



The **Scottsdale Education Center** Journal

Scottsdale Education Center
Monthly Publication

480-538-0828

November 2008

DON'T FORGET:

- **SEC's Finals Schedule** - Additional hours of tutoring will be held Friday Dec. 12th through Sunday Dec. 14th. Call 480-538-0828 to set up your appointments.
- The radio station 99.9 KEZ is giving awards to excellent teachers in their **"Excellence in Education" Contest**. **Nominate your favorite teacher today at:** www.kez999.com
- SEC is holding the **Private High School Placement Test (HSPT)** Class for students looking to go to Notre Dame, Brophy or Xavier on Saturday, Dec. 6th from 9am to 1pm. 10-year, 100% success rate. Space is limited so sign up ASAP.
- If you are **failing a class** in a SUSD High School, Nov. 13th may be the last date to drop the class without an 'F' on your transcript. Check with your counselor.

What Exactly Is Math Anxiety?



Math Anxiety is a very strong emotional sensation of anxiety, panic, or fear that people feel when they think about or must apply their ability to understand mathematics. Sufferers of math anxiety believe that they are incapable of doing activities or taking classes that involve math skills. In fact, some people with math anxiety have developed such a fear that it has become a phobia; aptly named math phobia.

The incidence of math anxiety, especially among college students, but also among high school students, has risen considerably over the last 10 years, and currently this increase shows no signs of slowing down. Frequently students will even choose their college majors based specifically on how little math will be compulsory for the completion of the degree.

Math anxiety itself is not an intellectual problem, as many people have been led to believe; it is, in fact, an emotional problem that stems from improper math teaching techniques that have slowly built and reinforced these feelings. Frequently math anxiety

can result from either a student's negative experience or embarrassment with math or a math teacher in previous years.

These circumstances can prompt the student to believe that he or she is somehow deficient in his or her math abilities. This belief will consistently lead to a poor performance in math tests and courses in general, leading only to confirm the beliefs of the student's inability. This particular phenomenon is referred to as the "self-fulfilling prophecy" by the psychological community. Math anxiety will result in poor performance.

A large portion of the problem lies in the ways that math is taught to students today. In the US, students are frequently taught rules of math, but rarely will they learn why a specific approach to a math problem works. Should students be provided with a foundation of "deeper understanding" of math, it may prevent the development of phobias.



Helpful Strategies:

- **Review and learn basic arithmetic principles, techniques and methods.** Often math anxiety is a result of the experience of many students with early negative situations, and these students have never truly developed a strong base in basic arithmetic, especially in the case of multiplication and fractions. Since math is a discipline that is built on an accumulative foundation, where the concepts are built upon gradually from simpler concepts, a student who has not achieved a solid basis in arithmetic can often make a considerable difference in reducing the anxious response that math anxiety sufferers have with math. **(Continued on Page 2)**

Tutor Highlights- Math



JOSHUA PANTIER- Joshua currently holds a B.A. in Secondary Math Education (ASU, 2000) and an M.Ed. in Educational Leadership (NAU, 2005). He is a teacher at DMHS and also sponsors the Science & Math Olympiad Teams, taught an ASU course for teachers, and has chaired the Site Improvement Plan Team. He has served on the DMHS Site Council, attended the November 2007 IB Grade Award Meeting in Cardiff, Wales and has been invited to be an AP Calculus Reader (Grader of exams). He also had the honor of being selected as the Charros Outstanding Teacher of the Year for '05-'06.

MIKE HOWELL- Mike graduated from Central Michigan University in 1979 with a B.S. in Math and Psychology. He also received a degree in Business from ASU in 1987. Mike has been a teacher at Notre Dame Preparatory for six years and has taught Algebra I, Algebra II, Algebra III/Trig and Pre-Calculus. He has been tutoring at Scottsdale Education Center for over three years and is available Mondays, Tuesdays and Thursdays for appointments. When he isn't swamped with school work, Mike enjoys spending time with his family.

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Monthly Publication

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Just East of the 101

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Hours of Operation: Monday through Thursday
1:30pm to 9:30pm



Your Bridge to Academic Success

November Events

November Payment Due **Sat 11/1**

Official SAT Test (see www.collegeboard.com) **Sat 11/1**

ACT Session III Class Begins **Mon 11/10**

Study for Private High School Exam **Mid Nov**

SEC is **OPEN** for Veterans Day **Tues 11/11**

Thanksgiving Holiday Observed **Wed 11/26**
(Scottsdale Education Center will be closed) **Through Sun 11/30**

Tayles Talk

In this section, Christina Tayles will highlight a couple of our highly requested Diagnostic Tests. This month features:

DOMA Basic Math Skills Assessment

This math assessment uses adaptive assessment technology to decide which specific test items will be administered to students. Based on individual student performance during the assessment, the test adjusts the difficulty of constructs and items. The DOMA Basic Math Skills assesses the following strands: Numbers Skill Strand, Fractions Strand and Measurement Strand.

DOMA Pre-Algebra Assessment

This math assessment uses the adaptive technology as well and uniquely measures a wide range of student abilities efficiently and accurately. There are three parts in this assessment: **Part I- Prescreening** which encompasses the prerequisite knowledge necessary for success in Algebra I. **Part II- Pre-Algebra Constructs** which contains detailed test items that make up each of the 14 Pre-Algebra constructs. **Part III- Foundation Skills** which is given only if a student's errors demonstrate a possible deficit in multiplication math facts or reading comprehension.

Math Anxiety cont'd



Helpful Strategies Continued:

- **Find help!** Students can more effectively reduce their anxious responses with the help of many different services that are readily available. Seeking the assistance of a psychologist or counselor, especially one with a specialty in math anxiety, can assist the sufferer in performing an analysis of his/her psychological response to math, as well as learning anxiety management skills, and developing effective coping strategies. Other great tools are **tutors**, classes that teach better abilities to take better notes in math classes, and other math learning aids.
- **Learn mathematics vocabulary.** One major issue among student is the lack of understanding of the terms and vocabulary that are common jargon within math classes. Typically math classes will utilize words in a completely different way from the way in which they are utilized in all other subjects. Students easily mistake their lack of understanding the math terms with their mathematical abilities.
- **Learn effective math class, note taking and studying techniques.** Typically the math anxious students will avoid asking questions to save themselves from embarrassment. They will sit in the back of the classroom and refrain from seeking assistance from the teacher. Moreover, they will put off studying for math until the very last moment since it causes them such substantial discomfort.
- **Sit near the front of the class.** This way, there will be fewer distractions, and there will be more of a sensation of being a part of the topic of discussion. If any questions arise, **ASK!**
- **Seek extra help from the teacher after class or during office hours.** Prepare, prepare, prepare- read textbook material before the class, for the homework and work out any problems available within the textbook. Math skills are developed through practice and repetition
- **Review the material once again after class to reinforce the new concepts that were learned.**
- **Make Math Interesting!** As parents and teachers, there is a natural desire to help students learn and understand how they will one day utilize different math techniques within their everyday lives. But when the student or teacher displays the symptoms of a person who has had nightmarish memories regarding math, these fears are automatically picked up by the students and commonly adopted as their own. By thinking of math as something fun and imaginative, parents and teachers can teach children different ways to manipulate numbers, for example in balancing a checkbook. Parents rarely tell their children that math is everywhere around us; in nature, art, and even architecture. Usually, this is because they were never shown these relatively simple connections. But that pattern can break very simply through the participation of parents and teachers.
- **Observations and discussions can be made into things as fascinating as spider webs, leaf patterns, sunflowers, and even coastlines.** This makes math not only beautiful, but also inspiring and (dare we say) fun!

MEET: Julie Kreiman Asst. Director of Curriculum, Math Math Tutor

Julie Kreiman graduated Summa Cum Laude from Grand Canyon University in May 2000. She received a B.S. in Secondary Education and is certified to teach both mathematics and physical education for grades 7-12. In May 2003 she graduated with a Masters in Secondary Education from Arizona State University specializing in educational technology. She taught high school math for six years and helped establish an elective course that provided algebra students with extra support and encouragement to be successful in their algebra course. She has worked at Scottsdale Education Center for three years, where she is an instructor for SEC's SAT Math Class and focuses solely on the best part of teaching, helping students learn.