

Reflections on Stress and GED Math

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Laugh-Off at the Math Carnival

Intake and Orientation

During orientation for my GED Math class, we introduced the topic of stress. During student intake, before candidates for the GED class took the placement test, we had a 30 minute laugh off. I laughed and Michelle laughed. (We were the proctors.) Before laughing we briefly explained that we were laughing to help with stress and test anxiety. Many students thought we were crazy. I

say this with confidence because some students commented to that effect. However, when Michelle and I began laughing manically at nothing, most students began laughing also, even if only at us. This did provide a nice moment of levity before the test.

During orientation I gave a Mathematics test and immediately administered the [GED Testing Style Survey](#), a measure of a person's momentary level of stress and anxiety. I did this to try and measure how much anxiety the test was producing in students. (It should be noted that overall this class scored highest of any incoming class on the math pretest—although interestingly enough it was the person who scored the highest on anxiety also performed the best on the test. It may well be that it is not just about anxiety but about 'coping mechanisms' which is important in predicting how someone will perform on the test.

Coping with Math Anxiety

Near the beginning of my Math GED class, I presented some short PBS videos on stress and why stress is important to consider in a Math class.

What is Stress?

<http://video.pbs.org/video/1218735872>

Positive & Negative Stress

<http://video.pbs.org/video/1218601681>

After the introduction and the videos we began talking about some things we could be doing in class to address math and stress. I related how some students can demonstrate knowledge and mastery of mathematics skills in class but they continued to perform badly on the GED test. We determined it was a 'test anxiety' issue. We discussed how students were not going to pass the Math GED test until they learned to better cope with their test anxiety. We discussed building in a section of the GED class to deal with stress, anxiety, and testing skills. This section of the class would be just as important as the time spent teaching and learning math.

Students were very involved and talkative. At the end of the class I announced we would be taking a weekly test during which they would be able to practice their test taking skills and practice coping with the anxiety. The tests would begin at a very easy level (based on the 4th grade MCAS) and week by week become more challenging (10 grade MCAS questions). It is hoped that students will apply the de-stressing lessons and learn that despite their anxiety they can succeed on tests.

Good and Bad Stress

I realized that stress is not always bad; it can be the body's method of telling the brain that "this is important" and "we need to try as hard as we can." (See the definitions of "eustress" and "distress" at <http://academic.cuesta.cc.ca.us/wholehealth/Level2/Lecpages/str04>. I have found in my experience that while too much stress shuts the brain down and does not allow the students to succeed in math, too little stress relaxes the students too much and they tend to score lower on tests.

I began to realize that in addition to helping students reduce stress in the classroom so they could calm down and learn on the content, helping them to test well meant helping them students learn how cope with a "certain level" of stress to will help them focus best during the test and put out their best effort. I wanted students to reach this level (of low, motivating stress) without becoming so anxious that it interfered with their performance.

We discussed that even though they might feel stress during a mathematics test, this feeling did not mean that they could not succeed. To accomplish this I began giving students weekly math tests. The first test given was at a very low level. Each week I began increasing the difficult level of the tests and also increasing the number of questions on the test. The weekly tests began having 40 questions and students eventually took weekly tests with 100 questions. See chart below.

- Start SIMPLE - (3rd Grade- 4th & 40 questions)
- STAY SIMPLE but INCREASE LENGTH (3rd & 4th Grade & 60 questions)

- INCREASED DIFFICULTY and LENGTH (4th, 5th, 6th Grade & 80 questions)
- INCREASED DIFFICULTY and LENGTH (5th, 6th, 7th Grade & 100 questions)
- INCREASED DIFFICULTY and LENGTH (6th, 7th, 8th, High School & 100 questions...open ended)
- INCREASED DIFFICULTY and LENGTH (7th, High School, GED & 100 questions...open ended)
- INCREASED DIFFICULTY and LENGTH (GED, High School & 100 questions... 80% open ended)
- GED Practice Test

Reflection

The strategy seems to be showing signs of success. Several students have made comment (while laughing) like, "Family asked me if I am feeling stressed. I said no, Phill gives so much work and testing that I am just ready to take the test and get it over with." Despite the fact that the tests have become increasingly difficult all of the students' weekly performances on the tests have continued to improve.