As reported in *Overcoming Math Anxiety* 1978, 1980, in 600 interviews with college-age and older returning students, Tobias found three significant variables in her subjects' inability to do college-level mathematics: fear of mathematics, the conviction that mathematics is a white male domain, and the conviction that one is either good in mathematics or in language arts but never both. The students' absence of coping skills in dealing with mathematics classes and with their own anxieties appeared to be the main barrier to their attempting mathematics one more time. Subsequently, Tobias focused her research on entering college students. Her second book, *Succeed With Math: Every Student's Guide to Conquering Math Anxiety* 1987, was commissioned by The College Board. What follows is a selection of excerpts from that book, reconfigured for the use of counselors and advisors.

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Math Anxiety 3

Abstract

Math anxiety is a real problem facing students and teachers today. The mathematics teacher especially needs to understand the causes and effects of math anxiety as well as ways to help students overcome it. There are many symptoms of math anxiety including an unwillingness to attempt mathematics problems, a fear of taking advanced mathematics classes, and being unusually nervous when in mathematics class. Math anxiety hinders students’ working memory (Perina, 2002). It occurs at different ages in different people for different reasons. Mathematical anxiety, also known as math phobia, is anxiety about one’s ability to do mathematics. It is a phenomenon that is often considered when examining students’ problems in mathematics. Mark H. Ashcraft defines math anxiety as “a feeling of tension, apprehension, or fear that interferes with math performance” (2002, p. 1). The academic study of math anxiety originates as early as the 1950s, where Mary Fides Gough introduced the term mathemaphobia to describe the phobia-like feelings of many Math anxiety manifests not only physiologically and cognitively, but emotionally. If you notice a student start panicking, grow angry, or get teary-eyed during math class, they could have math anxiety. This symptom is largely rooted in the misguided assumption that the only way to be good at math is to answer questions quickly and correctly. Negative self-talk. Do you have math anxiety? Although this is not a definitive self-test, it can give you an idea of how your students feel about math at the beginning of the year. Depending on their scores, you may reconsider your teaching strategies, the types of formative or summative assessments you’ll use, and so on. Here’s a series of 10 questions adapted from Ellen Freedman’s math anxiety questionnaire: 1 = Disagree, 5 = Agree

1. Do you Usually
2. Do you
3. Do you
4. Do you
5. Do you
6. Do you
7. Do you
8. Do you
9. Do you
10. Do you

Math anxiety stems from unpleasant experiences in mathematics. Typically math phobics have had math presented in such a fashion that it led to limited understanding. Unfortunately, math anxiety is often due to poor teaching and poor experiences in mathematics. Math Anxiety is defined as “the panic, helplessness, paralysis, and mental disorganization that arises among some people when they are required to solve a mathematical problem.” A common phenomenon that affects many, math anxiety is related to performance anxiety and is likely to extend far outside of the classroom if not recognized and proactively managed. People who suffer from excess math anxiety may feel stress around numbers well into adulthood, negatively impacting their professional and personal lives. August 23, 2017 | Imagine Learning Math Suite. How to Reduce Math Anxiety. Written by Ruth Christensen. Blog > Imagine Learning Math Suite > How to Reduce Math Anxiety. Apply. Share.