

Developing Math Confidence

Math Anxiety: You are not alone

Anxiety about performing well in math or math-based science courses is a common experience for many college students. Research has indicated that approximately 30% of college students struggle with math anxiety, and that this issue has consistently ranked among the top 20 concerns for college students.

Math Anxiety: What does it look like?

Performance problems. Often people experience math anxiety while participating in math activities such as exams. Some people find themselves "blanking out" on math tests, even though they understand the material, can do the homework, and have prepared well for the exam. It can be very frustrating to feel prepared only to receive a low score on an exam. People with math anxiety typically do well in their other courses. However, math and math-based science courses seem to be more difficult.

Avoidance. People who struggle with math anxiety often find themselves avoiding math-related activities. The following behaviors often increase math anxiety because the person does not feel prepared to complete the tasks:

- skipping class
- not reading one's math textbook
- postponing enrollment in math classes until the last possible semester
- choosing a major based on avoiding math
- studying math only right before an assignment is due or just prior to an exam

Both math avoidance and poor performance on math tests can create more anxiety about math. A cycle of anxiety and avoidance can occur, which only increases the problem.

"I don't have problems in other classes, why don't I do well in math?"

People develop anxiety around math and math-related sciences for a number of reasons.

1. Receiving messages that you are not good at math, or that math is a hard and intimidating subject that can only be mastered by certain students.
2. Societal views about math that suggest that it is harder than other subjects and that competence in math should be valued more than competence in other disciplines.
3. Internal and external pressures to excel in math-based fields.

Myths about Math

There are several myths about math that are often associated with the development of math anxiety. Research has shown that none are true, but many people believe them and may struggle with math anxiety.

- **Men are better at math than women.** This is a stereotype that is often reinforced by society, including by teachers, parents, and guidance counselors.
- **There is a "best" or "correct" way to complete math problems.** There are many ways to get to a correct answer in a math problem. Think about the many different ways people figure out a tip for a restaurant bill, or how much they will save on a sale item.
- **You have to have a "mathematical mind" to understand math.** People are not born with different types of brains. People, do however, have different ways of learning. Myths such as

this one discourage people from finding the learning tools that work best for them, and cause people to give up on learning math.

How can I develop math confidence?

Remember that some amount of anxiety is helpful to keep us motivated and energized about something. However, if your anxiety is so great that it is interfering with your ability to do well in class, there are some steps you can take:

1. **Do math every day** Just like with a foreign language, if you don't use math frequently, you'll have a harder time becoming fluent. Do some math every day (Yes, including weekends), even if it's only 15-30 minutes. Try to avoid stacking all of your math activities on one or two days.
2. **Scheduling** Build positive time management skills by making and sticking to a reasonable schedule. Your schedule should include time for studying, as well as social and personal activities. There are many ways to make a schedule; find what works best for you.
3. **Prepare adequately** Make sure you're going to every class and regularly reading your math textbook. Use your TAs and academic resources on campus. For larger projects, start early rather than waiting until the last minute.
4. **Identify and eliminate negative self-talk** Become aware of your internal dialogue. Start replacing negative self-talk with more affirming and rational self-talk. This may feel funny at first, but it will start feeling natural the more you practice.
5. **Practice good self-care** Get enough sleep. Eat well-balanced, regular meals. Participate in a regular exercise program. Learn effective ways to relax and manage stress and anxiety. Poor self-care leads to poor performance in all areas, including math.
6. **Seek help** Find a study buddy or study group. If you feel you need additional assistance, seek out a tutor or counselor. The Counseling Center offers a group to help students gain math confidence. Don't let fear of asking for help keep you from reaching your goals.