

Ventura College Sabbatical Leave
On-site Research Project for Spring 2022
Submitted by Janine Bundy
Mathematics Department
Submitted Fall 2022

Instructor's Sabbatical Leave Status

Full-time Hire Date: August, 2011

Part-time Hire Date: August, 2007

Previous Sabbaticals: 0

First Sabbatical Taken: Spring 2022

Background of Sabbatical Project:

Prior to 2019, the mathematics department of Ventura College had offered strong quality and a robust quantity of developmental math courses, including beginning algebra, to help prepare our students for success in college level transferable courses. Our developmental math class offerings have been eliminated due to AB 705. (According to the California Community Colleges' website, "AB 705 was written to clarify existing regulation and ensure that students are not placed into remedial courses that may delay or deter their educational progress unless evidence suggests they are highly unlikely to succeed in the college-level course. Assessment instruments and placement policies have serious implications for equity, as students of color are far more likely to be placed into remedial courses; students placed into remediation are much less likely to reach their educational goals.") In fall 2016 we offered 20 beginning algebra courses; fall 2017 we offered 17 courses; fall 2018 we offered 13 courses, fall 2019 and 2020 we offered 3 beginning algebra courses. We currently offer no beginning algebra courses for credit with the exception of one annual class taught at El Camino High School during the spring semester.

Many students entering our college algebra and additional math classes are highly differently and under prepared for the classes and are without many necessary basic algebra skills. The pandemic has heightened this challenge. The learning gaps must be filled in order for the students to become successful in the transferable level classes and help close equity gaps. A repository of materials was needed so instructors have appropriate student practice resources at their fingertips to offer to students to help fill in the gaps. The instructors in our department recognize the value and severity of this need, as we have been without the time needed to collaborate on such a significant project. This project filled the department's desire to collect an online library of supplemental materials that instructors can access for beginning algebra topics.

Purpose of Sabbatical Project:

The purpose of this sabbatical project was to increase student equity, engagement, learning and retention by a threefold approach: **(1)** find and evaluate beginning algebra student practice supplemental material covering operations with signed numbers, linear equations, graphing, linear inequalities, factoring, rational expressions and equations, exponents, factorable quadratic

equations, and systems of equations. **(2)** create practice supplemental material for any topics in which quality supplemental materials could not be identified, and **(3)** contribute to our math department Canvas repository with the library of student beginning algebra supplemental material.

I increased the span of the project as I began to work on our materials and **additional intermediate algebra concepts were included, outside the scope of the sabbatical project, offering approximately double the amount of resources described in the sabbatical proposal.**

Components of Sabbatical Project:

- Find and Evaluate Existing Practice Supplemental Material

The first step in this project was to identify practice supplemental material that already existed. Multiple websites were researched for these materials including Corbettmaths, GeoGebra, KutaSoftware, Math-Aids, Mathalicious and more. The quality of the materials was identified, verifying that the content is most advantageous for our students. Once a material was identified and classified as acceptable, the material was housed for posting in the appropriate algebra topic. The goal of finding a practice sheet for the main topics covered in our beginning algebra course was met and exceeded by including intermediate algebra topics. Although not included in the scope of the original sabbatical proposal, I elaborated the project and expanded it to include intermediate algebra topics as well as the beginning algebra topics.

- Create Practice Supplemental Material for any uncovered topics

After identifying existing resources, as expected there were some gaps in complete coverage of our beginning algebra topics. To fill in these gaps, I created additional practice supplemental material.

- Upload all Practice Supplemental Material to our Math Department Canvas page.

After locating or creating the quality practice supplemental material, the project will be uploaded to our Math Department Canvas page. This information will be easily accessible to all math faculty.

Value of Sabbatical Project to VCCCD and Ventura College:

Due to the AB 705 legislation that took place, our math department recognized a need for practice supplemental material in one organized location. Our department knows the benefit that this repository of needed materials brings, and I am excited to have had the opportunity to complete this project for our department. Instructors at Ventura College as well as our neighboring district campuses should have significant benefit from this project.

When instructors recognize a student is missing a concept, the instructor can briefly cover the topic in class or during office hours and then offer up practice materials the student can use to

master the concept. Rather than have each instructor search for quality materials or create them, we now have a catalog of material that can be easily accessed.

All math instructors will benefit from this quality catalog as well as the students that need the extra support in the form of practice.

Additionally, this project can be used as helpful ancillary material for our newly created MATH N113 - Math Readiness for College Success (Noncredit). The entire catalog of practice supplemental material created during this sabbatical project will be available for the instructor teaching the course and can be used for individualized student practice or classroom review.

On a larger scale, the state has expressed concerns over the low graduation rates of students beginning their college math courses at a developmental level. With successful implementation of this completed project, I believe that the success rates of the college transferable math courses will improve. Improved success rates in our math department bring improved numbers to our campus in funding and accreditation.

Value of Sabbatical Project to Ventura College Students:

All of our students are required to take math classes at VC, and many of them take multiple math classes. Since this project will be available to assist math students in building their developmental skills, the benefits have the potential to reach every student on campus. Even at higher levels of mathematics such as calculus, sometimes students are unfamiliar with some concepts of basic algebra and these materials will help fill in those gaps. Many students need these practice materials to gain complete mastery of a topic.

Value of Sabbatical Project to the Instructor:

As a math instructor, I am excited about the opportunity these materials will have in assisting our students in mastering math concepts, and in turn help build the students' confidence as well as increase their enjoyment of the subject. I am grateful to have a resource that I can quickly access to print out practice materials for students that need to fill in a gap. It takes a significant amount of time to create or locate just one support material. To have access to an organized catalog of beginning algebra materials (and due to expanding the project, additional intermediate algebra materials) and to be able to pull the topics up quickly, knowing they are high quality and helpful to the students is incredibly beneficial to me and my wonderful colleagues. I am a proud graduate of Ventura College and grateful to be an instructor at Ventura College. I feel it is my calling at this time in my life. I continually look for ways to make my, as well as my colleagues' instruction more efficient and effective and additional ways to increase student equity, engagement, learning and retention. This is an opportunity I have been thinking about for a long time. With the passing of AB 705, student equity and the pandemic, the necessity of this project was urgent. The timing of the availability of the sabbatical project materials is phenomenal and optimal for instructors and students.

I am grateful to have had the opportunity to be given the time needed to devote to completing this valuable project.

Thank you for your time and for the opportunity to work on this greatly needed and important project. I hope your 2023 is filled with strength, peace and hope.

Respectfully submitted,

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Multiply Love, Add Hope, Subtract Fear and End Division