Decreasing math anxiety in college students

Main content

Article Preview:

This paper examines the phenomenon of mathematics anxiety in contemporary college and university students. Forms of math anxiety range from moderate test anxiety to extreme anxiety including physiological symptoms such as nausea. For each of several types of math anxiety, one or more case studies is analyzed. Selected strategies for coping with math anxiety are included. Some students' own ideas are presented along with analysis from leading experts in the subject of math anxiety.

Math anxiety is an extremely common phenomenon among college and university students today. Steven G. Krantz describes an extreme form of this syndrome: "Math anxiety is an inability by an otherwise intelligent person to cope with quantification, and more generally, mathematics. Frequently the outward symptoms of math anxiety are physiological rather than psychological. When confronted with a math problem, the sufferer has sweaty palms, is nauseous, has heart palpitations, and experiences paralysis of thought ... this quick description does not begin to describe the torment ..." (Krantz, 1999). Of course, most college students don't experience this level of terror. Many do, however, suffer from the problem in some form or other. Approximately 85% of this author's students who take introductory mathematics classes claim to feel at least mild math anxiety, according to surveys administered during the first week of the semester.

Most teachers of mathematics would agree that math anxiety stems primarily from students' fears of failure and feeling of inadequacy. In most cases, math anxiety is not extreme or overwhelming, yet it continues to haunt most students throughout their mathematical careers. Although no classification can be entirely precise, this paper will attempt to classify and analyze different classes of students affected by the syndrome.

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Most teachers of mathematics would agree that math anxiety stems primarily from students' fears of failure and feeling of inadequacy. In most cases, math anxiety is not extreme or overwhelming, yet it continues to haunt most students throughout their mathematical careers. Although no classification can be entirely precise, this paper will attempt to classify and analyze different classes of students affected by the syndrome. Perhaps the mildest variation of math anxiety is moderate test anxiety. The math anxiety has focused a large number of investigations. In this paper, using the Fennema-Sherman Mathematics Anxiety Subscale, we have analyzed the math anxiety levels of beginner university students. We have done this study in a global way and classifying the subjects by gender and by the fields of knowledge of their degrees. Overall, subjects have an anxiety below the neutral value, which is good. Women have a significantly greater anxiety among men. There are also significant differences between fields of knowledge. Students from technical degrees are the ones who show less anxiety. This article on math anxiety and math myths can be helpful. As an adult, you can analyze your past experiences, beliefs, and feelings, and work consciously to change those. If you really hate math, you can also explain to your child (if she's older) how you feel, where and how it originated (probably experiences in your own schooling), and how you are trying hard to change that. That might help her then not to adopt all your emotions. The TRUE goals of school mathematics are that the students be able to use math in real life and that they are prepared to higher education. Tests, especially timed tests, are one of the main reasons for math anxiety in children. Please read also my article Should you use timed tests for math facts? Don't present math as an unlearnable, difficult subject, because it is NOT that.