Ventura College Sabbatical Leave Proposal
Research Project for Fall 2017- Spring 2018
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Instructor's Sabbatical Leave Status

Full-Time Hire Date: August 2007

Previous Leaves: 0

I.   Background of the Project

Completion of educational goals is one of the desired outcomes for our students at Ventura College. The primary completion goals are to obtain a degree or certificate, or to transfer to a four-year institution. According to data from our transfer center, 69.22% have transferring to a four-year institution as their top educational goal. Many of our students do not achieve their goals. According to the U. S Department of Education College Scorecard, only 28% of Ventura College students that enroll full-time for the first time graduate within three years. The national average is 42%. One of the major causes for this lies within my discipline of mathematics. Last fall, 4368 students were enrolled in math courses (assessment test taken during the previous year) at Ventura College, with 2344 of those in courses that are below college level. That means that 54% of students are likely placed into remedial coursework. According to the California Community Colleges Student Success Scorecard, roughly one-third of students that begin in remedial courses in math reach transfer level courses in math within six years. Our college recognizes that this poses a barrier for student completion.

A major goal for Ventura College is for students to reach transfer-level math and English courses within a year of starting college. This has been clearly articulated through the Quality Focus Essay of our accreditation self-study, our Achieving the Dream goals, and for our IEPI (Institutional Effectiveness Partnership Initiative) grant goals. We have labelled this major college goal "Sail to Success."

We have made some strides in the math department based on past initiatives. Our six year math remedial completion rate for the previous five years has been 26.4%, 27.4%, 30.7%, 29.5%, and 34.3%. The trend is certainly positive, but is still barely over the one-third mark. We have implemented even more changes, with some still in progress, in order to raise this number even further. The English department has raised its rate from 39.9% to 54.2% over the same five-year

period. There is no reason to think that we could not achieve at least the same type of increase in math.

The most recent initiatives for math have been:

    a. Development of several new courses (Math V12, Math V14, and Math V19), which have given alternative pathways for students to reach their math goals faster
    b. Applying for and receiving a state grant for Basic Skills Transformation, which will allow us to work to scale up effective college and state practices in mathematics
    c. Implementing some changes in assessment and placement, which include working on the new Common Assessment Initiative implementation, and the Multiple Measures Assessment Project
    d. Providing greater support for math students outside of class (tutoring and Supplemental Instruction)

I have been a leader on many of these initiatives for our department. I have been participating in the curricular development of new courses, helped with writing the grant that we received, and been instrumental in working on both assessment and placement initiatives. I am a member of the college Basic Skills Committee, Title V grant workgroup, and the Student Success Committee. I have served as department chair of math for three years, and served on many other college and departmental committees.

I have also become involved in these types of projects at the state and national level. I have attended numerous workshops and conferences regarding success for basic skills math students, including ones sponsored by the California Community College Success Network (3CSN), the Academic Senate for the California Community Colleges (ASCCC), and the American Mathematical Association for Two-Year Colleges (AMATYC). I am also a member of the Ventura College Foundation board. I have been selected to serve on the state basic skills committee for ASCCC; I am the west region representative on the assessment and placement committee for AMATYC; and I was elected treasurer of the VC Foundation.

II.   Purpose of the Project

The purpose is to use data to find initiatives from colleges around the state that would be most likely to help Ventura College students achieve their educational goals. In the current Student Success Scorecard, Ventura College does exceed the state average percentage for remedial math completion. Our percentage is reported as 34.3%, with a state average of 32.7%. Our goal at the college should be much higher, as this produces a great barrier for student completion. For example, De Anza College has a percentage of 53.4%, and Santa Barbara City College is at 39.6%. We can certainly do better, but we need to use data in order to make decisions as to which strategies will be most effective. We should look at what other successful colleges have done, but also keep in mind that there are other factors which may contribute to the completion percentages.

III. Components of the Project

The first step in my project is to compile data from every one of the 113 California Community Colleges. I will get the data from the state chancellor's data mart. This will include the Student Success Scorecard metrics, the IEPI framework data, and most importantly the math components from the Basic Skills Cohort Tracker. I have interacted with these data elements in the past for our specific college, and have led departmental and campus discussions on setting goals and ways that we can achieve those goals. But I would like to now look at all of the other colleges in the state, and use their data to go much deeper in deciding what is most effective.

I have not had the time in the past to collect and analyze such a large amount of data, but the sabbatical will afford me the opportunity to be able to do just that. I will store the data in a statistical data file, and use statistical software to do a thorough analysis of the collected data. I will examine the related factors that seem to contribute to greater success, as measured on the variety of student success elements that are reported by the state.

The second step will be to identify those colleges that exhibit the greatest success factors. I hope to be able to construct predictive models based on relevant factors, and use those models to see which colleges are most effective. I will also do a literature review of other research, to see what colleges have been previously identified as leaders in successful math completion.

The next step will be to dig deeper at the colleges identified from the previous step. I will contact faculty members at the identified colleges and try to have a conversation as to what practices they have found to be most effective. I will also examine their departments for relevant choices in curriculum, textbooks, assessment, etc., to see if those choices had an impact on their results.

The final step will be to create a report that would detail the results of my research. I would first provide the statistical results, describing which colleges have outcomes that exceed completion expectations. This would be based on the statistical models I would construct. The next part of the report would provide a qualitative summary of what I would deem to be the most effective practices from the successful colleges, based on conversations with math faculty at those colleges. The final part would be my recommendations for the Ventura College math department, as to what future initiatives would help us reach the upper echelon of student success and completion among California Community Colleges.

IV. Value of the Project for VCCCD and Ventura College

Increases in student success and completion are among the top district and college goals. Success in math has been especially called out as top goals at Ventura College, as completion of degrees and transfer is dependent on successful completion of courses in math. Those goals have been described at Ventura College in our accreditation Quality Focus Essay, our Achieving the Dream proposal, and our Institutional Effectiveness Partnership Initiative goals. I believe my research project will provide data-based evidence of best practices that will help the college and district achieve its goals.

V. Value of the Project to Students

Students at Ventura College have largely identified transfer to a four-year college or university as their primary educational goal. Achievement of this goal is dependent on successful completion of math. The majority of our students begin their math sequence in remediation, below the level required for transfer. As cited previously, only about a third of students reach the necessary level for transfer within six years at the college. I believe that my research will help us continue the great strides we have made in increasing the percentage of students that are able to reach their educational goals. Even a modest 5-10 percentage point increase in math completion rates will mean that hundreds of students will benefit.

VI. Value of the Project to the Researcher

I will also personally benefit from the research project as well. As a community college faculty member, my primary focus is on instruction and not on research. My academic background is primarily rooted in statistics, an area where I get to do occasional consulting work. I have done work for many publishers in creating educational supplements. This includes helping creating videos for statistics textbooks, writing a technology supplement for a statistics textbook, and reviewing new and revised textbooks entering the market. I rarely get a chance to conduct statistical analysis. The last opportunity was helping a full-time faculty member in biology with the statistical analysis for his doctorate. I welcome the opportunity to be able to use my statistics background to do academic research. I will have a chance to make practical use of the latest statistical software tools. I believe this will benefit me personally, and make me a better instructor in the statistics classroom.