

# Math SPIN News

Newsletter of the NADE Mathematics Special Interest Network

Fall 2002

## “Best Practices” on the front burner

As most of you are aware, in June the SPIN published a booklet entitled *Best Practices in Developmental Mathematics*. This 28-page publication is a compendium of practices used in developmental mathematics at colleges across the country. Topics include working with developmental students, placement, programmatic considerations, teaching methodologies, innovation and reform, learning disabilities, academic support, and resources for developmental math educators.

When published, the booklet was not intended to be a final product, but was produced with the hope of inspiring others to write descriptions of the practices, strategies, methodologies, etc. that they have used with success in developmental mathematics. ***The SPIN is currently seeking contributions for an expanded, second edition of the publication.*** If you are aware of practices, resources, materials, or other information that would benefit others in the field, please consider contributing to this project. Materials of any type can be sent to Tom Armington at <tmarmington@juno.com>. There are no specific format requirements. Materials may also be given to Tom or Daryl Stephens at the upcoming NADE conference in Austin.

The SPIN is also sponsoring a forum on “Best Mathematics Teaching Methodologies” at the Austin conference. A description of that session can be found on page 2. Check the conference schedule for time and location.

### NADE 2003 Conference

Austin, TX  
February 12-15, 2003  
(Information at [www.tade.org](http://www.tade.org))

### Math SPIN meeting

Thursday, February 13  
7:30 - 8:30 a.m.  
(Check schedule for location)

### SPIN-sponsored sessions

“Best Practices Teaching Methodologies”  
“Modernizing the Developmental Mathematics Curriculum”  
(See page 2 for more information)

### Newsletter moving to electronic format

As a result of cuts made by the Executive Board, the SPIN lost 70% of its operating budget this year. Consequently, it is unlikely that we will be able to continue mailing hard copies of the newsletter to the full SPIN membership. Our proposal, which will be discussed at the SPIN meeting in Austin, is to distribute the newsletter via e-mail *through the listserv*. This appears to be the easiest way to do e-mail distributions since the SPIN membership changes from year-to-year and members periodically change e-mail addresses without notifying NADE.

***If you are not a listserv member, please consider becoming one if you wish to continue receiving the SPIN newsletters.*** The notice on the back page describes what the listserv is and how to become a member.

## A Great Opportunity

As always, election of the SPIN leadership will be one of the agenda items at the SPIN meeting in Austin. Having served over three years as SPIN chair or co-chair, I feel that it is time for me to step down. I have thoroughly enjoyed chairing this group and have had a terrific time corresponding with so many of you. This is a great group, and chairing it has been a pleasure.

Ours is an active group that has grown substantially over the past few years, and new ideas are needed to keep us moving forward. The ideal would be to have two or three leaders, which has been the case for several years as Roberta Lacefield, Daryl Stephens, and I have shared these responsibilities. *If you would be interested in taking a leadership role in the SPIN, please let me know so that I can bring nominations to the SPIN meeting in February.* I especially encourage those who have been members for some time to consider the prospect of becoming involved at the leadership level.

Tom Armington  
(tmarmington@juno.com)

### SPIN-sponsored Sessions at NADE 2003

#### Best Mathematics Teaching Methodologies

(by Marva Lucas)

The mathematics area is the largest component of Developmental Studies Programs. When compared to students in other areas, students in developmental mathematics have had more difficulty mastering mathematics concepts at the high school level that would allow them to be immediately successful in their college credit mathematics courses. Across the nation, there are numerous instructors that teach developmental mathematics. Many of these individuals have taught several years and, in the course of doing so, have developed what they consider to be “best practices” for this area of developmental education.

During this session, a panel of educators will share their “best practices” relative to the developmental studies mathematics curriculum. The ideas shared will be what the individuals have actually used successfully at their respective institutions. In some instances, the panelists will share strategies for teaching key mathematical concepts; other ideas will include strategies utilized in general in the mathematics classroom. The panelists will also provide handouts to participants to assist them in easily implementing similar approaches. Additionally, session participants will be asked to share with the group some of their “best practices.” The ultimate objective of this session is to provide participants with a set of practical ideas that when utilized will

enhance the success of their developmental studies mathematics program. All instructors of developmental mathematics are strongly encouraged to attend this session to share and receive strategies proven to be effective in the classroom.

#### Modernizing the Developmental Math Curriculum

At the NADE 2002 conference last March, keynote speaker Willard Daggett issued a call to revise the developmental curriculum to reflect 21st century workforce needs and societal priorities rather than traditional academic themes. Suggesting that many colleges teach the same old material year after year, he called upon those present to revise their courses rather than continuing to teach curricular skills of declining relevance.

Interestingly, Daggett also challenged developmental educators to assume the forefront of curricular innovation rather than waiting to follow the lead of the academic departments they service. In his view, innovation has often been born at the lower levels of collegiate study and risen upward, rather than vice-versa.

The session will begin with a brief summary of Dr. Daggett’s address, followed by an open discussion. The objective of the session is to provide a framework for the exchange of ideas related to modernizing the developmental mathematics curriculum.

### Collaborating with AMATYC

The AMATYC F/DMC (American Mathematical Association of Two-Year Colleges Foundation/Developmental Math Committee) has as its charge “to improve the quality of developmental mathematics programs in two-year colleges by providing a forum for the exchange of ideas.” Because of the similar nature of the purposes of the NADE Math SPIN and the F/DMC, it is hoped that the two groups can maintain a relationship and contribute to the success of each other’s efforts.

If you would like to know more about the F/DMC, its charge, and its current projects, visit their web site at <<http://amatycdev.org>>. Jeff Morford, current chair of the F/DMC, is also a member of the Math SPIN. He can be contacted at <[JMorford@hfcc.net](mailto:JMorford@hfcc.net)>.

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### Professional Development: Technology Short Course

The Teachers Teaching with Technology College Short Course Program based at The Ohio State University is now offering a fresh look at the developmental algebra curriculum and pedagogy. The Program’s DEV short course is available free for 1 to 3 days on your campus (15 participant minimum). Course instructors include Debbie Crocker, Joe Fiedler, Peg Greene, Roseanne Hofmann, and Bill Thomas.

**A Function Approach:** Developmental algebra, whether taught in college or as remedial math to seniors in high school, is often a re-teaching of algebra to students who have been unsuccessful in their first attempt. In the re-teaching process, the same curriculum and pedagogy are often used. The assumption is that the students are more mature; therefore, all that is needed is to repeat what they had before. But are students successful under this model?

Moving the traditional text chapter on functions to first or second is not teaching from a function approach. Teaching from a function approach means **using functions** to teach mathematics such as factoring, equation solving, arithmetic operations on polynomials, systems of equations, inequalities, properties of inequalities, definitions, concept of asymptotic behavior, absolute value, slope, laws of exponents, etc. Once students can freely move from numeric to graphic to symbolic representations, understand the connection of all these to real world situations, and understand the behaviors of basic functions, then teachers can **“use” function and function representation** in the teaching of more traditional topics.

The DEV short course will look at a beginning/intermediate algebra curriculum that uses a function approach and develops mathematical ideas in the context of real-world situations. We will use the Texas Instruments CBR, CBL 2™, several apps, and the TI-83 Plus™ SE.

For more information and an application, please contact Ed Laughbaum at <[elaughba@math.ohio-state.edu](mailto:elaughba@math.ohio-state.edu)>. The presenter’s expenses and honorarium are paid by a grant from Texas Instruments to Ohio State University. The Ohio State University program is endorsed by AMATYC <<http://www.amatyc.org/meetings.html>>.

### **Join the Math SPIN Listserv**

If you are not a member of the Math SPIN Listserv, you are missing out on perhaps the single, most valuable component of the SPIN. The listserv is basically an e-mail list through which information, announcements, etc. are sent out and received by those on the list. Listserv members can post information and items they would like to share with others and will receive all information that is sent out by other listserv members. It is an *excellent* medium for maintaining regular contact with the SPIN membership. It also provides a forum for discussing developmental math issues, posting job announcements, or seeking information from others.

Although the listserv is managed by Yahoo!Groups, it is *not* a public directory and can be accessed only by listserv members. This arrangement offers us a high degree of privacy. As the listserv generates between 5 and 20 messages a month, you won't be inundated by unwanted e-mail either. You also have the option of receiving your messages in digested form (all mail for the day is sent in a single message).

To join the listserv, send a blank e-mail message to [mathspin-subscribe@yahoogroups.com](mailto:mathspin-subscribe@yahoogroups.com). Yahoo!Groups will then ask you to confirm your request. After doing so, you should receive confirmation of your membership within a few days (if you don't, contact Roberta Lacefield at [mathspin-owner@yahoogroups.com](mailto:mathspin-owner@yahoogroups.com) for assistance). We hope you will join our discussions by becoming a listserv member.

### **Math SPIN Web Site**

The Math SPIN web site contains past newsletters dating back to 1997, publications submitted by SPIN members, and over 80 links to other sites of interest to developmental math faculty. The site is located at [www.etsu.edu/devstudy/spin/](http://www.etsu.edu/devstudy/spin/).