## Where There's a Need: Building Professional Opportunities

Using Our Talents and Expertise to Solve Problems and Create Positive Change Beyond Our Work in the Classroom



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#### What Opportunities Are Waiting for You?

- What are you passionate about?
- What changes are occurring in your field of expertise?
- What needs or problems do you see?
- Who do you like to collaborate with?





#### Consulting

- Participating in grant projects
- Writing and publishing
- Serving as a reviewer for national publishers and highstakes assessments

The Possibilities are Endless....

### **Finding Opportunities**



- Look for areas to use your knowledge, talents and creativity
  - Volunteer to help public or non-profit entities
  - Join local/state, public/private committees or boards
  - Participate and present at local and professional organizations
    - Sharing new learning and work at professional conferences, locally and nationally
- Write
  - Submitting articles for local and national professional journals
  - Create an on-line blog
- Network, Network, Network...



#### Change and Need Bring Opportunity My Story...

- 1989 National Council of Teachers of Mathematics published content and process standards K-12
  - strong emphasis on problem solving, reasoning, making connections, communication

This called for huge paradigm shifts in the way mathematics was being taught.



#### Example of Changes in Problem Solving

- Mike has a rectangular garden that is 5 feet by 12 feet. He wants to put a fence around his garden to keep some rabbits from eating his vegetables.
  - A) How many feet of fencing does Mike need to buy?
  - B) What is the area of his garden?



Jill is creating a rectangular garden to grow some vegetables. She needs to put fencing around the garden to keep some rabbits out. Jill has 24 feet of fencing. If the length and width of Jill's garden are whole numbers, what is the greatest area Jill can have for her garden? Explain how you got your answer using numbers, diagrams and words.

#### How Change and Need Brought Opportunity to Me at CCSU

- 1994 CCSU School of Education and Professional Studies was awarded a large grant funded by the Office of Educational Research and Improvement from the U.S. Department of Education
  - Improve student achievement through school-based reform
  - Enhance the preparation of teachers
  - (PLUS: Partners in Learning in Urban Schools)



#### My First Opportunity - PLUS Grant

Served as university facilitator to support action research project focused on enhancing student achievement in math problem solving.

Holmes Elementary School - New Britain, CT



Afforded the opportunity to collaborate

- Math Consultants from the Connecticut State Department of Education
- National consultants from the PLUS grant with expertise in promoting school reform



#### Presenting and Attending Local and National Conferences

- Disseminated the scope of work and results of grant projects
- Shared new professional development strategies and curriculum resources
- Networked with math educators in leadership roles within national organizations
- Received support and further professional development



#### New Needs - New Grant Opportunities

- Connecticut Eisenhower Professional Development Grant-CCSU
  - Foster standards-based instruction in mathematics at the middle school level
  - New coaching model for professional development
  - Required administrators be included in professional development
- PIMMS (Project to Increase Mastery of Mathematics and Sciences) -Wesleyan University: Early Childhood Initiative
  - Provide mathematics professional development for early childhood community-based and school-based programs in high priority districts
  - Summer training and coaching follow-up for professional development









#### Writing and Publishing Opportunities

Approached at NCTM National Conference to co-author a book on geometry for grades 3-5 for the organization



- Javits Grant: UCONN Project M3: Mentoring Mathematical Minds
  - ► Kendall Hunt published Project M<sup>3</sup> and M<sup>2</sup> curriculum materials
- Co-authored articles for:
  - Teaching Children Mathematics
  - Gifted Quarterly
  - Journal of Advanced Academics



A "BELL CURVE" SEATING CHART.

- Invited to write a new middle school mathematics curriculum series for Kendall Hunt Publishing
  - Contributing author: responsible for grade 8 teacher's edition
- Served on an editorial panel for the NCTM 2009 Yearbook on Geometry.

#### **Consulting Opportunities**

Provide professional development for district administrators

- Analyze assessment data to identify areas of strength and challenge
- Guide the development of school improvement plans
- Assist in the selection of curriculum resources

- Provide professional development for in-service teachers
  - Coaching
  - Workshops/seminars related to school improvement plans
  - Assessment data analysis



#### **Consulting Opportunities**

- Serve on several advisory committees- CT State Department of Education
  - Assisted in the writing of CT Mathematics Curriculum Framework and new early childhood preschool standards
  - Served on the advisory committee to adopt the CCSS for Mathematics in Connecticut
  - Assisted in the writing of the Connecticut Mathematics Blueprint Document
- Review and edit resources for publishers and Smarter Balanced Assessments



#### Latest needs and interests...

- Need: Helping elementary children and teachers identify and distinguish the relationship among quadrilaterals
  - In process of writing a children's book
- Need: Helping preschool children come better prepared for kindergarten
  - Looking into how to use technology and platforms like you-tube to develop videos to inform parents about how to foster the development of early number, measurement and geometry ideas







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# Share some ideas with someone sitting next to you...

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#### Grazie!



