

CURRICULUM VITAE

Lisa Ann Brooks

Senior Lecturer
Elementary Education
School of Teaching, Learning, and Leadership
College of Community Innovation and Education
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ACADEMIC BACKGROUND

- Ed.D. UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL
2014 Curriculum and Instruction – Mathematics Education
Academic Advisor- Dr. Michael Hynes
Dissertation Chair- Dr. Juli K. Dixon
Dissertation: *Replacing the “Raise your hand to speak” Rule with New Social and Sociomathematical Norms in an Elementary Mathematics Classroom*
- M.Ed. UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL
2006 K-8 Mathematics and Science Education (Lockheed Martin/UCF Academy for Mathematics and Science)
Thesis Chair- Dr. Juli K. Dixon
Thesis: *Challenging a Traditional Social Norm in a Second Grade Mathematics Classroom*
- B.S. UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL
1992 Elementary Education

PROFESSIONAL EXPERIENCE

- 2022-Present **Senior Lecturer**
Graduate Faculty
Faculty Fellow of Inclusive Education
School of Teacher Education
College of Community Innovation and Education
University of Central Florida, Orlando, Florida.
- 2016-2022 **Associate Lecturer/Advisor**
Elementary Education M.A & M.Ed. Coordinator

Overseas Internship Coordinator
Graduate Faculty
Faculty Fellow of Inclusive Education
 School of Teacher Education
 College of Community Innovation and Education
 University of Central Florida, Orlando, Florida.

- 2014-2016 **Lecturer**
Graduate Faculty Fellow
 School of Teaching, Learning, and Leadership
 College of Education and Human Performance
 University of Central Florida, Orlando, Florida.
- 2009-2014 **Instructor**
Internship Coordinator
 School of Teaching and Learning
 College of Education
 University of Central Florida, Orlando, Florida.
- 2013 **Project Director** – Primary Grades Mathematics Study: a grant to study the impact of professional development on teacher practice and student learning, funded by a research grant from the Institute of Education Sciences at the U.S. Department of Education.
- 2006-2009 **Mathematics Coach-** Spring Lake Elementary School in Altamonte Springs, Florida. Responsible for developing and implementing professional development for 40 teachers, developing student enrichment groups before and during school, facilitating small group instruction for elementary students, and developing curriculum and assessment resources at the district office.
- 2006 **Adjunct Instructor-** School of Teaching, Learning, and Leadership
 University of Central Florida in Orlando, Florida.
- 2001-2006 **Teacher-** Waterford Elementary School in Orlando, Florida. Taught Grades 1, 2, and 5. Supervised junior and senior interns, served on textbook selection committee, mentored new teachers, served as social studies ambassador, and served as grade level team leader.
- 1998-2001 **Teacher-** St. John Lutheran School in Winter Park, Florida. Taught Grade 1. Developed and implemented summer school program and served on accreditation committee.
- 1996-1998 **Teacher-** St. Andrew Catholic School in Orlando, Florida. Taught Grade 2. Served on school curriculum committee and Pre-K/K student screening team

HONORS AND AWARDS

- Recipient of the 2023 Teaching Incentive Award (TIP), University of Central Florida
- Recipient of the 2016 Teaching Incentive Award (TIP), University of Central Florida
- Recipient of the Lockheed Martin/ UCF Academy of Mathematics and Science Scholarship
- Recipient of UCF Fellowship
- Outstanding Thesis Award, College of Education, University of Central Florida
- PRISM Outstanding Mathematics Teacher Award

RESEARCH AND CREATIVE ACTIVITIES

Research Foci:

- 1) Supporting the development of communication of mathematical ideas;
- 2) Improving pre-service and in-service teachers' pedagogical content knowledge;
- 3) Developing strategies to support elementary teachers' inquiry methods in mathematics

Publications

Note: In the field of education, the primary author is listed first.

*Indicates a publication under prior last name

Journal Articles (refereed)

Brooks, L.A. & Andreasen, J. (2021). Making sense of money. *Delta-K*, 56 (1), 52-56.

Brooks, L.A. (2017). Making sense of cents. *Teaching Children Mathematics*, (3), 170.

Brooks, L.A. (2016). Challenging a social norm to establish effective sociomathematical norms in an elementary classroom. In M. B. Wood, E. E. Turner, M. Civil, & J. A. Eli (Eds.), *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1301-1304)*. Tucson, AZ: The University of Arizona.

Brooks, L.A. (2016). Finding math in reading and science. *Teaching Children Mathematics*, 23(4), 216-217.

Brooks, L. A. & Dixon, J. K. (2013). Changing the rules to increase discourse. *Teaching Children Mathematics* 20(2), 84-89.

Avila, C., **Brooks, L.A.**, Mainali, B., & Edwards, D. (2012) Kenneth P. Kidd, an inspiring mathematics educator. *Dimensions in Mathematics*.

Dixon, J. K., ***Egendoerfer, L. A.**, & Clements, T. (2009). Do they really need to raise their hands? Challenging a traditional social norm in a second grade mathematics classroom. *Teaching and Teacher Education* 25, 1067 - 1076.

Selected for listing on *MOFET ITEC: International portal of teacher education*. This portal consists of abstracts of “the best papers on teacher education topics from the leading journals in the world in the field” (<http://itec.macam.ac.il/portal/>).

Books

Dixon, J. K., **Brooks, L. A.**, Carli, M. R. (2018). *Making sense of mathematics for teaching the small group*. Bloomington, IN: Solution Tree Press.

Selected as a 2020 Teachers’ Choice Award winner for Professional Development. This award honors products of exceptional quality and outstanding performance in the classroom and at home. A panel of teacher evaluators use each product in their classrooms and homes to find the best products for teachers and parents.

Dixon, J. K., Nolan, E. C., Adams, T. L., **Brooks, L. A.**, & Howse, T. D. (2016). *Making sense of mathematics for teaching grades K-2*. Bloomington, IN: Solution Tree Press.

Papers Presented at Professional Conferences

National/International Conferences (Peer Reviewed/Refereed)

Brooks, L.A., (October, 2022). *Creating an inclusive and engaging mathematical environment through discourse*. Paper accepted at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. Los Angeles, CA. (Presentation Cancelled due to Hurricane Ian)

Brooks, L.A., (July, 2022). *Science education for all: Preparing preservice teachers for promoting equity in elementary science methods classes*. Paper presented at the National Science Teachers Association (NSTA) National Conference. Chicago, IL.

Brooks, L.A., Bush, S.B., Dixon, J.K., Butler, M. B., Moore, B.E., Rutledge, T. (March, 2022). *Empowering K-8 mathematics teachers to catalyze change*. Paper presented at the International Consortium for Research in Science and Mathematics Education.

Caton, J. Dixon, J. & **Brooks, L. A.**, (April, 2021). *Making sense of small group instruction in middle school mathematics*. Paper presented at the Virtual National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition.

Little, M., **Brooks, L. A.**, & Carli, M. (April, 2020). *Supporting beginning teachers with mathematics instruction*. National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. Chicago, IL. (Conference Cancelled due to Covid 19 Pandemic).

- Wenzel, T., Kennedy, A., Hoffman, E., & **Brooks, L. A.** (January, 2020). *Lessons learned creating an elementary education capstone colloquium: Extending learning through collaborative environments*. Paper presented at the Hawaii International Conference on Education. Honolulu, HI.
- Brooks, L. A.**, & Carli, M. R. (April, 2019). *Linking literacy and mathematics*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. San Diego, CA.
- Dixon, J. & **Brooks, L.A.** (October, 2019). *Small group, big gains: Leading effective small group instruction*. Paper presented at National Council of Teachers of Mathematics Regional Conference. Nashville, TN.
- Dixon, J. K., **Brooks, L. A.**, & Carli, M. R. (April, 2019). *Small group, big gains: Leading effective small group instruction*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. San Diego, CA.
- Brooks, L. A.** (April, 2017). *Making sense of cents*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. San Antonio, TX.
- Tobias, J. & **Brooks, L. A.** (April, 2017). *Understanding the progression of fractions in k-8 mathematics*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. San Antonio, TX.
- Brooks, L. A.** (October, 2016). *Challenging a social norm to establish effective sociomathematical norms in an elementary classroom*. Research brief presented at the Psychology of Mathematics & Education of North America Conference. Tucson, AZ.
- Brooks, L. A.** (April, 2016). *Base eight explorations to build understanding of place value struggles*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. San Francisco, CA.
- Brooks, L. A.** (February, 2016). *TeachLivE a mixed-reality classroom's impact on pk-12 teacher candidates' beliefs and knowledge about english learners*. Paper presented at the AACTE Annual Meeting. Las Vegas, NV.
- Brooks, L. A.** (October, 2015). *How TeachLivE a mixed-reality classroom, impacted pk-12 teacher candidates' beliefs and knowledge about english learners*. Paper presented at the FATE Annual Meeting. Gainesville, FL.
- Brooks, L. A.** (April, 2015). *Changing the rules to increase discourse*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. Boston, MA.
- Brooks, L. A.** (April, 2013). *Using household items to engage students in meaningful mathematics*. Paper presented at the National Council of Teachers of Mathematics (NCTM) Annual Meeting and Exposition. Denver, CO.

Everett, R. & **Brooks, L. A.** (March, 2012). *The Internet science and technology fair update (ISTF)*. Paper presented at the annual meeting of the National Science Teachers Association. Indianapolis, IN.

Everett, R. & **Brooks, L. A.** (March, 2011). *The Internet science and technology fair (ISTF)*. Paper presented at the annual meeting of the National Science Teachers Association. San Francisco, CA.

***Egendoerfer, L. A.** (March, 2007). *Creating an environment to support discourse in a second-grade class*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Atlanta, GA.

Grants

Bush, S. B. (PI), **Brooks, L.** (Co-PI), Dixon, J. K. (Co-PI), Butler, M. (Co-PI), & Moore, B. (Co-PI) (2021-2026). *Empowering STEM teachers with earned doctorates: A UCF-OCPS Noyce program for K-8 teachers of mathematics*. National Science Foundation (NSF): Noyce Track 3. (Brooks 20% effort) Estimated \$1,459,394. (Funded, ongoing).

Brooks, L. A. & Dixon, J. K. (2017). *Inspiring Meaningful Discourse during Small Group Mathematics Instruction through Authentic Classroom Videos*. University of Central Florida, \$25,000 funded.

Instructional Innovation Initiative Award (2019) \$23,000 funded.

Regional/State/Local Conferences (Peer Reviewed/Refereed)

Hutchinson, C., Little, M., Reyes, M., Spalding, L., Kelley, M., **Brooks, L. A.**, Hoffman, L., Roberts, S., & Dillenseger, D. (October, 2016). *Turns out there IS an "I" in team: Working together to prepare pre-service teacher candidates for inclusive settings*. Paper presented at Florida Association of Teacher Educators Annual Meeting. Orlando, FL.

Andreasen, J. & **Brooks, L. A.** (October, 2016) *Making sense of fraction multiplication and division*. Paper presented at the Florida Council of Teachers of Mathematics Conference. Orlando, FL.

Brooks, L. A. (December, 2014). *Fostering a sense of classroom community to improve undergraduate education*. Paper presented at the Winter Faculty Development Conference. University of Central Florida, Orlando.

Everett, R. & **Brooks, L. A.** (October, 2011). *The internet science and technology fair (ISTF)*. Paper presented at the Florida Association of Science Teachers. Orlando, FL.

Everett, R. & **Brooks, L. A.** (October, 2010). *The internet science and technology fair (ISTF)*. Paper presented at the Florida Association of Science Teachers. St. Augustine, FL.

Invited Presentations

Dixon, J. K., & **Brooks, L. A.** (April, 2018). *Small group, big gains: Coaching for effective pulled small group instruction*. Paper presented at the NCSM Annual Conference. Washington, D.C.

Brooks, L. A. (June, 2016). *Strategies for teaching elementary science to students with disabilities*. Presentation: University of Central Florida, Educators' Summer Institute. Orlando, FL.

Brooks, L. A. (August, 2014). *Engaging students in mathematical discussions*. Presentation: Mathematics Leadership Symposium. Atlanta, GA.

Brooks, L. A. (May, 2011). *Best practice in mathematics classrooms: Past versus present*. Presentation: Common Core State Standards Symposium for Mathematics. Long Beach, CA.

Brooks, L. A. (May, 2011). *Best practice in mathematics classrooms: Past versus present*. Presentation: State Standards Symposium for Mathematics. Dallas, TX.

Other Creative Works

Bush, S.B., **Brooks, L. A.**, Dixon, J.K., Butler, M. B., Moore, B.E., Rutledge, T. *Elevating Voices, Catalyzing Change: A Partnership Approach to Supporting K-8 Mathematics Teacher Leaders*. AAAS ARISE: Advancing Research & Innovation in the STEM Education of Preservice Teachers in High-Need School Districts. (2022, May). <https://aaas-arise.org/2022/05/26/elevating-voices-catalyzing-change-a-partnership-approach-to-supporting-k-8-mathematics-teacher-leaders/>

Dixon, J.K., **Brooks, L.A.**, Carli, M.R. *Small Group, Big Change: When Students Actively Learn and Teachers Facilitate*. Solution Tree Blog. (2018, April). <https://www.solutiontree.com/blog/small-group-math-instruction/>

Consultations

Professional Development

2013-present. *Consultant*. Solution Tree.

2009-2022. *Consultant*. Dixon-Nolan-Adams Mathematics Institutes.

2008-2010. *Teacher Trainer /Number Worlds Curriculum*. McGraw-Hill.

Reviewing

Brooks, L. A. (2010). *Book Reviewer*. McGraw-Hill.

UNIVERSITY TEACHING

EDE 6933 Introductory Seminar in Elementary Education- This course provides an overview of the MEd and MA in Elementary Education programs' policies and expectations, and exploration of the teaching profession (professional organizations, accomplished practices, publications, issues and terminology).

EDE 6935 Capstone Seminar in Elementary Education- This course is a culminating experience that provides students with the opportunity to synthesize what they have learned throughout their MEd or MA in Elementary Education program.

EDG 4410 Teaching Strategies and Classroom Management– This course is required in the elementary education program. Students are exposed to various instructional delivery techniques and organizational and management skills that promote the development of a classroom community. Students microteach and view the lessons for development of reflective practice. They begin the development of their portfolios as evidence of their becoming facilitating reflective practitioners. They participate in a field experience.

IDS 6516 Leadership Development for Mathematics and Science Teaching- This course is a capstone course for students pursuing a Master's degree in K-8 Mathematics and Science in the Lockheed-Martin/UCF Academy for Mathematics and Science as well as those pursuing a Master's degree in Mathematics Education or Science Education. Students study the roles of teacher leaders, determine their readiness to assume those roles, and identify factors within the school culture that enhance or inhibit teachers' abilities to lead from the classroom. Focus is placed on the teacher as a change agent in curriculum development, teacher mentoring, staff development, and establishing meaningful partnerships with the community.

IDS 6937 Teaching Mathematics and Science Using Reform Based Practices- This course focuses on the work of Dewey and Piaget as it applies to mathematics and science teaching. Emphasizes integrating math and science teaching.

IDS 6939 Reforming Curriculum in Mathematics and Science Education- This course emphasizes the reform movement including technology, history of curriculum, curriculum theory, and standards documents.

MAE 3311 Elementary Mathematics for Teaching II- This course addresses pedagogical content knowledge for teaching rational number concepts and operations, measurement, and algebraic reasoning.

MAE 4326 How Children Learn Mathematics – This course is taught concurrently with a junior internship. Students spend two days per week in schools assigned to a teacher from one of the two grade bands, k-2 or 3-5. The student is then assigned to the other grade band the second half of the semester. The students spend one full-week in the schools each half semester during which time the student teaches a lesson or combination of lessons based on materials covered in mathematics methods.

MAE 6318 Current Methods in Elementary School Mathematics- This course addresses strategies of instruction for computation and concepts of number, geometry, measurement, and algebra; and standards for teaching mathematics.

MAE 7367 Instructional Coaching in K-8 Mathematics- This course addresses improving instructional quality in mathematics by collecting data that influences instruction and implementing strategies for coaching to improve student outcomes.

SCE 3310 Teaching Science in the Elementary School– This course is required in the elementary education program. It is designed to help students learn to teach science to children in ways that are consistent with what is known about science as well as what is known about the physical, emotional, and cognitive development of children.

SCE 6315 Methods in Elementary School Science- This course is designed to help students learn to teach science to children in ways which are consistent with what is known about science as well as what is known about the physical, emotional, and cognitive development of children in contemporary society. Emphasis is placed on inquiry methodology and reflective learning.

Supervision of Student Teachers/Interns

Supervised internship I and internship II students in elementary education (2009-2011)
Lake County Public Schools and Orange County Public Schools, Florida

DOCTORAL & THESIS COMMITTEE MEMBERSHIP (Date of Graduation)

(2021) Jennifer Caton. *Small group instruction in mathematics: The instructional quality assessment toolkit as a guide in professional development.*

(2020) Chelsea Wharin. *The Implementation of an Interdisciplinary Literacy Approach to Examine Effects on Writing Self-Efficacy in a Fourth Grade Classroom.*

(2016) Heidi Eisenreich, *The impact of elementary mathematics workshops on mathematics knowledge for parenting (MKP) and beliefs about learning mathematics.*

PROFESSIONAL SERVICE

Teacher Quality Partnership (TQP) Advisory Committee Member 2019-2022
Member, STE Graduate Curriculum Committee, 2019-2021

Manuscript Reviewer, *Teaching Children Mathematics*, 2011-2020
Department Editor, Math by the Month, *Teaching Children Mathematics*, 2016-2018
Member, Assistant/Associate Professor Search Committee, 2016
PME-NA Annual Conference Proposal Reviewer, 2016
Faculty Council President, Sanford/Lake Mary campus, 2012-2014
Member, Instructor, Mathematics/Science Education Search Committee, 2013
AMTE Local Arrangements Committee Member, 2012
Instructor/Lecturer Promotion Committee Member: 2012, 2019
Elementary Education Program Redesign Committee Member, 2012
Knight Lights Mentoring Committee Member, Clermont campus, 2012

Professional Memberships and Affiliations

Association of Educational Research Association (AERA)
Association of Mathematics Teacher Educators (AMTE)
Florida Council of Teachers of Mathematics (FCTM)
Florida Association of Science Teachers (FAST)
National Council of Supervisors of Mathematics (NCSM)
National Council of Teachers of Mathematics (NCTM)
National Science Teachers Association (NSTA)

Certification and Endorsement

State of Florida K-6 Elementary Education Certification
Primary Education Certification
ESOL Endorsement