

Jennifer M. Suh

Curriculum Vitae

University address:
George Mason University
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EDUCATION

PH.D. in Education, May 2005
Specialization in Mathematics Education Leadership
George Mason University, Fairfax, Virginia

Suh, Jennifer M. (2005) *Third Graders' Mathematics Achievement and Representation Preference Using Virtual and Physical Manipulatives for Adding Fractions and Balancing Equations*. Dissertation chair: Dr. Patricia Moyer-Packenham

Master of Teaching in Elementary Education, May 1994
University of Virginia, Charlottesville, Virginia

Bachelor of Art in Psychology, May 1994
Five Year Education Program, Certification K-8
University of Virginia, Charlottesville, Virginia

TEACHING

UNIVERSITY TEACHING EXPERIENCES

Assistant Professor, Mathematics Education (Fall 2006- Present)
George Mason University, Fairfax, Virginia

Member of Mathematics Education faculty
Member of Elementary Education faculty

Responsibilities include teaching graduate courses in Elementary Education Programs and Mathematics Education Leadership, assisting in the development and implementation of programs for students, advising students within the program, and supervising graduate students in field placements for the professional development schools. Currently, I am the dissertation chair for four doctoral students.

Courses taught:

EDCI 857-Preparation and Professional Development of Mathematics Teachers (Doctoral Level course)
Examine critical components of effective professional development and design of mathematics methods courses for teachers. Students design a professional development project with evaluation measures.

EDCI 552 – Mathematics Methods for the Elementary Classroom

An introduction to methods for teaching all children developmentally appropriate topics in number and operations, geometry, algebra, and data analysis. Students work with manipulatives and technologies to explore mathematics, solve problems, and learn ways to teach mathematics content to children.

EDCI 666- Research in Mathematics Education

Research seminar for Master's level students in the Mathematics Specialists Leader Program and Mathematics /Science Education Leadership cohort program. Students survey the most current research literature in mathematics education and engage in research, study, and discussion of teaching and learning mathematics in school settings.

EDCI 645 Mathematics Learning and Assessment in K-8

Focuses on mathematics curricular standards and processes and a variety strategies for assessing student understanding in mathematics.

EDCI 633 -Advanced Mathematics Methods for the Elementary Classroom

Focuses on teaching all children problem solving and higher order thinking skills based on state and national mathematics standards. A variety of techniques and materials are used to promote better understanding of various mathematical concepts. Students read, interpret, and critique mathematics education research and examine its applications in classrooms.

EDCI 609 -Problem Solving in Mathematics

Focuses on the learning processes fundamental to the development of mathematical thinking. Examines a variety of instructional strategies and materials related to the broad scope of mathematical content.

EDCI 790 - Internship in Education

Graduate interns are supervised in a Professional Development School placement setting that includes observations and seminar experiences.

EDCI 680-Teaching Mathematics for Diverse Populations

Mathematics specialists focus on characteristics of students with diverse learning and cultural needs and how to teach mathematics content using a variety of instructional materials, assessment tools, strategies, and techniques for teaching mathematics. Emphasis on supporting the power and complexity of students' mathematical thinking.

MATH 600-Algebraic Connections and Technology in the Middle Grades

The course provides opportunities for the growth of middle grades mathematics teachers understanding of algebra as a study of patterns, symbolic language, a tool for problem solving, a study of functions, as it relates to proportional reasoning, generalized arithmetic, and as a way of modeling physical situations.

University Supervisor. (2004-Present).

Elementary Education Program, George Mason University, Fairfax Virginia.

Supervised preservice elementary teachers during their student teaching internship at Westlawn Elementary, Fall Church, Virginia

Super-Adjunct Professor (Fall 2004-Spring 2006)

George Mason University, Fairfax, Virginia

Adjunct Professor (2003-2004)

Marymount University Arlington, Virginia

ED 548 Mathematics and Technology PK-3 & 4-6

PUBLIC SCHOOL TEACHING EXPERIENCES (10 years)

Third - Fifth Grade Mathematics Teacher, Little River Elementary School, Loudoun, Virginia

Gifted Education Teacher, Willow Springs Elementary School, Fairfax, Virginia

Multiage Elementary Teacher, Lemon Road Elementary School, Falls Church, Virginia

Korean Immersion Elementary Teacher, Seoul American Elementary School, Seoul, Korea

RESEARCH

PUBLICATIONS

Research Interests

- *Developing mathematics pedagogical content knowledge and confidence in teachers;*
- *Investigating improvement in mathematics teaching and learning (focus on diverse populations)*
- *Developing representational fluency through mathematics tools and emerging technologies in the classroom.*

Journal Articles (Refereed)

Suh, J.M. (In press 2010). Leveraging cognitive technology tools to expand opportunities for critical thinking on data analysis and probability in elementary classrooms. *Journal of Computers in Mathematics and Science Teaching*.

Suh, J. M. & Parker, J. (In press 2010). Developing Reflective Practitioners through Lesson Study with Pre-service and In-service Teachers. *AMTE monograph. VII. Mathematics Teaching: Putting Research into Practice at All Levels. Associations of Mathematics Teacher Educators*

Suh, J.M. (In press 2010). Engaging Diverse Learners in Critical Thinking through Cognitive Tech-tools in Mathematics. *Mathematics Teaching in the Middle School (FOCUS ISSUE: Technology in Mathematics Education). NCTM*

Suh, J.M. (in press 2010). Developing Persistent and Flexible Problem Solvers with a Growth Mindset *NCTM Yearbook : Motivation and Disposition Special Issue.*

Suh, J. M., Johnston, C., Mills, M., & Jamieson, S. (2008). Promoting decimal number sense and representational fluency. *Mathematics Teaching in the Middle School*, 14(1), 44-50.

Suh, J. M., Johnston, C. & Doud, J. (2008). Enhancing mathematics learning in a technology rich environment. *Teaching Children Mathematics*, 15(4), 235-241

Hjalmanson, M. & Suh, J. M. (2008). Developing mathematical pedagogical knowledge by evaluating instructional materials. *Inquiry into Mathematics Teacher Education. AMTE Monograph V.*

Suh, J. M. & Jamieson, S. (2008). Collaborative mentoring: Establishing a mathematics teaching & learning community through Lesson Study. *NCTM's Empowering Mentors of Mathematics*, NCTM.

Suh, J. M. (2007). Developing "Algebra -rithmetic" in the elementary grades. *Teaching Children Mathematics*, 14(4), 246- 250.

Suh, J. M. (2007). Tying it all together: Building mathematics proficiency for all students. *Teaching Children Mathematics*, 14(3), 163-169.

Scaptura, C., Suh, J. M., & McHaffey, G. (2007). Masterpieces to mathematics: Using art to teach fraction, decimal, and percent equivalents. *Mathematics Teaching in the Middle School*, 13(1), 24-28.

Suh, J. M., & Moyer-Packenham, P. S. (2007). Developing students' representational fluency using virtual and physical algebra balances. *Journal of Computers in Mathematics and Science Teaching*. 26 (2), 155-173.

Suh, J. M., Moyer, P.S., & Heo, H. J. (2005). Examining technology uses in the classroom: students developing fraction sense by using virtual manipulative concept tutorials, *Journal of Interactive Online Learning*, 3(4), 1-22.

Heo, H. J., Suh, J. M., & Moyer, P. S. (2004). Impacting student confidence: The effects of using virtual manipulatives and increasing fraction understanding. *The Journal of Educational Research in Mathematics*, 14(2), 207-219.

Suh, J. M., Moyer, P. S. & Sterling, D. (2003) Junior Architect: Designing your dream clubhouse using measurement and geometry, *Teaching Children Mathematics*, 10(3), 170-179.

Conference Proceedings (Refereed)

Suh, J. M., & Fulginiti, K. (2009). Building collective knowledge using pedagogical content tools and problem solving. *Proceedings of the International Group for the Psychology of Mathematics Education*.

Suh, J. M. & Moyer, P. S. (2008). Scaffolding Special Needs Students' Learning of Fraction Equivalence Using Virtual Manipulatives. *Proceedings of the International Group for the Psychology of Mathematics Education* (pp. 4-297-304). ISSN# 0771-100X

Suh, J. M. & Moyer, P. S. (2007). The Application of Dual Coding Theory in Multi-Representational Virtual Mathematics Environments. *Proceedings of the International Group for the Psychology of Mathematics Education*. Vol 4, pp. 209-216. Seoul: PME.

Suh, J. M. (2007) Preparing teachers to model mathematics with tech-knowledge. *Proceedings of the North American Chapter of Psychology of Mathematics Education*.

Suh, J. M., Moyer, P. S., & Heo, H. J.(2005). Technology uses in the mathematics classroom: Understanding fractions using virtual manipulatives concept tutorials. *Proceedings of the 3rd Annual Hawaii International Conference on Education* (pp. 4479-4499). ISSN# 1541-5880.

Lynch, M. C., Moyer, P. S., Suh, J. M., & Frye, D. (2002). Web-based learning: Telecollaboration models to enhance mathematics instruction. In A Rogerson (Ed.). *Proceedings of the International Conference on the Humanistic Renaissance in Mathematics Education* (pp.279-282). Casio & Autograph.

PROFESSIONAL PRESENTATIONS AND WORKSHOPS

INTERNATIONAL PRESENTATIONS

Suh, J. (2009, December). *Developing Mathematical Potential of Underrepresented Groups through Problem Solving and Algebraic Reasoning*. Presented at the Joint meeting of the Korean Mathematical Society and the American Mathematical Society in Ewha Womans University in Seoul, Korea on December 17th, 2009. The meeting was specifically organized to bring mathematics educators from the United States and Korea together.

Suh, J. (2009, July). *Building collective knowledge using pedagogical content tools and problem solving*. Presented at the International Conference on Psychology of Mathematics Education (Research report), Thessaloniki, Greece. *Shared design research with Classroom teacher in building collective knowledge through mathematics discourse*

Suh, J. (2008, July). *Scaffolding Special Needs Students' Learning of Fraction Equivalence Using Virtual Manipulatives* Presented at the International Conference on Psychology of Mathematics Education (Research report) Morelia, Mexico.

Discussed strategies for enhancing mathematics instruction for students with special needs using virtual manipulatives. Results indicated that affordances in the virtual manipulative applets enabled special needs learners to "off-load" information and focus more on mathematical processes and relationships among equivalent fractions.

Suh, J. (2007, July). *The Application of Dual Coding Theory in Multi-Representational Virtual Mathematics Environments*. Presented at the International Conference on Psychology of Mathematics Education (Research report) Seoul, Korea.

Examined the application of Dual Coding Theory (DCT) in multi-representational virtual mathematics

environments focusing on the nature of learners' algorithmic thinking processes when exploring mathematical tasks with dynamic electronic objects, or virtual manipulatives.

Suh, J. (2007, July). *Building Mathematical Knowledge For Teaching Using Tech-Knowledge* Presented at the International Conference on Psychology of Mathematics Education (Poster presentation) Seoul, Korea.

Explored pre-service teachers' experiences with planning and teaching with technology and its impact on their mathematical knowledge for teaching, confidence and attitude about teaching mathematics.

Suh, J. (2006, March). *Third Graders' Achievement and Representation Preference Using Virtual and Physical Manipulatives in Adding Fractions and Balancing Equations in Algebra*. Presented at the International Consortium for Research in science and Mathematics Education, Nassau, Bahamas.

Presented dissertation findings that compared virtual and physical manipulatives in teaching fractions and algebra concepts to third graders.

Suh, J. (2005, January). *Technology Uses in the Mathematics Classroom: Understanding Fractions Using Virtual Manipulatives Concept Tutorials*. Presented at the Hawaii International Conference on Education, , Honolulu, Hawaii.

Presented research findings that revealed unique characteristics of the fraction manipulatives that enhanced understanding for fraction equivalence and addition in third graders

NATIONAL PRESENTATIONS

Suh, J. (2009, April). *Developing Collective Teacher Efficacy in a Professional Development School*, Presented at the American Educational Research Association, San Diego, California.

Discuss four major themes that emerged from Developing Collective Teacher Efficacy in a Professional Development School: T.I.M.E. for excellence: T-teacher leadership, I- instructional improvements, M-mentoring through mastery experiences and modeling, and E-empowerment.

Suh, J. (2009, April). *Let's Talk Math: Engaging All Learners in Meaningful Mathematical Discourse*. Presented at the Annual Conference for the National Council for Teachers of Mathematics, Washington, DC.

Share classroom practices that engage all learners (Special Needs, gifted, ELL, and Ethnically and SES diverse students) in meaningful math discourse that encourage justifying, reasoning, and proving through multiple methods of engagement, representations, expressions and assessments.

Suh, J. (2008, October). *Preparing Pre-service Teachers to Teach Mathematics with Tech-knowledge*. Presented at the North American Chapter of Psychology of Mathematics Education, Lake Tahoe, Nevada.

Discussed the learning experiences designed to develop pre-service teachers' confidence and competence in teaching with technology in mathematics classrooms.

Suh, J. (2008, April). *I Can Solve It! Developing Persistent Flexible Problem Solvers*. Presented at the National Council for Teachers of Mathematics. Salt Lake City, Utah.

Teachers who participated in NCTM's Lesson Study presented lessons and teaching strategies that develop persistence and flexibility

Suh, J. (2008, January). *Teachers Building Mathematics Knowledge Side by- Side through Collaborative Planning*. Presented at the Association of Mathematics Teacher Educators. Tulsa, Oklahoma.

Presented a project involving preservice and inservice teachers working collaboratively on planning, teaching and reflecting on mathematics lessons.

Suh, J. (2007, June). *Modeling and Investigating Mathematics Concepts Using Interactive Math Applets and Virtual Manipulatives in Elementary Grades*. Presented at the National Educational Computing Conference ISTE. Atlanta, Georgia.

Explored issues surrounding integrating technology into mathematics, with a focus on modeling mathematics concepts and designing investigations using virtual manipulatives and applets. The experiences of 22 pre-service

teachers during a semester long mathematics methods course are shared through analysis of surveys, reflection based on designing a lesson using these tools, class discussion and teacher interviews.

Suh, J. (2007, April). *Third Graders' Mathematics Achievement Using Virtual and Physical Manipulatives for Adding Fractions and Balancing Equations*. Presented at the American Educational Research Association (Poster presentation), Chicago, Illinois.
Presented dissertation findings that compared virtual and physical manipulatives in teaching fractions and algebra concepts to third graders.

Suh, J. (2007, January). *Modeling Mathematics Concepts Meaningfully Using Technology*. Presented at the Association of Mathematics Teacher Educators, Irvine, California.
Presented data gathered from the learning experiences of 22 preservice teachers who explored mathematical concepts and models using technology and showcased ways pre-service teachers incorporated virtual manipulatives in their lessons.

Suh, J. (2006, July) *Introduction to Lesson Study*. Presented at the National Council for Teachers of Mathematics Workshop, Reston, Virginia.
This course, offered during the 2006-2007 academic year, allowed a group of teachers the chance to learn and practice a Japanese lesson study approach to mathematics instruction while earning 3 graduate credits.

Suh, J. (2006, January and February). *Implementing the Algebra Standard in Grades 3–5*
National Council of Teachers of Mathematics e-workshops
January & February 2006: 90-minute E-Workshops offering approaches and techniques for integrating algebraic concepts in the classroom.

Suh, J. (2003, April). *Junior Architect: Design your clubhouse using Measurement and Geometry*
Presented at the National Council for Teachers of Mathematics, San Antonio, Texas.
Our Clubhouse Project is a project based learning activity, which explores geometry, measurement and fraction concepts through problem solving and the use of manipulatives. Students take the role of junior architects as they solve a variety of math problems related to real life architecture, construction, and budgeting while designing and building a clubhouse.

STATE AND REGIONAL PRESENTATIONS & WORKSHOPS

Suh, J. (2009, January). *Building Collective Mathematical Knowledge through Pedagogical Content Tools*.
Presented at the Fairfax County Public Schools Academic Institute, Fairfax, Virginia.
Presented instructional strategies that promoted collective mathematical knowledge in a problem-based classroom.

Suh, J. (2009, February). *Developing Teachers Algebraic Connections*. Presented at the College of Education and Human Development Research Symposium, George Mason University.
Present on research findings from the ACT NOW: Algebraic Connections and Technology Summer institute and Lesson Study Project.

Suh, J. (2008, March). *Establishing Lesson Study at your school: Lesson Study Workshop*, Tibury, Massachusetts.
Provided professional development for teachers in establishing a Lesson Study community.

Suh, J. (2007 & 2008) Westlawn Elementary Lesson Study Professional Development School
Consultant for Professional Development for Lesson Study for Westlawn Elementary, Fairfax County Virginia.
Provided professional development for teachers in establishing a Lesson Study community.

Suh, J. (2006, October). *Algebracadabra: Demystifying Algebraic Reasoning for Elementary Grades*. Presented at the National Council for Teachers of Mathematics Regional Conference. Atlantic City, New Jersey.
Shared strategies with elementary teachers to reconceptualize the meaning of algebra so that it can be integrated into the curriculum.

Suh, J. (2004, August). *Developing Mathematical Proficiency for All Students*, Presented at the Professional Development Workshop for Loudoun County Public School.

Suh, J. (2003, March). *Living in a 2 D& 3D World*. Presented at the Virginia Council for Teachers of Mathematics. Richmond, Virginia. Presentation about plane and solid geometry using virtual and concrete manipulatives

Suh, J. (2002, March). *SOL Concept Bridges*. Presented at the Virginia Council for Teachers of Mathematics. Manassas, Virginia. Presentation about teaching VA. Math SOL using physical and virtual manipulatives

Suh, J. (2002, March). *Math Bridges: Connecting Concepts using Physical and Virtual Manipulatives*
Presented at the Loudoun County Inservice Day
Presentation about using physical and virtual manipulatives to bridge conceptual and procedural knowledge.

Suh, J. (2001, March). *Our Club House: Using Project Based Math*. Presented at the Virginia Council for Teachers of Mathematics, Harrisonburg, Virginia. *Presentation about using a project based approach to teach geometry and measurement.*

RESEARCH SUPERVISION

PHD Chair

- Chris Johnston
- Wendy Shudmak
- Gwenanne Salkind
- Jana Parker

PhD Committee member

Faye Obenschain- Mathematics Educational Leadership

GRANT PROJECTS

Grants Funded

Principal Investigator: CENTER FOR EXCELLENCE IN MATHEMATICS PROFESSIONAL LEARNING AND COACHING IN NORTHERN VIRGINIA FOR GRADES K-3

Virginia Department of Education: Mathematics Science Partnership,

Source of Support: VA Department of Education **Prime Source:** US DoEducation

Total Award Amount: \$399,435 **Total Award Period:** 04/01/2010 – 09/30/2011

Person-Months Per Year Committed to the Project: 2.5 Academic Months & 1 Summer

Principal investigator: CENTER FOR EXCELLENCE IN MATHEMATICS PROFESSIONAL LEARNING AND COACHING IN NORTHERN VIRGINIA FOR GRADES 7-8

Virginia Department of Education: Mathematics Science Partnership,

Source of Support: VA Department of Education **Prime Source:** US DoEducation

Total Award Amount: \$399,435 **Total Award Period:** 04/01/2010 – 09/30/2011

Location of Project: George Mason University

Person-Months Per Year Committed to the Project: 2.5 Academic Months & 1 Summer

Principal Investigator: "IMPACT Improving Mathematical Practices through Algebraic Connections and Technology for the Middle Grades"

State Council of Higher Education for Virginia, \$ 168,000

This grant will be used to fund a 2009-2010 NCLB project as a continuation of ACT now from 2008-2009 with five districts in Virginia.

Principal Investigator: "ACT now: Algebraic Connections and Technology for the Middle Grades"

State Council of Higher Education for Virginia, \$ 73,000

This grant will be used to fund a 2008-2009 NCLB project entitled, "Algebraic Connections and Technology in Middle Grade Mathematics." The project consists of two phases. The first phase was completed in August, 2008. Forty-one Fairfax County public school teachers participated in an 8-day institute which focused on making algebraic connections at all levels of elementary and middle school mathematics, with an emphasis on integrating technology. The second phase will occur during the Fall, 2008 semester, during which the teachers will engage in lesson study in their respective schools. In addition to these two phases of the project, teachers will earn 3 graduate-level credits at GMU, and they will attend the National Council of Teachers of Mathematics (NCTM) Annual Meeting in Washington, D.C. in April, 2009 to disseminate their learning.

Mathematical Potential of Diverse Learners through Algebraic Reasoning

National Council of Teachers of Mathematics & Mathematics Education Trust Grant:

Classroom research grant 2008-2009 (\$8,000)

Principal Investigator of Classroom Research K-6 with Kerri Fulginiti, 4th grade teacher

Classroom research grant for a summer institute to develop mathematics problem solving skills with mathematical promising students from diverse populations.

Developing Students' Algebraic Reasoning through Problem Solving and Technology

National Council of Teachers of Mathematics & MET Grant:

Classroom-based Research Grant 2009-2010 (\$8,000)

Principal Investigator of Classroom Research K-6 with EL Haynes School, DC Charter School

The purpose of this grant project is to explore the development of students' algebraic reasoning using problem driven lessons and appropriate technology in the elementary classrooms. Through collaboration with a mathematics educator, the teachers at EL Haynes will co-design research lessons that focus on rigorous mathematics in authentic problems that use technology targeting low-performing student populations.

Grants- Lead Instructor

MATH BRIDGES II Project: Concepts and Connections in the K-8 Standards (2003-2004). Lead instructor for Grades 3-4 teachers. No Child Left Behind Grant. Project goal: Provide professional development in the use of concrete and virtual manipulatives for 80 K-8 teachers in the Loudoun County Public School System that increases the mathematics achievement of students.

MATH BRIDGES I Project: Concepts and Connections in the K-8 Standards (\$65,347). (2002-2003). Lead instructor for Grades 3-4 teachers. Dwight D. Eisenhower Professional Development Program, Virginia. Project goal: Provide professional development in the use of concrete and virtual manipulatives for 60 K-8 teachers in the Loudoun County Public School System that increases the mathematics achievement of students.

Grant Submitted

Pending Support

Proposal # 110503

Role: Principal Investigator

Project/Proposal Title: Math Arithmetic Proficiency System (MAPS)-Integrating the "Five Strands" through the Mathematicians 2.0 and the MathSharp System to Enhance Mathematical Proficiency

Source of Support: National Science Foundation

Total Award Amount: \$449,810

Total Award Period: 08/15/2010 – 08/14/2013

Location of Project: George Mason University

Person-Months Per Year Committed to the Project: 1 Summer Month and 1 Academic Year Month in year one, and 1.8 Academic Year months in two and three

Proposal # 110336

Role: Co-Principal Investigator
Principal Investigator: Margaret Hjalmarson

Project/Proposal Title: Pre-Proposal: Developing Pedagogical Content Knowledge for Leadership in Mathematics

Source of Support: National Science Foundation

Total Award Amount: \$406,967

Total Award Period: 08/01/2010 – 08/01/2013

Location of Project: George Mason University

Person-Months Per Year Committed to the Project: 0.9 Summer Months

Curriculum Publications

Math 411: Young Mathematicians on Call (In Progress).

Developed mathematics problem solving modules to promote algebraic connections in middle grades mathematics Grades 4-6

Math Bridges: K-8 On-line resources for technology and mathematics (2007)

<http://mason.gmu.edu/~jsuh4/mathbridges/index.html>

Illumination Lesson Plans (2005)

Developed geometry and measurement lessons for NCTM's Illumination website.

Gifted Readers' Resource Guide (Summer 2000)

Curriculum development for FCPS Gifted and Talented Program

Developed a resource guide for Gifted and talented 3-4 grade using the themes of Change, Creativity, Perspectives and Interdependence.

Our Club House (Summer 2000)

Curriculum development for FCPS Gifted math program

Enrichment for primary students using real life problem solving.

AWARDS

Graduate School of Education Ph. D. Award Spring 2005.

College of Education and Human Development, George Mason University

Fairfax County Public Schools Teacher of the Year & Washington Post's Agnes Meyer Award Nominee-

Nominated for 2000-2001 school year.

SERVICE ACTIVITIES

INTERNATIONAL LEADERSHIP AND SERVICE

NATIONAL LEADERSHIP AND SERVICE

Illumination Advisory Group and Braining Camp Project for the National Council of Teachers of Mathematics (March, 2008-on going). Served as a member of an advisory group for the research and development of NCTM's Illumination Project and Braining Camp Project.

Reviewer for the International Group for Psychology of Mathematics Education (IGPME) (2007-present)

Reviewed submitted conference research reports and gave feedback for acceptance/rejection.

Reviewer for National Council of Teachers of Mathematics journal, Teaching Children Mathematics (2006-present). Review submitted journal articles on a regular basis.

Reviewer for Association of Mathematics Teacher Educator's journal TE-MAT (2006-present). Teacher Education Materials Project provides descriptions of professional development materials for mathematics teachers.

Instructor for National Council of Teachers of Mathematics Lesson Study Course (Summer 2006 & 2007)

Content Expert Reviewer (2007). Technology Intergration in the Content Areas. Thomson Publishing.

STATE LEADERSHIP AND SERVICE

University facilitator (2004-present).

Professional Development School Partnership. Spend one day each week at Westlawn Elementary School and Colin Powell Elementary School, Fairfax Count Public Schools, Virginia.

OUTREACH FOR SCHOOLS

**Building Collective Mathematical Knowledge through Pedagogical Content Tools
Fairfax County Public Schools Academic Institute, (January 27, 2009)**

Presented instructional strategies that promoted collective mathematical knowledge in a problem-based classroom

Consultant for Professional Development for Lesson Study for DC Charter School. E.L. Haynes (Spring 2008). Provided long term professional development for teachers in establishing a Lesson Study community.

Consultant and Instructor for Teacher Leadership Grant. Westlawn Elementary, Falls Church, Virginia (Summers 2006, 2007 & 2008).

Collaborated (in kind) on a grant for Developing Teacher Leadership for Summer Institutes. Planned and taught professional development workshop for a three week summer institute for Westlawn Elementary School in Falls Church, Virginia

Instructor for Westlawn Labschool MATH 411: Falls Church, Virginia (Summer 2008).

Taught problem solving in mathematics (in context of their own community) to rising 4-6th grade students from a Title One Elementary School.

Lead Instructor (3-4). MATH BRIDGES II Project: Concepts and Connections in the K-8 Standards. (2003-2004).

Two week course with four follow-up classes

No Child Left Behind Grant. Professional Development Program, Virginia

Project goal: Provide professional development in the use of concrete and virtual manipulatives for 80 K-8 teachers in the Loudoun County Public School System.

Lead Instructor (3-4). MATH BRIDGES Project: Concepts and Connections in the K-8 Standards. (2002-2003). Two week course with four follow-up classes

Dwight D. Eisenhower Professional Development Program, Virginia (\$65,347). Project goal: Provide professional development in the use of concrete and virtual manipulatives for 60 K-8 teachers in the Loudoun County Public School System.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- American Educational Research Association
- Association for the Psychology of Mathematics Education, North American Chapter and International member
- National Council for Teachers of Mathematics
- Association for Supervision and Curriculum Development

- Association for Mathematics Teacher Educators