

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**
MAJOR: SUPERVISION IN METROPOLITAN SETTINGS
SUBSPECIALTY: URBAN SOCIAL SCIENCES
COGNATE AREAS: MATHEMATICS EDUCATION AND LITERACY
Dissertation: Equivalent Fraction Concepts: A Teaching Experiment
(Advisor: Charles S. Thompson, PhD)
- M.ED. UNIVERSITY OF LOUISVILLE, LOUISVILLE, KENTUCKY, 1977**
MAJOR: ELEMENTARY EDUCATION
CONCENTRATION: READING EDUCATION
- B.A. MOREHEAD STATE UNIVERSITY, MOREHEAD, KENTUCKY, 1972**
MAJOR: ELEMENTARY EDUCATION
CONCENTRATION: PRE-PHARMACY

PROFESSIONAL CERTIFICATIONS

ELEMENTARY TEACHER (1-8), 1972
READING SPECIALIST (K-12), 1977
ADMINISTRATION--ELEMENTARY PRINCIPAL (K-8), 1987
SUPERVISION ENDORSEMENT (K-12), 1988

PROFESSIONAL POSITIONS

LEHIGH UNIVERSITY, COLLEGE OF EDUCATION, 1989-Present
ASSOCIATE PROFESSOR OF TEACHER EDUCATION, 1995-Present
PROGRAM DIRECTOR, Fall 2016-Summer 2018; Spring-Summer 2015, Spring-Summer 2016, Teaching, Learning, and Technology Program, 1996-2000; 2005-08; formerly Technology-based Teacher Education and Educational Technology Programs, led the merger of the two programs in 2006, formerly Teacher Education
COORDINATOR OF THE FIVE-YEAR PROGRAM, 1996-2008
Developed, recruited, and coordinated the program
COORDINATOR OF THE EDUCATION MINOR, 1989-2008

Reactivated and recruited students for the Education Minor
ASSISTANT PROFESSOR OF TEACHER EDUCATION, 1989-1995

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF EARLY AND MIDDLE CHILDHOOD EDUCATION, 1986-1989
CLINICAL INSTRUCTOR
Full-Time Faculty, Non-Tenure Track, Louisville, Kentucky

JEFFERSON COUNTY PUBLIC SCHOOLS, 1972-1986
ELEMENTARY TEACHER,
Martin Luther King Jr. Elementary School, Taught Levels 1-6, Louisville,
Kentucky

EDUCATIONAL CONSULTANT, 1986-Present
PROFESSIONAL DEVELOPMENT PROVIDER
for over 30 school districts in Kentucky, Indiana, Pennsylvania, New Jersey,
and Maryland; International Schools in Guatemala, Thailand, and
Philippines; and Textbook Publishers

PUBLICATIONS AND CREATIVE ACTIVITIES

RESEARCH AND SCHOLARSHIP

BOOKS

AUTHORED BOOKS

Wellman, D., Kim, C., **Columba, L.**, & Moe, A. J. (2018). *Vibrant learning: An integrative approach to content area disciplines*. New York: Rowman & Littlefield.

National Council of Supervisors of Mathematics. (2014). *It's TIME: Themes and imperatives for mathematics education: A leadership framework for Common Core Mathematics*. Bloomington, IN: Solution Tree and National Council of Supervisors of Mathematics. [A team of 12 authors.]

Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-Clockwise: Learning time with the MOTO family*. [E-reader] Retrieved from <http://www.nctm.org/catalog/product.aspx?id=14741>

Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-What comes next? Making patterns with the MOTO family*. [E-reader] Retrieved from <http://www.nctm.org/catalog/product.aspx?id=14737>

- Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-Shapes and sizes: Learning geometry with the MOTO family*. [E-reader] Retrieved from <http://www.nctm.org/catalog/product.aspx?id=14736>
- Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-One foot, two feet: Measuring with the MOTO family*. [E-reader] Retrieved from <http://www.nctm.org/catalog/product.aspx?id=14738>
- Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-Everybody counts: Learning to count with the MOTO family*. [E-reader] Retrieved from <http://www.nctm.org/catalog/product.aspx?id=14736>
- Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-It all adds up! Learning to add and subtract with the MOTO family*. [E-reader] Retrieved from <http://www.nctm.org/catalog/product.aspx?id=14735>
- Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Math of Tomorrow (MOTO)-Bits and pieces: Sorting and representing data with the MOTO family*. [E-reader] Retrieved <http://www.nctm.org/catalog/product.aspx?id=14739>
- Columba, L.**, Kim, C., & Moe, A. J. (2009). *The power of picture books in teaching math, science, and social studies: Grades PreK-8* (2nd ed.). Scottsdale, AZ: Holcomb Hathaway.
- Columba, L.**, Kim, C., & Moe, A. J. (2005). *The power of picture books in teaching math and science: Grades PreK-8*. Scottsdale, AZ: Holcomb Hathaway.

EDITED BOOK(S)

- Evitts, T. A., Breyfogle, M. L., & **Columba, L.** (Eds.). (2013). *Teaching and learning mathematics in the 21st century's first decade, 2011-2012 Pennsylvania Council of Teachers of Mathematics Yearbook*. University Park, PA: The Pennsylvania State University.

BOOK CHAPTERS

- Columba, L.** (2016). Here's the story: Multiplication facts using storybooks. *Teaching Children Mathematics*, 19(6), 374-381. In D. Thiessen (Ed.), *Exploring mathematics through literature: Articles and lessons for prekindergarten through grade 8* (2nd ed.). Reston, VA: NCTM. Online anthology. <https://www.nctm.org/Store/Products/Exploring-Math-through-Literature-Pre-K-8/>

- 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.), *Schools and society: A sociological approach to education*, (3rd ed.), pp. 286-297. Thousand Oaks, CA: Sage.
- 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.

JOURNAL ARTICLES

REFEREED (BLIND PEER REVIEW)

- Chodnowsky, A., & **Columba, L.** (2018). Methods of mitigating the effect of stereotype threat on female students' mathematics performance in a geometry class. *Mathematics Teaching-Research Journal Online*.
- Leight, R., & **Columba, L.** (In preparation). What does Scout have to say about teachers in *To Kill a Mockingbird*? *Education*.
- Columba, L.** (In preparation). Jump, frog, jump: A STEM theme-based unit in the elementary classroom.
- Falk, B., & **Columba, L.** (2018). Teaching middle school mathematics through robotics project-based learning. *Mathematics Teaching-Research Journal Online*.
- Stotz, M. D., & **Columba, L.** (2018). Using augmented reality to teach subitizing with preschool students. *Journal of Interactive Learning Research*, 29(4).
- Yudt, K., & **Columba, L.** (2017). The effects of blended learning in pre-service elementary mathematics teachers' performance and attitude. *National Teacher Education Journal*, 10(1), 17-25.
- Columba, L.**, & Stotz, M. (2016/17). Shifting preservice teacher beliefs: The power of the Common Core State Standards in Mathematics. *Mathematics Teaching-Research Journal Online*. 8(3-4), 6-28.
- Shimmel, T. M., & **Columba, L.** (2016). Lesson plans: Format and use during classroom instruction. *US-China Education Review A, Education in Practice*, 6(9), 513-528.

- Hojnoski, R., Polignano, J., & **Columba, H. L.** (2016). Increasing teacher mathematical talk during shared book reading in the preschool classroom: A pilot study. *Early Education and Development Journal*, 27(5), 676-691.
- Adams, C., & **Columba, L.** (2014). Classroom response systems: Effects on the critical analysis skills of students in introductory science courses. *School Science and Mathematics Journal*, 114(8), 367-379.
- Columba, L.** (2014). Storybooks + technology = successful patterns. *National Teacher Education Journal* 7(2), 5-10.
- Hojnoski, R., **Columba, L.**, & Polignano, J. (2014) Embedding mathematical dialogue in parent-child shared book reading: A preliminary investigation. *Early Education and Development*, 25, 469-492. DOI:10.1080/10409289.2013.810481
- Harmer, A., & **Columba L.** (2013). Does authentic science inquiry in middle school impact college and career choice? *National Teacher Education Journal, Special Technology Issue*, 6(3), 87-96.
- Columba, L.**, Hojnoski, R., & Polignano, J. (2013). How big is humongous? Mathematics conversations. *Mathematics Teaching-Research Journal*, 6(4), 22-35.
- Columba, L.** (2013). Here's the story: Multiplication facts using storybooks. *Teaching Children Mathematics*, 19(6), 374-381 & online appendix 1-3.
- Szmodis, W., & **Columba, L.** (2013). Technology for young learners: Making a case for digital tools. *National Teacher Education Journal*, 6(1), 61-68.
- Columba, L.** (2012). Sorting mathematical representations: Words, symbols, and graphs. *Learning and Teaching in Mathematics*, 12, 3-8.
- Draper, L., & **Columba, L.** (2011). Students creating questions in the mathematics classroom. *Mathematics Teaching-Research Journal*, 5(1), 1-31.
- Fedynyshyn, G, Evans, J., Blank, G., & **Columba, L.** (2011). Developing fraction concept knowledge with a fraction tutor [Special issue]. *National Teacher Education Journal*, 4(1), 15-20.
- Yudt, K., & **Columba, L.** (2011). Interactive whiteboards: A tool for enhancing teaching and learning. *Journal of Technology Integration in the Classroom*, 3(2), 17-22.
- Harmer, A. J., & **Columba, L.** (2010). Engaging middle school students in nanoscale science, nanotechnology, and electron microscopy affects achievement. *Journal of Nano Education*, 2(1-2), 92-101.

- Columba, L.** (2010). Weaving the strands: Literature, mathematics, science, and technology. *Pennsylvania Council of Teachers of Mathematics Yearbook 2007-2008, Focusing the Mathematics Curriculum*, 1-13.
- Rolón, A., & **Columba, L.** (2008). Constructing bridges, constructing knowledge. *Mathematics Teaching-Research Journal*, 2(3), 62-73.
- Kolodziej, N. J., & **Columba, L.** (2006). Invented spelling: Guidelines for parents. *Reading Improvement*, 42(4), 212-223.
- 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.** (2001). Daily classroom assessment. *Education*, 122(2), 372-376.
- Spade, J. Z., **Columba, L.**, & Vanfossen, B. E. (1997). Tracking in mathematics and science: Courses and course selection procedures. *Sociology of Education*, 70(2), 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. (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.*
- 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.
- 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., & 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.

INVITED OR EDITORIAL REVIEW (PRESTIGIOUS NONREFEREED)

- Columba, L. (2017, Summer).** *Reflections on NCSM's Leadership Learning Academy.* In *National Council of Teachers of Supervisors Newsletter, 47*(4), 16-18.

- Allen, E. A. & **Columba, L.** (2016, Winter). *Graphing calculator: Still graphing after all these years.* In *National Council of Supervisors of Mathematics Newsletter*, 47(2), 21-26.
- Columba, L.** (2015, Spring). *Go fly a kite: Process problem solving.* In *National Council of Supervisors of Mathematics Newsletter*, 46(3), 28-29.
- Columba, L.** (2015, Summer). Science, Technology, Engineering, and Math-STEM teachers for today's students. *National Council of Supervisors of Mathematics Newsletter*, 46(2), 14-15.
- Breisch, J., & **Columba, L.** (2015, Spring). Technology integration: Increasing interactions in the mathematics classroom. *National Council of Supervisors of Mathematics Newsletter*, 45(3), 15-21.
- Columba, L.** (2014). *If the shoe fits, wear it.* In Math by the Month, M. Amador (Ed.). *Teaching Children Mathematics*, 20(6), 352-353.
- Columba, L.** (2013). *Flipping for pancakes.* In Math by the Month, M. Amador (Ed.). *Teaching Children Mathematics*, 20(5), 292-293.
- Columba, L.** (2013). *All hands on deck.* In Math by the Month, C. Poulsen & K. Lilienthal (Eds.). *Teaching Children Mathematics*, 19(8), 478-479.
- Columba, L.** (2012, Winter). Leadership tip: Leadership roles for teacher leaders. *National Council of Supervisors of Mathematics Newsletter*, 43(2), 9.
- Columba, L.** (2012). You take the cake. In Math by the Month, C. Poulsen & K. Lilienthal (Eds.). *Teaching Children Mathematics*, 19(1), 18-19.
- Columba, L.**, (2011). Hats off to you. In Math by the Month, C. Poulsen & K. Lilienthal (Eds.). *Teaching Children Mathematics*, 18(3), 142-143.
- Columba, L.**, (2011). The amazing number nine. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 17(8), 462-463.
- Columba, L.**, O'Donnell, P., & Sanchez, Y. (2011). A dime @ a time. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 17(6), 340-341.
- Columba, L.**, (2011). In the garden. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 17(9), 528-529.
- Hammond, T., **Columba, L.***, & Waddell, L. (2010). On the map with Google Maps. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematic*, 16(9), 522-523.

- Columba, L.***, O'Donnell, P., & Frick, A. (2010). Speedy Gonzalez. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 16(8), 456-457.
- Columba, L.**, Hammond, T., & Waddell, L. (2010). Where is the math in names? In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 16(7), 400-401.
- Columba, L.**, & Waddell, L. R. (2009). A treasure trove of triangles. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 16(5), 272-273.
- Waddell, L. R., **Columba, L.***, & Hammond, T. C. (2009). Let's take a trip. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 16(3), 148-149.
- Columba, L.***, Hammond, T. C., & Waddell, L. R. (2009). Fun with fascinating and fabulous frogs. In Math by the Month, **L. Columba** (Ed.). *Teaching Children Mathematics*, 16(2), 88-89.
- Columba, L.** (2009). Tantalizing thirteen. In Math by the Month, D. Islas (Ed.). *Teaching Children Mathematics*, 15(9) 540-41.
- 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.** (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.** (2012, Winter). Leadership tip: Teacher leaders support colleagues. *National Council of Supervisors of Mathematics Newsletter*. 43(2), 9.

*Policy change, author's name as editor removed

Non-Refereed Journals (Editorial Review, State Level)

- Columba, L.** (2018, Winter). President's Letter. *Pennsylvania Council of Teachers of Mathematics Magazine*, LVI(2), 3-4.
- Columba, L.** (2017, Fall). President's Letter. *Pennsylvania Council of Teachers of Mathematics Magazine*, LVI(1), 3-4.
- Columba, L.** (2017, Spring). President's Letter. *Pennsylvania Council of Teachers of Mathematics Magazine*, LV(3), 3-4.

- Columba, L.** (2017, Winter). President's Letter, *Pennsylvania Council of Teachers of Mathematics Magazine*, LV(2), 3-4.
- Columba, L.** (2016, Fall). President's Letter, *Pennsylvania Council of Teachers of Mathematics Magazine*, LV(1), 3.
- Columba, L.** (2013, February). Leadership tip: Leadership roles for teacher leaders. *Pennsylvania Council of Leaders in Mathematics Newsletter*, 6-7. [Reprint]
- Columba, L.** (2011). Questioning in the mathematics classroom: A classic theory revisited. In Teaching Tip, *Pennsylvania Association of Mathematics Teacher Educators Newsletter*, 5(1), 2.
- Columba, L.** (2008). GOPSGEFAR: Gagné's nine events of instruction. In Teaching Tip, *Pennsylvania Association of Mathematics Teacher Educators Newsletter*. 2(4)
Retrieved from <http://academics.sru.edu/pamte/teacher/education.htm>
- 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., & Voiles, B.** (2006). Problem solving with pink piranhas. *Pennsylvania Council of Teachers of Mathematics Magazine*, 44(3), 16-19.
- 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.

TECHNICAL AND RESEARCH REPORTS

- Columba, L.** (2017). Final Report for Robert Noyce Scholarship Program, Outside Evaluator. Millersville University, Millersville, PA.
- Columba, L.** (2016). Year 4 Report for Robert Noyce Scholarship Program, Outside Evaluator. Millersville University, Millersville, PA.
- Columba, L.** (2015). Year 3 Report for Robert Noyce Scholarship Program, Outside Evaluator. Millersville University, Millersville, PA.
- Columba, L.** (2014). Year 2 Report for Robert Noyce Scholarship Program, Outside Evaluator. Millersville University, Millersville, PA.
- Columba, L.** (2013). Year 1 Report for Robert Noyce Scholarship Program, Outside Evaluator. Millersville University, Millersville, PA.

INSTRUCTIONAL WEBSITE PROJECT

- Columba, L.** (2015). *Teacher Notes and Recording Sheets for Time for Bed*, Online Resources for *Exploring Mathematics through Literature* (2nd), D. Thiessen (Ed.). Reston, VA: National Council of Teachers of Mathematics Digital.
- Columba, L.** (2015). *Teacher Notes and Recording Sheets for Six Dinner Sid*, Online Resources for *Exploring Mathematics through Literature* (2nd), D. Thiessen (Ed.). Reston, VA: National Council of Teachers of Mathematics Digital.
- Dougherty, B., Lingo, A., & **Columba, L.** (2013). *Teacher Connect*, Online Resources K-2 Digital Series, RtI Levels 1 & 2, www.nctm.org/moto. Reston, VA: National Council of Teachers of Mathematics Digital. (Aligned to CCSSM, over 240 exploration pages.)

BOOK REVIEWS

- Columba, L.** (2017, Fall) [Review of the *Activating the vision: The four keys of mathematics leadership*, Barnes, B., & Toncheff, M.] *National Council of Supervisors of Mathematics Newsletter*, 48(1).
- Columba, L.** (2017, Fall) [Review of the *Young children's mathematics: Cognitively guided instruction in early childhood education*, Carpenter, T. P., Franke, M. L., Johnson, N. C., Turrou, A. C., & Wager, A. A.] *National Council of Supervisors of Mathematics Newsletter*, 48(1).
- Columba, L.** (2017, Spring) [Review of the *Bringing math students into the formative assessment equation: Tools and strategies for the middle grades*, Creighton, S. J., Tobey, C. R., Karnowski, E. & Fagan, E. R.] *National Council of Supervisors of Mathematics Newsletter*, 47(3).
- Columba, L.** (2016, Winter) [Review of the *Math exchanges: Guiding young mathematicians in small-group meetings*, Wedekind, K. O.] *National Council of Supervisors of Mathematics Newsletter*, 47(2).
- Columba, L.** (2016, Fall) [Review of the *Making math talks matter: Developing mathematical practices and deepening understanding, grades 4-10*, Humphreys, C., & Parker, R.] *National Council of Supervisors of Mathematics Newsletter*, 47(1).
- Columba, L.** (2016, Summer) [Review of the book *Let's talk about math: The littlecounters[®] approach to building early math skills*, Kotsopoulos, D., & Lee, J.] *National Council of Supervisors of Mathematics Newsletter*, 46(4).

- Columba, L.** (2015, Winter) [Review of the book *Engaging Young Engineers: Teaching Problem-Solving Skills Through STEM*, A. Stone-MacDonald., K. Wendell, A. Douglass, & M. Love] *National Council of Supervisors of Mathematics Newsletter*, 46(2).
- Columba, L.** (2015, Winter) [Review of the book *Intentional Talk: How to Structure and Lead Productive Mathematical Discussions*, E., Kazemi, & A. Hintz,] *National Council of Supervisors of Mathematics Newsletter*, 46(2).
- Columba, L.** (2015, Summer) [Review of the book *How to Solve It, A New Aspect of Mathematical Method*, G. Polya.] *National Council of Supervisors of Mathematics Newsletter*, 45(4).
- Columba, L.** (2015, Summer) [Review of the book *Rhythm of Math: Teaching Mathematics with Body Music* K. Terry & L. Akiyama.] *National Council of Supervisors of Mathematics*, 45 (4).
- Columba, L.** (2015, Spring) [Review of the book *What's Math Got to Do with it? Helping Children Learn their Least Favorite Subject—and Why It is Important for America* J. Boaler.] *National Council of Supervisors of Mathematics Newsletter*, 45(3).
- Columba, L.** (2015, Spring) [Review of the book *Accessible Mathematics—10 Instructional Shifts That Raise Student Achievement* by S. Leinwand.] *National Council of Supervisors of Mathematics Newsletter*, 45(3).
- Columba, L.** (2014, Winter) [Review of the book *Rethinking mathematics: Teaching social justice by the numbers*, edited by E. (R.) Gutstein & B. Peterson.] *National Council of Supervisor of Mathematics Newsletter*, 45(2).
- Columba, L.** (2014, Fall) [Review of the book *High-Yield routines: Grades K-8*, by A. McCoy, J. Barnett, & E. Combs.] *National Council of Supervisors of Mathematics Newsletter*, 45(1).
- Columba, L.** (2014, Spring) [Review of the book *Whole class mathematics discussions: Improving in-depth mathematical thinking and learning*, by T. Lamberg.] *National Council of Supervisors of Mathematics Newsletter*, 44(3).
- Columba, L.** (2014, Spring) [Review of the book *Math sense: The look, sound, and feel of effective instruction*, by C. Moynihan.] *National Council of Supervisors of Mathematics Newsletter*, 44(3).
- Columba, L.** (2013, Fall) [Review of the book *Understanding RTI in mathematics: Proven methods and applications*, by R. Gersten & R. Newman-Gonchar.] *National Council of Supervisors of Mathematics Newsletter*, 44(1).
- Columba, L.** (2013, Summer) [Review of the book *A guide to mathematics coaching: Processes for increasing student achievement*, by T. H. Hull, D. Balka, & R. H. Miles]. *National Council of Supervisors of Mathematics Newsletter*, 43(4), 13.

Columba, L. (2012, Winter). [Review of the book *Caring enough to lead: How reflective practice leads to moral leadership*, by L. O. Pellicer]. *National Council of Supervisors of Mathematics Newsletter*, 43(2), 21.

Columba, L. (2008). Review of the book *Tools for matching readers to text: Research-based practices*. *Education Review*. Retrieved August 28, 2008 from <http://edrev.asu.edu/reviews/rev703.htm>.

PUBLISHED CONFERENCE PROCEEDINGS

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.

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.

Honors and Awards

2017 NCSM Leadership in Mathematics Education-Network, Communicate, Support, Motivate, Award in Appreciation for Leadership as the Newsletter Editor, 2013-2017

2014 School Science and Mathematics Association-In appreciation for Outstanding Leadership for service as Director-at-Large, 2011- 2014

2014 NCSM Leadership in Mathematics Education-In recognition of contributions to the success of *It's TIME: Themes and Imperatives for Mathematics Education*

2013 NCSM Leadership in Mathematics Education-Network, Communicate, Support, Motivate, Award in Appreciation for Leadership as the Associate Newsletter Editor, 2011-2013

2012 S.T.A.R. Math, Science & Technology Camp, Lehigh University, Certificate of Appreciation for Commitment to the Summer Camp.

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

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

2001 Nominated Outstanding Alumnus, University of Louisville

1992 Phi Beta Delta Honor Society for International Scholars, Vice-President, 1993

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

1988 Kentucky State Scholarship, Delta Kappa Gamma Society International

Research Funding and Training Grants

NATIONAL

Innovation in Graduate Education-National Foundation of Science, Partnership in Research with Industry for Doctoral Education. Co-PI's, H. Jain, A. Jogata, V. Dieroff, & **L. Columba**, 2018-2021, \$403,000.

Robert Noyce Scholarship Program for Secondary Teachers in Science, Mathematics, Engineering, & Technology (STEM), Levels 7-12, National Science Foundation. Millersville University, PI, J. White: Co-PI's, J. Bray, R. Smith, D. Schultz, & J. Ward. **L. Columba**, External Reviewer. 2012-2017, \$1.1M.

Lehigh Valley Partnership for GK-12 Teaching Fellows: Widening the Pipeline, National Science Foundation, 2007-2013, \$1,541,219.00 PI from Lehigh University, G. Blank; Co-PI's G. DeLeo, **L. Columba**, & H. Odi. [541418]

Innovative Technology Experiences for Students and Teachers (ITEST): Launch-Instructional Technology (IT), National Science Foundation, \$1,024,329, 2006-2009, three PI/co-PIs from Lehigh University, G. D. Blank, H. U. Odi & **L. Columba**, 2006-2010.

A Lehigh Valley Partnership to Enhance K-12 Science, Technology, Engineering, and Mathematics (STEM) Education through Graduate Teaching Fellows, NSF. Co-PIs, W. Pottenger, H. Odi, G. DeLeo, G. Blank, W. Bennett, K. Schray, H. Moo-Young, & **L. Columba**, \$1.2 million, 2002-05.

National Science Foundation-Lehigh Valley Mathematics Planning Grant. A \$50,000 grant for collaborative five-member team of Lehigh Valley mathematics educators, 1993-1994.

GRANTS-REGIONAL

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.

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.

LOCAL

Online Course Development Proposal, Online Learning Advisory Committee (OLAC), PI with Co-PIs, T. Hammond, A. Bodzin, & S. Garrigan. \$4,925; 2014.

Faculty Research Grant. Mathematical Discourse in Shared Storybook Reading, \$2,500. October, 2009-10.

Faculty Innovation Grant. Embedding mathematical discourse in Shared Storybook Reading: Effect on Child Early Mathematical Performance, Co-PI, R. Hojnoski & **L. Columba**, \$25,000. April, 2009-10.

Faculty Research Grant, Funding was received for research using calculators to learn fractions in mathematics classrooms, \$1,225; 2007.

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

SUBMITTED NOT FUNDED

Science, Technology, Engineering and Mathematics Talent Expansion Program (NSF STEP Proposal), PI, J. Spletzer, Writing Team-B. Berger, J. Swann, K. Schray, **L. Columba**, A. Scott, J. Russo, M. Herr, & G. DeLeo. [Not funded, team collecting preliminary data, 2013]

Editor/Editorial Review Board

Editorial Board Member, *Investigations in Mathematics Learning*, 2018

Editorial Board Member, *Journal of Mathematical Sciences*, 2015-Present

Editor, *National Council of Supervisors of Mathematics Newsletter*, 2013-2015; 2015-2017

Associate Editor, *National Council of Supervisors of Mathematics Newsletter*, 2011-2013

Editor, Pennsylvania Council of Teachers of Mathematics Yearbook, *Mathematics Education Ten Years into the 21st Century*, 2010-12.

Editorial Board of the *Contemporary Issues in Technology and Teacher Education (CITE)*, Math, 2012-Present

Editorial Panel, *Journal of Systematic Teaching and Learning*, 2011

Editor, *Teaching Children Mathematics*, Math by the Month Department, National Council of Teachers of Mathematics, 2008-2011, Volume 16; 2008-2010, Volume 17; 2010-2011

Ad hoc Reviewer, *School Science and Mathematics Journal*, 2013-Present

Ad hoc Reviewer, *NCSM Journal of Mathematics Education Leadership*, 2018-Present

SCHOLARLY PRESENTATIONS

PROFESSIONAL PRESENTATIONS

INTERNATIONAL (Refereed)

Accessing the Inaccessible: The Power of Multiple Approaches to Content Area Instruction. Co-presented with D. Wellman, C. Kim, & A. Moe. 19th International Reading Association Conference. Chicago, IL, April 2012.

Literacy Strategies in the Mathematics Classroom: Adapting Reading/Language Arts Strategies to Teach K-12 Mathematics. Co-presented with W. Peterson. 15th International Conference on Learning, University of Illinois, Chicago, IL, June, 2008.

Using Children's Picture Books to Teach Geography, History, Mathematics, and Science

to Elementary Learners. Co-presented with A. Moe & C. Kim, International Reading Association, 22nd World Congress on Reading, San Jose, Costa Rica, July, 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, 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, 2007.

Learning through integration: Using literature to teach mathematics and science. 4th International Conference on Science, Mathematics and Technology Education, Victoria, BC, Canada, August, 2005.

Connecting Books to Students to Concepts to Standards: Trade Books as a Dynamic Teaching Tool. Co-presented with C. Kim & A. J. Moe. Micro-workshop, International Reading Association National Conference, San Antonio, TX, May, 2005.

Connecting Books to Students to Concepts to Standards: Trade Books as a Dynamic Teaching Tool. Co-presented with C. Kim & A. J. Moe. Micro-workshop, International Reading Association National Conference, Reno, NV, May 5, 2004.

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 professional development workshops at the International School of Bangkok, Thailand, March, 1996.

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.

Overview of NCTM's Standards and Problem Solving: A Series of Four Seminars. American School of Guatemala, Guatemala City, Guatemala, SA, August, 1991.

NATIONAL (REFEREED)

Strategies to Create Math-Talk Communities, National Council of Supervisors of Mathematics, Washington, DC, April 2018. Accepted

Let's Dispel the Myths about Women and Mathematics with L. Howard, National Council of Teachers of Mathematics, Washington DC, April, 2018. Accepted

Mathematical Discourse: Implementation by Elementary Preservice Teachers, Research Council on Mathematics Learning, Baton Rouge, Louisiana, February, 2018.

Pre-service Teachers' Mathematical Planning for Mathematical Discourse, School Science and Mathematics Association, Lexington, Kentucky, October, 2017.

Promoting Math-Talk with Intentional Actions, School Science and Mathematics Association, Lexington, Kentucky, October, 2017.

Strategies to Support Purposeful and Intentional Student Math Talk, National Council of Teachers of Mathematics, San Antonio, TX, April, 2017

Picture Books to Invite Purposeful "Math-Talk," National Council of Supervisors of Mathematics, San Antonio, TX, April, 2017

Pre-service Teachers Mathematical Discourse Interviews of Kindergarteners, Research Council on Mathematics Learning, Ft. Worth, TX, March 2-4, 2017

Pre-service Teachers' Promoting Students' Mathematical Discourse, School Science and Mathematics Association, Phoenix, AZ, October, 2016

STEM in the Classroom: Salta, Coquí, Salta (Jump, Frog, Jump), School Science and Mathematics Association, Phoenix, AZ, October, 2016

Strategies to Support the CCSS for Mathematical Practice Through Mathematical Discourse, National Council of Supervisors of Mathematics, Oakland, CA, April, 2016.

Pre-service (Elementary) Teachers' Defining and Implementing Mathematical Discourse, Research Council on Mathematics Learning, Orlando, FL, February 25-27, 2016.

"Math Talk" in Preschool Classroom: Effect of Book Type and Teacher Training, School Science and Mathematics Association, Oklahoma City, OK, October 29-31, 2015.

Effect of Book Type and Teacher Training on Math-Talk during Shared Book Reading, Research Council on Mathematics Learning, February 26-28, 2015.

Math of Tomorrow (MOTO)—A Digital Learning Environment for K-2 with B. Dougherty, School Science and Mathematics Association, Jacksonville, FL, November, 2014.

Assistive Technology: Applications for Science and Mathematics

Learners with P. O'Donnell, School Science and Mathematics Association, Jacksonville, FL, November, 2014.

Write Reactions: Part I-Science Writing with Cindy Adams, School Science and Mathematics Association, Jacksonville, FL, November, 2014.

Write Reactions: Part 2-Enhancing Student Critical Analysis Skills with Cindy Adams, School Science and Mathematics Association, Jacksonville, FL, November, 2014

Strategies for English Language Learners to Enhance the Mathematical Practices with J. Zimmer, TODOS: Mathematics for All, Phoenix, AZ, June, 2014.

So, Here's the Story: Multiple Representations Using Picture Books, National Council of Teachers of Mathematics, New Orleans, LA, April, 2014.

New Members and First Timers' Orientation, National Council of Supervisors of Mathematics, New Orleans, LA, April, 2014

Teacher Beliefs: The Power of CCSSM to Shift Mindsets, Research Council on Mathematics Learning, San Antonio, TX, February 2014.

Experience + Reflection = Growth, School Science and Mathematics Association, San Antonio, TX, November, 2013.

Online Lessons to Enhance Critical Writing Skills for the Natural Sciences with C. Adams, School Science and Mathematics Association, San Antonio, TX, November, 2013.

Reasonin', wRitin' and aRithmetic: The New 3 "R's" with B. Drake, National Council of Teachers of Mathematics, Denver, CO, April 20, 2013.

Writing: A Powerful Tool for Learning Math with B. Drake, National Council of Teachers of Mathematics, Denver, CO, April 18, 2013.

Leader Practices that Build Full Knowledge for an Infrastructure to Support High Mathematics Achievement, Communicating Through NCSM with Mike Hall, National Council of Supervisors of Mathematics, Denver, CO, April 15, 2013.

Leadership Imperatives for Mathematics Education: An Agenda that All Students Benefit from the Common Core State Standards with K. Norris, S. Mitchell, S. Leinwand, et al. National Council of Supervisors of Mathematics, Denver, CO, April 2013.

The Power of Writing to Teach Math and Science: Clarifying Concepts, with B. Drake, School Science and Mathematics, Birmingham, AL, November, 2012.

- Exploring Life Through Inquiry-Based Learning: A Case Study.* School Science and Mathematics Association, Birmingham, AL, November, 2012. (Mentored P. O'Donnell)
- Using Writing as a Way to Measure Critical Thinking in Biology Courses.* School Science and Mathematics Association, Birmingham, AL, November, 2012. (Mentored Cindy Adams)
- Embedding Mathematical Discourse in Shared Storybook Reading: Effect on Young Learners' Mathematical Performance,* Research Council on Mathematics Learning, Charlotte, NC, February, 2012.
- ABC's and 123's: Using Literature to Teach Mathematics,* Research Council on Mathematics Learning, Charlotte, NC, February, 2012 (Mentored M. Stotz).
- Shared Storybook Reading to Promote "Math Talk,"* School Science and Mathematics, Colorado Springs, CO, November, 2011.
- Pre-Service Science Teachers' Inquiry Implementation: Mixed Methods Design Applying Demographics and Beliefs* with P. O'Donnell, School Science and Mathematics, Colorado Springs, CO, November, 2011.
- Promoting Students' "Math Talk" through Shared Reading,* National Council of Teachers of Mathematics, Indianapolis, IN, April, 2011.
- Strategies for Embedding Mathematical Discourse Through Shared Storybook Reading,* National Council of Supervisors of Mathematics, Indianapolis, IN, April 11, 2011.
- Mastering Basic Facts with Online Tools,* Research Council on Mathematics Learning, Cincinnati, OH, March, 2011.
- Mathematical Discourse Embedded in Stories: A Powerful Tool to Teach Complex Concepts in Math,* Research Council on Mathematics Learning, Cincinnati, OH, March, 2011.
- Pre-Service Teacher Demographics: Beliefs and Trends Concerning Science Inquiry,* Co-presenting with P. O'Donnell, School Science and Mathematics Association, Ft. Myers, FL, November, 2010.
- Embedding Mathematical Discourse in Shared Storybook Reading for Young Learners,* School Science and Mathematics Association, Ft. Myers, FL, Nov. 4, 2010.
- Mathematics Learning for English Language Learners Through Inquiry and Technology.* Co-presenting with A. Rolón, Research Council on Mathematics Learning, Conway, AR, March, 2010.

Embedding Mathematical Discourse in Shared Storybook Reading, National Association of School Psychologists, Chicago, IL, March, 2010.

Promoting Mathematical Discourse Through Shared Story Book Reading. Association of Mathematics Teacher Educators, Irvine, CA, January, 2010.

Pre-Service Science Teachers Using Inquiry-based Instruction: Demographics and Beliefs. Co-presented with P. O'Donnell, School Science and Mathematics Association, Reno, NV, October, 2009.

"Affective Teaching" to Learn Science: What is the Relationship between Practice and Motivation? Co-presented with Y. Sanchez, School Science and Mathematics Association, Annual convention, Reno, NV, October, 2009.

Promoting Mathematical Discourse Through Shared Reading. School Science and Mathematics Association, Annual Convention, Reno, NV, October 2009.

Developing Fluency in Basic Facts: Integrating Strategy Instruction with First in Math Online Program (Research Session). National Council of Teachers of Mathematics Annual Meeting, Washington, DC, April, 2009.

Teaching and Learning Basic Facts Using Online Tools. National Council of Supervisors of Mathematics Annual Meeting, Washington, DC, April, 2009.

Writing in Algebra to Promote Reflection and Mathematical Understanding. Co-presented with C. Reed, Research Council on Mathematics Learning, Rome, GA, March, 2009.

"Affective Teaching" to Learn Science: What is the Relationship between Practice and Achievement? Co-presented with Y. Sanchez, School Science and Mathematics Association, Annual Convention, Durham, NC, November, 2008.

Writing in Algebra to Promote Reflection and Mathematical Understanding. Co-presented with C. S. Reed, School Science and mathematics Association, Annual Convention, Durham, NC, November, 2008.

Student Teacher Demographics and Beliefs: Do They Affect Science Inquiry Implementation? Co-presented with P. O'Donnell, School Science and Mathematics Association, Annual Convention, Durham, NC, November, 2008.

Developing Mathematical Understanding through Writing Explanations. Research Session, National Council of Teachers of Mathematics Annual Meeting, Salt Lake City, Utah, April, 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, 2008.

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, 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, 2006.

Professional Development Model: Coaching/Mentoring in the Elementary Mathematics Classroom. Ethnographic and Qualitative Research in Education, Dayton, OH, June, 2006.

The Magical (Mathematical) World of Books: The Power of Picture Books in Teaching Complex Mathematics Concepts. Co-presented with C. Kim & A. Moe. Micro-workshop, International Reading Association National Conference, Chicago, IL, May, 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, 2006.

Professional Development Model: Coaching/Mentoring in the Elementary Mathematics Classroom. Association of Mathematics Teacher Educators Tenth Annual Conference, Tampa, FL, January, 2006.

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, 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, 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, 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, 2000.
- Friendliness with Fractions.* NCTM Central Regional Conference & School Science and Mathematics Association Annual Conference, Louisville, KY, October, 1998.
- 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.
- 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.
- 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.
- A Pocketful of Perplexing Problems.* School Science and Mathematics Association, Annual Meeting, Cincinnati, OH, 1990.

PRESENTATIONS REGIONAL (REFEREED)

- Fundamental Skill for Developing Number Sense—Subitizing,* Pennsylvania Council of Teachers of Mathematics, Harrisburg, Pennsylvania, August, 2018.
- Why Math Coaches Should Know About PCLM* with D. Kennedy, Pennsylvania Council of Teachers of Mathematics, Harrisburg, Pennsylvania, August 2018.

- Commitment to Enhancing your Knowledge for Teaching Mathematics*, Pennsylvania Council of Teachers of Mathematics, Preservice Teacher Day, Millersville, Pennsylvania, October 21, 2017.
- Challenges of Enhancing, Empowering, Energizing, & Engaging our Teaching of Mathematics* with L. Allen, Pennsylvania Council of Teachers of Mathematics, Harrisburg, Pennsylvania, August 2017.
- Mathematics Instruction Makes All the Difference--What Teachers Do*, Keynote Speaker, Northern Pennsylvania Council of Teachers of Mathematics, Wilkes-Barre-Scranton, Pennsylvania, April 2017.
- Exploring Calculus with a Colorful Calculator* with L. Allen, Pennsylvania Council of Teachers of Mathematics, Seven Springs, Pennsylvania, August, 2016.
- Examining How Pre-service Elementary Teachers' Define and Implement Mathematical Discourse*, Pennsylvania Association of Mathematics Teacher Educators, Shippensburg, PA, May, 2016.
- Strategies to Implement Mathematical Practices for ELLs and Struggling Students*, NCTM Regional Conference, Atlantic City, New Jersey, October, 2015.
- Subitizing! What is it? Teaching Subitizing to Young Children*, Pennsylvania Council of Teachers of Mathematics (PCTM), Annual State Conference, Lancaster, PA, August, 2015.
- It's TIME: Themes and Imperatives for Mathematics Education*, with B. Barnes, Pennsylvania Council of Leaders of Mathematics (PCLM), Annual State Conference, Lancaster, PA, August, 2015.
- Using Augmented Reality to Teach Subitizing* with M. Stotz, Laurel Highlands Mathematics Alliance (LHMA), Mathematics Educator Mini-Conference, Johnstown, PA, March, 2015.
- It's TIME: A Call to Action for Mathematics Leaders*, PAMTE Symposium, Shippensburg, PA, May, 2014.
- Writing: A Tool to Organize and Clarify Mathematics Concepts*, NCTM Regional Conference, Louisville, KY, November 8, 2013.
- The Critical Role of Writing in the Mathematics Classroom*, 62nd Annual PCTM Conference, Seven Springs Mountain Resort, PA, November 7, 2013.
- PRIME2: Mathematics Education Leadership Imperatives*, NCTM Regional conference, Las Vegas, NV, October, 2013.

- Writing: A Tool to Organize and Clarify Mathematics Concepts*, NCTM Regional Conference, Las Vegas, NV, October 25, 2013.
- Writing: A Tool to Promote Students' Understanding of Math*, 61st Annual PCTM Conference, Harrisburg, PA, November, 2012.
- New Members and First Timers' Orientation*, NCTM Regional Conference, Hartford, CT, October 25 & 26, 2012.
- Here's the Story: Teaching Math Concepts with Picture Books*, NCTM Regional Conference, Hartford, CT, October, 2012.
- Using the Power of Stories to Develop Mathematical Concepts*, Gallery Workshop. NCTM Regional Conference, Atlantic City, NJ, October, 2011.
- Early Career Teacher Day*. Facilitator. Pennsylvania Council of Teachers of Mathematics Meeting, Radisson Penn Harris Conference Center, Camp Hill, PA, November, 2010.
- More to Discourse Than Meets the Ears*, Pennsylvania Council of Teachers of Mathematics Meeting, Radisson Penn Harris Conference Center, Camp Hill, PA, November, 2010.
- Embedding Mathematical Discourse in Shared Storybook Reading for Young Learners*. NCTM Regional Conference, Baltimore, MD, October, 2010.
- Promoting Mathematical Discourse Through Shared Story Book Reading*. Pennsylvania Association of Mathematics Teacher Educators, Shippensburg, PA, May, 2010.
- Incorporating Inclusion Topics in Elementary Education Teacher Preparation*, Chairing a Round Table. Pennsylvania Association of Mathematics Teacher Educators, Shippensburg, PA, May, 2010.
- Increasing "Math Talk" Through Shared Story Book Reading*. 58th Annual Pennsylvania Council of Teachers of Mathematics Meeting, Pittsburgh, PA, November, 2009.
- Developing Mathematical Power with Children's Literature*. 57th Annual Pennsylvania Council of Teachers of Mathematics Meeting, Split Rock, PA, November, 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, 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, 2007.

Elementary Mathematics Content. Chairing a Round Table. Pennsylvania Association of Mathematics Teacher Educators, Shippensburg, PA, April, 2007.

Basic Facts: Constructing Efficient Mental Tools. 55th Annual Pennsylvania Council of Teachers of Mathematics Meeting, Seven Springs Mt. Resort, PA, October, 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, 2006.

The Power of Picture Books in Teaching Mathematics. 54th Annual Pennsylvania Council of Teachers of Mathematics Meeting, Harrisburg, PA, October, 2005.

Using Children's Trade Books as 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, 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 & February, 2003.

Homework: A powerful instructional tool, Radio Talk Show, WHYI, Marty Moss-Coane, FM91, August, 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.

The Action in Fractions - Hands-on Thinking Tools. NCTM Canadian Regional Conference, Montreal, Quebec, August, 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 (INVITED & WORKSHOPS)

Fluency in Calculus with L. Allen, Teaching, Learning & Technology Summit, Lehigh University, Bethlehem, PA, October, 2016.

Calculating Colorful Calculus with L. Allen, Teaching, Learning & Technology Summit, Lehigh University, Bethlehem, PA, October, 2015.

Common Core-Aligned Math Apps for Middle Level & High School with K. Stenson & E Brandt, Teaching, Learning & Technology Summit, Lehigh University, Bethlehem, PA, October, 2015.

“Free” Must-Have Apps for PreK-5 Mathematics with K. McCombs & C. Cohen,
Teaching & Learning Technology Summit, Lehigh University, Bethlehem, PA,
October, 2015.

Math of Tomorrow (MOTO)-Active Learning in a Digital Environment for K-2,
Teaching, Learning & Technology Summit, Lehigh University, Bethlehem, PA,
October, 2014

It’s TIME: A Call to Action for Mathematics Leaders, PAMTE Symposium,
Shippensburg, PA, May, 2014

Lehigh Valley Dual Language Charter School, Outreach visit to Lehigh University,
Discovering Geometric Patterns, Iacocca Hall, October 7, 2013

Lehigh Symposium 2013, Freshman Orientation, *If the Shoe Fits....Wear It; The Power of
Stories to Teach Mathematics,* Maginnes, September 23, 2013

Charter School Appeal Board, Pennsylvania Department of Education, Formal Hearing,
Harrisburg, PA, May, 2013

Tips for Successful Transfer from Community College to Four-Year Institutions, Meet and
Greet for Transfer Students, Lehigh University, September, 2012.

Allentown School District Board, Roberto Clemente Charter School Expansion Request,
Roberto Clemente K-5 Programs, December, 2010.

LV-STEM Graduate Fellow Workshop, *Classroom Management and Questioning
Strategies,* Lehigh University, November, 2009.

LV-STEM Graduate Fellow Workshop, *Instructional Design,* Lehigh University,
September, 2009.

LV-STEM Team Leadership Meeting, *Orientation to the Formative Teacher Candidate
Evaluation Form,* Lehigh University, September, 2009.

Launch-It: Information Technology, Fuego Flash Team, Lehigh University, Three week
course, July, 2009.

LV-STEM Leadership and Team Building Workshop, Lehigh University, training for the
new teams for the NSF LV-STEM Grant, July 2009.

LV-STEM Graduate Fellow Orientation Workshop, Lehigh University, training for the
new graduate fellows in the NSF, LV-STEM Grant, July, 2009.

Launch-It: Information Technology, Fuego Flash Team, Lehigh University, Three week course, July, 2008.

How Students Learn: Models of Learning, Teacher Development Program for Graduate Students, Lehigh University, October, 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, 2006.

PRIME: Partners Realizing Improvement in mathematics Education, Geometry Standard, K-6 Follow-up Workshop, Northampton Community College, January, 2007.

Friendliness with Fractions, Allentown School District, March, 2005.

Algebra in Grades K-3, PRIME Follow-up Workshop, Northampton Community College, March, 2005.

Place Value Concepts: Renaming & Regrouping. Allentown School District, March, 2005.

Geometry Concepts: Area, Perimeter, Pentominoes. Allentown School District, March, 2005.

PRIME: Partners Realizing Improvement in Mathematics Education, Estimation/Mailing Investigation, Northampton Community College. November, 2004.

Peer-Led Team Learning Training. Training Undergraduate students as Peer Leaders. NSF Grant. Lehigh University. August, 2004.

Bethlehem Area School District, Constructivist Approach to Teaching Mathematics, Freedom High School, September, 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, 2003.

SCIME II: Data Driven Mathematics in Grades 3-5. Northampton Community College. June -July, 2003.

Science, Technology, Engineering, and Mathematics: Theory Into Practice, NSF Two Week Workshop, Coordinator and Instructor, July-August, 2003.

Problem Solving & Measurement. Eisenhower Grant Follow-up Workshop. Northampton Community College. April, 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, 2003.

Algebraic Reasoning, Levels 3-5, Northampton Community College, Eisenhower Grant, February, 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 RESEARCH ADVISING

CHAIR OF DISSERTATION COMMITTEE

Megan Stotz, PhD. (2018). An Assessment of Learner's Subitizing Skills During an Augmented Reality Math Lessons.

Cindy Adams, PhD. (2015). Classroom Response Systems and Higher Order Learning: Possible Bridge for Science Gender Gap?

Patricia O'Donnell, EdD. (2011). The Implementation of Science Inquiry: Pre-service Traditional Teachers, Non-traditional Teachers and Epistemological Beliefs.

Yamil Sanchez, EdD. (2010). Promoting Motivation Through Mode of Instruction: The Validation of the Motivation to Learn Science (MLS) Inventory.

Andrea Harmer, EdD. (2007). Designing for Student Engagement in Middle School Science: Collaborative Problem-Solving in Environmental Science, Using Nanotechnology and Electron Microscopy.

Judy Koller, EdD. (2006). A Study of the Relationship Between Pre-service Character Education Training and Teacher Efficacy.

Lisa Slawter, EdD. (2004). Students' Perceptions of Assessment in the Elementary School.

Michelle Olhson, EdD. (2004). A Study of the Relationship between High-Stakes State Assessment Programs and Classroom Assessment Methodologies.

Kristel Pfeil Kemmerer, EdD. (2003). Relationship Between the Number of Hours Spent in General Music Class and Reading Skills in Kindergarten through Grade 4.

Richard, Barno, EdD. (2003). The Selection Process and Performance of Former Home-Schooled Students at Pennsylvania's Four-Year Colleges and Universities.

Nancy Kolodziej, EdD. (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, EdD. (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, EdD. (2000). Profiles of Discontinued Reading Recovery Students and Program Reading Recovery Students.
- Lubov Iskold, EdD. (1999). An Empirical Study of the Effectiveness of Group Video Viewing in a Comprehension-based Destinos Curriculum in Spanish.
- Carolyn Coyle, EdD. (1998). A History of Educational Publishing Based on the Experiences of the Silver Burdett Company and the Transformation of the Publishing Process.
- Kathleen Hartman, EdD. (1998). Critical Incidents Affecting Developmental College Freshmen's Use and Transfer of Textbook Reading and Study Strategies.
- Grigoruk, Melissa, EdD. (1997). The Relationship of Constructivism to Language and Mathematics Learning.
- Couchara, Sr. Carol Anne, Ed.D. (1997). The Supervisory Role of the Cooperating Teacher: A Study of Critical Incidents which Influenced Student Teachers.
- Ballard, Connie, EdD. (1997). The Relationship Between Self-concept, Academic Performance, and School Perception by African-American Elementary Children.
- Hanlon, Sr. Martha, EdD. (1996). The Governance Relationship Between the Sisters of Mercy and College Misericordia.
- Kistler, Barbara, EdD. (1995). Mathematics Preparation of Elementary Teachers in Pennsylvania.
- Kramer, Pamela A., EdD. (1994). The Role of the University in Meeting the Needs of First Year Teachers.
- Bray, Jane, EdD. (1994). A Comparison of Teacher Concerns for the Non-traditional Student Teacher and the Traditional Student Teacher

MEMBER OF DISSERTATION COMMITTEE

Susan Noack (completed 2014)
 Zeb Johnson (completed 2013)
 Elizabeth Carter (completed 2014)*
 Amy Moyer (completed 2014)

Kelly Huff-Benkoski (completed 1998)
 Suzanne Mueller (completed 1995)
 Ilene Winokur (completed 2013)
 Leslie Djang (completed 2010)

Christina K. Lutz-Doemling (completed 2008)	Sandra Becker (completed 1994)
Sophia Wei (completed 2007)*	Barbara Fischl (completed 1994)
Heather Urbanski (completed 2007)**	Robert J. Harwick (completed 1993)
Roberta Heydenberk (completed 2002)	Frank Lemana (completed 1993)
Susanne Samson (completed 2001)	Maryan G. McCormick (completed 1994)
Beverly A. Martin (completed 2001)	David Wren (completed 1993)
Lisa J. Anrejko (completed 2000)	Pat Richards (completed 1992)
Bradly Landis (completed 1999)	Denise LaPage (complete 1991)
Mi Jar Lee (completed 1999)	Margie Hertz (completed 1991)
Henry Odi (completed 1998)	Carol Turoczy (completed 1991)
Audrey Lam (completed 1995)	Marie Koals (completed 1991)
Sue Ann Miller (completed 1995)	Richard Fuller (completed 1990)
	Marlene Beaver (completed 1990)

* Computer Science & Engineering Department

** English Department

TEACHING AND ADVISING

ACADEMIC ADVISING

	2017	2016	2015	2014	2013	2012	2011
Undergraduate	5	5	6	9	13	8	35
Graduate	24	20	17	27	23	29	12

COURSES TAUGHT AT LEHIGH UNIVERSITY (SPRING 2008- FALL 2017)

TLT 480 Curriculum and Theory Design—*New preparation*, Spring 2014; ***New preparation as an Online class***, Spring 2016; Spring 2017; Spring 2018

TLT 380 Child Development and Cognition—*New preparation*, Summer 2012, Spring 2013, Summer 2013, Summer 2014; ***New preparation as an Online class***, Summer 2015; Summer 2016; Summer 2017; Summer 2018

LST 420 Critical Reading & Writing (Academic writing for publication)—*New preparation*, Summer 2009, Spring 2012

TBTE 448/
TLT 438 Mathematics in Middle Level & High School Education, Spring 2011, Fall 2012, Spring 2014; Spring 2015; Spring 2017

TBTE 428/
TLT 428 Mathematics in Elementary Education, Spring 2007, Summer 2007 Course 1, Summer 2007, Course 2, Spring 2008, Summer 2008, Spring 2009, Summer 2009, Fall 2009, Summer 2010, Fall 2010, Summer 2012, Spring 2013, Summer 2013, Fall 2013, Summer 2014, Summer 2015; Summer 2016; Summer 2017; Summer 2018

TLT 428 Mathematics and Numeracy in Pre-K through 4th Grade --*New preparation*, Fall 2012, Fall 2013, Summer 2013, Summer 2014, Summer 2015; Summer 2016; Summer 2017

- TBTE/TLT 407 Designing Instruction for K-12 Classrooms, Spring 2006, Summer 2010, *new preparation*; Summer 2011
- TBTE 461/
TLT 440 Participation in Teaching, (Name Change) Pre-Professional Seminar
Spring 2007, Summer 2007, Fall 2007, Spring 2008, Summer 2008, Fall 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Spring 2012, Spring 2013, Fall 2013, Fall 2014; Fall 2015; Spring 2016; Fall 2016; Spring 2016; Fall 2016; Fall 2017
- Educ 495 Independent Study, Spring 2007, Summer 2012, Fall 2012, Spring 2013, Summer 2013
- Educ 499 Dissertation, Spring 2008, Spring 2009, Fall 2008; Spring 2016; Fall 2016; Spring 2017
- Educ 486 Doctoral Qualifier, Spring 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013; Spring 2016; Fall 2016
- TLT 442 Intern Teaching Supervision, Spring 2010; Fall 2014; Fall 2015; Spring 2016; Fall 2017; Spring 2018
- TLT 444 General Education Student Teaching and Seminar, Fall 2014; Fall 2015; Spring 2016; Fall 2016

CURRICULUM REVIEWS

- Teaching for Student Learning: Becoming a Master Teacher* (2nd ed.), K. Ryan, J. M. Cooper, & S. Tauer. Cengage, 2016.
- Columba, L.** (2014, Summer) [Review of the curriculum program *Math for All, Grades K-2 and Grades 3-5* by Moeller, B., Dubitsky, B., Cohen, M., Marschke-Tobler, K., Melnick, H., Metnetsky, L., Brothman, A., & Cecchine, R.] *National Council of Supervisors of Mathematics Newsletter*, 45(4).
- 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.

CURRICULUM DEVELOPMENT

Online Course Development-TLT 480 Curriculum Theory & Design—scheduled for spring 2016

Online Course Development—**TLT 380 Child Development & Cognition** – taught first time Summer 2015.

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, 2007-10.

Technical Report First in Math (PITA Grant) Interventions to Promote Basic Fact Learning, 2008-2011.

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 coordinated the 5th Year Masters and certification program in the College of Education for undergraduates in the Arts and Sciences, Engineering, and Business Colleges

SERVICE

PROFESSIONAL SERVICE

INTERNATIONAL/NATIONAL

Presider, National Council of Mathematics Supervisors, *Leadership for Teacher Learning: Transforming Mathematics Instruction with Embedded Formative Assessment* (2017)

Presider, National Council of Mathematics Supervisors, *Are We Giving Up on High School* (2017)

Transforming Post-Secondary Education in Mathematics, Chairs + 1 Conference #2, College Park, MD, March 10-11, 2017, Invited Attendee

Leadership Learning Initiative Committee, National Council of Supervisors of Mathematics, 2016-17

Reviewer, Research Council of Mathematics Learning (RCML) Proceedings, 2015, 2016, 2017

RCML Memorial Scholarship Award Review Committee, 2016-19

Reviewer, Jerusalem, Israel, Ministry of Science, Technology, & Space, Grant Proposal, Integrating news snapshots from contemporary mathematics in high-school mathematics - A small-scale preliminary study, 2015.

Membership Committee, Member, School Science and Mathematics Association (SSMA), 2015-2018

Reviewer, *Investigations in Mathematics Learning, Journal of Research Council for Mathematics Learning*, 2014 to present

Reviewer, *School Science and Mathematics Journal*, 2014 to present

Board of Directors, National Council of Supervisors of Mathematics (NCSM), 2011-2013; 2013-15; 2015-2017

Communications Committee, National Council of Supervisors of Mathematics (NCSM), 2011-2013; 2013-2015; 2015-2017

Board of Directors, School Science and Mathematics Association (SSMA), 2011-2014 (Elected)

Outside Review for Tenure/Promotion, Ohio University, January 2012

Associate Editor, National Council Supervisors of Mathematics, Leadership in Mathematics Education, Newsletter, 2011-1213

Editor, National Council of Supervisors of Mathematics, Leadership in Mathematics, Newsletter, 2013-2015; 2015-2018

Editorial Board, Association for the Advancement of Computing in Education (AACE) Publications, 2012-Present

- Reviewer, National Council of Supervisors of Mathematics, *Journal of Mathematics Education Leadership*, 2013-Present
- Reviewer, National Council of Teachers of Mathematics, Hartford, CT, Conference Proposals (over 200 proposals), 2011
- National Council of Teachers of Mathematics National Conference, Philadelphia, PA, April 2012, Team Leaders of Volunteers
- Reviewer, Research Council for Mathematics Learning (RCML) Conference Proceedings, 2011, 2012, & 2013; Reviewer for *Investigations in Mathematics Learning*, 2013
- Reviewer, *Nanotechnology Reviews*, 2011
- Program Committee for the NCTM Regional Conference, Hartford, Connecticut, October 24-26, 2012. Primary reviewer for the PreK-2 grade band; Secondary reviewer for the 3-5 grade band (4000 attendees). [NCTM Committee Database Training]
- Conventions Committee, Chair, School Science and Mathematics Association (SSMA), 2011-2014
- Program Chair, Research Council for Mathematics Learning (RCML), 2011 National Conference, Cincinnati, OH.
- Member, Nominations and Elections Committee, School Science and Mathematics Association (SSMA), 2010-2011.
- Outside Reviewer for Tenure/Promotion, University of Louisville, November, 2009; University of Ohio, February, 2011
- Reviewer, Association of Mathematics Teacher Educators (AMTE), Research Paper Proposals for 2010 Conference, Research Paper Proposals for 2011 Conference. Proposals for 2012 and 2013 Conference.
- Representative, National Council of Supervisors of Mathematics (NCSM) at National Council of Teachers of Mathematics (NCTM) in Washington, DC, April 23, 2009 and in Indianapolis, IN, April 12, 2011 and Philadelphia, PA, April 2012.
- Reviewer, Ethnographic and Qualitative Research Conference (EQRC), Conference Research Paper Proposals for 2008, 2009, 2010, 2011, 2012, & 2013 Conferences.

Member, Publications Committee, School Science and Mathematics Association (SSMA), 2008-10.

Reviewer, Association of Mathematics Teacher Educators (AMTE), Conference Research Paper Proposals for 2009 Conference; 2010 Conference; 2011 Conference; Conference 2012; Conference 2013.

Representative, Association of Mathematics Educators (AMTE) at National Council of Teachers of Mathematics (NCTM) in Salt Lake City, UT, 2008.

Member of the Nominations and Elections Committee, Association of Mathematics Teacher Educators, 2007-08.

Reviewer, National Council of Teachers of Mathematics, *Teaching Children Mathematics*, 2007-2013.

Reviewer, National Educational Computing Consortium, Conference Research Paper Proposals for 2008 NECC Conference.

Ad hoc Reviewer, *Contemporary Issues in Technology and Teacher Education (CITE)*, 2007.

REGIONAL/STATE/LOCAL

Treasurer of the Pennsylvania Council of Leaders of Mathematics (PCLM) an affiliate of NCSM, 2018-2020

Vice-President of Pennsylvania Council of Teachers of Mathematics (PCTM), 2018-19

Chair of the Nominations and Elections Committee, Pennsylvania Council of Teachers of Mathematics (PCTM), 2018-19

President of Pennsylvania Council of Teachers of Mathematics (PCTM), 2016-2018

National Council of La Raza (Hispanic Civil Rights and Advocacy Organization) and Association for the Advancement of Mexican Americans (AAMA), Strengthening the Base, Evaluation for School Leaders and Strategic Planning for Board Goals, March, 2015

Nominated as President-elect, Pennsylvania Council of Teachers of Mathematics, serving as Vice-President, 2015-2016

- Pennsylvania Department of Education Initial Program Reviewer, Post Baccalaureate, 7-12 General Science, Biology, Chemistry, and Physics, February, 2015.
- Pennsylvania Council of Teachers of Mathematics (PCTM), Chair of Registration for Conference, Harrisburg, PA, November, 2014.
- Office, Representative to Pennsylvania Council of Teacher of Mathematics (PCTM), Pennsylvania Council of Leaders of Mathematics (PCLM), 2012-2015.
- Office, Secretary, Pennsylvania Association of Mathematics Teacher Educators (PAMTE), 2012-2014. 2014-2016
- Pennsylvania Association of Mathematics Teacher Educators (PAMTE) Symposium Planning, Mathematics Department at Shippensburg University, May 12 & 13, 2011.
- Office, Member-at-Large, Pennsylvania Council of Teachers of Mathematics (PCTM), 2011-2013; 2014-2016. (Elected)
- Office, Member-at-Large, Representing Private Institutions, Pennsylvania Association of Mathematics Teacher Educators (PAMTE), 2010-2012.
- Pennsylvania Council of Teachers of Mathematics, Member of the Planning Committee for Early Career Day (for beginning mathematics teachers), 2010-11.
- Pennsylvania Association of Mathematics Teacher Educators, Facilitator-Round Table, *Incorporating Inclusion Topics in Elementary Education Teacher Preparation*, Shippensburg, PA, May 13, 2010.
- Coordinator for the Harrison Morton Middle School & LV-STEM Science Night, Allentown School District, Grades 6-8, May 21, 2009.
- Pennsylvania Association of Mathematics Teacher Educators, Facilitator-Round Table, *Assisting Pre-Service Teachers with their Misconceptions of Fractions*, Shippensburg, PA, May 14, 2009.
- Reviewer, Pennsylvania Department of Education (PDE), Program Assessment Content Area Mathematics Levels 4-8, Reviewer for the New Certificate Application Review Process. Edinboro University, March, 2009; Point Park University, January, 2010; Gwynedd-Mercy, April, 2010; resubmission, November, 2010.

Pennsylvania Department of Education (PDE), Content Area Reviewer Training (1st cohort with new guidelines), Harrisburg, PA, January, 2009.

Member of the Nominations and Elections Committee, Pennsylvania Association of Mathematics Teacher Educators, 2008-09.

Pennsylvania Association of Mathematics Teacher Educators, Chair Roundtable-*Elementary Research*, Shippensburg, PA, May 15, 2008.

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.

PRIME: Partners Realizing Improvement in Mathematics Education, Mentoring sixteen teachers in classroom, implementing constructivist/standards-based approach to teaching mathematics, 2006-07.

Pennsylvania Department of Education Review Team, Institutional Approval, Reviewed Early Childhood and Elementary Education Programs, Eastern University, Radnor, PA, March 16-18, 2005.

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 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 Member, Shippensburg University, Widner University, University of Pittsburgh, Bloomsburg University, Indiana University of Pennsylvania (2001).

CEO Search Committee, Roberto Clemente Charter School, K-12, 2018

Incorporated Initial Board, Roberto Clemente Charter School, K-5, 2014- Present

Board of Trustees, Roberto Clemente Elementary Charter School, K-5, since 2014
President, Present

Principal Selection Committee for Roberto Clemente Elementary Charter School for
2014-15 School Year

Interviewing Teachers for Roberto Clemente Elementary Charter School, August, 2014

Board of Trustees, Roberto Clemente Charter School, K-5 and 6-12, 2002-Present
Vice President, 2011-2014
President, 2014-Present

Curriculum Advisory Board, Roberto Clemente Charter School, 6-12, 1999-Present,
Chair, 2010-Present

Finance Committee, Roberto Clemente Charter School, 6-12, 2014-Present

Executive Committee, Roberto Clemente Charter School, 6-12, 2013-Present

Committee for the Merger of the Middle and High School Charter with the Elementary
School Charter, 2016-

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

UNIVERSITY

Service Summit Planning Group-Value of Faculty Service, 2018-

Personnel Committee, 2014-2019; Chair, 2016-2017; Representative to the Faculty
Steering Committee, 2017-18

Co-lead Standard V Assessment for the Middle States Review, 2016-2017

Task Force to Create a Certificate Program for Inclusive Excellence, 2016-2017

In-House Education to Advance Diversity and Inclusion at Lehigh University, 2016

Search Committee, Vice-Provost of University Affairs, Member, 2015-16; 2016-17

Faculty Steering Committee, 2008-10; 2016; 2017-2018

Search Committee, Librarian for College of Education, 2015

Lehigh University Internal Review Committee (IRC) for grant proposals, 2015-17

Faculty Committee on Facilities Planning, 2014-2016; Chair 2016

evoLUtion Seminar Facilitator, 2014

Summer Reading Discussion Leader for First Year Students, August, 2014

Core Team Working Group for Social Life, Social Policy and Student Conduct, Co-Chair, 2014-2015

University Committee on Discipline, 1995-1998; 2007-2009; 2009-2012; 2012-2015; 2015-2018

Transfer Student Advisory Group, 2012-Present

Search Committee for the Deputy Provost for Academic Affairs, 2013

University Center Project Program Committee, 2013-2014; 2015-16
Subcommittee: University Center Food Services, 2013-2014

University Nominations Committee, 2011-2014; Chair, 2012-2013 (Prepared three ballots and facilitated the elections)

Faculty Committee on Student Life (At Large), 2012-2014

Search Committee for the Academic Outreach and Leadership Position, 2011-2012

Committee on Evaluation of Academic Outreach and Leadership Position, 2011

Educational Policy, Standing Subcommittee on University Writing, 2007- Present

Faculty Financial Planning and Operations Committee (FFPOC), 2008-12, Chair,
2010-2011 & Spring, 2012
Representative, Finance Committee, 2010-2011; Spring, 2012

Benefits Allocation Review Team (BART), Phase I, 2010-2011

Personnel Committee, Self-nominated, Fall, 2009 (Election not held)

Graduate Research Committee, 2007-2010, Co-chair, 2008-09, Chair, 2010
Subcommittee GRC, Standing of Graduate Students (SOGS), 2009-2010
Subcommittee GRC, Fellowship Selection, 2008-2009
Subcommittee GRC, Curriculum, Chair, 2007-2008

Honorary Degree Committee, 2007-2010

Commencement Speaker Committee, 2009-2011; Chair, 2010-2011

Enhancing Graduate Education, 2009-2010

Reader at Commencement/Diploma Distributor, 1994-2011

Strong Student Program, 2007-08

University Search Committee, Writing Across the Curriculum Coordinator,
Spring, 2006

Middle States Accreditation Subcommittee—Technology Support for a Learning-
Centered Mission, 2006-08

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 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, 2005-06

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

Phi Beta Delta Honor Society, Vice-President, 1992-94

College

Stout Award Selection Committee, Member, 2018

Chair, TLT Professor of Practice Search Committee, 2017

Co-Chair, TLT Faculty Search Committee, 2015

Chair, College of Education Review Committee for TLT Professor of Practice, 2015

College of Education Review Committee for Leadership Professor of Practice,
Faculty member outside the program, 2013

College of Education Search Committee, Teaching, Learning, & Technology
Program, 2009-2010, 2010-2011

College of Education, Promotion & Tenure Committee (Substitute), Spring, 2008

College of Education, Phi Delta Kappa Account Executive, 2007-Present

Member of the Teacher Certification Curriculum Revision Committee, 2007-08

College of Education Search Committee, Chair, Teaching, Learning, & Technology
Program, 2005-2006; 2006-2007

Program Coordinator/Director, Teaching, Learning, & Technology, 1996-2000;
2005-08

Coordinator of Minor in Education Program, 1989-2008

Community Service

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; Oley Valley
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.

PROFESSIONAL AFFILIATIONS

TODOS Mathematics for ALL

Task Force-Underserved Students: Smart Goals, 2014-2016

National Council of Teachers of Mathematics

Program Committee, Hartford Regional Conference, 2011-2012

Association of Mathematics Teacher Educators

Research Council of Mathematics Learning

Annual Conference Program Chair, 2011

National Council of Supervisors of Mathematics

Board of Directors, Assoc. Editor of Newsletter 2011-2013; Editor of Newsletter 2013-2017

Communications Committee, 2011-2017

Laurel Highlands Mathematics Alliance, 2014-2017

Psychology of Mathematics Education, An affiliated study group of the International Commission on Mathematical Instruction

School Science and Mathematics Association

Board of Directors & Conventions Committee Chair, 2011-2014

National Association of Education of Young Children

Pennsylvania Council of Teachers of Mathematics Board of Directors,
Delegate at Large, 2011-2013; 2013-2015

Pennsylvania Council of Leaders of Mathematics
PCLM Representative on the PCTM Board, 2012-2014

International Reading Association

Pennsylvania Association of Mathematics Teacher Educators
Secretary, 2012-2016
Member-At-Large, Private Institutions, 2010-2012

Phi Delta Kappa

Delta Kappa Gamma

Association for Supervision and Curriculum Development

Pennsylvania Association of College Teacher Educators

Lehigh Valley Association for Academic Women