

Winning At Math

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Chapter 3
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Presentation

Definition Of Math Anxiety

- “Mathophobia” and “mathemaphobia” are both extreme emotional and/ or physical reaction for low confidence and high anxiety.

- Math anxiety means a state of panic.

- One third of students had been counseled for student math anxiety at major universities.
- Students that had a poor high school background and low placement scored could be considered to have math anxiety.

Types Of Math Anxiety

- Math Test anxiety:**

Involves anticipation, completion and feedback of math tests.

- Numerical Anxiety:**

Includes students who are trying to figure out everyday situations for example figuring out the amount for a tip, thinking about mathematics, studying homework ect.

- Abstraction Anxiety:**

Is variables and mathematical concepts used to solve equations. Also to not usually have problems with numbers but once learning algebra, they develop Test and Abstraction Anxiety.

The Causes of Math Anxiety

- “Anxiety can begin as early as elementary school where you were last in class or got the answer wrong”. Or even coming last in a math race are examples of a negative math experience.
- Humiliation, is a personal view of put downs and are another way setting your self up and lead to a math anxiety and could use a positive math experience to help with this anxiety.
- Being embarrassed by family members can also cause math anxiety and sometimes led to serious trauma.
- A good example of anxiety was a student that completed her BS degree and returned to college that require to take math and a placement test and said
,”I can’t do math and I will have to wait a few days to get psychologically ready to take the math test.” She indicated her old feelings of not being able to do math rushed her and almost had an anxiety attack.
- Writing out the incidents could help start to better your anxiety and to write down the positive experiences, when you received a good grade remembering might influence you to do better and think positive.

How Math Anxiety Affects Learning

- Does home work affect your anxiety?
- Does it cause you to difficulty start or complete homework?
- Then does it remind them of their pervious math failure?

Approach –avoidance is procrastination to pull off tackling their homework, then to be prepared to see test day happen after procrastinations leads these effects of your study learning skills.

- Students are then usually afraid to speak out and ask questions.

Key Points:

- 1.) Make an appointment to talk to math teacher.
- 2.) Before class, ask the instructor to work on a homework problem. So it is not hard to answer questions.
- 3.) Prepare one question from homework problem and ask with in the first 15 minutes of class.
- 4.) Ask a question you know already.
- 5.) Use email to send questions

The instructors job is to be asked questions. Don't avoid study groups it helps gain positive attitude

It is like asking a person with aquaohobia enjoys yourself and not get wet. So do your study group and supplemental instruction and just listen. Don't live in the past with fear. The next step is understanding anxiety affect demonstration of math knowledge so be prepared.

How To Recognize Test Anxiety

Anxiety + High Ability = Improvements

Anxiety + Low or Average Ability =
No Improvements

The defining test anxiety

Emotional habit to either a single experience or a recurring experience of high tolerant experience.

Educational anxiety experiences show during proof of test and indicating process work.

These are learning responses and can be undone

- The cause of Test Anxiety • Identify the loss

- 1.) Test anxiety can be a learning behavior resulting from the expectations of parents, teachers or other significant people in the students life.
- 2.) Test anxiety can be caused by the association between grades and a student's personal worth.
- 3.) Test anxiety develops form fear of alienating parents, family or friends due to poor grades.
- 4.) Test anxiety can stem from a feeling of lack of control and an inability to change one's lifesituation. 5.) Test anxiety can be caused by a student being embarrassed by the teacher or other students when trying to do math problems.
- 6.) Test anxiety can be caused by times tests and the fear of not finishing the test even if the student can do all of the problems.
- 7.) Test anxiety can be caused by being put in math courses that are above the students level of competence.
- 8.) Students leaving the room before the test time is up.

Different Types Of Test Anxiety

- Emotional anxiety causes: upset stomach, nausea, sweaty palms, rapid heartbeat etc.
- Worry anxiety cause students to think about failing the test, which can happen either before or after the test
- These feelings and physical inconveniences can affect your concentration, your testing speed, and it can cause you to completely “draw a blank”

The Effects of Anxiety On Learning & Testing

- Anxiety can interfere with how fast people process information & decrease the amount of information they can hold for a short period of time
- Math anxiety temporarily disrupts mental processing in working memory that causes poorer math achievement
- Test anxiety gets so bad that students would rather leave early and receive a lower grade than to stay and complete the assignment

The 12 Myths About Test Anxiety

- 1.) Students are born with test anxiety
- 2.) Text anxiety is a mental illness
- 3.) Test anxiety cannot be reduced
- 4.) Any level of test anxiety is bad
- 5.) All students who are not prepared will have test anxiety
- 6.) Students with test anxiety cannot learn math
- 7.) Students who are well prepared will not have test anxiety
- 8.) Very intelligent students and students taking high-level courses, such as calculus, do not have test anxiety
- 9.) Attending class and doing my homework should reduce all of test anxiety
- 10.) Being told to relax during a test will make you relaxed
- 11.) Doing nothing about test anxiety will make it go away
- 12.) Reducing test anxiety will guarantee better grades

How to Reduce Math/ Test Anxiety

- To reduce math anxiety and math test anxiety you need to understand both the relaxation response and how negative self talk undermines your abilities.
- The relaxation response is any technique or procedure that helps you become relaxed and will take the place of anxiety response

Short-Term Relaxation Techniques

- The Tensing and Differential relaxation method helps you relax by tensing and relaxing your muscles all at once. Follow these procedures:
- 1. Put your feet flat on the floor
- 2. With your hands, grab underneath the chair
- 3. Push down with your feet and pull up on your chair at the same time for about five seconds
- 4. Relax for five to ten seconds
- 5. Repeat the procedure two to three times
- 6. Relax all your muscles except the ones that are actually used to take the test

The Palming Method

- The palming method is a visualization procedure used to reduce test anxiety. While you are at your desk before or during a test try these methods to reduce anxiety
- Close and cover your eyes using the center of your palms of your hands
- Visualize a relaxing scene for one or two minutes
- Prevent your hands from touching your eyes by resting them on your cheekbones

Managing Self-Talk

- Stalk is like a telegraphic message where one or two words can bring up many different thoughts and feelings
- Self talk can increase or decrease test anxiety, it just depends on what you tell yourself

Self-Talk Habits Types

- The Worrier-always asks “What if I fail the test”
- The Victim-believes things are hopeless say’s “no way will I ever pass math
- The Critic-Puts themselves down by saying “I cannot reduce my test anxiety and will fail
- The Perfectionist- Who says “I must make an A or I am a failure”

Negative/Positive Self-Talk

- “No matter what I do I will not pass this course”
- “I know that, with hard work, I will pass math”
- “I am no good in math, so why should I try?”
- “I failed the course last semester, but I can now use my math study skills to pass this course”
- “I am going to fail this test and never graduate”
- I went blank on the last test, but I now know how to reduce my test anxiety

Thought-Stopping Technique

- Making a loud noise such as slapping a desk can effectively interrupt the negative thoughts
- To stop negative thoughts in a classroom is to shout at yourself, “stop thinking about” or think positive thoughts
- The way stop-thinking works is by interrupting the worry response before it can create the type of anxiety that gets out of control. During the interruptions you gain control and replace the negative self-talk with positive responses