

**Advancing Community College Careers: Education, Scholarship, Service
(Project ACCCESS)**

Individual/Group Project Summary

Title: Music in the Math Classroom

Project Member(s): Angela Martinek and Barbra Gregory

Describe the problem, issue, or area of interest and the context. We wanted to explore ways to draw our artistically-inclined students further into their study of mathematics. Between the two of us, we had had a long fascination with the interactions of music and mathematics and had noticed that some students “perked-up” substantially when they found we were able to discuss music with them.

Define your desired goals, or “outcomes.” Our primary goal was to engage or re-engage students who were struggling to recognize the applicability of their math class to their own lives. To reach this goal, our goals during development were to use a mathematical context that would be new to most students and to demonstrate the creativity that mathematics can inspire.

Describe your “indicators” of success. Student participation level was a strong indicator of the principal goal – engaging or re-engaging students. Student attendance and alertness in the days after the activity or assignment, as well as student performance on items of similar mathematical content throughout the semester were additional indicators.

Describe your project. We adopted and adapted activities from Scott Beall’s *Functional Melodies* book. Barbra used two separate activities (one very successfully and one less successfully) straight out of the book as classroom lab sessions. She then had the opportunity in other courses to adapt and further develop the more successful (function transformation) lab activity. (Unfortunately, no opportunity arose to further attempt the less successful introductory algebra level activity.) Angela did not have designated lab time during her classes, and so adapted a polar coordinates activity into a take-home assignment.

Describe your results. With the exception of the developmental algebra activity, the results were extremely successful. Student feedback was exceptionally positive, and student performance on related mathematical test items was at least as good as what we expected based on past experience. We certainly plan to adapt and use these activities in the future. In regards to the less-successful algebra activity, the primary problem appears to have been with students not understanding what was being asked of them. We hope to revisit this activity in the future and develop ways to better present, explain, and implement the activity.

Describe your evaluation methods. We used both informal interviews with students as well as a formal written evaluation filled out by students immediately after the activity.