

Cyndi Edgington

502J Poe Hall, Box 7801 • NC State University • Raleigh, North Carolina, 27695

Mobile: (919) 931-9741 • Email: cpedging@ncsu.edu

PROFESSIONAL BACKGROUND

EDUCATION

Ph.D. Mathematics Education, North Carolina State University, December 2012

Dissertation title: Teachers' uses of a learning trajectory to support students' mathematical thinking (under the direction of Paola Sztajn)

M.S. Mathematics Education, North Carolina State University, December 2008

Thesis title: Kindergarten teachers' mathematics teaching cycle: Attending to issues of culture and student understanding (under the direction of Allison McCulloch)

B.S. Mathematics Education, North Carolina State University, December 1992

TEACHING EXPERIENCE

Associate Teaching Professor, 2020- present

North Carolina State University, Raleigh, NC, Department of STEM Education

- Undergraduate and MAT Program Coordinator, including field experiences and student teaching
- Teach undergraduate methods courses for students pursuing a bachelor's degree in secondary mathematics education
- Teach graduate level courses for students pursuing masters and doctoral degrees in mathematics education, including distance education and online courses
- Coordinate and supervise all university supervisors who work with mathematics education student teachers
- Lead program effort in any needed undergraduate course and curricular changes
- Advise undergraduate, graduate, and MAT students and lead advising efforts in the mathematics education program
- Serve on master's thesis and doctoral dissertation committees
- Oversee NCCTM student organization
- Oversee program recruitment efforts, meet with prospective undergraduate and MAT students, and participate in College and University level recruitment events

Assistant Teaching Professor, 2015-2020

North Carolina State University, Raleigh NC, Department of STEM Education

- Taught undergraduate methods courses for students pursuing a bachelor's degree in secondary mathematics education

- Taught graduate level courses for students pursuing masters and doctoral degrees in mathematics education, including distance education and online courses
- Coordinated student teaching field experiences for undergraduate secondary mathematics education students and MAT students
- Coordinated and supervise all university supervisors who work with mathematics education student teachers
- Lead program effort in any needed undergraduate course and curricular changes
- Advise undergraduate, graduate, and MAT students and lead advising efforts in the mathematics education program
- Serve on master's thesis and doctoral dissertation committees
- Oversee NCCTM student organization
- Oversee program recruitment efforts, meet with prospective undergraduate and MAT students, and participate in College and University level recruitment events

Instructor, 2013-2015

North Carolina State University, Raleigh, NC

- Co-planned and co-taught the methods course, Teaching Mathematics with Technology for prospective secondary mathematics teachers
- Planned and taught the methods course, Children's Thinking and Multiplicative Reasoning for prospective elementary teachers
- Used the Moodle virtual learning environment to organize and distribute course materials, to collect and return course assignments, and to hold asynchronous online class sessions

RESEARCH EXPERIENCE

Equity and Social Justice Working Group, 2017 – present

Project: Mathematics Teacher Educators Partnership (MTE-P)

- Contributed to the creation and development of the working group as part of the MTE partnership, including driver diagram and ratification document
- Develop and enact "Plan-Study-Do-Act" research cycles
- Co-chair the Resources sub-committee to collect and organize resources for secondary mathematics teacher educators on issues of equity, diversity and social justice in teacher preparation
- Participate in monthly meetings

Post-doctoral Research Associate, 2012 - 2015

Project: NSF-funded Learning Trajectories Based Instruction (LTBI), North Carolina State University, Raleigh, NC

- Contributed to the planning and facilitation of professional development on learning trajectories for elementary teachers
- Used the Moodle virtual learning environment to distribute professional development materials and communicate with project participants

- Completed management tasks such as budgeting, Internal Review Board requests and modifications, and writing NSF annual reports
- Supervised graduate student's project work, overseeing data collection and analysis of project data
- Co-authored publications in peer-reviewed research journals
- Participated in project presentations at major mathematics education conferences

Research Assistant, 2010 - 2012

Project: NSF-funded Learning Trajectories Based Instruction (LTBI), North Carolina State University, Raleigh, NC

- Contributed to the planning and facilitation of professional development on learning trajectories for elementary teachers
- Contributed to the development of professional learning tasks for use in the project professional development
- Organized data, contributed to the development of codebooks, and trained coders
- Analyzed project data including classroom observations, professional development meetings, and interview data using Atlas.ti software
- Co-authored publications in peer-reviewed research journals
- Participated in project presentations at major mathematics education conferences

Research Assistant, 2009 to 2010

Project: NSF-funded Diagnostic eLearning Trajectories Approach (DELTA), North Carolina State University, Raleigh, NC

- Organized and scored large-scale student assessment items as part of learning trajectory validation
- Conducted clinical and think-aloud interviews with elementary and middle school students as part of assessment item revisions
- Co-authored publications for peer-reviewed practitioner journals

Research Assistant, 2007 to 2008

Project: NSF-funded Nurturing Mathematics Dreamkeepers, North Carolina State University Raleigh, NC

- Collected, organized, and analyzed project data including classroom observations and teacher interviews
- Conducted classroom observations and interviews with elementary teachers from partner schools
- Conducted task based interviews with kindergarten students and written assessments with first and second grade students from partner schools
- Retrieved and summarized existing literature on culturally relevant pedagogy and ethnomathematics

SERVICE

President, Association of Mathematics Teacher Educators, North Carolina Affiliate, 2021-present

- Preside at and lead organization and executive board meetings, administer affairs of the organization, and serve as a liaison to the national AMTE organization.

Advising Professional Development Committee, 2021 – present

- Develop professional development and community building experiences for academic advisors across the university. Plan and host large scale advisor development initiatives under the guidance of the Director of Advising.

Park Faculty Scholar, 2019 - present

- One of two faculty members from across the university appointed by the Chancellor to lead the Class of 2023 cohort of 40 [Park Scholars](#). Meet with scholars from various fields of study and lead the cohort weekly seminars in areas of scholarship, leadership, service, and character in collaboration with the Park staff.

Park Scholar Mentor, 2018 - present

- Mentor two mathematics education Park Scholar students in their development of scholarship, leadership, service, and character.

Passport to Success Mentor, 2016 - 2021

- Mentor four College of Education students through the [Passport to Success](#) enrichment program focused on global knowledge, cross-cultural skills, professional development, and community engagement.

Council of Educational Program Coordinators, 2017 - present

- Represent secondary mathematics education, attend monthly meetings to discuss and approve college wide policies related to state legislation, licensure, and teacher preparation programs.

Committee on Professional Education, 2017 - present

- Co-chair (2018-2021) and member (current) of the College of Education Committee on Professional Education to develop and recommend policies in alignment with state legislation related to teacher licensure. Contribute to college wide CAEP accreditation efforts.

Search Committee Member, 2017 - 2019

- Service on three search committees: Assistant Teaching Professor in Mathematics Education (2017); STEM Education Department Head (2018); Assistant Professor in Mathematics Education (2019).

Professional Track Standards Task Force, 2019

- One of six faculty members from across the college invited to develop and recommend college level standards for promotion for professional track faculty.

edTPA Task Force, 2017 - 2018

- College wide task force to develop policies and supports for teacher candidates' successful completion of the edTPA teaching portfolio.

Field Experiences Task Force, 2017 - 2018

- College wide task force to ensure consistency across program early field experiences and to develop partnerships with area middle and high schools.

FELLOWSHIPS AND AWARDS

Faculty Advisor Award, College of Education nominee 2019-2020

This award recognizes outstanding undergraduate academic advising by a faculty member whose primary role is in teaching and/or research. Awardees exhibit a strong commitment to student success through availability to students and awareness of policies and procedures.

Outstanding Teaching Award, nominee 2016, 2017, 2018, 2019

This award recognizes outstanding teaching at all levels. Nominees are made by students and faculty.

NCTM Linking Research to Practice Outstanding Publication Award, 2012

In the National Council of Teachers of Mathematics professional organization, this award recognizes outstanding contributions to Linking Research and Practice published in the NCTM practitioner-focused journals selected by the Research Committee of NCTM. The award was given for the article, *Fair Shares, Matey, or Walk the Plank*, published in the April, 2012 edition of *Teaching Children Mathematics*.

The Agnes and Garfield Stiff Endowment, 2009

In the STEM Education department at North Carolina State University, this award provided support to attend and present at a national conference. The endowment was used to attend the North American Chapter of the Psychology of Mathematics Education 2009 conference in Atlanta GA where I gave a presentation based on my master's thesis entitled: *Teaching for understanding: The social culture of the classroom*.

Provost Scholarship, 2009

At North Carolina State University, this award provided a one-time stipend to support doctoral studies. Recipients are identified by the graduate faculty as outstanding candidates in the doctoral program.

PUBLICATIONS

- Edgington, C.** (under review). Analyzing teachers' discourse moves in an early field experience. In D. Polly, E. Garin, & C. Martin (Eds.) *Clinically Based Teacher Education in Action: Cases from Mathematics Teacher Educators*. Information Age Publishing.
- Dick, L. K., Lovett, J. N., McCulloch, A. W., **Edgington, C.**, & Casey, S. A. (2020). Predicting students' mathematical thinking in a technology-mediated environment. *Journal of Technology and Teacher Education*, 28(3), 571-593.
- Cannon, S., Horne, E., & **Edgington, C.** (2019). Using response to intervention as a model for candidate support for edTPA. In L. Barron (Ed.), *A Guide for edTPA Implementation: Lessons from the Field* (pp. 325-342). Charlotte, NC: Information Age Publishing.
- Sztajn, P., **Edgington, C.**, Wilson, P. H., Webb, J. & Myers, M. (2019). The Learning Trajectory Based Instruction project. In P. Sztajn & P. H. Wilson (Eds.), *Designing Professional Development for Mathematics Learning Trajectories* (pp. 15-47). New York: Teachers College Press.
- McCulloch, A. W., Lovett, J. N., **Edgington, C.** (2019). Designing to provoke disorienting dilemmas: Transforming preservice teachers' understanding of function using a vending machine applet. *Contemporary Issues in Technology and Teacher Education* 19(1). Retrieved from <https://www.citejournal.org/volume-19/issue-1-19/mathematics/designing-to-provoke-disorienting-dilemmas-transforming-preservice-teachers-understanding-of-function-using-a-vending-machine-applet/>
- Lovett, J. N., Dick, L. K., McCulloch, A. W., Sherman, M. F., **Edgington, C.**, Wanner, C. A., & Reed, S. D. (2018). Eliciting preservice mathematics teachers technological pedagogical function knowledge. In M. L. Neiss, H. Gillow-Wiles, & C. Angeli (Eds.) *Handbook of research on TPACK in the digital age* (pp. 365- 389). DOI: 10.4018/978-1-5225-7001-1.ch017
- Sherman, M. F, Lovett, J. N., McCulloch, A. W., Dick, L, K, **Edgington, C.**, & Casey, S. A. (2018). Transforming students' definitions of function using a vending machine applet. In A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, & S. Brown (Eds.), *Proceedings of the 21st Annual Conference on Research in Undergraduate Mathematics Education* (pp. 752-760). San Diego, CA: The Special Interest Group of the Mathematical Association of America (SIGMAA) for Research in Undergraduate Mathematics Education.
- McCulloch, A. W., Lovett, J. N., & **Edgington, C.** (2017). Developing preservice teachers' understanding of function using a vending machine metaphor applet. *Proceedings of the Thirty-ninth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 1281-1288). Indianapolis, IA.
- Wilson, P. H., Sztajn, P., **Edgington, C.**, Webb, J., & Myers, M. (2017). Changes in teachers' discourse about students in a professional development on learning trajectories. *American Education Research Journal*, 54(3), 568-604. doi: [10.3102/0002831217693801](https://doi.org/10.3102/0002831217693801)
- Walkowiak, T. A., Minogue, J., Harrington, A. D., & **Edgington, C.** (2017). Re-envisioning the school day: Integrating mathematics, science, and reading through students' engagement with practices. *Journal of Interdisciplinary Teacher Leadership*, 1(2), 7-12.
- Edgington, C.**, Wilson, P. H., Sztajn, P., & Webb, J. (2016). Translating learning trajectories into usable tools for teachers. *Mathematics Teacher Educator*, 5(1), 64-79.

- Edgington, C., Sztajn, P., Wilson, P. H., Myers, M., & Webb, J.** (2015). Norms for discussing students' mathematics in professional development. *NCSM Journal of Mathematics Education Leadership*, 16(1), 12-18.
- Myers, M., Sztajn, P., Wilson, P. H., & **Edgington, C.** (2015). From implicit to explicit: Articulating equitable learning trajectories based instruction. *Journal of Urban Mathematics Education*, 8(2), 11-22.
- Wilson, P. H., Sztajn, P., **Edgington, C.**, & Myers, M. (2015). Teachers' uses of a learning trajectory in student-centered instructional practices. *Journal of Teacher Education*, 1-18. doi: 10.1177/0022487115574104
- Edgington, C.** (2014). Teachers' uses of a learning trajectory as a tool for mathematics lesson planning. In J. J. Lo, K. R. Leatham, & L. R. VanZoest (Eds.), *Current Research in Mathematics Teacher Education: Contributions by PME-NA Researchers* (pp. 261-284). New York.
- Wilson, P. H., **Edgington, C.**, Sztajn, P., & DeCuir-Gunby, J. (2014). Teachers, attribution, and students' mathematical work. In J. J. Lo, K. R. Leatham, & L. R. VanZoest (Eds.), *Current Research in Mathematics Teacher Education: Contributions by PME-NA Researchers* (pp. 115-132). New York.
- Sztajn, P., Wilson, P.H., **Edgington, C.**, Myers, M, & Partner Teachers. (2013). Connecting classroom practice and research innovation: Learning from professional development researchers and teachers. *ZDM: The International Journal of Mathematics Education*, DOI 10.1007/s11858-013-0560-0.
- Meyers, M., **Edgington, C.**, Wilson, P. H., & Sztajn, P. (2013). Teachers' positioning of students in relation to ability/achievement in a professional development setting. In Martinez, M. & Castro Superfine, A. (Eds), *Proceedings of the Thirty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 653- 660). Chicago, IL.
- Sztajn, P., Wilson, P. H., **Edgington, C.**, Myers, M., & Dick, L. (2013). Using design experiments to conduct research on mathematics professional development. *Alexandria Revista de Educacao em Ciencia e Tecnologia*, 6(1), 9-34.
- Wilson, P. H., Sztajn, P., Confrey, J., & **Edgington, C.** (2013). Teachers' use of their mathematical knowledge for teaching in learning a mathematics learning trajectory. *Journal of Mathematics Teacher Education*, DOI 10.1007/s10857-013-9256-1.
- Wilson, P. H., Sztajn, P., & **Edgington, C.** (2013). Designing professional learning tasks for mathematics learning trajectories. *PNA*, 7(4), 135-143.
- Edgington, C.** (2012). Learning trajectories as a tool for mathematics lesson planning. In L. R. Van Zoest, J.J. Lo, & J. L. Kratky (Eds), *Proceedings of the Thirty-fourth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 805-812). Kalamazoo, MI.
- Sztajn, P., Wilson, P. H., Decuir-Gunby, J., & **Edgington, C.** (2012). Teachers' attributions for students' mathematical work. In L. R. Van Zoest, J.J. Lo, & J. L. Kratky (Eds), *Proceedings of the Thirty-fourth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 482-487). Kalamazoo, MI.

- Sztajn, P., Confrey, J., Wilson, P. H., & **Edgington, C.** (2012). Learning trajectory based instruction: Towards a theory of teaching. *Educational Researcher*, 4(5), 147-156.
- Wilson, P. H., Sztajn, P., & **Edgington, C.** (2012). Designing professional learning tasks for mathematics learning trajectories. In Tso, T. (Ed.), *Proceedings of the thirty-sixth annual meeting of the International Group for the Psychology of Mathematics Education*. (pp. 227-234). Taipei, Taiwan.
- Wilson, P. H., Myers, M., **Edgington, C.**, & Confrey, J. (2012). Fair shares, matey, or walk the plank. *Teaching Children Mathematics*, 18(8), 482-489.
- Wilson, P. H., **Edgington, C.**, Nguyen, K., Pescosolido, R. C., Confrey, J. (2012). Fractions: How to share fair. *Mathematics Teaching in the Middle School*, 17(4), 230- 236.
- Sztajn, P., Wilson, P. H., Confrey, J., **Edgington, C.** (2011). Learning trajectories and key instructional practices. In L. R. Wiest, & T. d. Lamberg (Eds.), *Proceedings of the Thirty-third Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 434-442). Reno, NV.

PROFESSIONAL PRESENTATIONS

- Anderson, R. K., **Edgington, C.**, Lawler, B. R., Males, L. M., Carman, L., Sundrani, A. (2022, February). *Articulating the AMTE standards: Building a comprehensive, justice-oriented secondary mathematics teacher preparation program*. Association of Mathematics Teacher Educators, Las Vegas, NV.
- Edgington, C.** (2021, August). *Co-teaching for student success*. Session presented at the Triangle Math Summit, Raleigh, NC.
- Edgington, C.** & Borden, M. (2020, February). *Digital competencies: Connecting teacher preparation to classroom practice*. Poster presented at the Digital Learning Symposium, Elon, NC.
- Edgington, C.** (2019, November). *An instructional framework for Pre-Calculus*. Presentation at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.
- Edgington, C.** (2019, August). *Collaborative learning: Facilitating discussions in multiple ability classrooms*. Session presented at the Triangle Math Summit, Raleigh, NC.
- Jeffrey, P. S., & **Edgington, C.** (2019, February). *Using virtual-reality simulation for connecting teaching and learning of social and emotional skills in post-secondary settings*. Session presentation at the N. C. State University Teaching and Learning Symposium, Raleigh, NC.
- Edgington, C.** (2018, November). *Infusing intellectual standards for critical and creative thinking into your math classroom*. Presentation at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.
- Jeffrey, P. S. & **Edgington, C.** (2018, February). *Using virtual-reality simulation for building capacity in pre-service teachers*. Poster presented at the N. C. State University Teaching and Learning Symposium, Raleigh, NC.

- Edgington, C.,** Varzideh, Q., & Marlowe, K. (2018, July). *Social and emotional learning*. Session presentation at the N.C. State University College of Education Beginning Teacher Institute, Raleigh, NC.
- Edgington, C.** & McCulloch, A. (2017, November). *Developing pre-service teachers' understanding of function using a vending machine metaphor applet*. Presentation at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.
- James, A., Faulkner, V., & **Edgington, C.** (2017, November). *Algebraic reasoning and reaching all students: Using a shopping model to create a common classroom schema for linear algebra*. Presentation at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.
- Edgington, C.,** & Faulkner, V. (2017, February). *Using digital storytelling in an undergraduate mathematics methods course*. Presentation at the twenty-first Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Horne, E. & **Edgington, C.** (2016, November). *Co-teaching as best practices in student teaching*. Session presented at the N. C. State University College of Education Cooperating Teacher Institute, Raleigh, NC.
- Walkowiak, T., & **Edgington, C.** (2016, February). *Re-envisioning the school day: A field-based project focused on developing mathematical practices in the CCSS-M*. Presentation at the twentieth Annual Conference of the Association of Mathematics Teacher Educators, Irvine, CA.
- Edgington, C.,** Wilson, P. H., Sztajn, P., Myers, M., & Webb, J. (2015, February). *Designing boundary objects for learning trajectories*. Research symposium presented at the Nineteenth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Edgington, C.,** & Webb, J. (2014, October). *Linking research and practice: Learning trajectory based instruction*. Poster presented at the 2014 Bridging the Gap STEM Education Conference, Raleigh, NC.
- Myers, M. & **Edgington, C.** (2014, February). *Teachers' uses of learning trajectories: Frameworks for student-centered and equitable instruction*. Presentation at the Eighteenth Annual Conference of the Association of Mathematics Teacher Educators, Irvine, CA.
- Edgington, C.,** Wilson, P. H., & Sztajn, P. (2013, April). *Teachers' stereotyping of students' mathematical work*. Paper presented at the 2013 National Council of Teachers of Mathematics Research Pre-session, Denver, Colorado.
- Wilson, P. H., Sztajn, P., & **Edgington, C.** (2013, January). *Promoting instruction organized around students' learning trajectories*. Paper presented at the Seventeenth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, Florida.
- Edgington, C.** (2012, October). *Learning trajectories as a tool for mathematics lesson planning*. Paper presented at the Thirty-fourth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Kalamazoo, MI
- Sztajn, P., Wilson, P. H., Decuir-Gunby, J., & **Edgington, C.** (2012, October). *Teachers' attributions for students' mathematical work*. Paper presented at the Thirty-fourth Annual

Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Kalamazoo, MI.

Edgington, C. (2012, March). *Teachers' uses of a learning trajectory to support student thinking in the mathematics classroom*. Poster presented at the Graduate Student Research Symposium, Raleigh North Carolina.

Edgington, C., Sztajn, P., & Wilson, P. H. (2011, October). *Teachers' use of a learning trajectory for formative assessment*. Paper presented at the Thirty-third Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.

Sztajn, P., Wilson, P. H., Confrey, J., **Edgington, C.** (2011, October). *Learning trajectories and key instructional practices*. Paper presented at the Thirty-third Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.

Edgington, C. (2009, October). *Teaching for understanding: The social culture of the classroom*. Paper presented at the Thirty-first Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Atlanta, Georgia.

PROFESSIONAL ORGANIZATIONS

Mathematics Teacher Educators Partnership, 2016 - present

North Carolina Affiliate of the Association of Mathematics Teacher Educators, 2014 - present

Association of Mathematics Teacher Educators, 2011 – present

National Council of Teachers of Mathematics, 2007 - present

North Carolina Council of Teachers of Mathematics, 2007 - present