

Research, Service, & Teaching

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RESEARCH – Research Interests

- Constructivist math teaching strategies
- Closing the gender and racial achievement gaps in mathematics
- Factors that contribute to mathematics achievement in East Asia
- Comparison of East Asian and American math teaching strategies

RESEARCH – Past Research

- Designed secondary school math tutoring programs (two BSU Model Institute of Excellence faculty grants):
 - *SAT Math Tutoring Program*
 - *Saturday Academy for Mathematics, Science, and Research Skills*
- Conducted research on international trends in math teaching strategies. Traveled to Taiwan to observe and analyze 5th and 11th grade mathematics lessons at several elementary & high schools

RESEARCH – Current Research

- Retraining mathematics teachers in Maryland via a *Summer Math Institute* at BSU (U.S. Dept. of Education Workforce Development Federal Grant application)
- Reducing the number of uncertified math teachers in Prince George's County Public Schools (National Science Foundation Math and Science Partnership Program grant application)

RESEARCH – Presentations

- NATIONAL - Presented at several regional NCTM (National Council of Teachers of Mathematics) conferences, ASCD (Association for Supervision and Curriculum Development), and others
- INTERNATIONAL - Presented at ICERI (International Conference on Education Research and Innovation) in Madrid, Spain, and EME (Elementary Mathematics Education) Conference in Braga, Portugal. Invited to speak twice at Hawaii International Conference on Education

RESEARCH – Visiting Scholar

- Selected as 2006 Visiting Scholar at Educational Testing Service (ETS) in Princeton, NJ
- Designed Algebra problems for Virginia's *No Child Left Behind* mathematics tests and critiqued ETS assessment practices
- Presented a comparison of Japanese and American math teaching strategies

RESEARCH – Statistical Analysis

- Conducted statistical analysis of BSU's *Male Health Grant* study
- Analyzed the results for Prince George's County Public Schools *Summer Bridge Program* at BSU
- Selected to attend NAEP (National Assessment of Educational Progress) / TIMSS (Trends in International Mathematics and Science Study) database training seminars

SERVICE

- Served on wide-range of university and departmental committees , including:
 - Institutional Review Board Committee – reviewed grant proposals for faculty and graduate students
 - Post-Tenure Committee – evaluated tenured faculty portfolios
- Represented BSU College of Education at several University System of Maryland technology, science, and library services meetings off-campus

SERVICE

- Created statistics course for BSU's doctoral program in Dept. of Educational Leadership
- Designed comprehension exam questions in research & statistics for the doctoral and master's degree programs in Dept. of Educational Leadership
- Tutored math to 10th-12th grade students at Prince George's and Ann Arundel County high schools

TEACHING

- Background: mathematics education with specialty in statistics and technology
- Courses Taught: research, assessment, statistics, technology, math teaching methods
- Teaching Approach: constructivist approach, integration of technology into teaching
- Teaching Philosophy: achievement due to effort rather than innate ability