

Curriculum Vitae

Lynn Columba

Department of Education & Human Services
College of Education
Lehigh University
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Education

Ed.D. University of Louisville, Louisville, Kentucky, 1989
M.Ed. University of Louisville, Louisville, Kentucky, 1977
B.A. Morehead State University, Morehead, Kentucky, 1972

Certifications

Elementary Teacher (1-8)
Reading Specialist (K-12)
Administration--Elementary Principal
Supervision Endorsement (K-12)

Professional Positions

1995-Present	Associate Professor, Lehigh University, Department of Education and Human Services, Bethlehem, PA
2005-2008	Program Coordinator, Teaching, Learning, and Technology Program, formerly Technology-based Teacher Education and Educational Technology Programs, (merged 2006), Department of Education and Human Services, Bethlehem, PA
2000-2008	Coordinator of the Fifth Year Program and Education Minor, Teaching, Learning, and Technology Program, Lehigh University, Bethlehem, PA
1996-2000	Program Coordinator, Teacher Education Program, Lehigh University, Department of Education and Human Services, Bethlehem, PA
1989-1995	Assistant Professor, Lehigh University, Department of Education and Human Services, Bethlehem, PA
1986-1989	Clinical Instructor, University of Louisville, Department of Early and Middle Childhood Education, Louisville, KY
1986-Present	Educational Consultant, School Districts in Kentucky, Indiana, Pennsylvania, New Jersey, and Maryland; International Schools in Guatemala, Thailand, and Philippines; Textbook Publishers
1972-1986	Elementary Teacher, Jefferson County Public Schools, King Elementary School, Louisville, KY

Publications

Books and Book Chapter

- Columba, L., Kim, C., & Moe, A. J. (in preparation for 2009). *The power of picture books in teaching math and science: PreK-8* (2nd ed.). Scottsdale, AZ: Holcomb Hathaway.
- Spade, J. Z., Columba, L., & Vanfossen, B. E. (2007). Tracking in mathematics and science: Courses and course selection procedures. In J. H. Ballantine & J. Z. Spade, Eds. In *Schools and society: A sociological approach to education*, (3rd ed.), pp. 286-297. Thousand Oaks, CA: Sage.
- Columba, L., Kim, C., & Moe, A. J. (2005). *The power of picture books in teaching math and science: PreK-8*. Scottsdale, AZ: Holcomb Hathaway.

Refereed Journals

- Columba, L. (In preparation). Linking thinking strategies and literature to master basic multiplication facts. *Teaching Children Mathematics*.
- Columba, L. (In preparation). Travel as a professional development model. *NCSM*.
- Peterson, W., & Columba, L. (In preparation). Sorting mathematical representations: Words, symbols, and graphs. *Teaching Children Mathematics*.
- Columba, L. (In review). What's in a name? The mathematics in names. In Math by the Month, E. Hendrix-Martin (Ed.). *Teaching Children Mathematics*.
- Columba, L. (In review). Tantalizing thirteen. In Math by the Month, E. Hendrix-Martin (Ed.). *Teaching Children Mathematics*.
- Columba, L. (In review). A treasure trove of triangles. In Math by the Month, E. Hendrix-Martin (Ed.). *Teaching Children Mathematics*.
- Harmer, A. J., & Columba, L. (In review). Engaging middle school students in nanoscale science, nanotechnology, and electron microscopy affects achievement. *Journal of Nano Education*.
- Columba, L. (In review). Weaving the strands: Literature, mathematics, science, and technology. *Pennsylvania Council of Teachers of Mathematics Yearbook 2007-2008, Focusing the Mathematics Curriculum*.
- Rolón, A., & Columba, L. (Accepted). Constructing bridges, constructing knowledge. *Mathematics Teaching-Research Journal*.
- Columba, L. (2008). Enhancing mathematics and science concepts through children's literature. *Pennsylvania Council of Teachers of Mathematics Magazine*, 46(2), 10-13.
- Columba, L. (2007). Exploring weighty matters with *Cucumber Soup*: An interdisciplinary approach. In Classroom Idea-Sparkers, B. Chakraborty & S. Stone (Eds.). *Childhood Education*, (84)1, 30R-30U.
- Columba, L. (2007). Assessing and helping more students achieve success with First in Math online program. *Proceedings of the 8th International Conference on Technology in Mathematics Teaching*, Hradec Králové, Czech Republic, July.
- Smith, C., & Columba, L. (2006). Writing to enhance mathematical understanding. *Pennsylvania Council of Teachers of Mathematics Yearbook, Learning and Teaching Mathematical Processes*, 53-62.
- Columba, L. (2006). A tree at bedtime investigation: Connecting mathematics, science, and literature. In Classroom Idea-Sparkers, J. Kieff (Ed.). *Childhood Education*, 82(3), 162G-162J.

- Columba, L., & Voiles, B. (2006). Problem solving with pink piranhas. *Pennsylvania Council of Teachers of Mathematics Magazine*, 44(3), 16-19.
- Kolodziej, N. J., & Columba, L. (2006). Invented spelling: Guidelines for parents. *Reading Improvement*, 42(4), 212-223.
- Columba, L. (2005). Learning through integration: Using literature to teach mathematics and science. *Proceedings of the 4th International Conference on Science, Mathematics and Technology Education*, Victoria, BC, Canada, August.
- Columba, L. (2001). Daily classroom assessment. *Education*, 122(2), 372-376.
- Columba, L. & Leight, R. L. (2000). Early immersion in meaningful teaching: School-University collaboration in a summer school program. In P.A. Nelson (Ed.) & J. F. Nolan, Jr. & K. C. Scanlon (Assoc. Eds.), *School and university partnerships: Issues, trends, research, and best practices, (Monograph II, pp. 24-31)*. Pennsylvania Association of Colleges and Teacher Educators.
- Spade, J. Z., Columba, L., & Vanfossen, B. E. (1997). Tracking in mathematics and science: Courses and course selection procedures. *Sociology of Education*, 70(4), 108-127.
- Columba, L., & Dolgos, K. A. (1996). Integrating mathematics and science through bubble exploration. *1996 Pennsylvania Council of Teachers of Mathematics Yearbook, Integrated Mathematics and Integrating Mathematics*, 1-6.
- Columba, L., & Dolgos, K. A. (1996). Building bridges through fraction language. (Reprinted from the *New England Mathematics Journal*). *Virginia Mathematics Teacher*, 23(1), 15-17.
- Columba, L., & Dolgos, K. A. (1995). Exploring with Geometric Solids. *1995 Pennsylvania Council of Teachers of Mathematics Yearbook, Teaching Mathematics with a Focus on Learning*, 39-44.
- Columba, L., & Dolgos, K. A. (1995). Building bridges through fraction language. *New England Mathematics Journal*, 28(1), 48-55.
- Columba, L., & Dolgos, K. A. (1995). Portfolio assessment in mathematics. *Reading Improvement*, 32(3), 174-176.
- Columba, L., & Dolgos, K. A. (1994). Going the distance: Interpreting data. *1994 Pennsylvania Council of Teachers of Mathematics Yearbook, Mathematics for All Students*, 90-98.
- Dolgos, K. A., & Columba, L. (1993). Alternative assessment: The mathematics portfolio. *1993 Pennsylvania Council of Teachers of Mathematics Yearbook, Alternative Assessment in Mathematics*, 23-28.
- Columba, L., & Dolgos, K. A. (1993). Professional development for teachers of mathematics. (Reprinted from *Education*). *Education*, 114(1), 32-36.
- Columba, L., & Dolgos, K. A. (1993). Professional development for teachers of mathematics. *Education*, 113(4), 656-660.
- Columba, L., & Dolgos, K. A. (1993). Tips for beginners: Daily quiz sheet. *Mathematics Teacher*, 86(5), 378-379.
- Columba, L., & Dolgos, K. A. (1992). Instructional model for the teaching of mathematics. *1992 Pennsylvania Council of Teachers of Mathematics Yearbook, New Standards for Teaching Mathematics*, 37-43.
- Lunenberg, F. C., & Columba, L. (1992). The 16PF a predictor of principal performance: An integration of quantitative and qualitative research methods. *Education*, 113(1), 68-73.

- Columba, L., & White, G. P. (1992). Writing: A tool for teaching middle level mathematics. *Transcendence: The Journal of Emerging Adolescent Education*, 20(1), 32-41.
- Columba, L., & Wire, D. (1991). Nutrition: Educational issue for parenting teens. *Delta Kappa Gamma Bulletin*, 57(4), 18-22.
- Columba, L., & Dolgos, K. (1991). Connecting mathematics and science: Investigating the pendulum. *1991 Yearbook, Mathematics Education Making Connections, Pennsylvania Council of Teachers of Mathematics*, 27-34.
- Columba, L. (1991). Problem solving: An essential skill. *Delta Kappa Gamma Bulletin*, 57(3), 32-36. [Reprinted by San Mateo Department of Education, CA.]
- Columba, L. (1991). Implementing calculators: Issues and implications. *Ohio Journal of School Mathematics*, 20, Winter, 27-29.
- Columba, L. (1990). An issue facing educators today: Censorship. *Kappa Delta Pi Record*, 27(2), 47.
- Columba, L. (1990). Technology is changing the mathematics classroom. *Delta Kappa Gamma Bulletin*, 56(3), 20-22.
- Columba, L. (1989). Equivalent Fraction Concepts: A teaching experiment. Unpublished doctoral dissertation. University of Louisville, Louisville, KY.

Grants Awarded

- Pennsylvania Infrastructure Technology Alliance (PITA). Launch-It Information Technology Outreach Program for At-Risk Lehigh Valley Students. Co-PI's G. D. Blank, H. U. Odi, L. Columba, & N. D. Perreira, 2008-09, \$52,822. [not funded]
- Pennsylvania Infrastructure Technology Alliance (PITA). Enhancing First In Math™ Online With Teacher's Guides, Multimedia And Intelligent Tutoring, PI, L. Columba. Co-PI's G. Blank & H. Odi, \$44,649, March, 2007-08.
- Lehigh Valley Partnership for GK-12 Teaching Fellows: Widening the Pipeline, National Science Foundation, 2007-2010, \$1,541,219.00 PI from Lehigh University, G. Blank; CoPI's G. DeLeo, L. Columba, & H. Odi.
- Co-Principal Investigator for "ITEST: LAUNCH-IT", National Science Foundation, \$1,024,329, 2006-2009, three PI/co-PIs from Lehigh University, G. D. Blank, H. U. Odi and L. Columba.
- Pennsylvania Infrastructure Technology Alliance (PITA). Assessing and Helping More Students Achieve Success with Firsts in Math Online Program, PI, L. Columba. Co-PI--Dr. Henry Odi, Mr. Bob Sun, Dr. William Pottenger, Dr. Glenn Blank, \$43,912.00, March, 2006-07.
- A Lehigh Valley Partnership to Enhance K-12 Science, Technology, Engineering, and Mathematics (STEM) Education through Graduate Teaching Fellows, NSF. Co-PI, Bill Pottenger, Henry Odi, Gary DeLeo, Glenn Blank, William Bennett, Keith Schray, Horace Moo-Young, \$1.2 million, 2002-05.
- Faculty Research Grant, Funding was received for research using calculators to learn fractions in mathematics classrooms, \$1,225.
- National Science Foundation-Lehigh Valley Mathematics Planning Grant. A \$50,000 grant for collaborative five-member team of Lehigh Valley mathematics educators, 1993-94.

Department of Energy-STAR Mathematics and Science Summer Camp. Co-director of summer camp teaching mathematics to at-risk students, 1993-95.

IBM Technology Equipment for Education. Funding was received for an instructional computer laboratory for teacher preparation, 1990.

Reviews

Tools for Matching Readers to Text: Research Based Practice, Heidi Anne E. Mesmer, Guilford Press, July, 2008. [Book Review]

Two Thumbs Way, Way Up. *Teaching Children Mathematics*, October, 2007 and February, 2008.

What does 'time' have to do the learning environment? *2008 Focus Issue: Teaching Children Mathematics*, July, 2007.

Learning theories: An educational perspective (4th ed.), D. H. Schunk, Pearson Merrill Prentice Hall, 2005.

Walt Disney Productions, Youth Media International, Curriculum Materials for *Beauty and the Beast*, 2001.

Today's Mathematics: Concepts and Classroom Methods, J. W. Heddens & W. R. Speer, John Wiley Publishers, 2000.

Teaching in the spirit of the NCTM Standards: A fourth-grade teacher's story. Lawrence Erlbaum Associates Inc., Publishers, 1996.

The wonderful world of mathematics: A critically annotated list of children's books in mathematics, National Council of Teachers of Mathematics, 1990.

Honors

2007 People to People Ambassador Education Forum, Mathematics Education Delegation, Cairo, Egypt, November, 2007

2007 Nominated Who's Who Among American Teachers & Educators

2002 Lehigh Valley Summerbridge, 10 Years of Service, Moravian Academy

2001 Nominated Outstanding Alumni, University of Louisville

1993 Phi Beta Delta Honor Society for International Scholars, Vice-President

1992 Phi Beta Delta Honor Society for International Scholars

1991 Who's Who in the East

1990 Nominated as a Cornerstone Consultant, Pennsylvania Comprehensive Reading Program II

1988 Kentucky State Scholarship, Delta Kappa Gamma Society International

1986 Who's Who Among Students in American Universities and Colleges

Professional Presentations

International and National

"Affective Teaching" to Learn Science: What is the Relationship between Practice and Achievement? Co-presenting with Yamil Sanchez, School Science and Mathematics Association, Annual Convention, Durham, NC, Nov. 13-15, 2008. [Accepted]

- Developing Fluency in Basic Facts: Integrating Strategy Instruction with First in Math Online Program.* National Council of Teachers of Mathematics Annual Meeting, Washington, DC, April 22-25, 2009. [proposal in review]
- Video and Micro-teaching with Peer Review as Tools to Promote Standards-based Practice for Prospective Elementary Mathematics Teachers.* Association of Mathematics Teacher Educators, Orlando, FL, Feb. 5-7, 2009. [proposal in review]
- Student Teacher Demographics and Beliefs: Do They Affect Science Inquiry Implementation?* Co-presenting with P. O'Donnell, School Science and Mathematics Association, Annual Convention, Durham, NC, Nov. 13-15, 2008. [Accepted]
- Using Children's Picture Books to Teach Geography, History, Mathematics, and Science to Elementary Learners,* International Reading Association, 22nd World Congress on Reading, San Jose, Costa Rica, July 30, 2008.
- Literacy Strategies in the Mathematics Classroom: Adapting Reading/Language Arts Strategies to Teach K-12 Mathematics.* Co-presenting with W. Peterson. 15th International Conference on Learning, University of Illinois, Chicago, IL, June 6, 2008.
- Developing Mathematical Understanding through Writing Explanations.* Research Session, National Council of Teachers of Mathematics Annual Meeting, Salt Lake City, Utah, April 10, 2008.
- Supporting Basic Fact Instruction with the First in Math Online® Program.* Research Session, National Council of Teachers of Mathematics Annual Meeting, Salt Lake City, Utah, April 11, 2008.
- Mastery of Basic Facts with the First in Math Online® Program.* People-to-People Ambassador Professional Forum, Mathematics Education Delegation, Semiramis Intercontinental Hotel, Cairo, Egypt, November 29, 2007.
- Assessing and Assisting At-Risk Students Achieve with the First in Math Online® Program.* International Conference on Technology in Mathematics Teaching, University of Hradec Králové, Prague, Czech Republic, July 2, 2007.
- Assessing and Assisting At-Risk Students Achieve with the First in Math Online® Program.* Association of Mathematics Teacher Educators, Eleventh Annual Conference, Irvine, CA, January 26, 2007.
- University/Industry/School Collaboration: A Model at Lehigh University.* Co-presented with H. Odi, G. DeLeo, & J. RaHS. National Consortium for Continuous Improvement in Higher Education, Honolulu, HI, July 8, 2006.
- Professional Development Model: Coaching/Mentoring in the Elementary Mathematics Classroom.* Ethnographic and Qualitative Research in Education, Dayton, OH, June 10, 2006.
- The Magical (Mathematical) World of Books: The Power of Picture Books in Teaching Complex Mathematics Concepts.* Co-presented with C. Kim & A. Moe. Microworkshop, International Reading Association National Conference, Chicago, IL, May 2, 2006.

- Literature as the Connecting Agent: Developing mathematical Concepts.* Co-presented with A. Moe. National Council of Teachers of Mathematics Annual Meeting and Exposition, St. Louis, MO, April 27, 2006.
- Professional Development Model: Coaching/Mentoring in the Elementary Mathematics Classroom.* Association of Mathematics Teacher Educators Tenth Annual Conference, Tampa, FL, January 28, 2006.
- Learning through integration: Using literature to teach mathematics and science.* 4th International Conference on Science, Mathematics and Technology Education, Victoria, BC, Canada, August 26, 2005.
- Connecting Books to Students to Concepts to Standards: Trade Books as a Dynamic Teaching Tool.* Co-presented with C. Kim & A. J. Moe. Microworkshop, International Reading Association National Conference, San Antonio, TX, May 3, 2005.
- Connecting Books to Students to Concepts to Standards: Trade Books as a Dynamic Teaching Tool.* Co-presented with C. Kim & A. J. Moe. Microworkshop, International Reading Association National Conference, Reno, NV, May 5, 2004.
- Exploring Mathematical Concepts Through Children's Literature.* Co-presented with C. Kim & A. J. Moe. National Council of Teachers of Mathematics, National Conference, Philadelphia, PA, April 23, 2004.
- Using Picture Books to Teach Mathematics and Science in the Elementary School Classroom.* Co-presented with C. Kim and A. Moe. National Council of Teachers of Mathematics, San Antonio, TX, April 11, 2003.
- Using Multimedia Learning to Increase the Number of Women and Under-Represented Minorities in Computer Science & Engineering Education.* Co-presented with W. Pottenger. Institute of Electrical and Electronics Engineers, Deans Summit II: Fostering Campus Collaborations, Miami, FL, January 10, 2003.
- A Unified Elementary Teacher Education and special Education Certification Program at Lehigh University—In the Works.* Co-presented with A. Jitendra. Learning Disability Association of America, Reno, Nevada, February 16, 2000.
- Friendliness with Fractions.* NCTM Central Regional Conference & School Science and Mathematics Association Annual Conference, Louisville, KY, October, 1998.
- Implementing the National Council of Teachers of Mathematics' Standards.* A week of workshops at the International School of Manila, Philippines, October, 1996.
- Mathematics Assessment. What? How?* A week of workshops at the International School of Bangkok, Thailand, March, 1996.
- Exploring Content Subject Literature in Literacy Methods Courses, Integrating Content Instruction in the College Classroom.* A panel with G. Smith and P. Richards, Symposium at the Annual of the Association of Supervision and Curriculum Development, March, 1996, New Orleans, LA.
- Teaching Reading in the Content Areas.* A panel with G. Smith, J. Simmons, S. McKee, & B. Grugel. International Reading Association Annual Meeting, Anaheim, CA, May, 1995.
- Action in Fractions - Hands-on Thinking Tools.* National Council of Teachers of Mathematics, Annual Meeting, Indianapolis, IN, April, 1994.
- Multiple Perspectives of Computer-Assisted Instruction in the Elementary Classroom.* Co-presented with G. Smith, INFOCOMM and Association of Educational Communications and Technology, Annual Meeting, New Orleans, LA, January, 1993.

- How Computers Change the Learning Environment.* Co-presented with G. Smith, Association of Supervision and Curriculum Development, Annual Meeting, Washington, D.C., March, 1993.
- The Action in Fractions - Hands-on Thinking Tools.* NCTM Canadian Regional Conference, Montreal, Quebec, August, 1992.
- Far-out Fractions: No Limits-Teaching Fractions with Manipulatives.* National Council of Teachers of Mathematics, Annual Meeting, New Orleans, LA, April, 1991.
- Curriculum Tracking in Mathematics and Science.* Co-presented with J. Spade. American Educational Research Association, Annual Meeting, Chicago, IL, April, 1991.
- Perceptions of Teachers Regarding the First Years of Teaching.* Co-presented with R. Leight, Association of Teacher Educators, Annual Meeting, New Orleans, LA, February, 1991.
- Overview of NCTM's Standards and Problem Solving: A Series of Four Seminars.* American School of Guatemala, Guatemala City, Guatemala, SA, August, 1991.
- A Pocketful of Perplexing Problems.* School Science and Mathematics Association, Annual Meeting, Cincinnati, OH, 1990.

Regional

- Developing Mathematical Power with Children's Literature.* 57th Annual Pennsylvania Council of Teachers of mathematics Meeting, Split Rock, PA, November 6, 2008.
- Assessing Basic Fact Fluency with the First in Math Online Program (PAMTE Spotlight).* 56th Annual Pennsylvania Council of Teachers Mathematics Meeting, Valley Forge, PA, November 9, 2007.
- Engaging and Exciting Explorations: Manipulatives to Enhance Learning Math.* Second Annual Secondary Math Conference, Colonial Intermediate Unit 20, Teaching Strategies Strand, Easton, PA, June 21, 2007.
- Elementary Mathematics Content.* Chairing a Round Table. Pennsylvania Association of Mathematics Teacher Educators, Shippensburg, PA, April 20, 2007.
- Basic Facts: Constructing Efficient Mental Tools.* 55th Annual Pennsylvania Council of Teachers of Mathematics Meeting, Seven Springs Mt. Resort, PA, October 27, 2006.
- Using Picture Books to Teach Reading and Writing and Mathematics and Science in Elementary Classrooms.* Co-presented with A. Moe. Florida Reading Association Fall Conference, Orlando, FL, October 20, 2006.
- The Power of Picture Books in Teaching Mathematics.* 54th Annual Pennsylvania Council of Teachers of Mathematics Meeting, Harrisburg, PA, October 27, 2005.
- Using Children's Trade Books a Dynamic Teaching Tools in Elementary Classrooms.* Co-presented with A. Moe, K. Brown, & S. B. Collard III. 22nd Southeast IRA Regional Conference, Biloxi, MS, December 1, 2004.
- Leadership and Excellence for Administrators in Pennsylvania Schools (LEAPS).* Pennsylvania Department of Education and Pennsylvania Academy for the Profession of Teaching and Learning. Harrisburg, PA, January 31 & February 1, 2003.
- Homework: A powerful instructional tool,* Radio Talk Show, WHY Y, Marty Moss-Coane, FM91, August 28, 2001.

- Early immersion in meaningful teaching: School-University collaboration in a summer school program.* Pennsylvania Association of College Teacher Educators, Harrisburg, PA, October, 2000.
- Calculators: An Electronic Manipulative for Developing Number Sense.* NCTM Eastern Regional Conference, Philadelphia, PA, October, 2000.
- Calculators: An Electronic Manipulative for Thinking.* Pennsylvania Council of Teachers of Mathematics, 48th Annual Meeting, Lake Harmony, PA, March, 1999.
- A Unified Elementary and Special Education Certification Program at Lehigh University—In the Works.* Co-presented with A. Jitendra & L. Kern. Pennsylvania Federation Council for Exceptional Children, 40th Annual Convention, Harrisburg, PA, November, 1999.
- Friendliness with Fractions.* NCTM Eastern Regional Conference, Cleveland, OH, November, 1997.
- Friendliness with Fractions.* NCTM Eastern Regional Conference, Philadelphia, PA, November, 1995.
- Fascinating Fractions - A Hands-on Approach.* NCTM Eastern Regional Conference, Pittsburgh, PA, October, 1993.
- Fascinating Fractions - A Hands-on Approach.* NCTM Eastern Regional Conference, Columbus, Ohio, September, 1992.
- Overview of NCTM Standards for School Mathematics.* Gloucester Township School District, Keynote Address, Gloucester, New Jersey, May, 1992.
- Overview of the Standards.* South Jersey Area Schools, Berlin, NJ, April, 1992.
- Writing: A Tool for Teaching Middle Level Mathematics.* Pennsylvania Council of Teachers of Mathematics Annual Meeting, Valley Forge, PA, March, 1992.
- Overview of the Standards.* Wilkes-Barre Area School District, Wilkes-Barre, PA, February, 1992.
- Teaching Mathematics Developmentally.* Principals of the Diocese of Pittsburgh, Pittsburgh, PA, January, 1992.
- Hands-on Problem Solving: Activities, Ideas, and Games.* NCTM Central Regional Conference, Louisville, KY, October, 1991.
- Fabulous and Fascinating Fractions.* NCTM Southeastern Regional Conference, Baltimore, MD, October, 1991.
- Fun and Fascinating Fractions.* Elementary Workshop. Pennsylvania Council of Teachers of Mathematics, Pittsburgh, PA, March, 1991.
- Software for Diagnostic and Prescriptive Mathematics, K-12.* DPMA Conference, Capital Area Intermediate Unit, Summerdale, PA, November, 1990.

Local

- How Students Learn: Models of Learning,* Teacher Development Program for Graduate Students, Lehigh University, October 18, 2007.
- Launch-It: Information Technology, Fuego Flash Team,* Lehigh University, Three week course, July, 2007.
- PRIME: Investigations and Everyday mathematics,* Northampton Community College, Two week course, July, 2006.
- PRIME: Partners Realizing Improvement in Mathematics Education, Data Analysis,* K-6 Follow-up Workshop, Northampton Community College, April 5, 2006.

- PRIME: Partners Realizing Improvement in Mathematics Education, Algebra, K-6 Follow-up Workshop*, Northampton Community College, February 22, 2006.
- PRIME: Partners Realizing Improvement in Mathematics Education, Connections—A Process Standard, K-6 Follow-up Workshop*, Northampton Community College, February 9, 2006.
- PRIME: Partners Realizing Improvement in mathematics Education, Geometry Standard, K-6 Follow-up Workshop*, Northampton Community College, January 18, 2007.
- Friendliness with Fractions*, Allentown School District, March 31, 2005.
- Algebra in Grades K-3*, PRIME Follow-up Workshop, Northampton Community College, March 24, 2005.
- Place Value Concepts: Renaming & Regrouping*. Allentown School District, March 10, 2005.
- Geometry Concepts: Area, Perimeter, Pentominoes*. Allentown School District, March 3, 2005.
- PRIME: Partners Realizing Improvement in Mathematics Education, Estimation/Mailing Investigation*, Northampton Community College. November 4, 2004
- Peer-Led Team Learning Training*. Training Undergraduate students as Peer Leaders. NSF Grant. Lehigh University. August 25, 2004.
- Bethlehem Area School District, Constructivist Approach to Teaching Mathematics, Freedom High School, Sept. 30, 2004
- PRIME: Investigations and Everyday mathematics*, Northampton Community College, Two week course, July, 2004.
- Peer-Led Team Learning Training*. Training Undergraduate students as Peer Leaders. NSF Grant. Lehigh University. September 5 & 6, 2003.
- SCIME II: Data Driven Mathematics in Grades 3-5*. Northampton Community College. June 30-July 10, 2003.
- Science, Technology, Engineering, and Mathematics: Theory Into Practice*, NSF Two Week Workshop, Coordinator and Instructor, July and August, 2003.
- Problem Solving & Measurement*. Eisenhower Grant Follow-up Workshop. Northampton Community College. April 24, 2003.
- Data Driven Mathematics in Grades 3-5*, Two Week Course, Eisenhower, Northampton Community College, July 2003.
- Measurement NCTM Standards: Metric System*, Levels 3-5, Northampton Community College, Eisenhower Grant, April 24, 2003.
- Algebraic Reasoning*, Levels 3-5, Northampton Community College, Eisenhower Grant, February 25, 2003.
- Integrating Mathematics and Other Disciplines for Elementary Teacher*, Levels 3-5, Two Week Course, Eisenhower, Northampton Community College, July, 2002.
- Geometry for Elementary Teachers*, Levels K-6, Two Week Course, Eisenhower Grant, Northampton Community College, July, 2001.
- Representations: The New Process Standard*, Levels K-2, Intermediate Unit 20, May, 2001.
- Multiple Intelligences and Learning Styles*, Levels K-12, Intermediate Unit 20, April, 2001.
- Implementing NCTM's Principles & Standards in School Mathematics*, Levels K-6, Eisenhower Grant, Pleasant Valley School District, August, 2000.
- Teaching Mathematics Through Projects*, Levels 3-5, Eisenhower Grant, Northampton Community College, July, 2000.

- PowerPoint Workshops for Teachers K-12*, Eisenhower Grant, Northampton Community College, June, July, August, 1999.
- Technology & Assessment*, Levels 3-5, Two Week Course, Eisenhower Grant, Northampton Community College, July, 1999.
- Team-Teaching Across Disciplines*, Faculty Development & Learning Innovations Program, Lehigh University, October, 1999.
- Family Relationships: Facts vs. Fiction*, Training Institute of Early Head Start Workshops, Lehigh Valley Hospital, November, 1999.
- Calculators in the Elementary Classroom*, K-4 & 5-6, Washington Township Elementary, NJ, October, 1998.
- Report on AAHE Conference*, Faculty Development & Learning Innovations Program, Lehigh University, April, 1998.
- Mathematics Made Easy*. WGPA Radio Station, 1100 AM, Parenting Matters, Bethlehem, PA, February, 1998.
- Using the Internet to Teach Mathematics*, Two Week Course, Eisenhower Grant, Northampton Community College, July, 1998.
- Implementing Technology: Internet, Graphing Calculators, E-mate*, Phillipsburg School District, April, 1998.
- Teaching Mathematics Through Art*. Diocese of Bethlehem, Bethlehem Catholic High School, June, 1997.
- Mathematics in the 21st Century*. Quakertown School District, Quakertown High School, September, 1997.
- Learning Styles/Teaching Styles*. Faculty Development and Teacher Assistant Orientation, Lehigh University, 1993.
- Calculating Mentally: A Real-life Skill*. MathConn93, Cedar Crest College, 1993.
- The Standards and Implications for Curriculum*. Curriculum Resource Series, Intermediate Unit 20 & 21, October, February, and April, 1992.
- Integrating Writing and Mathematics*. The Lehigh University Middle Level Institute II, Bethlehem, PA, March, 1991.
- Far-out Fractions: No Limits*. MathConn91, Cedar Crest College, 1991.
- Mathematics Education: A View for the Curriculum Coordinator*. Curriculum Council at Intermediate Unit 20, 1991.
- Teaching Mathematics/Science for Concept Development*. Mathematics/Science Conference, Reading, PA, 1990.
- Effective Teaching Strategies*. Faculty Development In-service and Teacher Assistant Orientation, Lehigh University, 1990-92.
- Diversity Awareness Workshops*. Lehigh University Faculty and Centennial School Faculty, 1990.

Numerous other local presentations to school districts and professional organizations.

Teaching and Advising

Dissertation Chair

Yamil Sanchez. (Expected 2009). Promoting Motivation Through Mode of Instruction: The Validation of the Motivation to Learn Science (MLS) Inventory.

- Patricia O'Donnell. (Expected 2009). The Implementation of Science Inquiry: Pre-service Traditional Teachers, Non-traditional Teachers and Epistemological Beliefs.
- Andrea Harmer. (2007). Designing for Student Engagement in Middle School Science: Collaborative Problem-Solving in Environmental Science, Using Nanotechnology and Electron Microscopy.
- Judy Koller. (2006). A Study of the Relationship Between Pre-service Character Education Training and Teacher Efficacy.
- Lisa Slawter. (2004). Students' Perceptions of Assessment in the Elementary School.
- Michelle Olhson. (2004). A Study of the Relationship between High-Stakes State Assessment Programs and Classroom Assessment methodologies.
- Kristel Pfeil Kemmerer. (2003). Relationship Between the Number of Hours Spent in General Music Class and Reading Skills in Kindergarten through Grade 4.
- Richard, Barno. (2003). The Selection Process and Performance of Former Home-Schooled Students at Pennsylvania's Four-Year Colleges and Universities.
- Nancy Kolodziej. (2002). The Relationship between Informing Parents of Both the Rationale and the Reported Benefits of Using Invented spelling and the Parents' Attitudes towards the Use of Invented Spelling.
- Mary Ellen Kueny. (2001). A study of the long term effects of a prefirst grade program on students' academic achievement and students' psychosocial domain characteristics as measured in seventh or eighth grade.
- Kathryn Dech. (2000). Profiles of discontinued reading recovery students and program reading recovery students.
- Lubov Iskold. (1999). An empirical study of the effectiveness of group video viewing in a comprehension-based Destinos Curriculum in Spanish.
- Carolyn Coyle. (1998). A history of educational publishing based on the experiences of the Silver Burdett Company and the transformation of the publishing process.
- Kathleen Hartman (1998). Critical incidents affecting developmental college freshmen's use and transfer of textbook reading and study strategies.
- Grigoruk, Melissa. (1997). The relationship of constructivism to language and mathematics learning.
- Couchara, Sr. Carol Anne. (1997). The supervisory role of the cooperating teacher: A study of critical incidents which influenced student teachers.
- Ballard, Connie. (1997). The relationship between self-concept, academic performance, and school perception by African-American elementary children.
- Hanlon, Sr. Martha. (1996). The governance relationship between the Sisters of Mercy and College Misericordia.
- Kistler, Barbara. (1995). Mathematics preparation of elementary teachers in Pennsylvania.
- Kramer, Pamela A. (1994). The role of the university in meeting the needs of first year teachers.
- Bray, Jane. (1994). A comparison of teacher concerns for the non-traditional student teacher and the traditional student teacher.

Academic Advising

2008 2007 2006 2005 2004

Undergraduate	14	27	21	20	26
Graduate	17	26	25	26	19

Courses Taught at Lehigh University (Spring 2004-Spring 2008)

TBTE 448	Mathematics in Middle Level & High School Education (Spring, 2003), 10 enrolled; (Spring, 2004), 8 enrolled; (Fall, 2004) 6 enrolled; (Fall, 2005), 8 enrolled; (Fall, 2006), 9 enrolled; (Fall, 2007), 8 enrolled
TBTE 428/ TLT 428	Mathematics in Elementary Education (Spring, 2004), 13 enrolled; (Summer, 2004, Course 1), 14 enrolled; (Summer, 2004, Course 2), 12 enrolled; (Spring, 2005), 13 enrolled; (Summer, 2005, Course 1), 14 enrolled; (Summer, 2005, Course 2), 14 enrolled; (Spring, 2006), 11 enrolled; (Summer 2006, Course 1), 12 enrolled; (Summer, 2006, Course 2), 12 enrolled; (Spring 2007), 12 enrolled; (Summer, 2007, Course 1), 11 enrolled; (Summer, 2007, Course 2), 5 enrolled; (Spring 2008), 13 enrolled
TBTE 407	Designing Instruction for K-12 Classrooms (Spring 2005) 14 enrolled; (Spring, 2006) 20 enrolled
TBTE 401	Technology-based Teaching and Learning: Foundations and Issues (Fall, 2003), 25 enrolled
TBTE 402	Technology-based Teaching and Learning: Assessment and Implementation (Spring, 2004), 20 enrolled
TBTE 461/ TLT 440	Participation in Teaching (Fall, 2003), 30 enrolled, Double course load, supervision in 20 different schools; (Fall, 2004), 29 enrolled, 2 sections, supervision in 18 different schools; (Fall, 2006), 9 enrolled; (Spring, 2007), 5 enrolled; (Summer, 2007), 4 enrolled; (Fall, 2007), 16 enrolled; (Spring, 2008), 4 enrolled
Educ 495	Independent Study (Spring, 2003), 1 enrolled; (Spring, 2004), 1 enrolled; (Fall, 2004), 1 enrolled; (Spring 2005), 1 enrolled; (Summer 2005), 3 enrolled; (Fall 2005), 1 enrolled; (Spring 2006), 2 enrolled; (Spring, 2007), 1 enrolled
Educ/TBIE/TLT 499	Dissertation 1 enrolled; (Fall, 5 enrolled; (Spring, 2004), 3 enrolled; (Fall 2004), 2 enrolled; (Spring 2005), 1 enrolled; (Fall 2005), 1 enrolled; (Spring 2006), 2 enrolled; (Summer 2006) 1 enrolled; (Spring, 2007), 1 enrolled; (Spring, 2008), 2 enrolled
Educ 486	Doctoral Qualifier (Spring, 2008), 1 enrolled
TBTE 463/4	Intern Teaching Seminar & Supervision (Spring 2005), 22 enrolled; (Spring, 2006), 29 enrolled

Curriculum Development

PITA Grant-Curriculum Development for Levels 6th-7th for students learning fraction concepts on First in Math® Online Software, a series of lesson plans using

- manipulatives to teach fraction concepts, used by Diluvium Software Company to develop story boards in 2007 and a tutorial in 2008.
- Launch-It (NSF Grant)** Curriculum Development for Levels 8th & 9th Flash Team (Curriculum development in process), 2007-08.
- Technical Report** First in Math (PITA Grant) Interventions to Promote Basic Fact Learning (Curriculum development in process)
- Learning Sciences and Technology Doctorate (LST)** New doctoral program across colleges, housed in the College of Education, but involves faculty from all four colleges, interdisciplinary and highly collaborative, member of the workgroup
- Technology-based Teaching and Learning-Shared Core** Implementing new technologies into the teacher certification program, i.e. Digital Portfolios, Blackboard, Internet, iMovie, Inspiration, Dreamweaver MX, etc.
- The 5-Year Bachelor's and Master's Combined Degree Program** Developed and coordinate the 5th Year Masters and certification program in the College of Education for undergraduates in the Arts and Sciences, Engineering, and Business Colleges

Service

University

- College of Education, Promotion & Tenure Committee (Substitute), 2008
- College of Education, Phi Delta Kappa Account Executive, 2007-Strong Student Program, 2007-08
- Graduate Research Committee, 2007-2010, Co-chair, 2008-09
- Subcommittee GRC, Curriculum, Chair, 2007-2010
- Subcommittee GRC, Fellowship Selection, 2007-2010
- Middle States Accreditation Subcommittee—Technology Support for a Learning-Centered Mission, 2006-08
- Member of the Teacher Certification Curriculum Revision Committee, 2007-University Writing Across the Curriculum Committee, 2007-Honorary Degree Committee, 2007-
- University Search Committee, Writing Across the Curriculum Coordinator, Spring, 2006
- College of Education Search Committee, Chair, Teaching, Learning, & Technology Program, 2006-2007
- College of Education Search Committee, Chair, Teaching, Learning, & Technology Program, 2005-2006
- Campus Restoration and Enhancement Plan Review Committee, 2004-2006
- Advisory Board for STAR-Students That Are Ready, 2004-Present
- Student Life Policy Review Committee, 2002-2003
- Faculty Compensation Committee, 2000-2003
- Candidate's Day, 1995-2003
- Forum Steering Committee, 1996-1999
- Faculty Discipline Committee, 1995-1998, 2004-2007
- Faculty Development, 1990-1998
- Summer Sessions Advisory Committee, 1993-94, 1996-97
- Community Action Committee, Steering Committee, 1991-92
- President's Advisory Board on Child Care, 1991-1997

Faculty Disciplinary Appeals Committee, 1991-1993 1999-2000; Chair, 1992-93,
2000-2004; Chair 2002-2004; Co-chair, 2005-07
English as a Second Language Advisory Committee, 1992-1998
Lehigh Valley Educational Cooperative, 1990-1993
Women's Commission, 1989-1991
Diversity Awareness Trainer, 1991-92
Coordinator of Minor in Education Program, 1989-Present
Phi Beta Delta Honor Society, Vice-President, 1992-94
Lehigh University Cosmos Club, 1991-93

Professional Service

Pennsylvania Association of Mathematics Teacher Educators, Chair Roundtable-
Elementary Research, Shippensburg, PA, May 15, 2008.
Representative, Association of Mathematics Educators (AMTE) at National Council
of Teachers of Mathematics (NCTM) in Salt Lake City, UT, 2008
Reviewer, Ethnographic and Qualitative Research Conference EQRC, Conference
Research Paper Proposals for 2008 Conference
Member of the Nominations and Elections Committee, Association of Mathematics
Teacher Educators, 2007-08
Reviewer, National Educational Computing Consortium, Conference Research
Paper Proposals for 2008 NECC Conference
Reviewer, *Teaching Children Mathematics*, National Council Teachers of
Mathematics, 2007
Ad hoc Reviewer, *Contemporary Issues in Technology and Teacher Education*
(*CITE*), 2007.
Pennsylvania Council of Teachers of Mathematics, Committee Chair-NCTM
Materials/Book Store 56th Annual Conference, Valley Forge, November 7-9,
2007.
Pennsylvania Association of Mathematics Teacher Educators, Chair Roundtable-
Elementary Content, Shippensburg, PA, April 19, 2007.
Pennsylvania Department of Education Office of Policy and the Bureau of Teacher
Certification and Preparation, Teacher Preparation Program Guideline
Revision Background Report, Elementary Education Committee, Harrisburg,
PA, Feb. & Mar., 2005.
Pennsylvania Department of Education Review Team, Institutional Approval,
Reviewed Early Childhood and Elementary Education Programs, Eastern
University, Radnor, PA, March 16-18, 2005.
PRIME: Partners Realizing Improvement in Mathematics Education, Mentoring
sixteen teachers in classroom, implementing constructivist/standards-based
approach to teaching mathematics
Seminar to Enhance Statewide Coordination of K-12 Academic Standards with
Postsecondary Specific Teacher Education Program Guidelines, Pennsylvania
Department of Education-Mathematics, University of Pittsburgh-Johnstown,
PA, by invitation June 16-18, 2003.

Pennsylvania Department of Education Review Team Member, Shippensburg University, Widner University, University of Pittsburgh, Bloomsburg University, Indiana University of Pennsylvania (2001).
Board of Trustees, Roberto Clemente Charter School, 2002-Present
Curriculum Advisory Board, Roberto Clemente Charter School, 1999-2002
Advisory Board Students That Are Ready (STAR), Lehigh University Outreach, 2004-Present
Summerbridge Advisory Board, Chair of the Education Committee, 1996-1997
Bethlehem Area Vocational-Technical School Advisory Board, 1992-1996
America 2000-Task Force #4-Mathematics and Science, 1992-93
CCD Teacher, St. Thomas More, 1989-93

Professional Affiliations

Member, National Council of Teachers of Mathematics
Member, Association of Mathematics Teacher Educators
Member, Research Council of Mathematics Learning
Member, National Council of Supervisors of Mathematics
Member, Psychology of Mathematics Education, An affiliated study group of the International Commission on Mathematical Instruction
Member, School Science and Mathematics Association
Member, For the Learning of Mathematics
Member, Pennsylvania Council of Teachers of Mathematics
Member, Eastern Pennsylvania Council of Teachers of Mathematics
Member, International Reading Association
Member, Pennsylvania Association of Mathematics Teacher Educators
Member, Pennsylvania Council of Supervisors of Mathematics
Member, Phi Delta Kappa
Member, Delta Kappa Gamma
Member, Association for Curriculum and Development
Member, Pennsylvania Association of College Teacher Educators
Member, Phi Beta Delta
Member, Lehigh Valley Association for Academic Women

Consultantships

School Districts

Pennsylvania:

Allentown School District
Bethlehem Area School District
Carbon Lehigh Intermediate Unit 21
Colonial Northampton Intermediate Unit 20
Delaware Valley School District
Diocese of Bethlehem
Diocese of Pittsburgh
East Stroudsburg Area School District
Easton Area School District
Lower Moreland School District

Northampton Area School District
Northwestern Lehigh School District
Parkland School District
Pen Argyl Area School District
Pleasant Valley School District
Quakertown Community School District
Salisbury Township School District
Saucon Valley School District
Springfield Township School District
Spring-Ford Area School District
Wilkes-Barre Area School District

New Jersey:

Blairstown Township Public Schools
Gloucester Township School District
Harmony Township Public Schools
North Warren Regional Public Schools
Phillipsburg School District
South Jersey Area Public Schools
Vernon Township School District

Maryland:

Charles County School District

Colleges

Northampton Community College

Industry

IBM Instructional Specialist

Publishers

Addison-Wesley Publishing Company
D. C. Heath Company
Harcourt Brace, Inc., School Department
Scholastic, Inc.