

**TexMATYC** News

Texas Mathematical Association of Two-Year Colleges

April 2013

## President's Message

By Sharon Sledge, San Jacinto College.

Happy spring! Spring is a season of growing—a time for new beginnings. All across the state, witnessing the beauty of Texas wild flowers gracing the countryside is truly inspirational!



Like many of you, I've attended several professional development conferences/workshops during this spring semester (TCCTA, ICTCM, Gulf Coast Consortium of Colleges, etc.). In doing so, I've opened my mind to new ideas to enhance my teaching, including inspiring ways to motivate my students.

It is easy to fear change and yearn to keep the status quo. Approximately 25 years ago, the THECB brought in the first placement testing (TASP) and mandated placement into developmental mathematics. Soon, the THECB will reveal the new Texas Success Initiative Assessment (TSI) instrument with a singular set of college-readiness and adult basic education standards. Consider this unknown as a new beginning—a new opportunity. You can begin to research and study the program here: (http://www.thecb.state.tx.us/index.cfm?objectid=233A 17D9-F3D3-BFAD-D5A76CDD8AADD1E3). Embrace TSI make it your own. About 25 years ago, we saw technology that helps teach mathematics become available in a way that it had never been before—the advent of graphing calculators and computer algebra systems. Today, we are still discussing the best ways to incorporate it. Further, today we are witnessing the advent of many mathematics course accelerated/shortened redesigns: time frames. emporium/computer based, modules/sections available independently, flipped/inverted classes, combined developmental and academic courses, etc. Like it or not - the way we teach mathematics is changing. Equally important - what we teach is likely to also change. The New Mathways Project is bringing together all levels (faculty, administration and policymakers) to help shape and reform mathematics content across Texas. Stay informed and be involved! Learn more at (http://www.utdanacenter.org/higher-education/newmathways-project/the-new-mathways-project-in-texas/).

Changes are coming. As Albert Einstein once said, "We can't solve problems by using the same kind of thinking we used when we created them." I hope you will embrace these changes as a time for reawakening and enjoy this "growing" season.

Be sure to check out articles from TCCTA presentations in this newsletter and online at the TexMATYC site (www.texmatyc.org).

-- Sharon Sledge

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## **TSI** Assessment

By Cynthia Martinez, TexMATYC Vice President



you heard the latest Have regarding the recommended new assessment, new TSI Assessment? According to the staff at the THECB, this assessment will be the first of its kind in our country that will align with the Texas College and Career Readiness Standards

and to the national Adult Basic Education standards which will help diagnose accurate placement of the student. After completing the computer-adaptive assessment, students will immediately know their score as well as receive a Diagnostic Profile stating their weaknesses if not college ready. Four area components will be assessed with the new TSI Assessment in mathematics: Elementary Algebra, Intermediate Algebra, Geometry and Measurement, and Data, Statistics and Probability.

The Board is scheduled to meet on Thursday, April 25, 2013, to consider the following agenda item: Consideration of adopting the staff recommendation to the Board relating to the single statewide collegereadiness standard for the new TSI Assessment. lf approved, you want to make time in your schedule on Friday, April 26, 2013, to participate in the webinar "Cut Score Presentation and New TSI Rule Changes." The new TSI Assessment, if approved, will take effect on the institution's first class day of the fall 2013 semester. You can go to http://irt.austincc.edu/IDS/THECB/ to view the list of webinars, past, present and upcoming. Dr. Morales-Vale, Director of Developmental and Adult Education at the THECB, says "We are confident the new TSI Assessment will be able to help determine placement into entry-level coursework." As part of the development and implementation plan of the new TSI Assessment, there will be opportunity 1) for public comment on the new TSI Assessment during a comment

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period in May, and 2) to preview of the assessment by IHE educators in early August 2013.

Visit the Texas Register by going to http://www.sos.state.tx.us/texreg/index.shtml to review postings for public comment.

According to the cut-score recommendations to the Board for approval, if approved, they will be phased in over the next six years. For instance, for students to be considered college ready in mathematics, they will need a minimum score of 350 beginning in fall 2013. In 2017, phase 2 will require students to score at least 356 to be college ready. Then, in 2019, the final phase will require students to score a minimum 369 to be college ready.

The new TSI Assessment cut-scores will represent entry into developmental mathematics or credit-level Students who do not score into mathematics. developmental mathematics will be encouraged to enter ABE to strengthen their skill set in basic mathematics so that they can transition into developmental mathematics or other workforce-related opportunities. For students who score into developmental mathematics, differentiated, holistic assessment will be utilized in placing the student in the most effective developmental mathematics course or intervention. The holistic assessment involves taking into consideration the standard cut-score, the Diagnostic Profile from the new TSI Assessment, high school GPA and/or class rank, prior academic and work experiences, non-cognitive factors, and family-life issues (i.e. job, transportation, finance, child care). Students who are considered TSI-complete will be given the opportunity to enroll in any freshmenlevel math course that is appropriate for them to take (i.e. College Algebra, Contemporary Mathematics, Elementary Statistical Methods, Finite Mathematics). Appropriate advising will need to occur to ensure appropriate placement in credit math. For courses math faculty feel require a College Algebra pre-requisite, like Trigonometry, students will need to be appropriately advised/placed according to their academic background in mathematics before placing them in Trigonometry. Discussions with your campus advisors may need to occur to ensure which freshman-level courses are

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appropriate for first-time college students enrolling in a credit mathematics course. In the meantime, THECB is open to suggestions regarding pre-requisites for courses generally not considered "entry-level" (e.g. Trigonometry and PreCalculus). Feel free to send your suggestions to me at <u>cymartinez@templejc.edu</u>.

## From the AMATYC VP

*By Kathryn (Kate) Kozak, AMATYC Vice President for the Southwest Region* 



As I sit in the Dallas/Fort Worth International Airport on my return from the spring board meeting of AMATYC in Memphis, I am thinking about what are the benefits of a membership in AMATYC. Membership was part of the conversation at the board meeting, and so that is why it is in the forefront of my mind. AMATYC

is somewhat unique in that well over 50% of our members attend the annual conference, which is great. However, we are finding that many members say they join AMATYC when they attend the conference, and then let their membership lapse in years when they cannot attend. This makes me think that members feel that the only benefit of membership is a discount on the conference registration. There are many other benefits some of which are on the following list.

#### Ten reasons to be a member of AMATYC:

1. Voting to elect the 2014-2015 AMATYC Board (provided you are a member by May 31, 2013.

2. Receiving copies of the MathAMATYC Educator.

3. Ability to sign up for webinars, that have limited space, before nonmembers are informed of the webinars.

4. Receiving printed copies of the AMATYC News.

5. Ability to serve on AMATYC committees, and therefore, be part of a national conversation on mathematics education.

6. Using membership in a national organization as professional development on your performance evaluation.

7. Notice of pre-conference workshops and summer institutes before nonmembers are informed.

8. Ability to apply to be a conference chair or one of the several coordinator positions, which have support to attend the annual conference.

9. Receiving a lower registration fee to the annual conference.

10. Supporting this great organization, AMATYC.

I am sure there are many other reasons. Please pass on to me any others you come up with. I hope you consider joining AMATYC or renewing your membership with AMATYC today. You can join or renew, by going to <u>www.amatyc.org</u>, and clicking on the Join or Renew link in the upper right.

One last comment, I hope to see you at the AMATYC Southwest Regional Conference in Flagstaff, AZ, on June 14-15. For information, check out the website tinyurl.com/swamatyc/.

Kathryn Kozak Kathryn.kozak@coconinio.edu Vice President of the Southwest Region of AMATYC



<u>39th Annual Conference</u> <u>Anaheim Marriott</u> Anaheim, CA Oct. 31 - Nov. 3, 2013

See <u>www.AMATYC.org</u> for more information.

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## **2013 AMATYC** Southwest Regional Conference



You're invited to join us in "Taking Mathematics to Grand Heights" in Flagstaff, Arizona this June 14 – 15, 2013.

Affiliate leaders from Arizona, New Mexico, Oklahoma and Texas are joining forces to bring you a fabulous conference in the beautifully wooded setting of Flagstaff Arizona. As the theme suggests, the AMATYC Southwest Regional Conference is aimed at providing you with a rich professional development opportunities to take your students' mathematical experience to the next level. With presenters from Arizona to Florida, the AMATYC Southwest Regional Conference promises amazing opportunities to hear from your colleagues from across the nation on topics ranging from online courses' high quality standards to Singapore mathematical strategies.

With June highs in the 70s, Flagstaff is the perfect location to enjoy the great outdoors, including the beautiful south rim of the Grand Canyon. For more information about local attractions and to register for the conference, visit the AMATYC Southwest Region Conference website: http://tinyurl.com/swamatyc/. We're excited to see you there!



ANNUAL CONFERENCE



#### October 1-4, 2013 – The Ambassador Hotel

#### Amarillo, TX

The College Academic Support Programs (CASP) Conference is an annual conference jointly sponsored by Texas College Reading and Learning Association (TxCRLA), Texas Association for Developmental Education (TADE), and Texas Higher Education Coordinator Board (THECB). CASP offers professionals in developmental education and learning assistance programs an opportunity to stay abreast of current issues regarding research, best practices, and classroom methodology.

## New Mathways Project

#### Input Needed!!

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As you are probably aware, an ongoing collaboration between the Texas Association of Community Colleges (TACC) and the Charles A. Dana Center at the University of Texas has developed a proposal for changing how Mathematics is taught in higher education institutions, The New Mathways Project (NMP).

The Texas Higher Education Board, via the Lower Division Academic Course Guide Manual (ACGM), would like



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You are invited to review the NMP Foundations course Learning Outcomes provided by the NMP at: <u>http://www.utdanacenter.org/higher-</u> education/new-mathways-project/new-mathwaysproject-curricular-materials/foundations-of-

<u>mathematical-reasoning-course/</u> as well as the ACGM mathematics courses and development courses found at: <u>http://www.thecb.state.tx.us/AAR/UndergraduateEd/W</u> <u>orkforceEd/acgm.htm</u>

In providing your feedback, please address general agreement or disagreement with the NMP plan, possible implementation challenges or ease of compliance, long-term value or depreciation of proposal, and possible positive or negative consequences of the proposed reforms. Tangent to these questions please remark on the future direction of the ACGM in terms of appropriate pre-requisites, and credit hours for courses.

Comments should be sent by June 1, 2013 to me at: rebecca.leslie@thecb.state.tx.us. Your input is valued and appreciated.

#### Rebecca Leslie

Program Director Workforce, Academic Affairs & Research Division Texas Higher Education Coordinating Board 1200 East Anderson Lane Austin, Texas 78752 512-427-6231

## TCCTA/TexMATYC Conference Photos



Sharon Sledge and Paula Wilhite. Honoring Paula's service to TexMATYC



Joanne Peeples

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Robert Feldman and Sherri Messersmith







Amy Getz

# Mathematical Carnival & ICME 2012

#### By Nancy J.Sattler, President-elect of AMATYC

This past July, I was fortunate to receive a National Science Foundation Grant to attend the 12<sup>th</sup> International Congress on Mathematical Education (ICME) from July 8 through July 15 in Seoul, Korea. The first ICME was held in Lyon, France in 1969. ICME's have since evolved into quadrennial congresses, in years divisible by four. The Congress serves two major functions: to provide a scholarly opportunity for discussion, debate, and the presentation of new research and theory in all aspects of mathematics education and to provide a meeting place for the international community of mathematics educators, mathematicians, teachers, policy makers, researchers and others.



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Over 5000 mathematics educations from around the world gathered at the COEX Convention and Exhibition Center in Seoul. The conference was organized similar to an AMATYC conference in that there was an opening session, plenary sessions, discussion groups, and poster sessions. Each International Congress on Mathematical Education results in a book of proceedings, and sometimes other publications as well. If you are an AMATYC member you will be reading more about ICME in future AMATYC publications.

Each American attendee (there were about 80 of us) was asked to choose an area of focus. I choose technology for my area. I attended various presentations about technology and was able to attend the Mathematical Carnival that included sections on mathematical manipulatives and art, student workshops, the Mathematical Plaza (where speakers gave workshops on such concepts as Japanese problem solving, how to conduct a lesson study, how to develop mathematical thinking, and the art of paper folding), non-commercial booths and commercial booths.

Throughout the days at the conference, students from Korea came to visit the Mathematical Carnival. It was not unusual to see over 100 school children at the carnival at one time. The Korean children do not have a long summer break like American students. When the students visited the Mathematical Carnival they were quick to try their hand at using paper to create geometric forms. Any tool that aids in the solution to solving a problem can be loosely considered technology. As my focus was on technology for ICME, I found the art of paper folding is a good way to introduce students to mathematical concepts.







Paper folding held the interest of many of the Korean students from the lower grades though the upper grades. It would be a great way to have your students become more familiar with geometry. If you have iTunes you can download a free app for your iPhone, iPod touch and/or iPad that will give you directions on how to make various shapes. Directions on how to obtain the app can be found at https://itunes.apple.com/us/app/origamiinstructions-easy/id482470301?mt=8#. To create an octagonal container go to http://www.origamiinstructions.com/origami-octagonal-container.html. То create a paper box with a cover go to http://www.origami-instructions.com/origami-box-withcover.html

The Asian people are very much into recycling. This was evident in hotel rooms where the lights all go out when occupants leave the room. It was also evident in the activities that they do in their classrooms using recycled materials. The pictures below were taken at one of the exhibits. Notice the use of milk cartons, egg cartons, and salt containers.

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I enjoyed my ICME experience and will be writing an article for AMATYC detailing some of the sessions that I attended. If you are an AMATYC member you will have an opportunity to read more about the ICME experience.

The Society of Didactics of Mathematics, representing the German speaking community of didactics of mathematics from Germany, Austria and Switzerland will be hosting ICME-13 in 2016 in Hamburg, Germany. The congress to be held under the auspices of the International Commission on Mathematical Instruction (ICMI) will take place at the University of Hamburg from Sunday, July 24 to Sunday, July31, 2016. I have been told that Hamburg is a bustling cosmopolitan port in the north of Germany having 1.8 million people and is the second largest city in Germany. Participants are invited from all over the world to come to Hamburg and make ICME-13 a rich experience for all. If you are interested in taking part in this unforgettable conference, visit http://icme13.org/index.html. Details concerning proposals and submission of papers will be available one year before the congress.

## Apps For the Math Classroom

By David M. Faul, San Jacinto College - Central

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As we strive to offer our students convenience and efficiency in their studies, technological tools are increasingly being used for course delivery at all levels of education. This is true of both physical and virtual classrooms, and our students expect to have access to course materials from any device and location. With the widespread availability of smart phones and tablets, apps designed for these devices offer powerful tools for supporting instruction that require a minimal investment of time and financial resources. In this article, I will discuss three apps that I have found especially useful in teaching mathematics.

#### 1. ShowMe

ShowMe is a virtual whiteboard that allows users to create and share video tutorials. This is a free app that is currently only available for iPad. It is very easy to use and takes almost no time to learn. Using a stylus, the user writes on the whiteboard while audio is recorded. The screen can be prepared before beginning recording, and images can be added from the iPad, from the internet, or by taking a photo. There are seven color options for writing on the whiteboard, and writing can be erased at any time before or during recording.

I have used ShowMe to create videos of examples for different topics, to provide overviews of new concepts, and to answer specific student questions. Videos are stored on the ShowMe website, and there is no limit to the number of videos a user can save. Each video can be kept private or made publicly available. Once a video has been created with ShowMe, there are several options for sharing it. A direct link to the video can be sent to students, the video can be embedded in a website, the video can be downloaded and sent as a file, or the video can be uploaded to youtube. I typically embed these videos in my Blackboard site, so that students can easily access them. I have also added videos created with ShowMe to presentations created using Prezi. For more information about ShowMe, please visit :

http://www.showme.com/.

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A nice introduction to using the app is available at: http://www.showme.com/blog/2012/05/showme-101the-basic-steps-to-begin-creating/.





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Image courtesy of showme.com.

#### 2. Photon

Photon is a browser that can run Flash content. This app currently sells for \$4.99 and is available for both iPhone and iPad. The Photon browser is particularly helpful for courses using online homework systems, since those usually require Flash to run. Most of my courses use MyMathLab or WebAssign, for example, and this browser allows students to complete homework assignments using an iPad or iPhone. It also allows me to review or revise assignments in these homework systems from anywhere. In order to view Flash content from within the Photon browser, the user simply taps the lightning bolt at the top right corner of the browser. This must be done before accessing the page with Flash content. For the description of this app in the iTunes store, please visit :

https://itunes.apple.com/us/app/photon-flashplayer-for-ipad/id430200224?mt=8.



Image courtesy of www.mymathlab.com.

#### 3. Socrative

Socrative is a classroom response system. There are two versions of this app, one for teachers and one for students. Both versions are free and are available for iPhone, iPad, and Android. Socrative can be used to poll responses from students to questions the instructor presents in class, or guizzes can be created in advance. Reports are available for pre-programmed quizzes, but not for in the moment polling. I typically use this app to check for understanding after a new concept is presented. Unfortunately, there is no way to add images or equations to pre-programmed guizzes, so I find this app more useful for collecting responses to individual questions I present in class. One of the great things about Socrative is that it can be used through an app or through a website, so students can respond and instructors can monitor responses from any device that has access to the internet. For more information about Socrative, please visit:

#### http://www.socrative.com/.

The Socrative user guide is available at : <a href="http://www.socrative.com/garden/?page\_id=2">http://www.socrative.com/garden/?page\_id=2</a>.



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Image courtesy of socrative.com.

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#### **TexMATYC Executive Board**

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## Joke of the Month

Q: What did one math book say to the other?

## A: Don't bother me; I've got my own problems!



## Got News?

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If you know of any exciting news in mathematics, have it published in your TexMATYC newsletter. Submit articles to Heather Gamber at <u>heather.a.gamber@lonestar.edu</u>.

#### Visit us at <u>www.texmatyc.org</u>

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