

**EILEEN FERNÁNDEZ**

Department of Mathematics, Montclair State University, Upper Montclair, NJ 07043

Work phone: (973) 655-7259 Email: [fernandeze@montclair.edu](mailto:fernandeze@montclair.edu)

**EMPLOYMENT HISTORY**

2020-Present Montclair State University, Department of Mathematical Sciences, Professor  
2003-2020 Montclair State University, Department of Mathematical Sciences, Associate Professor  
1998-2003 Montclair State University, Department of Mathematical Sciences, Assistant Professor  
1990-1991 Rutgers University, Department of Mathematics, Adjunct Professor  
1989 Middlesex Community College, Department of Mathematics, Adjunct Professor

**RESEARCH AND TEACHING INTERESTS**

Online teaching and learning, Teacher education and teacher knowledge (K12 pre-service and professional teaching), Integrating students' perspectives into classroom problem solving, Teacher making: 3D Design and 3D Printing, Critical thinking, Constructivism, K12 and Undergraduate Mathematics Teaching

**EDUCATION**

Ph.D. Mathematics Education. **University of Chicago**, Department of Education, Chicago, IL. 1998  
**Rutgers University**, Continuing graduate coursework in mathematics, 1988 to 1990  
MS Mathematics. **New York University**, Courant Institute, New York, NY. 1987  
BA Mathematics. **William Smith College**, Geneva, NY. 1984. *Magna Cum Laude*, Term abroad in London, England, Departments of Art and Economics.

**CURRENT PROJECTS AND SUBMISSIONS**

Fernández, E. (Revised). Explore the "Unexpected!" *Mathematics Teacher: Learning and teaching PK-12*.  
Fernández, E. Acevedo, L., Bradford, D., Feuer, K., Jelly, C., Kavalos, F., Kose, N., Laffredo, J., Krott, J., Nolan, J., & Politz, C. (Under review). Navigating the "Mathematical Unexpected" in Synchronous Online Platforms: an investigation of the Pythagorean Theorem. *Mathematics Teacher: Learning and teaching PK-12*.  
Fernández, E. (Manuscript in progress). Stepping back during manipulative making to support meaningful learning and remembering.  
Fernández, E. and Leszczynski, E. (Manuscript in progress). New possibilities for manipulatives in online platforms.

**TEACHING/EDUCATION AWARDS**

2012 Recipient, Faculty Teaching Award: Shaping the Future. College of Science and Mathematics, Montclair State University  
2000 Susan Colver-Rosenberger Prize, For "constructive and original research at the dissertation level." Division of Social Sciences, University of Chicago  
1992 Carolyn Hoeffler Award, University of Chicago. For "outstanding first year graduate student in education."  
1993 Pi Lamda Theta Honor Society  
1984 Abigail Mosey Prize, For "generosity in helping others to learn and appreciate mathematical ideas." William Smith College  
1984 Phi Beta Kappa Honor Society

## **TEACHING EXPERIENCE**

### ***Montclair State University***

#### *Mathematics courses taught*

Elementary Algebra, New Student Experience in Mathematics, Development of Mathematics, Contemporary Applied Mathematics for Everyone: Modeling With Spreadsheets (Online and Face to Face), Applied Pre-calculus (Pre-calculus with Applications to Biology), Precalculus, Mathematics Business 1 (Linear Algebra), Mathematics Business 2 (Calculus), Calculus A (Calculus with Applications to Biology), Calculus 1, Calculus 2

#### *Mathematics education courses taught*

##### Doctoral

Use of Teacher Knowledge in Mathematics Teaching, Research in Mathematics Education, Mathematical Modeling in Middle and High School, Geometry for Middle and High School, Algebra and Analysis for Middle and High School Teachers, Critical Thinking and Cognitive Development in Mathematics, Dissertation Proposal Seminar, Dissertation Advisement

##### Masters

Teaching Mathematics, Numbers and Numerical Thinking in Middle Grades, Algebra and Algebraic Thinking in Middle Grades (face to face and Online), Geometry and Geometric Thinking in Middle Grades (Online), Measurement in the Middle Grades (Online); Workshop: Mathematics Education 1, Technology for High School Teachers, Mathematics Materials for Teachers of Mathematics, Selected Topics in Mathematics Education (Discrete Mathematics for K-8 Teachers), Mathematics Education in the Elementary School, Mathematics for Middle School Teachers, Approaching School Mathematics Through Applications, Research Issues in Mathematics Teacher Education

##### Undergraduate

Mathematics for Elementary Teachers, College Geometry, Teaching of Mathematics (Methods course for prospective 6-12 teachers), Selected topics in Modern Mathematics (Chaos), Selected topics in Modern Mathematics (Introduction to Graph Theory), History of Mathematics, Algebra and Algebraic Thinking in Middle Grades (Online), Geometry and Geometric Thinking in Middle Grades (Online), Measurement in the Middle Grades (Online);

### ***University of Chicago***

Student Teaching Seminar for secondary level teachers, Young Scholars Program

### ***Rutgers University***

Elementary Algebra, Intermediate Algebra, Precalculus

### ***Middlesex Community College***

Calculus I

### ***New York University***

Precalculus, Basic Mathematics, Business Calculus

### ***William Smith College (teaching assistant)***

Precalculus, Calculus 1 and 2, Ordinary Differential Equations

## EXTERNAL GRANT ACTIVITY

- 2023 (Under Review) National Science Foundation, Hispanic Serving Institution, Improving Undergraduate STEM Education (HSI-IUSE). Dr. Mika Munakata (PI), Dr. Eileen Fernandez (Co-PI), Dr. David Schwarzer (Co-PI). Submitted Spring 2023. Total Requested: \$699,840
- 2018-2021 National Science Foundation, Discovery Research PreK12 (DRK12), *Preservice elementary teachers making for mathematical learning*. Dr. Steven Greenstein (PI), Dr. Eileen Fernández (Co-PI). September 2018—August 2020 (no cost extension through May, 2021). (<http://teachermakers.montclair.edu>) Total Funded: \$422,195
- 2001-2004 New Jersey High-Tech Work Force Grant, Middle Grades Mathematics-STEP, Dr. Ken Wolff (PI), Dr. Evan Maletsky (Co-PI). Dr. Eileen Fernández (Project Faculty). Total Funded: \$2.5 Million.
- 1999-2000 Project NExT Fellowship, Mathematical Association of America, Selected fellow

## INTERNAL GRANT ACTIVITY

- 2004 Grant Proposal Development Grant, Montclair State University. Grant obtained in support of application for NSF funding, 2004. Amount: \$4,000.
- 2004 Global Education Grant, Montclair State University. Grant obtained in support of travel to ICME-10, Copenhagen, Denmark. Amount: \$2,000
- 1999 Separately Budgeted Research Fund, Montclair State University. Grant obtained in support of paper "The students take on the epsilon-delta definition of a limit." Amount: \$5,000.

## PUBLICATIONS & PROCEEDINGS (\*With teachers or students)

- Greenstein, S. & Fernández, E. (2023). Learning Mathematics Through Mathematical Objects. *CITE Journal: Contemporary Issues in Technology and Teacher Education*. 23(1).  
<https://citejournal.org/volume-23/issue-1-23/objects-to-think-with/learning-mathematics-with-mathematical-objects-cases-of-teacher-made-mathematical-manipulatives/>.
- \* Akuom, D., Greenstein, S., & Fernández, E. (2022) Mathematical Making in Teacher Preparation: Research at the Intersections of Knowledge, Identity, Pedagogy, and Design. Proceedings of the 44th Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Nashville.
- \* Greenstein, S., Akuom, D., Pomponio, E., Fernández, E., Davidson, J., Jeannotte, D., & York, T. (2022) Vignettes of Research on the Promise of Mathematical Making in Teacher Preparation. In F. Dilling & F. Pielsticker (Eds.) *Learning Mathematics in the Context of 3D Printing*: Springer Nature (pp. 73-109).
- \* Greenstein, S., Jeannotte, D., Fernández, E., Davidson, J., Pomponio, E. & Akuom, D. (2020). Exploring the interwoven discourses associated with learning to teach mathematics in a Making context. In A. I. Sacristán, J. C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the 42<sup>nd</sup> Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico* (pp. 810-816). Cinvestav/AMIUTEM/PME-NA.
- \* Greenstein, S., Fernández, E. & Davidson, J. (2019). *Revealing Teacher Knowledge Through Making: A Case Study of Two Prospective Mathematics Teachers*. Proceedings of the 41st Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education. St. Louis, MO.

## **PUBLICATIONS & PROCEEDINGS, *Continued***

- Fernández, E. & Leszczynski, E. (2019). Engaging mathematically in synchronous platforms: Example and insights. In P. Wachira and J. Keengwe (Eds), *Handbook of Research on Online Pedagogical Models for Mathematics Teacher Education* (pp. 119-140). Hershey, PA.: IGI Global.
- \* Fernández, E., Weinstein, L., Seventko, J., Janakat, J., Rahman, Z., Basu, D., Bonaccorso, V., Yu, K., Casale, K., Kose, G., Prettypaul, R. (2018). Average rates: they're about more than adding and dividing! *New Jersey Mathematics Teacher*. 76(1), 11-18.
- \* Fernández, E., McManus, J. and Platt, D. (2017). Extending Mathematical Practices to Online Teaching. *Mathematics Teacher*. 110(6), 432-438.
- Greenstein, S., Leszczynski, E., & Fernández, E. (2017). What Could You Do With This?: Designing for Mathematical Learning and Generative Tangible Tools. *Mathematics Teaching in the Middle Schools*. 23(1), 50-53.
- Fernández, E. (2014). Transitions From Live to Online Teaching. *Problems, Resources, and Issues in Undergraduate Mathematics Education*. 24(1), 1-11.
- \* Fernández, E. and Geist, Kristi. (2011). Flower power: Sunflowers as a model for logistic growth. *Mathematics Teacher*. 104(8), 580-585. (Journal Cover Article)
- Fernández, E. (2009). A checklist for scheduling observations. In Gwen Zimmerman, Patricia Guinee, Linda Fulmor, and Elizabeth Murray (Eds.), *Empowering the Mentor of the Preservice Mathematics Teacher* (pp. 35-36). Reston, VA.: The National Council of Teachers of Mathematics, Inc.
- \* Arney, Michael and Fernández, E. (2009). The blur of preservice teaching. In Gwen Zimmerman, Patricia Guinee, Linda Fulmor, and Elizabeth Murray (Eds.), *Empowering the Mentor of the Preservice Mathematics Teacher* (pp. 4-5). Reston, VA.: The National Council of Teachers of Mathematics, Inc.
- Fernández, E. (2008). Taking advantage of everyday activities to practice math every day. *Teaching Children Mathematics*, Focus Issue: Learning Environments that Support Mathematical Understanding. 15(3), 174-177.
- Fernández, E. (2007). Learning from the "unknown" in mathematics teacher education: one teacher educator's reflections. In W. Gary Martin, Marilyn E. Strutchen, and Portia C. Elliot (Eds.), *The Learning of Mathematics: Sixty-ninth Yearbook* (pp. 331-343). Reston, VA.: The National Council of Teachers of Mathematics, Inc.
- Fernández, E. and Jones, M. (2006). Emphasizing the NCTM Content Standards in undergraduate courses for prospective teachers. *Mathematics and Computer Education*. 40(3), 237-247.
- Fernández, E. (2005). Understanding functions without using the vertical line test. *Mathematics Teacher*, 99(2), 96-100.
- Raman, M. and Fernández, E. (2005). Review of Jensen's *Arithmetic for Teachers: With Applications and Topics from Geometry*. *Mathematical Thinking and Learning*. 7(3), 259-263.
- \* Fernández, E., Eisen, S., Sagalchik, O., Butler, J., Weston, L., and Kruk, A. (2005). Recent developments on the mathematics PRAXIS exam and suggestions for all concerned parties. *New Jersey Mathematics Teacher*. 62(2), 27-29.
- Fernández, E. (2004). The students' take on the epsilon-delta definition of a limit. *Problems, Resources and Issues in Undergraduate Mathematics Education*. XIV(1), 43-54.
- Fernández, E. and Munakata, M. (2004). Developing mathematical resourcefulness in middle school teachers. Proceedings of the 10<sup>th</sup> International Congress on Mathematics Education. Copenhagen, Denmark. July 3-11.
- Fernández, E. (2003). Being a mathematics educator in a department of mathematics. *Focus*. 23(1), 18.

## **PUBLICATIONS & PROCEEDINGS, *Continued***

- \* Fernandez, E., Kazimier, J., Vandemeulebroeke, L. and Burgos, C. (2002). Experimenting with classroom formats to encourage problem solving. *Problems, Resources and Issues in Mathematics Undergraduate Studies*. XII(3), 247-261.
- Fernández, E. and Powell, A. (2000). Remembering Anneli Cahn Lax: 1923-1999. *Journal for Mathematical Behavior*, 19(1), 1-7.
- Fernández, E. (1999). Making math real. *New York Times Editorial/Letters*, March 29.
- Fernández, E. (1994). A kinder, gentler Socrates: conveying new images of mathematics dialogue. *For the Learning of Mathematics*, 14(3), 43-47.
- Lax, A. and Duncan, E. (Authors) and Fernández, E. and Mindes, J. (Contributors). (1988). Language Linked Approaches to Mathematics. Ford Foundation Final Report.

## **REFEREED/INVITED PRESENTATIONS AND WORKSHOPS (\*With teachers or students)**

- New Directions for Manipulatives in Online Teaching. National Council of Teachers of Mathematics Virtual Conference. With Eliza Leszczyński. March 31, 2023.
- \* Mathematical Making in Teacher Preparation: Research at the Intersections of Knowledge, Identity, Pedagogy, and Design. Paper presented at the 44<sup>th</sup> Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Nashville. With Akuom, D. and Greenstein, S. Nashville, TN. November, 2022.
- \* *The Personal, Pedagogical, And Problem-Solving Possibilities of Mathematical Making in Teacher Preparation*. Presentation given at the Virtual International Symposium on 3D Printing in Mathematics Education. With Akuom, D., Davidson, J., Pomponio, E., & Greenstein, S. University of Siegen, Germany. September, 2021.
- \* *Dare to care: the impacts of a caring pedagogy on mathematical Making, teaching and learning* [Roundtable presentation]. Annual Meeting of the American Educational Research Association. With Pomponio, Erin & Davidson, Jessica. April 9 -12, 2021.
- \* The power of caring and funds of knowledge in teacher learning. 42<sup>nd</sup> Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. With Davidson, J. Mazatlan, Mexico. May 27 – June 6, 2021
- \* Exploring the interwoven discourses associated with learning to teach mathematics in a Making context. 42<sup>nd</sup> Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico. With Greenstein, S., Jeannotte, D., Fernández, E., Davidson, J., Pomponio, E. & Akuom, D. May 27 – June 6, 2021.
- \* *Remaking teacher learning: designing objects-to-teach-with to promote mathematics education reform* [Panel presentation]. FabLearn 2020 Conference – Making as resistance and resilience. Pomponio, E., Davidson, J., Greenstein, S., Fernández, E., Jeannotte, D., & Akuom, D. Columbia University Teachers College, NY. <https://nyc202.fablearn.global/>.
- Celebrating students in online platforms and beyond*. Annual Conference of the New Jersey Association of Mathematics Teacher Educators. By Invitation. July 29, 2020.
- \**Revealing Teacher Knowledge Through Making: A Case Study of Two Prospective Mathematics Teachers*. North American Chapter of the International Group for the Psychology of Mathematics Education. With Greenstein, Steven and Davidson, Jessica. November 14-17, 2019.
- \**Teachers Making Manipulatives to Promote Pedagogical Change*. 41<sup>st</sup> Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education. With Greenstein, Steven and Davidson, Jessica. November 14-17, 2019.
- Supporting Learning Interactions in One Online Program for Middle School Teachers*. Annual Conference of the New Jersey Association of Mathematics Teacher Educators. With Leszczyński, Eliza and Russo, Mark. May 31, 2019.

## **REFEREED/INVITED PRESENTATIONS AND WORKSHOPS, Continued**

- \*Forging New Partnerships for Learning Mathematics in Teacher Education.* With Chestnut-Brown, Zhane; DeGrenier, Olivia; Dyer, Mary; Czarnomski, Nora. Ewing Township, NJ (College of New Jersey), Annual Conference of the New Jersey Association of Mathematics Teacher Educators. June 1, 2018.
- How do mathematical tools help students communicate their understanding of double-digit subtraction?* With Rabab Abi-Hana. Meeting of e-Learning and Innovative Pedagogies. Athens, Greece, June, 2018.
- Developing Teacher Knowledge Through Mathematical Making.* Annual Conference of New Jersey Association of Mathematics Teacher Educators. With Steven Greenstein. Ewing Township, NJ (College of New Jersey), June 2, 2017.
- \*Teacher Knowledge and Teacher Uncertainty in Online Teaching.* Annual Meeting of the American Educational Research Association. With Jason McManus and Douglas Platt. Washington, DC, 2016.
- Tessellations Through Science, Technology, Engineering and Mathematics.* Professionals in the STEM Careers Series. Invited Talk given to 4<sup>th</sup> grade class at Bullock Elementary School, Montclair, NJ, March 18, 2016.
- Mathematics Educator and Parent on Common Core State Standards in Mathematics.* Workshop given to 6<sup>th</sup>-12<sup>th</sup> grade teachers for Mathematics Science Partnership. Montclair State University, Montclair, NJ. 2015
- Turning Teaching into Scholarship.* Annual Meeting of the American Mathematical Society and the Mathematical Association of America. Invited Panel Member. Boston, MA 2012.
- Modeling Loan Payments With Algebra and Spreadsheets.* Mathfest of the Mathematical Association of America. Lexington, KY. 2011.
- Enhancing Algebra Through Technology: Live and Online.* Science and Engineering Program for Teachers (STEM). Invited to New Jersey City University. Jersey City, NJ. 2010.
- Stories and Lessons: Online and Hybrid Courses from Faculty New to the Medium.* Montclair State University Learning and Teaching Showcase, Montclair State University. Montclair, NJ. 2010.
- Encouraging Algebraic Reasoning With Microsoft Excel.* Joint Meetings of the American Mathematical Society and the Mathematical Association of America. San Diego, CA. 2008.
- Using Teachers' Mathematics Questions as an Opportunity to Deepen Their Understanding.* With Michael Keynes. Joint Meetings of the American Mathematical Society and the Mathematical Association of America. Atlanta, GA. 2005.
- Developing Mathematical Resourcefulness in Middle School Teachers.* With Mika Munakata. International Congress of Mathematics Education (ICME-10). Copenhagen, Denmark. July 2004.
- Investigating the 'unknown' to motivate mathematics discussion.* Joint Meetings of the American Mathematical Society and the Mathematical Association of America. Phoenix, AZ. 2004.
- Teachers Experiencing Confusion Over Students' Ideas Can Promote Students' Mathematical Reasoning.* Annual Meeting of the American Educational Research Association. Chicago, IL. 2003.
- A Common Question Yields an Answer in Content: Finding the NCTM Content Standards in Undergraduate Mathematics.* With Michael Jones. Joint Meetings of the American Mathematical Society and the Mathematical Association of America. Baltimore, MD. 2003.
- Using Students' Questions as a Starting-off Point for Thinking About Precalculus.* Invited Pre-calculus Institute, Rutgers University. New Brunswick, NJ. 2003.
- Enhancing Students' Understandings of Functions.* Invited Pre-calculus Institute, Rutgers University. New Brunswick, NJ. 2002.
- Using Students' Questions as a Starting Off Point for Thinking About Mathematics.* Invited to UCSMP International Conference, University of Chicago. Chicago, IL. 2002.
- Building for Success in Positions Beyond West Point.* Invited to Panel Discussion at United States Military Academy, West Point, NY. 2002.

## REFEREED/INVITED PRESENTATIONS AND WORKSHOPS, Continued

- The Students' Take on the Epsilon-Delta Approach to Finding Limits.* Joint Meetings of the American Mathematical Society and the Mathematical Association of America. San Diego, CA. 2002.
- Experimenting With Classroom Formats to Encourage Problem Solving.* Joint Meetings of the American Mathematical Society and the Mathematical Association of America. San Diego, CA. 2002.
- The Mathematician's and Practitioner's Perspectives on Multiplying and Dividing Rational Numbers,* Project NExT Colloquium, Joint Meetings of the American Mathematical Society and the Mathematical Association of America. San Diego, CA. 2002
- Experimenting With Cooperative Learning to Encourage Standards-like Problem-Solving.* Invitation to the Association of Mathematics Teachers of New Jersey Spring Regional Conference, Montclair, NJ. 2002.
- Proofs Without Words.* With Michael Jones, 33<sup>rd</sup> Annual Math Day, Montclair State University, Spring 2002.
- A Look at Problem Solving Through Three Neat Problems.* 30<sup>th</sup> Annual Math Day, Montclair State University, Spring 2001.
- Encouraging Student Reasoning When Teachers Experience Knowledge Gaps.* National Council of Teachers of Mathematics Annual Meeting, Chicago, IL. 1999.
- Anneli Cahn Lax Memorial Tribute. (Invited). New York University. 1999.
- NCTM Standards Draft: Issues for Discussion. Association of Mathematics Teachers of New Jersey Spring Regional Conference. 1999.
- The 'Standards-like' Role of Teachers' Mathematical Knowledge in Responding to Students' Unanticipated Observations.* American Educational Research Association Annual Meeting, Chicago, IL. 1997.
- The Role of the Hand in Teacher-Student Interaction.* American Educational Research Association Annual Meeting, New York, NY. 1994.
- Becoming a Mathematics Teacher.* National Council of Teachers of Mathematics Annual Meeting, Seattle, WA. 1993.
- Relating Area and Perimeter.* Invitation for Workshop for Historically Black Colleges and Universities, New York University. New York, NY. 1990.

## SERVICE TO MATHEMATICS EDUCATION COMMUNITY

- 2022 Promotion Review, by Invitation from Dr. Heidi J. Higgins, Department Chair, University of North Carolina Wilmington.
- 2018-Present Referee, *Mathematics Teacher: Learning and Teaching, PreK-12.* National Council of Teachers of Mathematics
- 2018-2019 Editorial Board, *Mathematics Teacher*, National Council of Teachers of Mathematics, Final Year of Publication. By Invitation.
- 2018-2019 Editor, *Mathematics Teacher*, Monthly Mathematics Calendar, National Council of Teachers of Mathematics
- See dates National Science Foundation, Committee to Select Recipients for Presidential Awards for Excellence in Mathematics Teaching. By Invitation, 2009, 2010, 2012, 2013.
- 2007-2008 Referee, *Mathematical Thinking and Learning*, Lawrence Erlbaum Associates.
- 2016-Present Referee, *Journal for Research in Mathematics Education.* National Council of Teachers of Mathematics.
- 2007-Present Referee, *Teaching Children Mathematics.* National Council of Teachers of Mathematics.
- 2006-2019 Referee, *Mathematics Teacher.* National Council of Teachers of Mathematics.
- 1999-2003 Referee, *American Journal of Education.* Department of Education, University of Chicago.
- 2006-2014 Editorial Board, *Problems, Resources and Issues in Mathematics Education.*

### **SERVICE TO MATHEMATICS EDUCATION COMMUNITY, Continued**

- 2005-2007 Editorial Board, *New Jersey Mathematics Teacher*, Association of Mathematics Teachers of New Jersey.
- 2004-2007 Book Series Consultant and Editor in Mathematics, Enslow Publishers, Incorporated. *Counting Puppies and Kittens; Adding Puppies and Kittens; Subtracting Puppies and Kittens; Measuring Puppies and Kittens; Telling Time with Puppies and Kittens.*
- 2004-2005 Reviewer, PRAXIS Exam Questions. Educational Testing Service, Princeton, NJ.
- 2003 Translator, English to Spanish, *Helping Your Child Move Forward With Math: K-1*. Howard University, Washington, DC.
- 2001-2006 Referee, *Problems, Resources and Issues in Mathematics Undergraduate Studies*.
- 1999 Reviewer, Research Proposals for American Educational Research Association, Annual Meeting of the American Educational Research Association.
- 1999 Consultant. Editing Spanish. *Families Achieving the New Standards in Mathematics, Science, and Technology*, Rutgers University.
- 1990-1991 Consultant, Central Park East High School, New York, NY.
- 1989 Program Coordinator, Precalculus Institutes, Center for Mathematics Education, Rutgers University.
- 1990 Program Coordinator/Workshop Leader, Department of Mathematics, New York University. (Designed and organized mathematics teaching seminars for professors from Historically Black Colleges and Universities).

### **SERVICE TO CAMPUS COMMUNITIES**

- 2018-2022 Undergraduate Curriculum Committee, Chair
- 2016-2018 Member, Red Hawk Math Learning Center (RHMLC) Advisory Committee.
- 2017 Member, APLU (Association of Public and Land Grant Universities) Math Active Adaptive Educators
- Summer 2017 Faculty workshop on active and adaptive learning, Louisville, KY.
- 3/28/16 Coordinator, Beyond Measure documentary (arranged viewing and panel), Montclair State.
- 2016-2017 Departmental budget committee, Montclair State
- Spring 2010 Learning management systems working group, Montclair State
- 2005-2010 Steering committee, Montclair State
- 2005-2011 Graduate committee
- 2004-2005 New Jersey State Certification Committee, Montclair State
- See dates Departmental Personnel Advisory Committee (reappointment, tenure and promotion committee), Montclair State, 2003 to 2004, 2011 to 2012, Spring 2014, 2015 to 2016, 2019 to 2022.
- 2000-2010 Teacher Education Admissions, (designing and evaluating essay assessments, interviewing teacher education candidates, evaluating applications), Montclair State
- See dates Search Committee Mathematics Education Positions, Montclair State, 1999-2002, 2005-2010, 2017-2018
- See dates Chair, Mathematics Education Special Interest Group, (scheduling mathematics education courses, hiring, assessment), Montclair State, 1999-2002, 2007-2010, 2023-Present (includes Coordinator for the National Council for the Accreditation of Teacher Education or NCATE Coordinator).
- 1998-2012 Mathematics Supervisor for Middle and Secondary Level Student Teachers, Montclair State.
- Fall 2004 Developed Doctoral Course, Math 745: The Use of Teacher Knowledge in Mathematics Teaching (required course)
- Spring 2011 Developed an online course, Math 106: Mathematical Modeling with Spreadsheets



### **SERVICE TO CAMPUS COMMUNITIES, *Continued***

- Fall 2018 Developed online course, MTHM407/507 Geometry and Geometric Thinking for Middle School Teachers
- 1999-Present Doctoral Faculty, Montclair State.
- 1999-2003 Member, Doctoral committee, Montclair State
- 1998-Present Academic Advisor, Montclair State
- Spring 2002 SMUG Workshop, Introduction to Geometer's Sketchpad, Montclair State
- 2000-2006 Conference coordinator, Annual Math Day, Montclair State
- 1999 Guest, Math Medley National Radio Program, Mathematics Reform at the University Level
- 1998-2003 Member, Student Retention Liaison Committee, Open House Representative, Montclair State
- 1999 to 2009 Math Club Co-Advisor, Montclair State
- 1994-1996 Research Assistant, Department of Psychology, University of Chicago.
- 1994 to 1995 Workshop for Mathematics Teaching and Learning, University of Chicago, Department of Education
- 1993 to 1994 Member, Student Editorial Board, *American Journal of Education*, University of Chicago
- 1992-1994 Project Assistant, UCSMP Primary and Secondary Components, University of Chicago
- 1991 to 1994 Mathematics supervisor for secondary level, student teachers, University of Chicago
- 1987 to 1988 Research Assistant, Language Linked Approaches to Mathematics, Ford Foundation Project, New York University

### **ADVISING/STUDENT RESEARCH SUPERVISION**

#### ***Doctoral Dissertation Chair, Completed:***

- *Transitioning secondary mathematics pedagogy towards reform-oriented practice through coteaching.* Jessica Nuzzi, Ph. D. in Mathematics Education, May 2021.
- *Characterizing the 'realistic-ness' of word problems in secondary mathematics textbooks.* Marylu Dalton, Ed. D. in Mathematics Education, January 2018.
- *How do manipulatives help students communicate their understanding of double digit subtraction.* Rabab Abi-Hanna, Ed. D. in Mathematics Education, May, 2016
- *A study of students' attitudes toward mathematics and achievement in mathematics in a 'better than average' district.* Laura Sullivan, Ed. D. in Mathematics Education, May 2008.

#### ***Doctoral Dissertation Committee Member, Completed:***

- *Video case materials and the development of collective professional knowledge.* Victoria Bonaccorso, Ph. D in Mathematics Education, Video case materials and the development of collective professional knowledge, May 2020.
- *A community of learning in an elementary school mathematics classroom.* Megan Roeder, Ph. D. in Mathematics Education, August 2020.
- *Teachers' discourse on integers: transforming discourse on whole numbers to discourse on integers.* Douglas Platt. Ed. D. in Mathematics Education, January, 2019.
- *Adult learners, learning disabilities, and mathematics: a case study.* Marguerite Flood, Ed. D. in Mathematics Education, January 2017.
- *Quantitative literacy and mathematics education: the benefits and challenges of a QL course.* Mark Russo, Ed. D. in Mathematics Education, May 2014.

## **ADVISING/STUDENT RESEARCH SUPERVISION, *Continued***

### ***Doctoral Dissertation Chair, In Progress:***

- Abiodun Banner (Literature review passed January 2021; proposal in progress)
- Anthony Emmons (Comps passed Summer 2020; literature review in progress)
- Youngjun Kim (Comps passed Summer 2022; literature review and proposal in progress)
- Meimee Persau (Comps submitted March 2023)

### ***Doctoral Dissertation Committee Member, In Progress:***

- Denish Akuoum (Comps passed Summer 2022);
- James Janakat (Comps passed Spring 2021)
- Adam Anderson (Comps passed Fall 2019)
- Malack Ameyna (Comps passed Fall 2019)
- Karmen Yu (Proposal passed Summer 2022; Data Collected Fall 2022)
- Laura Weinstein (Comps passed Summer 2018)
- Christa Falzarano (Comps passed Summer 2022)
- Toni York (Comps passed Spring 2021)
- Elise Lahiere (Comps passed Fall 2022)

### ***Masters advising:***

*Complexity, creativity, and Curriculum.* John O'Meara, MS in Mathematics, May 2022.

*Modeling magnetic separation of oil spill clean up to enhance virtual laboratory learning in the classroom.* James Kofi, MS in Mathematics, May 2014

*Exploration of cellular automata: a reading perspective.* Evren Gulistan, MS in Mathematics, May 2008

## **PROFESSIONAL ASSOCIATION MEMBERSHIPS**

American Educational Research Association,  
National Council of Teachers of Mathematics  
Association of Mathematics Teacher Educators  
Mathematical Association of America  
American Mathematical Society

## **SKILLS**

- Fluent in Spanish
- Teaching ability with Microsoft Excel, Geometer's Sketchpad, Geogebra, Graphing Calculators, TI-89, Elluminate Live!, Canvas Conference, Camtasia Relay, iShowU, iTunes, Keynote (Podcast Creation)
- Online/hybrid course design experience and teaching