

Max Clark

*Math + Music: Does It Really Keep You on Track?*

The purpose for this project was to help students do better in school due to playing the proper music for them during tests. Rock music and classical music are two of the main types of music, and I was testing to see if either type of music helped students perform better on a test. I hypothesized that classical music would help improve the test scores of the students, and rock music would worsen the scores of the students. This experiment began by making three very similar tests containing addition, subtraction, basic multiplication, basic division, time, measurement, and word problems. I gave these tests in a random order with classical, rock, and no music. I graded and recorded these results. Then, three weeks later, I created three different tests containing the same material inside of it. I gave these tests in a random order on a Monday, Wednesday, and a Friday with rock, classical, and no music in the opposite order. I graded and recorded those results, and graphed them too. The data that I collected did and did not support my hypothesis, as while classical music did prove to be the most effective music, rock music helped the students more than without music. On average, classical music helped by two percentage points, and rock music helped by about one percentage point, which isn't a lot, but sometimes you don't need a lot to boost your score from a B+ to an A. These findings suggest that classical music help students perform better, and therefore should be played during tests, however there may have been a couple of variables that have to be taken into effect. Overall, it is a good thing to play music during tests, and most teachers do already use that type of music. And for teachers that don't already use classical music for their students, I strongly suggest that they begin doing so for the best scores from their students. Since my mom is a third grade teacher, I used her class of 16 students as my subjects. The students are all eight or nine years old, a mix of boys and girls, and everyone speaks English. They were curious to participate in my experiment because my mom plays a lot of music in her classroom throughout the day. I made sure that participation in my experiment was voluntary, and each student filled out an informed consent form with his/her parents' permission prior to taking the tests. The tests were given between 8:30 – 8:45 on the days indicated in my procedure, only one test was given on each day, and three tests were given during one week. There were no risks involved for my subjects. Certainly, my experiment can benefit students and teachers all over the world because I've proven that music does indeed help students perform better on math tests than when they are not listening to music. The data was stored on my personal flash drive to ensure the privacy of the students' scores. I did not use names, photos, or share the scores with anyone. If any students wish to see their scores upon completion of the science fair, I will return their tests so they can see their results.