

Title of Grant: Improving Math 004 (Algebra II): A Learner-Centered Environment

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Abstract:

I incorporated the use of MyMathLab software, reviewed workshops, and used in-class tutors. In addition, the course was linked to a student development course (SDV 100). Students will learn the math skills they need for a credit-level course through engaging activities and exercises. In addition, students will improve the study skills necessary to pass college-level courses.

Actual Outcomes:

Students in the learning community have made a number of corrections with each other. By working in the same groups in both the SDV course and the Math 004 course, students felt more comfortable working with each other. The payoff is that students work more productively in groups and have better class participation. According to preliminary results from a class survey, over one-third of the students worked on math homework outside of class with a classmate.

Class attendance has also seen improvement. The students in the Learning Community attended math class more often and were on time more often than those in my traditional section of Math 004 (not linked with SDV 100).

As a math instructor, I have learned a great deal about how counselors work with students to determine appropriate placement into courses. I have had the chance to get a sense of the “behind the scenes” actions by the registration office. A committee of those interested in learning communities has been formed, so that we can share information and experiences and improve our courses.

Other Colleges:

N/A

Discussion and Critique:

There is still a great deal of research that I would like to do regarding the best practices of learning communities. Specific areas of concern include the best way to link the courses in the system in order to encourage enrollment in both courses. We had issues of students enrolling in one course, but not the other, that were taken care of by the end of the first week of courses. Better communication among the different offices that register students is necessary.

It is necessary to determine which students can benefit the most from the learning community experience. Recruitment of these students can be a more precise activity.

Student bonding, while having a positive effect on classroom participation, needs to be evaluated. What are the best ways to take advantage of the willingness to cooperate that will contribute to success in the math course?

Evaluation:

At the end of the semester, I will compare the results of my Learning Community Math 004 with my traditional section of Math 004. Attendance, persistence, and performance will be addressed. At the halfway point, all 34 of the students originally enrolled in the Math 004 learning community were still enrolled. Two of the students have stopped attending, giving a 94% persistence rate. The traditional Math 004 course has a 72% persistence rate.

Halfway thru the semester, 34% of the Learning Community students had below a 75% average in Math 004, while 48% of those in the traditional Math 004 class fell in the same category. In both courses, students must obtain a 75% average and a 70% on the final exam to pass the course. Each class was given a pre-test and will be given the same post-test. The difference in scores will be compared.

The Learning Community Math 004 class was given a survey addressing their performance in Math 004 and SDV 100, their opinions of different components of the courses, and their future education plans. A similar survey (with questions regarding SDV 100 and Learning Communities deleted) will be given to the traditional Math 004 students.

Dissemination:

I have presented the preliminary findings to NOVA faculty at the Provost's October Forum on Learning Communities, at the fall regional meeting of VMATYC at NOVA Annandale (November 2008) and to the learning community committee (made up of those who plan to be involved with similar learning communities in the spring 2009 semester). I have also submitted a proposal to present what I have learned at the spring 2009 New Horizons conference. I am also planning on submitting an article to a journal, such as Inquiry or Change.