

Project NExT -- what works

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Spring Opportunities Workshop, Pi Day 2012, MSRI

PROJECT NEXt

NEW EXPERIENCES IN TEACHING

**A professional development program of
THE MATHEMATICAL ASSOCIATION
OF AMERICA**

<http://archives.math.utk.edu/projnext/>

Project NExT - the 2011-12 Fellows



Project NExT - the program

- **Year-long professional development program**
 - **for new and recent PhDs**
 - **in their first or second year of full-time college/university teaching**
 - **who are interested in improving the teaching and learning of undergraduate mathematics**
- **Addresses the full range of faculty responsibilities in teaching, research and service.**

Project NExT - the origin

- **Started by**
 - T. Christine Stevens of St. Louis University
 - Director for sixteen years
 - The late James R. C. Leitzel
- **Hosted by the MAA**
- **Initially funded by ExxonMobil Education Foundation**
(now broad support in the math community - AMS, ASA, ASL, AIM, NCTM, EAF, Dolciani Foundation, publishers, MAA and Sections)

Project NExT - the numbers

- Eighteenth year
- Each year, 70-80 Fellows selected
- 1324 Fellows

- Applications (about 120-150) due mid-April, selections announced June

Project NExT - the application

Handout

Project NExT

- the deliberate diversity

- Gender - equal numbers of men and women
- Race - voluntary self-identifying
- Age
- Geographical - states of the USA, several nationalities (teaching in North America - MAA)
- Institutional - Fellows teach at
 - research universities,
 - comprehensive universities,
 - liberal arts colleges
 - community colleges



This works!

Project NExT - the map 2011



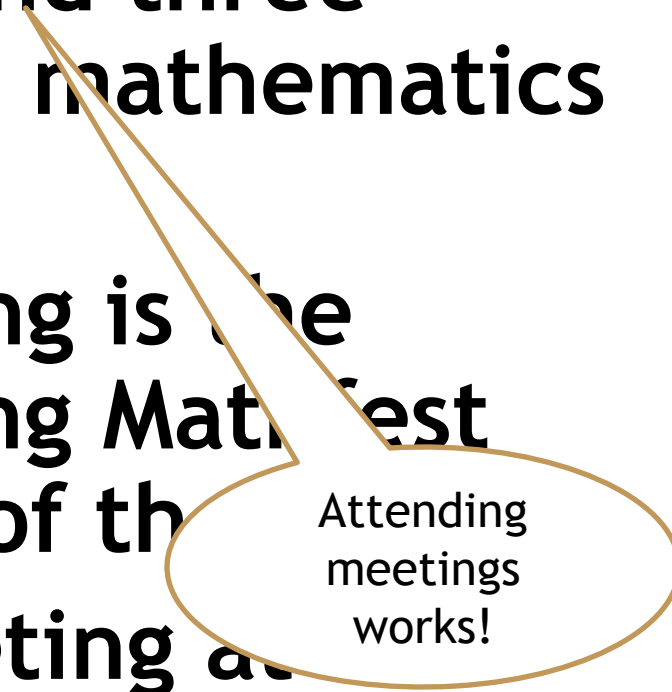
Project NExT - the dot!



Project NExT

- the Fellowship year

- Commitment to attend three consecutive national mathematics meetings
 - (AUG) First meeting is the Workshop preceding Mathfest (summer meeting of the American Mathematical Society)
 - (JAN) Second meeting at the American Mathematical Society
 - (AUG) Third meeting at Mathfest



Attending meetings works!

Project NExT - the Workshop

- 2-1/2 days immediately preceding Mathfest
- Project NExT leadership team organizes Workshop

Breaks
... with food...
work!

Scenarios

Small group discussions with experienced
community member serving as facilitator

- Three panel discussions
- Long breaks with food

Small group
discussions
work!



Project NExT

- the Workshop Topics

- Inquiry-based learning
- Cooperative learning
- Teaching with technology
- Assessment of individual students
- Alternative ways of assessing students
- Choosing books and software
- Specific courses - calculus, abstract algebra, linear algebra, analysis, geometry, courses for teacher preparation

- Setting up research collaborations
- Undergraduate research
- Applying for grants

This works!

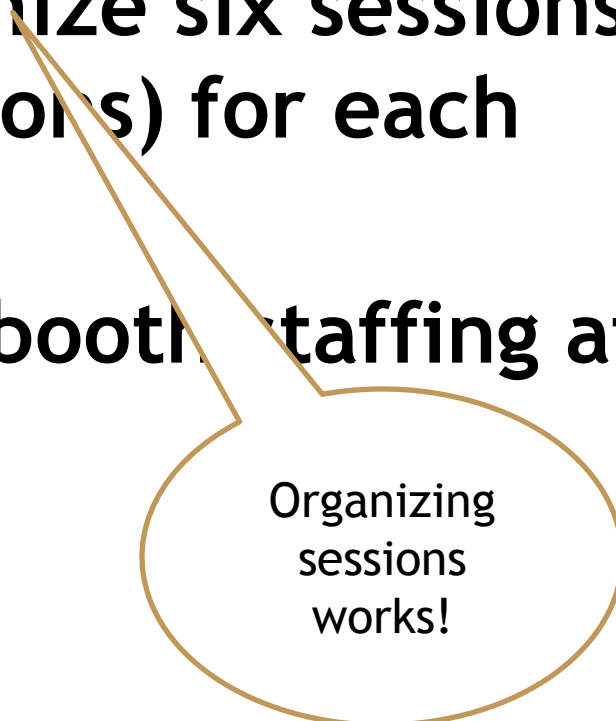
member as
and scholar

Advising students

Project NExT

- the second and third meetings

- At JMM, and one day preceding the following Mathfest
- The new Fellows organize six sessions (usually panel discussions) for each meeting.
- Fellows also organize booth staffing at JMM.



Organizing sessions works!

Project NExT - the electronic list

- **Fellows use an email listserve for discussion during the academic year**
- **Each Fellow is assigned to a consultant (experienced mathematician)**
- **Consultants added to the email list**



The
electronic list
works!

Project NExT - the consultants

- Each Fellow is assigned to a consultant
- Consultant - an experienced mathematician **outside** the Fellow's department
- Consultants are added to the electronic list
- Interaction between Fellow and consultant is determined by **them**



Consultants
work!

Project NExT

- the Fellows' accomplishments

Teaching Awards

- **Alder awards (twelve)**
- **Haimo awards**
 - **Judy Walker (U Neb Lincoln),**
Michael Dorff (BYU), Matt DeLong (Taylor U)

Michael Dorff, BYU
CURM, Haimo Award
Project NExT Fellow



Project NExT

- the Fellows' accomplishments

MAA awards

- **MAA meritorious service**
- **MAA expository writing awards**

THE MATHEMATICAL ASSOCIATION OF AMERICA

in recognition of the publication of the noteworthy expository paper
"The Circle-Square Problem Decomposed," *Math Horizons*,
November 2009, pp. 19-21, 33.

hereby awards

**PAMELA PIERCE, JOHN RAMSAY,
HANNAH ROBERTS, NANCY TINOZA,
JEFFREY WILLERT, and WENYUAN WU**

THE TREVOR EVANS AWARD

by authorization of the Board of Governors

AUGUST 2010



Project NExT

- the Fellows' accomplishments

- NSF, DUE awards/grants including
 - three CAREER awards (NSF's most prestigious award for as-yet-untenued teacher/scholars)
- AMS committees
- MAA governance
 - national (including 1st and 2nd VPs)
 - Section (incl Presidents and Program Chairs)

Project NExT - what works

- **The FELLOWS!**
- **Going to meetings**
- **Networking at meetings**
- **Being exposed to diverse viewpoints on teaching issues based on type of institution**
- **Opportunity to organize sessions/panels in a professional capacity**
- **Consultants, combined with email lists**

Project NExT - what works

- Serendipitous creation of

COMMUNITY

- With influence on the teaching and learning of undergraduate mathematics

Project NExT - what works from a Fellow

Project NExT made attending the national MAA meetings a high priority for me during the early years of my career, when professional and personal demands might have pulled me in any number of other directions. Because of Project NExT, I knew that at every meeting I would have a network of colleagues and friends whom I could talk with, learn from, and socialize with in the evenings. This made the national meetings central to my professional development activities. Once this was firmly established, it has been a natural progression from session speaker to session organizer, from workshop participant to workshop leader, from committee member to committee chair, and beyond. It is simple to trace my CV from my current position as MAA Second Vice President back to my Project NExT Fellowship.

-- Doug Ensley, Shippensburg U, 1994-95 Project NExT Fellow

Thank you!

Questions?