

## **Carolyn Mitten, Ph.D.**

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### **Education**

**Doctorate of Philosophy, Curriculum & Instruction, Mathematics Education, August 2017**

*University of Florida, Gainesville, FL*

**Masters of Education, Teaching & Curriculum, Mathematics Education, August 2012**

*Pennsylvania State University, Harrisburg, PA*

**Bachelor of the Arts, Mathematics cum laude, May 2008**

*Messiah College, Grantham, PA*

Pennsylvania State Certification, Grades 7-12

### **TEACHING**

**Assistant Professor of Education, 2019-Present**

Westmont College, Department of Education, Santa Barbara, CA

- Courses Taught:
  - ED150 Mathematics Instruction for All Students in Diverse Elementary Classrooms
  - ED170 Literacy Instruction for All Students in Diverse Elementary Classrooms

**Assistant Professor of Education, 2017-2019**

Moravian College, Department of Education, Bethlehem, PA

- Courses Taught:
  - EDUC312 Data-Driven Analysis Research
  - EDUC322 PreK-4 Mathematical Thinking
  - EDUC332 Math for Middle Level Learners
  - EDUC362 Curriculum and Instruction in Mathematics (Secondary)
  - MATH125 Topics in Math for Teaching
  - EDUC620 A Constructivist Approach to Teaching Mathematics
- Supervision:
  - Support and guide early childhood, elementary, middle, and secondary candidates across all subject areas through weekly classroom visits.
  - Submit official documentation to the state regarding student teaching experiences.
- Advising:
  - Serve as advisor to all undergraduate and graduate teacher candidates with expressed interest in mathematics education.
  - Appointed first-year mentor for incoming freshmen students interested in education.

**Instructor, 2014-2017**

University of Florida, School of Teaching and Learning, Gainesville, FL

- Courses Taught:
  - MAE3312 Mathematics Content and Methods for Teaching Mathematics in the Inclusive Elementary Classroom
  - MAE5396 Formative Assessment for Mathematics Instruction

**Adjunct Instructor, 2013**

Messiah College, Department of Math, Physics, and Statistics, Mechanicsburg, PA

- Course Taught
  - MATH107 Applied Math for Management

**Adjunct Instructor, 2013**

Penn State Harrisburg, Department of Behavioral Sciences and Education, Harrisburg, PA

- Course Taught:
  - EDMTH443 Data Analysis and Statistics Across the Curriculum K-12

**High School Mathematics Teacher, 2008-2013**

Cumberland Valley High School, Mechanicsburg, PA

- Courses Taught: Algebra, Geometry, and Calculus
  - Responsible for six classes sized 15-35
  - Trained in co-teaching and effectively used strategies to improve learning of at-risk students and those with learning disabilities.

**Mathematics Teacher, 2010-2011**

Huntington Learning Center, Harrisburg, PA

- Courses Taught: All K-12 mathematics

**Student Teacher, 2007**

Bermudian Springs Middle School, York Springs, PA

- Courses Taught: Algebra and Geometry

## RESEARCH

**Research Interests**

- Formative assessment and instructional technology to support differentiated math instruction
- Equitable and ambitious mathematics teaching practices
- Preservice and novice teachers' assessment literacy
- Preservice teacher mathematics beliefs and attitudes

**Research Experience****Supporting Interdisciplinary Connections between Math & Literacy Methods Courses, 2019-present**

- Westmont College
- Developing a study aimed to analyze best practices in educational research for teaching mathematics and literacy and its impact on the structure of elementary methods courses in a small teacher preparation program. Throughout the course, will collect student work and conduct in focus groups to uncover teacher candidate experiences in both courses and their alignment with field experiences in elementary classrooms. Within required lesson plans, student teachers will be asked to integrate the two fields and interested students have been invited to move forward with the creation of interdisciplinary lesson plans based on children's math literature and potentially present their work at a national mathematics learning conference.

**Perspectives on the Role of Rehearsals in Math Methods Courses at Small Institutions, 2018-present**

- Moravian College
- Collaborative research project with mathematics education colleagues throughout the country teaching math methods courses within small education departments with limited resources. Exploring the affordances and constraints on enacting teaching rehearsals in these environments and potential solutions for supporting this kind of work in elementary mathematics methods courses.

**Practice-Based Learning and Pre-Service Teachers' Assessment Literacy, PI, 2018-2019**

- Moravian College
- Developed a mixed-methods study to look at the impact of a practice-based course on pre-service teachers' assessment literacy. As a part of the general education course I developed, pre-service teachers were asked to implement assessment in their concurrent field experience, analyze the data, and develop instructional responses that meet the needs of all their learners. Course assignment data and an assessment literacy inventory analyzed to identify strengths and weaknesses of the course design, improve teaching and learning, and provide assessment data on state teacher education competencies.

**Preparing Pre-Service Teachers to Implement Formative Assessment and Reach the Needs of All Learners, PI, 2016-2017**

- University of Florida
- Dissertation research study will identify the conceptual and practical tools that are developed in a practice-embedded formative assessment course for pre-service teachers and how those tools are sustained after their first few years in the classroom.

**Pre-Service Teacher Beliefs about Struggling Learners Study, PI, 2015-2016**

- University of Florida, Dr. Tim Jacobbe (Co-PI)
- Designed a study with pre-service teachers in an elementary mathematics methods course to explore changes in their beliefs about mathematics ability as they participated in a mathematics practicum experience with struggling learners in an after-school program for high-needs students.

**Algebra Nation Professional Development Network, Graduate Research Assistant, 2013-2016**

- Lastinger Center, University of Florida
- Served on the content committee of a professional development site for Algebra I teachers in Florida. Served as content curator where I developed a rubric for resources to be used on the site and reviewed resources to ensure teacher Algebra I resources were of high quality.

**Differentiated Instruction in Standards-based Curricula Study, PI, 2014-2015**

- University of Florida, Dr. Tim Jacobbe (Co-PI)
- Designed a study to look at how elementary teachers at a local school understood differentiation and the knowledge and beliefs that informed the adaptations they made to the *Investigations* curriculum.

**Common Core State Standards for Mathematics Implementation Study, Graduate Research Assistant, 2013-2015**

- University of Florida, Dr. Thomasenia Adams (PI)
- Aided in the analysis and dissemination of the results of a statewide survey aimed to understand mathematics teachers' knowledge, preparation, and use of the Common Core State Standards for Mathematics.

**SEC Mentoring Program**, Graduate Research Assistant, 2013-2014

- Dr. Michael Bowie (PI) and Dr. Cheryl Williams (Co-PI)
- Developed and presented mathematics workshops for young black males enrolled in afterschool program. Wrote literature review on the impact of mentoring programs for young black males.

**Helios Professional Development Initiative Evaluation**, Graduate Research Assistant, 2013-2014

- University of Florida, Lastinger Center
- Collaborated with a team of researchers to evaluate the outcomes of a professional development program for local math and science teachers. Primary duties included coding large sets of qualitative data, running statistical analyses of available quantitative data, and preparing a final report.

**Publications**

**Mitten, C.**, Jacobbe, T., & Jacobbe, E. (2017). How Are They Doing? Using Technology to Facilitate Formative Assessment. *Australian Primary Mathematics Classroom*.

**Mitten, C.**, & Ross, D. (2016). Sustaining a commitment to teaching in a research-intensive university: What we learn from award-winning faculty. *Studies in Higher Education*.

**Mitten, C.**, Collier, Z., & Leite, W. (accepted, pending revisions). Online Resources for Mathematics: How Teacher Use Impacts Student Performance.

Kaplan, O., **Mitten, C.**, & Adams, T.A. (under review). Mathematics Teachers' Incorporation of the Common Core State Standards for Mathematics: An Exploratory Study.

**Mitten, C.**, & Jacobbe, T. (in preparation). Context Matters: Critical Factors Impacting Novice Teachers' Use of Formative Assessment for Teaching Mathematics.

**Mitten, C.** (in preparation). Development and Use of the Formative Assessment Levels of Appropriation (FALA) Framework for Understanding Teachers' Formative Assessment Practices.

**Presentations**

**Mitten, C.** (2020). *Compassionate Assessors: Supporting Teacher Candidates in Developing a More Caring Approach to Assessment*. Presentation accepted for the bi-annual meeting of the International Community for Christian Teacher Educators, Mount Vernon, OH.

**Mitten, C.** (2019). *Bridging Theory and Practice to Develop Assessment Literacy*. Presentation accepted for the annual meeting of the Association of Teacher Educators, Atlanta, GA.

**Mitten, C.** (2018). *Context Matters: Supports and Barriers to Formative Assessment*. Presentation accepted for the annual meeting of the Research Council on Mathematics Learning, Baton Rouge, LA.

**Mitten, C.**, Collier, Z., & Leite, W. (2016). *Online Resources for Mathematics: Exploring How and Why They Support Student Learning*. Presentation accepted for the annual meeting of the American Educational Research Association, Washington, DC.

- Mitten, C.** (2016). *Shifting Perspectives: Practicum as an Opportunity for Preservice Teachers to Understand Student Math Ability Differently*. Presentation accepted for the annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.
- Mitten, C.** (2016). *Tools for Success: Preparing PSTs to Effectively Differentiate Instruction*. Presentation accepted for the annual meeting of the Research Council on Mathematics Learning, Orlando, FL.
- Mitten, C.** (2016). *Is Change Possible? Practicum as a Way to View Math Ability Differently*. Presentation accepted for the annual meeting of the Research Council on Mathematics Learning, Orlando, FL.
- Mitten, C., Collier, Z., & Leite, W.** (2015). *Online Resources for Mathematics: Exploring How and Why They Support Student Learning*. Presentation accepted for the annual meeting of the Florida Educational Research Association, Jacksonville, FL.
- Mitten, C., & Jacobbe, T.** (2015). *Differentiation in a Standards-Based Curriculum: Meeting All Students' Needs*. Presentation accepted for the annual meeting of the National Council of Teachers of Mathematics, Boston, MA.
- Shannon, D., **Mitten, C., & Ross, D.** (2015). *Adaptive Scholars: Embracing Challenges and Cultivating Professional Networks*. Presentation accepted for the annual meeting of the American Educational Research Association. Chicago, IL.
- Mitten, C. & Jacobbe, T.** (2015). *Differentiation in a Standards-Based Mathematics Curriculum: Exploring Teachers' Use of Instructional Strategies that Improve Learning for All*. Presentation accepted for the annual meeting of the Research Council on Mathematics Learning, Las Vegas, NV.
- Wilburne, J., & **Mitten, C.** (2015). *Differentiating Mathematics Education Courses: Practicing What we Preach*. Presentation accepted at the annual conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Mitten, C. & Jacobbe, T.** (2014). *Exploring how teachers differentiate mathematics instruction while using a standards-based curriculum*. Presentation accepted for the annual meeting of the School Science and Mathematics Association, Jacksonville, FL.
- Kaplan, O., & **Mitten, C.** (2014). *An exploratory study of mathematics teachers' incorporation of the Common Core State Standards for Mathematics*. Presentation accepted at the annual conference of the Florida Society of the Social Sciences, Gainesville, FL.
- Kaplan, O., Adams, T., & **Mitten, C.** (2013). *Barriers to Efficiently Incorporating Common Core State Standards for Mathematics (CCSS-M) in Mathematics Instruction: An Exploratory Study*. Presentation accepted at the annual conference of the Southeastern Region Association of Teacher Educators, Sarasota, FL.

## Grants

**SOAR Undergraduate Research Grant, Moravian College.** (2019)

**FDRC Travel Grant, Moravian College.** (2019, Funded).

**FDRC Travel Grant, Moravian College.** (2018, Funded).

**School of Teaching and Learning Travel Grant, University of Florida.** (2017, Funded).

**School of Teaching and Learning Travel Grant, University of Florida.** (2016, Funded).

**School of Teaching and Learning Travel Grant, University of Florida.** (2015, Funded).

**Graduate Student Council Travel Grant, University of Florida.** (2015, Funded).

**School of Teaching and Learning Travel Grant, University of Florida.** (2015, Funded).

**MAA Tensor Women and Mathematics Grant.** (2014, Unfunded).

## **PROFESSIONAL SERVICE**

### **National**

Journal Reviewer, School Science and Mathematics, 2018-present

Journal Reviewer, Investigations in Mathematics Learning, 2016-present

Journal Reviewer, Journal for Teacher Education, 2016-present

Journal Reviewer, Teaching Children Mathematics, 2016-2019

Proposal Reviewer, National Council of Teachers of Mathematics (NCTM) Research Conference, 2018

Proposal Reviewer, Association of Mathematics Teacher Educators, August 2016

Proposal Reviewer, Research Council on Mathematics Learning (RCML) Conference, September 2015

Proposal Reviewer, National Council of Teachers of Mathematics (NCTM) Research Conference, 2015

Proposal Reviewer, National Council of Teachers of Mathematics (NCTM) Research Conference, 2014

### **University**

Human Subjects Institutional Research Board Committee, 2018-2019

Education Department Master's Thesis Committee, 2018-2019

Teacher Education Committee, Moravian College, 2017-2019

Scholars Day Session Moderator, 2018

Faculty Search Committee Member, Moravian College Education Department, 2017

President, Student Alliance of Graduates in Education, University of Florida, 2014-2015

Graduate Student Council Representative, University of Florida, 2014-2015

### **Local Community**

Educators Connection, 2019

- Assisted Michelle Hughes and the Westmont Education Department in running a local Christian teacher outreach event.

William Penn Elementary School Family STEM Night, 2019

- Organized and supported preservice teachers in developing and implementing mathematics activities for K-5<sup>th</sup> grade students at a Family STEM Night hosted by a Title 1 school in the Bethlehem Area School District.

Cheston Elementary School Family Math Night, 2018

- Organized and supported preservice teachers in developing and implementing mathematics activities for K-5<sup>th</sup> grade students at a Family Math Night hosted by a Title 1 school in the Easton Area School District.

SEC Mentoring Mathematics Workshop, 2014

- Selected as the presenter for the Mathematics Mentee Workshop at each of the five participating colleges: University of Florida, Edward Waters College, Florida Memorial University, Florida A&M University, and Bethune-Cookman University

Common Core Parent Night, 2013

- Invited presenter on the Common Core State Standards for high school mathematics

### **Professional Organization Memberships**

National Council of Teachers of Mathematics (NCTM)

Association of Mathematics Teacher Educators (AMTE)

Research Council on Mathematics Learning (RCML)

School Science and Mathematics Association (SSMA)

Association of Teacher Educators (ATE)

American Educational Research Association (AERA)

International Community of Christian Teacher Educators (ICCTE)

California Council on Teacher Education (CCTE)

Pennsylvania Association of Mathematics Teacher Educators (PAMTE)

Pennsylvania Council of Teachers of Mathematics (PCTM)

### **AWARDS AND HONORS**

STaR 2018 Fellowship, Association of Mathematics Teacher Educators

Graduate Student Teaching Award, University of Florida

Graduate Research Fellowship Award, University of Florida

Dr. Frank C. and Juliette D. Bolser Memorial Fellowship, University of Florida

Charles A. and Alma A. Hoffman Scholarship, University of Florida

Elizabeth and William F. Leonard Endowment Scholarship, University of Florida

Poster Presentation Honorable Mention, Florida Society for the Social Sciences

Dean's Scholarship, Provost's Scholarship, and Dean's List, Messiah College

ETS Praxis II: Mathematics Content Knowledge Recognition of Excellence