA01, MA07, MA06 or non-developmental) for all college-level mathematics courses taken by the population of students from 1996-1999. The following observations can be drawn from this outcome study:

- MA21, MA22, MA23 and MA27 students with non-developmental initial placement had significantly higher GPA’s in these courses than students with developmental placement.
- MA21, MA23, and MA27 students with an initial MA06 placement had significantly power GPA’s in these courses than students who placed initially into MA01 or MA07.
- MA21, MA22, MA23 and MA27 students with non-developmental placement had significantly higher pass rates than students with developmental placement.
- MA21, MA22 and MA23 pass rates for students with MA06 placement were significantly lower than pass rates earned by students placed in either MA01 or MA07.
- MA27 pass rates for students with MA01 or MA06 placement were significantly lower than pass rates for students placed in MA07.
• MA61 pass rates for students with MA06 placement were significantly lower than pass rates for students initially given MA01, MA07 or non-developmental placement.

• MA21, MA22 and MA27 students with developmental placement had significantly higher failure rates than students with non-developmental placement.

• MA21 students with MA01 placements had significantly higher failure rates than students placed in MA07.

• MA21, MA22, MA23, MA61 withdrawal rates for students with an initial MA06 placement were significantly higher than withdrawal rates for students initially placed in MA01, or MA07, or non-developmental courses.

• MA23 students with non-developmental placement had significantly lower withdrawal rates than students with initial developmental placement.

• MA27 withdrawal rates for students with MA01 or MA06 placement were significantly higher than withdrawal rates for students initially placed in MA07 or a non-developmental course.

Since developmental courses are designed to remedy gaps which students enter the college with, it is disappointing to discover that success rates among developmental students in credit bearing courses are still significantly lower than those for non-developmental students. Perhaps a special study skills course is needed in addition to the subject matter developmental courses. Further investigation into the difference in success rates is recommended.
SECTION III: STUDENTS

The first student issue addressed by the committee was enrollment trends. We looked at enrollment patterns from Fall 1994 through Summer 1999 as they apply to each developmental offering of the college. Semester by semester detailed summaries of our findings are contained in Attachment 12. Graphs of the number of new students entering these courses during the fall semester of each of the six years studied are also included in the attachment. Fall data was most informative since fall semesters are when the greatest student turnover occurs. For RE09, Selden showed some ups and downs but an overall decline in enrollment for the period studied; East had one sharp decline but in recent years is climbing back up to its 1994 enrollment; West’s enrollment for the most part has been stable over the six years. With regard to RE10, Selden showed a sharp drop after the first year of the study but remained stable after that, East had some ups and downs but has not changed significantly over the period of time, West remained very stable from Fall 1995 through Fall 1999. All three campuses have had periods of increase and decrease but for the most part show an overall decline in EG09 enrollment. EG10 enrollment was overall stable on Selden and East for the period studied but experienced some sharp differences over the years at West. At Selden, MA01 had a drop after the first year of the study but remained stable for the remaining five years. East and West MA01 enrollment went up and down but were increasing in the latter years of the study. MA07 at Selden went up and down over the six years but there were no drastic changes for the most part. East and West exhibited a constantly decreasing pattern for the most part. MAL1 showed increasing enrollment on all three campuses for the two years of the
study that it ran. MAL2 experienced a decline in enrollment from 1998 to 1999 on all three campuses. MALA enrollment decreased in Selden from 1998 to 1999 but increased at East and West.

The committee also looked at success rates of students from a number of different perspectives during the years 1990-1995. Believing that a picture is worth a thousand words, our findings are summarized via the following graphs which are contained at the end of this section.

Graphs 1-4 show the average GPA during each year of the study for students respectively needing math remediation only, reading and writing remediation only, math, reading and writing remediation and no remediation. Students requiring math only had average GPA’s ranging between 2.3 and 2.6; students needing only reading and writing maintained average GPA’s between 2.0 and 2.2; students requiring courses in all three areas obtained average GPA’s between 1.7 and 1.8; students requiring no remediation had average GPA’s between 2.5 and 2.6. Hence, the more remediation required, the lower the average GPA.

Graphs 5-8 show the percent of students who graduated during each year of the study who started out respectively needing only math remediation, only reading and writing remediation, math, reading and writing remediation and no remediation. For the period of the study, students needing math only had graduation rates which fell between 26% and 33%; students requiring only reading and writing had rates between 22% and 42%; Students needing courses from all three areas showed rates between 13% and 23%. Students not requiring developmental courses had rates between 38% and 45%. As might
be expected, those needing tri-area courses had the worst graduation rates while those requiring none had the best.

Graphs 9-12 show the number of years, on average, it took students entering during each year of the study to graduate depending on their entrance requirement for math remediation only, reading and writing remediation only, math, reading and writing remediation and no remediation. For the period of the study, the average time to graduate for those students needing math only ranged between 3.2 and 4.2 years; those students requiring reading and writing ranged between 3.2 and 3.9 years; those students needing tri-area remediation ranged between 3.8 and 4.5 years. Students not needing any developmental courses averaged between 2.9 and 3.4 years. While students requiring no remediation graduated in the shortest amount of time, developmental requirements in most cases did not delay graduation by more than a year. The gaps which the developmental courses enable students to fill in are well worth this increase in time.

Graphs 13-16 show the percent of students graduating during the period of the study in relation to the number of developmental courses they needed respectively in math only, reading and writing, as well as math, reading and writing. Graph 16 is for students who needed to take no developmental courses. Students needing one math course had a higher graduation rate than those needing two; students needing two reading or writing courses had a higher graduation rate than those needing three or four; and those needing three courses had a higher graduation rate than those needing four. For students needing courses in all three areas, the study showed that the smaller the number of developmental courses required, the higher the graduation rate. Students needing no
developmental courses had a higher graduation rate than students needing one or more developmental courses.

Graphs 17-20 examine for each year of the study the percent of students who graduated in three years or less which began the college respectively needing math remediation only, reading and writing remediation, math, reading and writing remediation and no remediation. For the period of the study the percent of students graduating in three years or less who needed math remediation only ranged between 59% and 75%; the percent graduating in at most three years who needed only reading and writing courses fell between 61% and 79%; the percent who took up to three years to graduate and needed remediation in all three areas varied between 38% and 55%. For students requiring no remediation, the percent graduating in less than three years ranged between 72% and 82% for the period of the study. As might be expected, students needing no developmental courses were most successful in graduating in three years or less and those needing remediation in all three areas were least successful. It is encouraging to see that a good percent of those students needing math only or reading and writing only were able to graduate in at most three years.

Graph 21 shows the percent of students who graduated during the entire period of the study who started out needing reading, writing and math remediation, math remediation only, no remediation and reading and writing remediation only. Again students needing no remediation had the best rates. Those needing only reading and writing had higher rates than those needing only math and those needing only math had better rates than those needing developmental courses in all three areas.
Lastly, the committee considered enrollment trends over the period of the study by race, age, sex and full time status. The results are summarized by the following graphs:

Graphs 22-25 show the percent of students at the college during each year of the study who entered needing different combinations of developmental courses who were white non-hispanic. For the period of the study, the percent of students needing math only who were white non-hispanic fell between 83% and 91%; the percent needing only reading and writing ranged between 70% and 90%; and the percent requiring all three areas varied between 74% and 83%. The percent of student needing no remediation which were white non-hispanic fell between 87% and 92% during the years studied.

Graphs 26-29 show the percent of students at the college during each year of the study who entered needing different combinations of developmental courses and were 22 years of age or younger. The committee considered students under 22 to be the college’s traditional population. For the period of the study, the percent of students needing only math who were traditional varied between 59% and 70%; the percent requiring only reading and writing ranged between 93% and 99%; and the percent needing developmental courses in all three areas fell between 75% and 84%. The percent of students needing no remediation which were traditional students during the period of the study ranged between 80.5% to 83.25%.

Graphs 30-33 show the percent of students at the college during each year of the study needing different combinations of developmental courses who were female. For the period of the study, the percent of students needing math only that were female fell between 59% and 65%; the percent needing only reading and writing ranged between
41% and 46%; and the percent needing developmental courses in all three areas varied between 51% and 55%. The percent of non-developmental students who were female ranged between 49.5% and 55% during the years of the study.

Graphs 34-37 show the percent of students during each year of the study needing different combinations of developmental courses who were full time. For the period of the study the percent of students needing math only who were full time varied between 60% and 64.25%; the percent needing only reading and writing fell between 80.25% and 85.5%; and the percent needing remediation in all three areas ranged between 68.75% and 72.5%. The percent of non-developmental students over the period examined who were full time fluctuated between 68.5% and 76%.

A retention report prepared by the Office of Institutional Research in February 1998 contained the following conclusions which are relevant to our study:

(i) An examination of graduation and persistence rates by developmental placement for first-time full-time students revealed that a significantly higher proportion of non-developmental students than developmental students graduated (28% of non-developmental vs. 12.4% of developmental). A higher proportion of developmental students than non-developmental students were no longer attending (68.1% of developmental vs. 54.7% of non-developmental). A similar proportion of both groups remain enrolled (19.4% vs. 17.3%).

(ii) The number of developmental courses required of students in the full-time cohort was analyzed and found to be significantly related to graduation and persistence rates. Students requiring no developmental courses graduated in the highest proportion (31%).
(iii) An initial examination of graduation and persistence rates of students in the part-time cohort according to developmental placement showed no significant differences in graduation or persistence rates of non-developmental and developmental students.

To further examine graduation rates, students who have graduated were compared to students who have not graduated across developmental placement. This analysis showed significant differences in graduation rates between developmental and non-developmental part-time students. A smaller proportion of part-time students in the developmental program graduate in comparison to non-developmental students.

(iv) The number of developmental courses required of students in the part-time cohort was found to have no significant effect on graduation and persistence rates. A comparison of the graduation rate by the number of developmental courses required found significant differences between the developmental groups, part-time students required to take six developmental courses graduated in lower proportions than part-time students required to take 0-5.

The actual data which the graphs in this section were generated from can be found in Attachment A13.
SECTION IV: RESOURCES

This section contains individual detailed reports of the equipment, facilities and program support resources of the Ammerman, West and East campus libraries, the Ammerman writing, reading and math learning centers, the Ammerman Academic Computing Center, and the West and East Campus Academic Skills Centers. Recommendations and findings specific to each library and center are also included in each report.
SECTION V: STAFFING

The first aspect of staffing the committee concerned itself with was the proportion of developmental courses taught by full-time faculty. Experience and the greater availability of full-time faculty to see students make it preferable to have developmental courses taught by full-time faculty. Developmental students need faculty who are easily accessible and available. From the years 1995 through 1999, the committee respectively examined the percent of math, English and reading courses taught by full-time faculty. Graphs 38-40 which appear at the end of this section summarize these findings. The actual data from which these graphs were generated appear in Attachment A14. For the period studied we found that the percent of developmental math courses taught by full-time faculty ranged between 14% and 28%; the percent of developmental English courses taught by full-time faculty ranged between 25% and 37%; and the percent of developmental reading courses taught by full-time faculty varied between 40% and 58%. The committee recommends that efforts be made to increase these percentages.

The committee also looked at the professional development activities of faculty with regard to developmental education. Reading faculty have developed textbook materials to cater to the special needs of developmental reading students, researched and published articles on issues related to developmental reading, reviewed textbooks, attended and presented papers at major developmental education conferences, taken graduate courses, held faculty workshops and worked with the library to incorporate computer literacy into their program. English faculty have developed a Project Write Faculty Guide which is given to all EG10 instructors involved in the project, hold
mandatory meetings for instructors involved in Project Write, take courses and attend conferences and workshops. Math faculty have implemented and tested a technology based learner centered approach to teaching developmental mathematics, organized and held major conferences focused on developmental education in mathematics of our college, attended and presented papers at conferences, reviewed books and held workshops. While most departments with developmental offerings are involved in discipline specific developmental activities, it would be beneficial for faculty to also attend general conferences held by major associations for developmental education.
SECTION VII: RECOMMENDATIONS

Recommendations are listed under appropriate headings. The list under each heading is in priority order. The Developmental Studies Committee can review this list when they prepare an implementation plan for the college.

**Future Surveys**

1. Conduct a survey to try and determine why success rates among developmental students are lower than those for non-developmental.

2. The developmental program is also intended to retain “at risk students” and move them into the mainstream. The success of this can be measured by continuously studying the proportion of developmental students who persist and graduate.

3. The developmental program should take the role of attempting to guide students into areas of study and careers which are conformable with their abilities. The success of such efforts can be measured by follow-up job placement and education studies.

4. Further study needs to be conducted to determine whether a shift towards a mediated approach in developmental mathematics is appropriate for our students.

5. Survey differences in success rates among students who take RE11 when it is recommended as compared to those who do not take the recommendation.

**Assessment Tool**

6. Develop an assessment plan for the Developmental Studies Program together with the tools and criteria for measuring them.
7. Set up a means and procedure to make assessment of our developmental program ongoing rather than every five years.

8. There currently is no formal list of general goals which apply to all disciplines with developmental offerings. The Developmental Studies Committee should use NADE’s general goals as a basis to develop such a non-discipline specific list.

9. Develop uniform exit tools and criteria which students from all sections of a developmental course are required to meet. If the tool is a test then measures should be taken to insure that faculty are not spending the semester “teaching to a test.”

10. The major outcome which the developmental program strives for is to fill in educational gaps of students entering the college and enable them to successfully complete college level courses. Our success at doing this can be assessed via uniform final exit tools which show the knowledge and skills students are exiting developmental courses with, input from faculty teaching credit bearing courses citing developmental subject matter which they find former developmental students still weak in, and follow up studies of the grades which former developmental students earn in credit bearing courses. Ask faculty to complete mid-semester progress reports on developmental students in their classes. This could help with early intervention efforts for students having difficulty.

11. Ask faculty to complete mid-semester progress reports on developmental students in their classes. This could help with early intervention efforts for students having difficulty.

12. Ask the Developmental Studies Committee in conjunction with the Office of Academic Advisement and Testing to review our current placement exams and
procedures for the purpose of determining the advantages and disadvantages of our current process and making informed recommendations. In an effort to avoid misplacement, perhaps a criteria which combines high school records with test scores could be developed.

13. Allow students in tenth or eleventh grade to take our placement test and offer them an opportunity to fill in gaps in their training before entering college.

14. Given recent changes in New York State high school graduation requirements consider the option of looking at student performance on state exams as a means to measure their preparedness for college courses.

**Faculty Development**

15. Hold campus or college-wide periodic meetings of faculty teaching developmental courses and working in the learning centers, as well as orientations for faculty new to the developmental arena.

16. Form a committee to continuously investigate new technologies which are available to deliver developmental education. Investigate applying for grants to bring some of these new technologies to the college and offer faculty the training they would need to implement and test these approaches.

17. Develop and provide faculty training and certification to teach developmental courses similar to the way the college now offers training to teach distance education courses. Offer faculty incentives for participating in such training.

18. As lines open up in departments with developmental offerings, consider hiring faculty who have training as a developmental specialist.
19. Encourage more developmental professional development activities of a general rather than discipline specific nature; this can incorporate principles specific to adult learning.

20. Encourage more collaboration and sharing and less independence among developmental faculty.

21. Encourage faculty teaching developmental courses to routinely network with faculty teaching non-developmental classes. This would enable faculty to better understand the prerequisite skills they need to instill in their students.

22. Offer seminars on developmental education by current faculty or outside experts.

Curriculum

23. Course policies should stress or require that developmental students take advantage of the college's skills and tutoring centers as well as their instructor’s office hours.

24. Encourage faculty to incorporate study skills training into the developmental courses they teach.

25. Investigate the possibility of following the MA06 model to create English and reading courses which enable students to complete their developmental requirements quicker.

26. Encourage collaboration between developmental faculty and librarians to develop meaningful library assignments for developmental English and reading students and in incorporate the library’s internet resources into the classroom.

27. Consider an intense summer program as well as other options to enable developmental students to exit the developmental program early enough to complete courses at SCCC which meet SUNY’s new general education requirements. Examine
options such as a 5 credit combined MA07/MA27 course from which students who successfully exit get 4 credits for MA27.

28. Ask the Developmental Studies Committee to investigate and make a recommendation as to whether it is better to have a standardized approach used in all sections of a developmental course or a varied instructor dependent approach.

29. Make Project Write a uniform requirement among all three campuses as a requirement to enter EG11.

30. Consider the “learning community” approach to developmental education.

**Administrative**

31. Increase the number of full-time faculty teaching developmental courses.

32. Increase staffing and improve the ratio of full time to part time staff in the learning centers.

33. Routinely examine physical facilities of learning centers for adequate and appropriate space for staff, students and groups with special needs.

34. Ask the Developmental Studies committee to re-evaluate whether current class sizes for developmental courses are appropriate.

35. Examine the composition of the Developmental Studies committee in terms of adequate representation of all groups involved – administration, departments, developmental faculty and learning centers.

36. Investigate how our TLC and Title III grant can assist with implementing recommendations 15, 16, 17, 19, 20, 22, and 35.
37. Increase hours of learning centers and library so that they are available when students are on campus. Consider online learning centers to accommodate schedules of non-traditional students.

38. Ask center directors to send copies of any specialized software their students may require to the Academic Computing Center.

39. Add updated and more student-oriented books to the current developmental books in the library.

40. Hire or assign an administrator to serve as a coordinator of Developmental Studies. This might work best as a tri-campus position and the person should offer support to both students and faculty.

41. The role of the Developmental Studies Committee should be to investigate and help act upon the findings and recommendations contained in this report. If a coordinator of Developmental Studies position is created, that administrator would certainly take a major role implementing the recommendations of this report which were deemed appropriate and achievable.

42. Create more developmental sections which are restricted to learning disabled students.
CONTENTS

SECTION I

Program Goals 1

SECTION II

Curriculum 6

SECTION III

Students 48

Graph 1 – 37 56 – 92

SECTION IV

Resources 93

SECTION V

Staffing 139

Graph 38 – 40 141– 143

SECTION VI

Major Findings 144

SECTION VII

Recommendations 147

Attachment 1 150

Attachment 2 155

Attachment 3 157

Attachment 4 174

Attachment 5 179

Attachment 6 195
The Writing Learning Center consists of one room, I101, in the Islip Arts Building. The Coordinator is Tina Good. The English Department funds the Writing Learning Center.

1. **Availability of individual or group tutors to develop or augment learning individual courses in Developmental Writing: EG09, Basic English Skills, and EG10, Developmental Writing.**

   The Writing Learning Center is open the following hours:
   
   Mon-Thurs. 9 – 8  
   Fri. 9 – 1

   The majority of the help is given on a one-on-one basis. EG10 students may sign up for semester long group tutorials, consisting of four students and one PA.

   The staff consists of seven part time PAs working eight credits each, two part time PAs at 17 hrs. each, and 490 students tutor hours.

2. **Availability of independent study materials geared toward different learning styles which supplement program/course content:**

   Dictionaries, grammar books, and some literature textbooks are available.

   Word processing software and Internet access are available. The hardware consists of eight Gateway Pentium PC’s, and three Mac’s, and a networked printer.

   Currently under investigation are developing an online writing center for synchronous and asynchronous use; grammar software; more group tutorials; discipline specific help; and satellite writing workshops on campus.

3. **Percentage of students in program utilizing facility/resources:**

   Statistics are not kept separately for EG09 and EG10. Total use of the Writing Learning Center by all students:

<table>
<thead>
<tr>
<th></th>
<th>Student count</th>
<th>60 minute Hours</th>
</tr>
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<tbody>
<tr>
<td>Fall 1998</td>
<td>809</td>
<td>3395.44</td>
</tr>
<tr>
<td>Spring 1999</td>
<td>801</td>
<td>4578.64</td>
</tr>
<tr>
<td>Fall 1999</td>
<td>1046</td>
<td>4237</td>
</tr>
</tbody>
</table>

4. **Availability of faculty to work with staff to develop learning assistance strategies:**

   PA’s train student tutors. There is no special training in remedial tutoring.

5. **Ability of center to support special needs of students in program.**

   Wheelchair accessible stations are available with computers.

**Recommendations:**

The physical accommodations are inadequate. The Writing Learning Center consists of one large room with a high counter on one side behind which the staff works. There are no private areas to
<table>
<thead>
<tr>
<th>Findings</th>
<th>Corresponding Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Survey results suggest that approximately 60% of non-returning</td>
<td>19, 27, 37</td>
</tr>
<tr>
<td>students are over age 25.</td>
<td></td>
</tr>
<tr>
<td>2. Survey results indicated that approximately 74% of non-returning</td>
<td>11, 12</td>
</tr>
<tr>
<td>students were uncertain of their need for developmental courses.</td>
<td></td>
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<tr>
<td>3. Survey results indicated that approximately 42% of alumni</td>
<td></td>
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<tr>
<td>obtained a Bachelors Degree.</td>
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<tr>
<td>4. Surveys indicated that approximately 45% of developmental students</td>
<td>11, 23, 24, 32, 33, 37, 38, 39</td>
</tr>
<tr>
<td>are not using campus reading labs, 65% of developmental students are</td>
<td></td>
</tr>
<tr>
<td>not availing themselves to campus mathematics tutoring centers and</td>
<td></td>
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<tr>
<td>54% of developmental students are not attending campus writing labs.</td>
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<tr>
<td>5. Surveys revealed that approximately 66% of developmental students</td>
<td>23, 24, 31</td>
</tr>
<tr>
<td>never and 23% rarely meet with their instructors outside of class.</td>
<td></td>
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<tr>
<td>6. The majority of developmental students surveyed indicated that</td>
<td>3</td>
</tr>
<tr>
<td>they needed career and financial aid counseling as well as</td>
<td></td>
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<tr>
<td>psychosocial support.</td>
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</tbody>
</table>
7. 73% of developmental students surveyed rated the teaching effectiveness in traditional developmental mathematics classes as "effective" or "very effective" as compared to 59% who gave these ratings in mediated mathematics classes.

8. 57% of developmental students surveyed rated the difficulty of RE09 and RE10 as "somewhat to very easy" and elementary.

9. 67% of developmental students surveyed felt that the program did a poor job of preparing them for college level courses.

10. Not all developmental courses have a standard exit criteria nor tool. Nor are instructional approaches standardized.

11. A programmatic approach to developmental writing courses appears to be very effective for developmental students.

12. No study has been conducted, by discipline, to evaluate the various methods being employed in the college's skills and learning centers.

13. Success rates among developmental students in credit bearing courses are significantly lower than those for non-developmental students.

14. Graduation and persistence rates are significantly lower for developmental students.
15. No study has been conducted to support the anticipated improved success rates among students who take RE11 upon recommendation.

16. There is currently no general assessment plan for the Developmental Studies Program.

17. There are currently no general college-wide professional development programs aimed at developmental studies faculty and professional assistants.

18. Other colleges offer intense summer programs as well as combined remedial/college level courses as a means to accelerate the pace at which developmental students can complete their non-credit requirements.

19. Sections of MA07 which were restricted to learning disabled students have proved successful.

20. Minimal collaboration between faculty and library/learning center personnel currently take place.

21. There does not appear to be a procedure in place which periodically evaluates placement criteria in relation to changing high school graduation requirements.

22. The role and changes of the college's Developmental Studies Committee are not clearly defined.