

ADMITTED TO REMEDIATED IN ONE YEAR - WE'RE DOING IT!

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The California State University system encompasses 23 master's level campuses. According to the Master Plan for the state of California, the CSU must accept any student who graduates from a California high school with a GPA of at least 3.0 or with a lower GPA and a balancing SAT or ACT score. Even so, approximately two-thirds of entering students are not ready for college level courses in writing and math.

In response to the overwhelming need for remediation, the California State University system has embarked on an aggressive program of having incoming students complete any necessary remediation within their first year of study. In addition, each campus has been charged with the task of reducing the need for remediation to 10% by the year 2007. Each campus has devised a plan for testing, advising, placing and remediating these students as well as outreach programs to local K-12 schools in an effort to reduce future need.

EO 665

The CSU system uses two placement tests administered by ETS to determine the readiness of incoming students to take college level math and writing courses. Since the fall of 1998, incoming students who are not exempt based on subject area scores on tests such as the SAT or transfer credits are required to take the Entry Level Math (ELM) exam and the English Placement Test (EPT) prior to registering for classes. Students who fail either of these tests are then placed into mandatory developmental programs. This mandatory placement is only one portion of Executive Order 665 issued by the CSU Chancellor's Office. In addition, these students must also be ready to enroll in baccalaureate English and math classes by the end of their first year. That means that a student who fails the ELM exam must pass Intermediate Algebra and a student who fails the EPT must be deemed ready for English 1A within two semesters.

At San José State University, we have had considerable success in meeting the requirements of EO 665. However, it has been a slow, arduous process consisting of "how are we going to do that" and "oops, that didn't quite work". Even now, we are making positive changes to our system and continually reacting to outside influences.

We've gotten past the initial shock of enrollments doubling in developmental classes and the need to offer many more test sessions in preparation for each new incoming class. Over the past four years, we've created and refined processes for early outreach, registration, communicating with and tracking students as well as making some changes in pedagogy to increase student success rates.

ADMINISTRATIVE RESPONSES

The first piece of the puzzle was administrative. In the spring of 1998, when we first embarked on meeting the demands of EO 665, we knew that we would need to closely control the registration process for incoming students. The first thing we did was to offer the placement tests once a month from February through August. When students were admitted, they received a letter that told them which of the tests, if any, they needed to take and explained how to register for them.

At that time, students were also informed that they needed to attend an Orientation and Advising Day after receiving their test scores and before they could register for classes. We had been offering voluntary half-day orientation programs in the past, but we tacked on a half-day of advising and made

them mandatory. Now, every student had an orientation hold automatically placed on their records that was not removed until they attended a program.

At each of the Orientation and Advising days that first year, half of the students attended a regular orientation program in the morning while the other half met with an academic advisor. After lunch, they switched so that each group would experience both components. The advising portion of the day consisted of students grouped by majors meeting with an advisor. During the previous year, we had spent much time creating a set of matrices that outlined which courses a student should take based on his or her major and placement test results. Students were given a schedule of classes and told how to choose classes based on the matrix for their major. Working with the advisor, each student would prepare a fall class schedule and then proceed to the registration area. In the registration area, more advisors and staff members from Admissions and Records were ready at computers to lift the orientation hold and actually register students for their classes. When students left for the day, they had their completed fall schedule and instructions on how to make changes to it on their own.

While this system worked fairly well in the beginning, we found it increasingly difficult as it drew closer to the fall semester beginning because many of the classes were already full. The registration portion began to slow down, as the majority of classes that students selected were unavailable. Instead of just making sure that the correct classes were chosen and doing the registration, staff found themselves completely rebuilding schedules with the students.

Since that time, we've made some adjustments that seem to be working well. The first thing we did was to change our initial communication with students. Now, when admitted students are required to take the placement tests, we tell them to sign up for one of two test dates determined by their admission date. At the same time, they are told to register for the Advising and Registration date that corresponds to those test dates.

We have also separated the orientation program from the advising. Students are now required to attend an Advising and Registration Day and are invited to attend an Orientation Day that is held just prior to school beginning in the fall. We had found that the information they were getting from advising, together with the information from orientation was too much to be processed in one day. We now offer six Advising and Registration Days beginning in May, with up to 500 incoming students attending and receive their fall schedule on each of these days.

The most critical change that we have made involves how students are registered for their classes. We now create their schedules for them prior to the Advising and Registration Program. We have a group of experienced advisors in Academic Services who spend the week prior to each advising day registering students for their fall classes based on the matrices. Each advisor is assigned a certain major or group of majors as his or her area of expertise and is responsible for the schedules of the students in those majors. Now, when students arrive for Advising and Registration, they are given a printout of their schedule along with general advising and instructions on how to make adjustments on their own.

Once classes begin, registration for developmental courses is handled in two locations. No adding or dropping is done at the section level. Students must go to the Mathematics Achievement Center to add a developmental math class and to the Writing Center to add a developmental writing class. This allows for careful monitoring of placements as well as enrollment controls.

COMMUNICATIONS

We are also still refining the process of communicating with students. In the past, letters were sent out by our AAVP for Undergraduate Studies whenever someone on campus determined that a letter needed to go out. But, we have now created communication and report calendars that are used to trigger a series of communications to be sent to students.

The first communication with incoming students goes out by ECOMS - a system for mass emailing of messages - once a student is admitted. In this first message, students who are not exempt from the placement tests are given information about registering and preparing for them. They are also given links to websites containing practice problems for each test.

The next communication students receive is when they attend New Student Advising and Registration. We call this one "Truth or Consequences" and it contains all of the relevant information a student needs about EO 665, the developmental math and writing requirements and the consequences to them if they do not complete these requirements within one year.

At the end of the first, second and third weeks of class, all instructors of developmental courses must report any students who are registered but are not attending. These students are sent a communication we call "Do I Really Need to Attend These Classes?" Unfortunately, some students accept that they must be registered for these classes, but see no purpose in actually attending. For the students for whom reality hasn't sunk in yet, this is a reminder that they will be dropped out of all of their classes if they don't comply with the developmental requirement. At that time, any students who are required to take developmental courses and are not registered are identified and are sent an ECOMS message with information on how to register.

Before registration for the second semester begins, students are sent another communication that explains why they will not be able to register for their second semester until their grades are available from their developmental courses. This message is sent through the developmental courses as well as by ECOMS. Since students are automatically blocked from registering for any other classes until they are registered for their required developmental courses, there is no way they can register until we know what courses, if any, they will be required to take. To speed the process along, all status changes are made manually as soon as instructors turn in their grades.

In 1998, our first semester of compliance, we learned an important lesson about second semester registration. We had not anticipated the problem and were forced into making a hasty decision that first year. There were those who felt that it was important to be sure that students were registered before they left for the winter break. The decision was therefore made to register all students for the next course in the sequence and warn them that, if they did not pass their first course, their schedules would be adjusted. This was a disaster. Too many students never bothered to check either their grades or their schedules before returning to class for the second semester. This caused extreme confusion and resulted in many "lost" students during the first few weeks of the semester.

The process we have now put into place calls for students who have failed their first semester developmental course to receive a communication explaining that they have only one semester left and what they need to do to complete their requirements within the one year time limit. For the students who complete their requirements, there is a certificate of completion that is sent to them.

Finally, at the end of the second semester, those who have completed their requirements are mailed certificates of completion. Those who did not are mailed letters explaining what their status is and what they need to do in order to return to the University. The first option is to complete their requirements during summer school. For those who are unable to do this, we are currently offering them an Academic Leave of Absence so that they can attend a community college, take prescribed courses, and return without having to reapply. While they are doing this, their records show a status of "disenrolled" which is removed once they return in good standing. Students who do not take advantage of the leave are administratively disqualified and must reapply before returning.

PEDAGOGICAL RESPONSES

Our developmental writing classes are called Academic English because we believe that students know English, but not at an academic level. Because regular attendance is so important for students in developmental courses, and because grading on the basis of attendance is not permitted in the CSU system, our Academic English courses have found a way to encourage attendance without basing the grade directly on it.

Every student in an Academic English class takes a common final exam on a Saturday morning at the end of the semester. The essays written during this final exam are group read by teams of instructors who then determine the placement of each student. In order to take this final exam, each student must attend 80% of the class meetings during the semester. Based on the results of this exam, students in Academic English 1 can either be required to repeat the course, advance to Academic English 2 or can

even be promoted directly into English 1A. Likewise, the students in Academic English 2 can either be required to repeat the course or be promoted to English 1A.

In both the math and English developmental programs, we have made allowances for students with placement test scores very close to passing. Students who score within two points of passing the English Placement Test are allowed to enroll in English 1A but are also required to enroll in an extra one-unit writing lab. Students within 50 points of passing the Entry Level Math test are allowed to enroll in a self-paced algebra review. These students are told that they can sit in on a GE math course and will be able to add it if they complete the 10 algebra modules before the end of the add period.

The developmental math program has undergone the most dramatic curricular changes since coming into compliance with EO 665. The first change was the transition from a traditional course sequence taking a student from pre-algebra through intermediate algebra in as much as four semesters to a combined curriculum that could be completed in one or two semesters.

The most challenging problem has been the students who are in the two-semester sequence who fail the first semester. During the first year of compliance, we placed these students in special "review" sections of the second semester course. These sections reviewed the first semester material as well as covering the second semester's content. Needless to say, students who were unable to succeed with half of the material in one semester did very poorly when trying to do both halves in one semester.

We immediately set to work creating a new course that met five days a week rather than four for the next year. But, even the extra class time each week made little impact on the success rate of these students. With only 30% of these students able to proceed to baccalaureate math, it was obvious that some major changes needed to occur.

The pedagogical approach that was introduced with this group of students in the spring of 2001 was mastery learning. It was chosen to give students the greatest opportunity for success while placing much of the responsibility for learning back on their shoulders. During the fall of 2000, a series of chapter tests in various versions was developed for use in the review course in the spring.

Students were allowed up to two chances to retake any chapter test on which did not earn a minimum of 70%. Each time a test was taken and graded, students were given an opportunity to review them during a class session. Since all sections took the same tests, students were not allowed to keep them. The failed tests were then placed in a file in the Mathematics Achievement Center (MAC). Students were required to come into the MAC and review their failed test with one of the tutors. Once they had done this, they were allowed to retake a different version of the test. Each student was allowed to retake a test up to two times during the semester. At the end of the semester, any chapter test that had not been mastered could be taken in a final version during the final exam. Students with more than three such chapter tests remaining to be mastered were required to take a comprehensive final exam.

The transformation in the students was remarkable. They became active participants in the learning process and were motivated to succeed. The results from this first group of high-risk students were better than we had hoped for. While the best pass rate this group had over the previous two years was 30%, the first group of students using the mastery learning program had a 66% success rate. The change was so dramatic that every instructor in our summer program and most of the instructors in the fall chose to use this approach.

This semester, we are using the on-line testing program provided with our textbook for students who must retake a test. It has allowed me to build a set of chapter tests that are available to students. Each time a student takes one of these tests, the problems are a little different and presented in a different order. These tests require a password so students must come into the Mathematics Achievement Center to take them. However, they can take practice tests from anywhere as long as they can access the website. Each time a student takes a test or practice test, the computer analyzes the results and produces a study plan.

Currently about half of the instructors are taking advantage of the on-line testing. If it is successful, we have plans to expand it to allow students to come in and take the tests in an effort to challenge their placement or to move more quickly through the program.

SUMMER SESSION

With the limited amount of time allowed for students to achieve baccalaureate level in math and writing, there has been an increased effort to get students to begin their developmental coursework during the summer prior to admission. By taking developmental courses as transitory students before matriculating in the fall, it gives students a little extra time to complete their requirements.

One year ago, the CSU system introduced year round operation that takes the summer session out of the control of continuing education and thus reduces the cost to students. But, as a result, we needed to find a way to classify students who were to matriculate in the fall so that they could attend summer session. We did this last summer by classifying them as transitory but are currently awaiting permission to classify these incoming students as Step-to-College which is a program that allows high school students to take a course at the university for a total of \$19.

Because of historical data that shows that students who have taken their English 1A course at a community college have statistically higher failure rates on the upper division writing skills test, our campus does not accept developmental writing courses taken elsewhere. Therefore, students who fail the English Placement Test must either complete their developmental courses at our campus or transfer in a passing grade in an English 1A equivalent course. This makes it even more important for us to make our summer program more attractive to them.

There is no similar data regarding the preparation of students who complete intermediate algebra courses at community colleges. Therefore, we accept a passing grade in an intermediate algebra course taken after a student fails the Entry Level Math test as satisfaction of the requirement. Even so, we have offered a summer developmental math program for the past three years. To make the program attractive, we entered into a joint venture with one of the local community colleges. Students attend class on our campus, with our curriculum and our teachers while being registered at the community college. The total cost to the student has been around \$50. Unfortunately, the Academic English classes can not be offered through a similar program because of minimum class size requirements at California Community Colleges that are unacceptable to those running our program.

This math program has proven to be very successful. It is especially advantageous for students who are placed into the two-semester program. Since we offer an integrated curriculum and none of the local community colleges do, it would be difficult for our students to either complete or begin their developmental math studies elsewhere. Also, since the students are not registered at the university, it allows the students who have exhausted their two-semester time limit to complete their requirement and return in the fall.

The first time our summer session was offered, we had 157 students enrolled. Of this group, 64 were students who were about to be disenrolled under EO 665. The pass rate for this group of students was a disappointing 27% while the pass rate for the 67 incoming students was 94%.

The second year, we were able to increase the pass rate for 52 continuing students in the program to 42% and were quite pleased but felt that more could be done. That year, due to increased early publicity, the number of incoming students in the program increased to 94 with 91% of them earning a passing grade.

This past summer, we had a total of 154 students in our summer program. There were 45 continuing students and 69 incoming students along with 40 who were not subject to EO 665 for one reason or another. This time, with mastery learning being used in all sections, the pass rate for our continuing students jumped to 79% while the pass rate for our incoming students was 100%.

OUR RESULTS

Executive Order 665 applies only to regularly admitted first time students. In the fall of 1998, 68% of the regularly admitted first time students in the CSU required at least one developmental course and 79% achieved proficiency within one year. At San José State, required at least one developmental course and 80% achieved proficiency within one year.

The following year, our results were not as good. The CSU saw a reduction in the need for remediation to 63% of incoming regularly admitted first time students with 79% of them achieving proficiency within one year. However, at San José State, our rate of remediation was 66% with a success rate of 69%.

For the students who entered in the fall of 2000, 62% statewide required at least one developmental course with 81% achieving proficiency within one year. At San José State, our remediation rate dropped only slightly to 65% but our success rate was up to 79%.

We have just recently completed a follow-up on the students who entered in fall of 1999 to determine their two-year persistence. For regularly admitted students who required at least one developmental course upon entry, 68% are still enrolled at the university. They have completed an average of 54.45 baccalaureate hours of work with an average GPA of 2.55. By comparison, 76% of the students who entered proficient are still enrolled. They have completed an average of 66.32 baccalaureate hours of work with an average GPA of 2.80.

FUTURE PLANS

Under the direction of a new Provost, San José State University has spent the past year developing a comprehensive program of services for first year students that will undoubtedly have an impact on our developmental students. These services, known as the Metropolitan University Scholars' Experience (MUSE), currently encompasses three major components, two of which will be in place for the incoming students in the fall of 2002.

The first and major component of this program is MUSE seminars. These seminars are a group of courses with a fifteen-to-one student-faculty ratio. Each seminar carries three units of GE credit in an area based on the course's content. The underlying concept for these seminars is to have a master teacher present something he or she is passionate about that is not a normal part of the curriculum. During the course, students will also be exposed to a variety of learning skills and success strategies.

Since these classes will be open to students regardless of their academic skills level, much planning is going into a support system for both the instructors and the students. One of the main areas of support will be a group of trained peer mentors. The first group of 25 peer mentors is currently enrolled in a course preparing them to support MUSE students next fall.

Each of the peer mentors will be assigned to a particular MUSE seminar. Unfortunately, with 98 sections planned for the fall, this means that only about one out of four seminars will have an assigned peer mentor. In addition, each peer mentor will be available to any MUSE student who needs assistance.

The final component of the MUSE program will be a New Student Center. Development of this center has been postponed for a year due to budgetary short falls. However, the planning for it will continue. This center will offer help with the kind of problems encountered by new students. It will be built on the model of a concierge. There will always be someone there who can cut through red tape or refer students to appropriate services. The New Student Center will also offer a welcoming space where the peer mentors can meet with students or workshops can be held on a variety of topics.

One of the main resources offered by the New Student Center will be accurate and current information about EO 665. It will offer assistance to students concerned about their progress through developmental courses and advise on their options.

It is hoped that the MUSE program will provide all incoming students with the head start they need to succeed in college.

BEST PRACTICES AT OTHER CSU CAMPUSES

Each of the 23 CSU campuses handles the problem of underprepared students differently. At a meeting of the Developmental Math Coordinators last spring, a summary of best practices was made available. The following is a sampling of some of them.

CSU NORTHRIDGE

The Developmental Math Program seeks to provide a wide variety of options for students to learn - giving them the primary responsibility for doing so, encouraging student participation in their own learning experience. The majority of classes are those in which group problem solving and collaborative learning is the primary method of instruction; on-line classes, mastery learning independent study classes, and special sections of classes for the deaf and hard of hearing.

Each developmental mathematics classroom is staffed with two tutors. Classroom tutors grade homework, facilitate group problem solving, model appropriate student behavior, and assist in grading tests. They provide valuable feedback to the instructors with whom they work, as to the specific needs and concerns of students.

SAN DIEGO STATE

The General Mathematics Studies Program includes customized courses designed for students identified as coming from populations with special needs, such as EOP students, DSS students, athletes who need special accommodations due to travel and training schedules, and students whose performance in their first semester indicates that they are at risk. All of these students enroll in four-unit versions of the traditional three-unit classes. The additional unit is comprised of mandatory weekly small group workshops that provide individualized, hands-on practice in the math skills being covered in the three-unit section.

CSU FULLERTON

Between May and September, CSU Fullerton runs an Intermediate Algebra Minicourse via the World Wide Web. Over a one-week period of time, students submit answers to approximately 160 multiple-choice exercises using WebCT. This format allows students to see how they did seconds after submitting their work. This is educationally beneficial to them and it allows the University to handle significantly greater numbers of students. They are required to be on campus only for the final examination, which is handled in a traditional manner, namely, with students sitting in a single conventional classroom using paper, pencil and calculator.

CSU CHICO

At Chico, most of the students who are placed into beginning algebra are given another opportunity to demonstrate their knowledge by taking a test. All sections spend the first three weeks of class reviewing beginning algebra. Students then take the Mathematics Diagnostic Test Program (MDTP) intermediate algebra readiness test. Approximately 50% pass this test and are placed into an accelerated intermediate algebra class.

The students who place in the lowest quartile on the ELM exam are placed into classes using a modified high school curriculum that integrates ideas of algebra and geometry in a problem solving setting. These classes are very hands-on and involve in-class small group activities, including work with graphing calculators.

CONCLUSION

In the fall of 2001, the CSU was to have reduced the need for remediation by 10%. While the need for remediation in mathematics has seen a 9% decrease since 1998, there has been little or no change in the need for remediation in English. With the high number of students in the CSU who are second language English speakers, reducing the need for remediation in English will not be an easy task.

It is still too early to tell if we will be able to meet our next milestone of reducing the need by 50% by the fall of 2004. However, very few people who are involved in developmental education in the CSU believe that the ultimate goal of having only 10% of our incoming students need remediation is an attainable goal. In the meantime, we continue to reach large numbers of these students and provide them with the opportunity to progress to baccalaureate level work within one year.