

CURRICULUM VITAE
DREW POLLY
 University of North Carolina at Charlotte
 Department of Reading and Elementary Education, COED 370
 9201 University City Blvd., Charlotte, NC 28223

EDUCATION AND PROFESSIONAL CREDENTIALS

<u>Degrees</u>	<u>Date</u>	<u>College/University</u>	<u>Major</u>
Ph.D.	2006	University of Georgia	Instructional Technology
M.Ed.	2001	Old Dominion University	Curriculum and Instruction
B.S.	1999	College of William & Mary	Elementary Education, Kinesiology

Licenses

North Carolina Professional Teaching License, K-6

PROFESSIONAL EXPERIENCE

<u>Dates</u>	<u>Institution</u>	<u>Title/responsibilities/nature of work</u>
August, 2025- Present	UNC Charlotte	Interim Department Chair, Department of Special Education and Child Development
August, 2017- Present	UNC Charlotte	Professor
January, 2023 – May, 2023	UNC Charlotte	Acting Department Chairperson, Department of Reading and Elementary Education
August, 2015- August, 2017	UNC Charlotte	Associate Professor
August, 2012 – August, 2015	UNC Charlotte	Associate Professor, Co-Director Professional Development Schools
August, 2006-August, 2012	UNC Charlotte	Assistant Professor, Co-Director Professional Development Schools
August, 2002- August, 2006	University of Georgia	Graduate Research Assistant
June, 2000-2002, June 2007	College of William & Mary, Tidewater Mathematics Institute	Professional Development Facilitator
April, 1999-June, 2002	Williamsburg-James City County Schools	Elementary School Teacher, Mathematics Curriculum Facilitator

TEACHING/CURRICULUM DEVELOPMENT

Courses Taught

#denotes overload

Undergraduate Courses

Undergraduate Courses taught at UNC Charlotte

Spring, 2026	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
Fall, 2025	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
Summer, 2025	ELED 3800	Independent Study for Teaching Mathematics to Elementary School Learners (Grades 3-6)
Spring, 2025	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
Fall, 2024	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
Summer, 2024	ELED 3800	Independent Study (for MAED 3224)
Spring, 2024	ELED 4420	Student Teaching Supervision: K-6 Elementary Education
	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
	MAED 3224	Teaching Mathematics to Elementary School Learners (Grades 3-6)
Fall, 2023	ELED 4121	Assessment and Instructional Differentiation in the Elementary School Classroom

Spring, 2023	ELED 4220 ELED 4420/6470	Integrated Curriculum for Elementary School Learners (2 sections) Student Teaching Supervision: K-6 Elementary Education
Fall, 2022	ELED 4220	Integrated Curriculum for Elementary School Learners (2 sections)
Spring, 2022	ELED 4420/6470	#Student Teaching Supervision: K-6 Elementary Education
	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2), 2 sections
Fall, 2021	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2), 3 sections
Spring, 2021	ELED 4420/6470	#Student Teaching Supervision: K-6 Elementary Education
Fall, 2020	ELED 4220 MAED 3224	Integrated Curriculum for Elementary School Learners (2 sections) Teaching Mathematics to Elementary School Learners (Grades 3-6)
Summer, 2020	ELED 3800	Independent Study (for MAED 3222)
Spring, 2020	ELED 4420 ELED 5210 ELED 5212	Student Teaching Seminar: K-6 Elementary Education Essentials of Teaching Mathematics to Elementary School Learners Practice-Based Teaching II Lab
Fall, 2019	MAED 3222 ELED 4220 MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2) Integrated Curriculum for Elementary School Learners (2 sections) Teaching Mathematics to Elementary School Learners (Grades K-2)
Spring, 2019	ELED 4420	Student Teaching Seminar: K-6 Elementary Education
Fall, 2018	MAED 3222 ELED 3111	Teaching Mathematics to Elementary School Learners (Grades K-2) Instructional Design and Technology Integration for Elementary School Learners
Spring, 2018	ELED 4220 MAED 3222 ELED 3111	Integrated Curriculum for Elementary School Learners Teaching Mathematics to Elementary School Learners (Grades K-2) Instructional Design and Technology Integration for Elementary School Learners
	ELED 4220	Integrated Curriculum for Elementary School Learners (co-teaching) #
Fall, 2017	ELED 4420 ELED 3111	Student Teaching Seminar: K-6 Elementary Education Instructional Design and Technology Integration for Elementary School Learners
Spring, 2017	ELED 4420 ELED 3111	Student Teaching Seminar: K-6 Elementary Education Instructional Design and Technology Integration for Elementary School Learners (Two sections)
	ELED 4420 MAED 3222	Student Teaching Seminar: K-6 Elementary Education# Teaching Mathematics to Elementary School Learners (Grades K-2)
Fall, 2016	ELED 3111	Instructional Design and Technology Integration for Elementary School Learners (Two sections)
Summer, 2016	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
Spring, 2016	ELED 4220 ELED 3111	Integrated Curriculum for Elementary School Learners Instructional Design and Technology Integration for Elementary School Learners (Two sections)
Fall, 2015	MAED 3222 ELED 3111	Teaching Mathematics to Elementary School Learners (Grades K-2) Instructional Design and Technology Integration for Elementary School Learners (Two sections)
Summer, 2015	MAED 3222	Teaching Mathematics to Elementary School Learners (Grades K-2)
Spring, 2015	ELED 4220 ELED 4420/6470 ELED 4220 ELED 3111	Integrated Curriculum for Elementary School Learners Student Teaching Seminar: K-6 Elementary Education Integrated Curriculum for Elementary School Learners Instructional Design and Technology Integration for Elementary School Learners

Fall, 2014	ELED 4220	Integrated Curriculum for Elementary School Learners (Two sections)
	ELED 3111	Instructional Design and Technology Integration for Elementary School Learners
	EDUC 3790	Honors Thesis in Education (1 student)
Summer, 2014	ELED 4220/6470	Integrated Curriculum for Elementary School Learners
Spring, 2014	ELED 4220	Integrated Curriculum for Elementary School Learners
	ELED 4420/6470	Student Teaching Seminar: K-6 Elementary Education
Fall, 2013	ELED 4220	Integrated Curriculum for Elementary School Learners (Double section)
Spring, 2013	ELED 3111	Instructional Design and Technology Integration for Elementary School Learners (Double section)
	ELED 4420	Student Teacher Seminar #
Fall, 2012	ELED 4220	Integrated Curriculum for Elementary School Learners
	ELED 4420	Student Teacher Seminar (half section) #
Spring, 2012	ELED 3111	Instructional Design and Technology Integration for Elementary School Learners (Double section)
	ELED 4420	Student Teacher Seminar (half section) #
Fall, 2011	ELED 3111	Instructional Design and Technology Integration for Elementary School Learners (Double section)
Spring, 2011	ELED 3111	Instructional Design and Technology Integration for Elementary School Learners (Double section)
Fall, 2010	ELED 4220	Integrated Curriculum for Elementary School Learners
Spring, 2010	ELED 3110	Instructional Design and Technology Integration for Elementary School Learners, (Double section)
Spring, 2010	ELED 3800	Independent Study in Elementary Education (1 student)
Fall, 2009	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners
Fall, 2009	ELED 3800	Independent Study in Elementary Education (1 student)
Spring, 2009	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners
Fall, 2008	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners
Spring, 2008	ELED 4420	Student Teacher Seminar
Fall, 2007	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners
Summer, 2007	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners
Spring, 2007	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners
Fall, 2006	ELED 3110	Instructional Design and the Use of Technology with Elementary School Learners

Undergraduate Courses taught at the University of Georgia

May, 2003	EDIT 2000	Introduction to Computers in Education (Co-instructor)
Spring, 2003	EMAT 3410	Mathematical Concepts for Elementary Teachers (Teacher's assistant)

Graduate Courses

Graduate Courses taught at the UNC Charlotte

Fall, 2025	ELED 6800	Independent Study (for ELED 6313)
Summer, 2025	ELED 5210	Essentials of Teaching Mathematics for Elementary School Learners

	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
Spring, 2025	ELED 6470	Student Teaching Supervision
	ELED 6800	Independent Study (for ELED 6314)
Fall, 2024	ELED 5310	Teaching and Assessment of Mathematics for Elementary School Learners
Summer, 2024	ELED 5210	Essentials of Teaching Mathematics for Elementary School Learners
	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning
Spring, 2024	ELED 6800	Independent Study (for ELED 6316)
Fall, 2023	ELED 6800	Independent Study (for ELED 6312)
Summer, 2023	ELED 5210	Essentials of Teaching Mathematics
	ELED 5212L	Practice-based Teaching II Lab
	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
	ELED 6316	Mathematical Modeling: K-5 Leadership
Spring, 2023	ELED 5210	Essentials of Teaching Mathematics
	ELED 5212L	Practice-based Teaching II Lab
Fall, 2022	ELED 6800	Independent Study (for ELED 6313)
	ELED 6800	Independent Study (for ELED 6314)
Summer, 2022	ELED 5210	Essentials of Teaching Mathematics
	ELED 5212L	Practice-based Teaching II Lab
	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
Spring, 2022	ELED 6316	Mathematical Modeling: K-5 Leadership
Summer, 2021	ELED 5210	Essentials of Teaching Mathematics
	ELED 5212L	Practice-based Teaching II Lab
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories
	ELED 6800	Independent Study (for ELED 6315)
Spring, 2021	ELED 5210	Essentials of Teaching Mathematics (2 sections)
	ELED 5212L	Practice-based Teaching II Lab (2 sections)
	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
Summer, 2020	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning
	ELED 6316	Mathematical Modeling: K-5 Leadership
	ELED 6800	Independent Study (for ELED 6311)
Spring, 2020	ELED 5210	Essentials of Teaching Mathematics
	ELED 5212L	Practice-based Teaching II Lab
Summer, 2019	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
Summer, 2018	ELED 5201	Teaching Elementary Mathematics
	ELED 6211	Engineering with Elementary School Learners
	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning
	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
	ELED 6316	Mathematical Modeling: K-5 Leadership
Spring, 2018	ELED 6212	Integrating Digital Learning and STEM with Elementary School Learners
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6800	Independent Study in Elementary Education (1 student)

Fall, 2017	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
Summer, 2017	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction
	ELED 6210	Current Issues in STEM Education
Spring, 2017	ELED 6800	Independent Study in Elementary Education#
Fall, 2016	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning #
Summer, 2016	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
	ELED 6800	Independent Study in Elementary Education
Spring, 2016	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories #
	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning #
Fall, 2015	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks#
Summer, 2015	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
Spring, 2015	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning #
Fall, 2014	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories #
	ELED 6316	Mathematical Modeling: K-5 Leadership
Summer, 2014	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment
	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions #
Spring, 2014	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks#
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment#
Fall, 2013	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction (double section)
	ELED 6313	Algebraic Reasoning: K-5 Discourse & Questioning #
Fall, 2013	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories #
Summer, 2013	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks #
Summer, 2013	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories
Summer, 2013	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions #
Spring, 2013	ELED 6316	Mathematical Modeling: K-5 Leadership
	ELED 6312	Geometry and Spatial Visualization: K-5 Assessment#
Fall, 2012	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction (2 sections)
	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks #
Summer, 2012	ELED 6312	Geometry & Spatial Visualization: K-5 Assessment
	ELED 6315	Data Analysis and Measurement: K-5 Classroom Interactions
Spring, 2012	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks #
	ELED 6314	Rational Numbers & Operations: K-5 Learning Trajectories #
Fall, 2011	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction (double section)
	ELED 6311	Number Systems & Operations: K-5 Mathematical Tasks #
Spring, 2011	ELED 6000	Mathematical Modeling: K-5 Leadership (now ELED 6316)
Fall, 2010	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction (2 sections)
Spring, 2010	ELED 6470	Student Teaching Seminar
Fall, 2009	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction
Summer, 2009	ELED 5100	Intensive Orientation to Teaching
Spring, 2009	ELED 5100	Intensive Orientation to Teaching (Teach for America Section)

	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction
Fall, 2008	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction, 2 sections: 1 section face-to-face, 1 section online
Spring, 2008	ELED 5100	Intensive Orientation to Teaching (Teach for America Section)
	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction
Fall, 2007	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction, 2 sections
Spring, 2007	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction
Fall, 2006	ELED 5301	Assessing, Modifying, and Integrating Mathematics Instruction

Graduate Courses taught at the University of Georgia

Fall, 2005	EDIT 7500	Technology Enhanced Learning Environments (Co-instructor), 1 section
Spring, 2004	EDIT 6210	Designing Technology Enhanced Learning Environments (Co-instructor), 1 section

Curriculum and course development

B.A. in Elementary Education, UNC Charlotte
MAED 3222- Online version for the TA to Teachers Program (Fall 2021)
ELED 4220- Integrated Curriculum for Elementary School Learners, Online section (Fall 2020)
ELED 3111- Instructional Design and Assessment in Elementary Education (2020), Quality Matters, Hybrid course for TAs to Teachers Program
ELED 3111- Instructional Design and Assessment in Elementary Education (2018) – course revisions
ELED 3111- Instructional Design and Technology Integration for Elementary School Learners (2009-2010), course revisions
ELED 4111- Designing Technology-Rich Learning Environments with Elementary School Learners (2009-2010), course development

Graduate Certificate in Teaching/M.A.T. Program in Elementary Education, UNC Charlotte
ELED 5210- Essentials of Teaching Mathematics to Elementary School Learners, online course, (2019)
ELED 5301- Assessing, Modifying, and Integrating Mathematics Instruction, online version (2009), course development

UNC Charlotte Graduate Certificate in Elementary School Mathematics, M.Ed. in Elementary Education (North Carolina Elementary Mathematics Add-on License0
Member of state-wide program development team (2008-present)
Co-developer of ELED 6316: Mathematical Modeling: K-5 Leadership Course (2010-2011)
ELED 6311: Number Systems & Operations: K-5 Mathematical Tasks (2011), asynchronous online course development
ELED 6312: Geometry & Spatial Visualization: K-5 Assessment (2011), asynchronous online course development
ELED 6313: Algebraic Reasoning: K-5 Discourse & Questioning (2011), asynchronous online course development
ELED 6314: Rational Numbers & Operations: K-5 Learning Trajectories (2011), asynchronous online course development
ELED 6315: Data Analysis and Measurement: K-5 Classroom Interactions (2011), asynchronous online course development

UNC Charlotte Graduate Certificate in Instructional Coaching

EDUC 6153: Application of Coaching Principles (2023), asynchronous online course development

M.Ed. in Elementary Education, UNC Charlotte

Development of STEM Concentration in M.Ed. in Elementary Education program

ELED 6210: Current Issues in STEM Education (2016)

ELED 6211: Integrating Engineering into the Elementary School Curriculum (2016)

ELED 6212: Integrating Digital Learning and STEM with Elementary School Learners (2016)

ELED 6213: Global Awareness in STEM Education (2016)

ELED 6214: Designing and Developing STEM Curricula (2016)

Ph.D. Program in Curriculum and Instruction with a concentration in Elementary Education

ELED 8143: Pro-seminar in Elementary Education, course development

ELED 8146: Critical issues in Professional Development and Teacher Learning, course development

Advising/student-directed scholarship

Dissertation Committees

In Progress

Emily Steib, Co-Chair, PhD in Curriculum and Instruction, Curriculum and Educator Development strand, in progress

Amy Peters, Committee Member, EdD in Educational Leadership, completed 2024

Dwayne Simmons, Committee Member, EdD in Educational Leadership, Learning Design and Technology Strand

Nicole Shanley, Committee Member, PhD in Curriculum and Instruction, Elementary Education strand, in progress

Completed

Brianna Soares, Committee Member, PhD in Special Education, completed Spring 2025

Lahcen Qasserras, Committee Member, PhD in Curriculum and Instruction, Curriculum and Educator Development strand, completed, Summer 2025

Alisha Johnson, Committee Member, PhD in Curriculum and Instruction, Learning Design and Technology strand, completed Spring 2025

Heather Ryan, Committee Member, PhD in Curriculum and Instruction, Curriculum and Educator Development strand, completed Spring 2025

Jasmine Bishop, Committee Member, EdD in Educational Leadership, Learning Design and Technology Strand, completed Spring 2025

Megan McCarver, Committee Member, EdD in Curriculum and Instruction, Gardner-Webb University, completed Spring 2025

Darlene Schaeffer, Committee Member, EdD in Educational Leadership, Learning Design and Technology Strand, Completed Fall 2024

Kristin Villanueva, Committee Member, PhD in Educational Research, Measurement, and Evaluation strand, completed Spring 2024

Bill Kessler, Committee Member, PhD in Curriculum and Instruction, completed Fall 2023

Hannah Luce, Committee Member, PhD in Educational Research, Measurement, and Evaluation strand, completed Fall 2023

Julie Bacak, Committee Member, PhD in Curriculum and Instruction, Elementary Education strand, completed Spring 2023

Wendy Lewis, Co-chair, PhD in Curriculum and Instruction, Elementary Education strand, completed December 2022

Ashley Meineke, Committee Member, PhD in Curriculum and Instruction, Elementary Education strand, completed December 2022

Amy Clausen, Committee Member, PhD in Special Education, completed December 2022

Christina Weiss, Chair, PhD in Curriculum and Instruction, Elementary Education strand, completed Spring 2022

Kaitlyn Otey Holshouser, Committee Member, PhD in Curriculum and Instruction, Elementary Education strand, completed Spring 2022

Ray Leach, Chair, PhD in Curriculum and Instruction, Literacy strand, completed Fall, 2021

Torrieann Dooley Kennedy, Chair, PhD in Curriculum and Instruction, Elementary Education strand, completed Spring 2020

Michael Hovis, Committee Member, EdD in Educational Leadership, completed, Fall, 2020

Christa Guilbaud, Committee Member, EdD in Educational Leadership, completed Fall, 2019

Chelsi Butts, Committee Member, PhD in Special Education, completed Spring 2018

Colleen Robertson, Committee Member, PhD in Special Education, completed Summer 2018

Elizabeth Snyder, Committee Member, Ed.D. in Educational Leadership, completed Spring 2018

Kim Steele, Chair, Ph.D. in Curriculum and Instruction, Elementary Education strand, completed Spring 2017

Huifang Zuo, Committee Member, Ed.D. in Educational Leadership, completed Spring 2017

Melissa Miller, Committee Member, Ph.D. in Curriculum and Instruction: Mathematics Education strand, completed Summer, 2016

Angela Preston, Committee Member, Ph.D. in Special Education, completed Spring, 2016

LuAnn Davis, Committee Member, Ph.D. in Special Education, completed Spring, 2016

Jenny Root, Committee Member, Ph.D. in Special Education, completed, Spring, 2016

Alicia Saunders, Committee Member, Ph.D. in Special Education, completed, Summer, 2014

Dawn Patterson, Committee Member, Ph.D. in Special Education, completed, Summer, 2014

Patti Wilkins, Committee Member, Ed.D. in Educational Leadership, completed, Spring, 2014

Mark Sivy, Committee Member, Ed.D. in Educational Leadership, completed, Spring, 2014

Kendra March, Committee Member, Ed.D. in Educational Leadership, completed, Summer, 2013

Christie Martin, Committee Member, Ph.D. in Curriculum and Instruction: Literacy strand, completed, Spring, 2013

Shaquana Freeman, Ph.D. in Special Education, completed, Spring, 2013

Jamal Crawford, Committee Member, Ed.D. in Educational Leadership, completed, Spring, 2013

James Helf, Committee Member, Ed.D. in Educational Leadership, completed, Fall, 2012

Christian Northrup, Committee Member, Ph.D. in Curriculum and Instruction: Mathematics Education strand, completed, Spring, 2012

Jason Siko, Committee Member, Ph.D. in Instructional Technology at Wayne State University, completed, Spring, 2012

Jennifer McGee, Committee Member, Ed.D. in Educational Leadership, completed, Spring, 2012

Henry Neale, Committee Member, Ph.D. in Curriculum and Instruction: Mathematics Education strand, completed, Summer, 2011

Special Education Doctoral Portfolio Committees
5 students (2014- present)

Master's Project Committees (2006 – 2011)
M.Ed. and MAT in Elementary Education
Chair- 22 students completed
Committee member- 13 students completed

M.Ed. in Child and Family Development
Committee member- 1 student completed

Undergraduate Honors Projects (2015- present)
Mentored- 6 students
First Reader- 2 students

Advising

Graduate Certificate/Masters' of Arts in Teaching in Elementary Education- 175 advisees (2014-present),
65 advisees (2011-2013)
B.A. in Elementary Education- 14 advisees (2006-2009)
M Ed. in Elementary Education- Mathematics Concentration students- 14 advisees (2012 – 2016)
Graduate Certificate in Elementary Mathematics- 10 advisees (2012 – present)
MAT in Elementary Education- Advisee of Teach for America Elementary Education corps members, 115
advisees (2007-2009)

RESEARCH

(*: data-based)

Publications

Edited Books

Polly, D., Zenkov, K., & Rudder, L. (2025). *Boundary Spanning in School-University Partnerships*. Information Age Publishing.

Polly, D. & Martin, C. S. (2025). *Elevating Clinical Practice in Mathematics Education: Cases that Showcase Teaching Practices in Action*. Information Age Publishing.

Martin, C. S., Miller, B., & Polly, D. (2023). *Technology Integration and Transformation in STEM Classrooms*. IGI Global. <https://doi.org/10.4018/978-1-6684-5920-1>

Polly, D. & Garin, E. (2022). *Preparing Quality Teachers: Advances in Clinical Practice*. Information Age Publishing.

Martin, C. S., Polly, D., & Lambert, R.G. (Eds.) (2020). *Handbook of Research on Formative Assessment in Pre-K through Elementary Classrooms*. IGI Global.

Martin, C.S., Polly, D., & Dikatis, K. (Eds.) (2019). *Handbook of Research on Educator Preparation and Professional Learning*. Hershey, PA: IGI Global.

Polly, D., Putman, S. M., Petty, T. M., & Good, A. J. (2018). *Handbook of Research on Innovative Practices in Teacher Preparation and Graduate-Level Teacher Education Programs*. Hershey, PA: IGI Global.

Dreon, O. & Polly, D. (2017). *Teacher Education for Ethical Professional Practice in the 21st Century*. Hershey, PA: IGI Global.

Martin, C. S. & Polly, D. (2017). *Research Handbook of Teacher Education and Professional Development*. Hershey, PA: IGI Global.

Polly, D. (2016). *Evaluating Teacher Education Programs through Performance-based Assessments*. Hershey, PA: IGI Global.

Polly, D. (2015). *Cases on Technology Integration in Mathematics Education*. Hershey, PA: IGI Global.

Polly, D. Heafner, T., Spooner, M., & Chapman, M. (2015). *Professional Development Schools and Transformative Partnerships*. Hershey, PA: IGI Global.

Polly, D. (2013). *Common Core Mathematics Standards and Implementing Digital Technologies*. Hershey, PA: IGI Global.

Polly, D., Mims, C, & Persichitte K. (Eds.). (2012). *Developing technology-rich teacher education programs: Key Issues*. Hershey, PA: IGI Global.

Peer Reviewed Book Chapters and Monograph Chapters

*denotes data-based

Mintz, J. & Polly, D. (accepted). Acceptable Use? AI&ED for Language and Literacy Development – Scoping the Benefits and Risks. In W. Slater (Ed.), *Bloomsbury International Handbook of Literacy*. Bloomsbury.

Polly, D., Colonnese, M. W., & Martin, C.S. (accepted). Linking TPACK and equity-based mathematics teaching. In M. Phillips, E. Baran, M. Koehler, & P. Mishra (Eds.), *Third Edition of the Handbook of Technological Pedagogical Content Knowledge (TPACK) for Educators*. Routledge.

Polly, D. & Colonnese, M. W. (accepted). Preparing Elementary Education Teacher Candidates to Elicit and Interpret Students' Thinking: *Leveraging practice-based teacher education to develop candidates' skills related to eliciting and interpreting students' thinking*. In K. Zenkov, S. A. Parsons, D.V. Dennis, V. Ellis, A.K. Parker, & R. Lucero (Eds.), *Clinical Based Teacher Education in Action: The AACTE*

Clinical Practice Commission Proclamations and Cases of Teacher Education Innovation.

Information Age Publishing.

Polly, D., Holshouser, K. O. & Vintinner, J. P. (accepted). Empowering teacher candidates to impact student learning through tutoring and small group teaching. In K. Zenkov, S. A. Parsons, D.V. Dennis, V. Ellis, A.K. Parker, & R. Lucero (Eds.), *Clinical Based Teacher Education in Action: The AACTE Clinical Practice Commission Proclamations and Cases of Teacher Education Innovation.* Information Age Publishing.

Polly, D., Holshouser, K. O., & Vintinner, J. P. (2025). Elementary education teacher educators' professional learning around edTPA: Making connections between performance-based assessments and effective teaching practices. In R. W. Burns & J. Jacobs (Eds.), *Clinically based teacher education in action: Cases that illustrate the complex work of teacher educators* (pp. 137-144). Information Age Publishing.

Polly, D. (2025). Supporting teacher candidates' capacity to support elementary students' productive struggle: Utilizing planning supports and rehearsals. In D. Polly & C. S. Martin (Eds.), *Elevating Clinical Practice in Mathematics Education: Cases that Showcase Teaching Practices in Action* (pp. 519-526). Information Age Publishing.

Polly, D. (2024). What do we know about online teacher education (OTE)?: A systematic review. In T. Martindale, T. B. Amankwatia, L. D. Cifuentes, & A. A. Pina (Eds.), *Handbook of Research in Online Learning: Insights and Advances* (pp. 89-105). Brill Publishing.
https://doi.org/10.1163/9789004702813_004

Putman, S. M. & Polly, D. (2024). Lessons learned from the UNC Charlotte- Kannapolis City Schools initiative. In M. Cosenza, J. Ferrara & D. Gomez (Eds.), *A Practical Guide to Exemplary Professional Development Schools* (pp. 123-140). Information Age Publishing.

Martin, C. S. & Polly, D. (2024). Supporting equity through mathematical writing. In M. W. Colonnese, T. M. Casa, & F. Cardetti (Eds.), *Illuminating and Advancing the Path for Mathematical Writing Research.* IGI Global. <https://doi.org/10.4018/978-1-6684-6538-7.ch009>

Howerton, A. & Polly, D. (2023). Using an online mathematics activity on elementary school students' engagement and learning in a high-needs context. In H. An & D. Fuentes (Eds.), *Digital Learning in High-Needs Schools: A Critical Approach to Technology Access and Equity in preK-12.* Routledge.

*Polly, D. & Howerton, A. (2023). The Influence of online mathematics activity on elementary school students' engagement and learning in a high-needs context. In C. S. Martin, B. Miller, & D. Polly (Eds.), *Technology Integration and Transformation in STEM Classrooms*, pp. 185-197. IGI Global.
<https://doi.org/10.4018/978-1-6684-5920-1.ch010>

Rock, T. C., Heafner, T. L., Polly, D., Holshouser, K. O., Bacak, J., & Schmidt, L. (2023). Becoming effective teacher educators through sustained mentoring and scaffolded teaching internships. In B. Butler, A. Cuenca, & J. Ritter (Eds.), *Pathways into teacher education: Profiles in emerging teacher educator development*, pp. 3-23. Information Age Publishing.

Polly, D., Pilonieta P., Washburn, E., Colonnese, M., Broome, P. & ImOberstag, N. (2022). All Hands on Deck: Leveraging Aspects of Community Schools and Professional Development Schools to Support an Elementary School. In J. Ferrara, J. Nath, & R. Beebe (Eds.), *Professional Development School (PDS) and Community Schools: The Nexus of Practice* (pp. 111-125). Information Age Publishing.

*Foster, J., & Polly, D. (2022). Examining teachers' perceptions of the current state of testing and assessment. In J. Keengwe (Ed.), *Handbook of Research on Digital-Based Assessment and Innovative Practices in Education* (pp. 201-214). IGI Global. <https://doi.org/10.4018/978-1-6684-2468-1.ch010>

*Polly, D. (2022). Supervisor as instructional coach: Supporting elementary education teacher candidates' enactment of questioning strategies. In L. Baecher, R. W. Burns, & J. McCorvey (Eds.), *Supervision in Clinically Based Teacher Education: Advances, Opportunities, and Explorations* (pp. 167-190). Information Age Publishing.

*Martin, C., Harbour, K., & Polly, D. (2021). Transitioning the elementary mathematics classroom to virtual learning: Exploring the perspectives and experiences of teachers. In A. Slapac, P. Balcerzak, K. O'Brien (Eds.), *Handbook of Research on the Global Empowerment of Educators and Student Learning through Action Research* (pp. 343-365). Hershey, PA: IGI Global. <http://www.doi.org/10.4018/978-1-7998-6922-1.ch015>.

*Martin, C. S. & Polly, D. (2020). Embedding formative assessment in the mathematics classroom through writing discourse and the use of digital tools: Embedding formative assessment in the mathematics classroom. In C. S. Martin, D. Polly, & R. G. Lambert (Eds.), *Handbook of Research on Formative Assessment in Pre-K through Elementary Classrooms* (pp. 194-205). Hershey, PA: IGI Global. doi: 10.4018/978-1-7998-0323-2.ch010

*Polly, D. (2020). Leveraging School-University Partnerships to Build Cultural Competence in Elementary Education Teacher Candidates. In J. Ferrara, J. L. Nath, & R. Beebe (Eds.), *Cultural Competence in Professional Development Schools* (pp. 71-89). Information Age Publishing: Charlotte, NC.

*Polly, D., & Martin, C. S. (2020). Design case for asynchronous online professional development in primary grades mathematics. In M. J. Bishop, E. Boling, J. Elen, & V. Svhilhla (Eds.), *Handbook of Research on Educational Communications and Technology*, 5th Edition, pp. 789-797. Springer: New York.

*Polly, D., Rock, T. C., Binns, I. & Zaionz, R. (2020). Tracking the path of a multi-faceted Professional Development School partnership. In E. Garin & R. W. Burns & (Eds.), *The NAPDS Nine Essentials in Action: Cases of Professional Development Schools*, pp. 79-86. Information Age Publishing: Charlotte, NC.

Polly, D. (2019). Performance-based assessment in preparing teachers. *Oxford Encyclopedia of Education*. doi: 10.1093/acrefore/9780190264093.013.752. Oxford University: Oxford.

*Polly, D. & Byker, E. J. (2019). Examining edTPA's educative nature and its alignment to standards of effective teaching. In M. Watson, K. Winter, & H. Pinter (Eds.), *Performance-Based Assessment in 21st Century Teacher Education* (pp. 162-183). IGI Global.

*Polly, D. & Casto, A. (2019). Blended learning in mathematics: Examining vignettes from elementary and middle schools. In T. Heafner, R. Hartshorne, & R. Thripp (Eds.), *Advanced Research and Practice in K-12 Online and Blended Learning* (pp. 272-291). IGI Global.

*Polly, D. (2019). Developing TPACK for elementary education teacher candidates in an instructional design and technology integration course. In M. Niess, H. Gillow-Wiles, & C. Angelia (Eds.), *Technological Pedagogical Content Knowledge (TPACK) in the Digital Age* (p. 329-349). IGI Global.

*Polly, D. (2019). Leveraging elements of Understanding by Design to develop elementary education candidates' TPACK in mathematics. In D. A. Williams & N. N. Harkness (Eds.), *Diverse Learning Opportunities Through Technology-Based Curriculum Design* (p. 147-162). IGI Global. doi: 10.4018/978-1-5225-5519-3.ch007.

*Polly, D., Pinter, H., & Casto, A. (2019). Practice-based approaches to mathematics education. In T. E. Hodges (Ed.), *Handbook of Research on Field-based Teacher Education* (p. 451-470). IGI Global. doi: 10.4018/978-1-5225-6249-8.ch019

*Byker, E. J., Putman, S. M., Handler, L. & Polly, D. (2018). Examining elementary education teachers and pre-service teachers' self-efficacy related to Technological Pedagogical and Content Knowledge (TPACK). In C. Hodges (Ed.), *Self-Efficacy in Instructional Technology Contexts* (p. 119-140). Springer.

Polly, D. (2018). Neighborhood survey. In S. McMillen, E. Friedland, and P. del Prado Hill (Eds.), *Integrating Math across the K-6 Curriculum*. NCTM.

*Polly, D., Handler, L., Hopper, E., & Binns, I. (2018). Mentoring elementary education teacher candidates in the instructional design and lesson planning process. In K. Dikilitaş, E. Mede, & D. Atay (Eds.), *Mentoring Strategies in Teacher Education* (pp. 19-36). IGI Global.

*Byker, E. J., Good, A., Putman, S. M., & Polly, D. (2017). edTPA is a Rock in My Shoe: Alleviating the Pain of edTPA with the edPASR Strategy. In C. S. Martin & D. Polly (Eds.), *Research Handbook of Teacher Education and Professional Development* (pp. 80-92). IGI Global.

*Polly, D. (2017). Utilizing a Professional Development School partnership to support teachers' implementation of a standards-based mathematics curriculum. In J. Ferrara, J. Nash, I. Guadarrama, & R. Beebe (Eds.), *Research in Professional Development Schools, Volume 6* (pp. 143- 156). Information Age Publishing.

*Polly, D. (2017). Professional Development to Develop Elementary School Teachers' Assessment Practices in Mathematics. In C. S. Martin & D. Polly (Eds.), *Research Handbook of Teacher Education and Professional Development* (pp. 636-647). IGI Global.

*Polly, D., Binns, I., & Putman, S. M. (2017). Leveraging professional development schools and intensive clinical work to support elementary teacher candidates' completion of the edTPA. In M. Cosenza & M. Buchanan (Eds.), *Visions from Professional Development School Partners: Connecting Professional Development and Clinical Practice* (pp. 173-188). Information Age Publishing.

Orrill, C. H. & Polly, D. (2016). Developing teachers' TPACK for mathematics through professional development: The case of InterMath. In M. Niess, S. Driskell, & K. Hollebrands (Eds.), *Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age* (pp. 433-462). IGI Global. doi: 10.4018/978-1-5225-0120-6.ch017

* Polly, D. (2016). Examining what elementary school teachers take away from mathematics professional development. In T. Petty, A. Good, & S. M. Putman (Eds.), *Handbook of Research on Professional Development for Quality Teaching and Learning* (pp. 62-84). IGI Global. doi: 10.4018/978-1-5225-0204-3.ch004

Polly, D., Martin, C. S., Wang, C., Lambert, R., Pugalee, D. K., & Middleton, C. (2016). The influence of professional development on primary teachers' TPACK and use of formative assessment. In M. Niess, K. Hollebrands, & S. Driscoll (Eds.), *Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age*. (pp. 382-405). Hershey, PA: IGI Global. doi: 10.4018/978-1-5225-0120-6.ch015

Polly, D. & Orrill, C. H. (2016). Designing Professional Development to Support Teachers' TPACK in Elementary School Mathematics. In M. Herring, M. J. Koehler, & P. Mishra (Eds.) *Handbook of Technological Pedagogical Content Knowledge*, 2nd edition (pp. 259-268). New York: Routledge.

Petty, T. M., Heafner, T., Lachance, J., & Polly, D. (2016). Supporting teacher education candidates through the edTPA process. In D. Polly (Ed.), *Evaluating Teacher Education Programs through Performance-Based Assessments* (pp. 207-221). Hershey, PA: IGI Global. doi: 10.4018/978-1-4666-9929-8.ch013. Reprinted in Information Resources Management Association (Eds.), *Teacher Education: Concepts, Methodologies, Tools, and Applications* (pp. 1060-1074). doi:10.4018/978-1-5225-0164-0.ch050

Polly, D. (2016). Preparing elementary education teacher candidates to design learning segments: The case of edTPA task one. In D. Polly (Ed.), *Evaluating Teacher Education Programs through Performance-Based Assessments* (pp. 130-142). Hershey, PA: IGI Global. doi: 10.4018/978-1-4666-9929-8.ch009

*Martin, C. S., Polly, D., Wang, C., Lambert, R. G., & Pugalee, D. K. (2016). Primary grades' teachers fidelity of implementation during mathematics professional development. In K. Dikatas (Ed.), *Innovative Professional Development Methods and Strategies for STEM Education* (pp. 33-52). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-9471-2.ch003. Reprinted in Information Resources Management Association (Eds.), *Teacher Education: Concepts, Methodologies, Tools, and Applications* (pp. 1311-1330). doi: 10.4018/978-1-5225-0164.0.ch063

*Polly, D., Martin, C. S., Wang, C., Lambert, R. G., & Pugalee, D. K. (2016). Supporting the Enactment of Standards-based Mathematics Pedagogies: The Cases of the the CoDE-I and APLUS Projects. In K. Dikilitaş (Ed.), *Innovative Professional Development Methods and Strategies for STEM Education* (pp. 139-151). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-9471-2.ch009. Reprinted in

Information Resources Management Association (Eds.), Teacher Education: Concepts, Methodologies, Tools, and Applications (pp. 529-540). doi: 10.4018/978-1-5225-0164-0.ch026

Martin, C.S. & Polly, D. (2015). Using the AMC Anywhere web-based assessment system to examine primary students' understanding of number sense. In D. Polly (Ed.), *Cases on Technology Integration in Mathematics Education* (pp. 366-377). Hershey: PA: IGI Global. DOI: 10.4018/978-1-4666-6497-5.ch018.

*Polly, D. (2015). Establishing a Professional Development School partnership to address students' learning needs in elementary school mathematics. In D. Polly, T. Heafner, M. C. Spooner, & M. W. Chapman (Eds.), *Professional Development Schools and Transformative Partnerships* (pp. 245-254). Hershey: PA: IGI Global. DOI: 10.4018/978-1-4666-6367-1.ch017

*Polly, D. (2015). Leveraging asynchronous online instruction to develop elementary school mathematics teacher-leaders. In P. Ordóñez de Pablos, M. D. Lytras, & R. D. Tennyson (Eds.), *Assessing the Role of Mobile Technologies and Distance Learning in Higher Education* (pp. 81-102). Hershey: PA: IGI Global.

Polly, D., Binns, I., Putman, S. M., Good, A., & Rock, T. C. (2015). Developing technological pedagogical content knowledge in elementary education programs. In M. Niess & H. Gillow-Wiles (Eds.), *Handbook of Research on Teacher Education in the Digital Age* (pp. 504-531). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-8403-4.ch019. Reprinted in Information Resources Management Association (Eds.), *Teacher Education: Concepts, Methodologies, Tools, and Applications* (pp. 915-943). Doi: 10.4018/978-1-5225-0164-0.ch044.

*Polly, D. & Breindel, L. (2015). Comparing mathematics teaching in the United States, China, and Germany. In C. Wang, W. Ma, & C. Martin (Eds.), *Comparing Education in China and the United States* (pp. 149-162). Charlotte, NC: Information Age Publishing.

*Polly, D., Hill, T., & Vuljanic, T. (2015). Students' experiences composing and decomposing two-dimensional shapes in first and second grade mathematics classrooms. In D. Polly (Ed.), *Cases on Technology Integration in Mathematics Education* (pp. 121-142). Hershey: PA: IGI Global. DOI: 10.4018/978-1-4666-6497-5.ch006.

*Polly, D., Little, M., & Rodgers, E. (2015). Leveraging interactive clickers as a tool for formative assessment in elementary school mathematics. In D. Polly (Ed.), *Cases on Technology Integration in Mathematics Education* (pp. 331-350). Hershey: PA: IGI Global. DOI: 10.4018/978-1-4666-6497-5.ch016.

Polly, D., Spooner, M. C., & Chapman, M. W (2015). Developing a more systematic approach to Professional Development School partnerships: The case of PDS efforts at a large urban university. In D. Polly, T. Heafner, M. C. Spooner, & M. W. Chapman (Eds.), *Professional Development Schools and Transformative Partnerships* (pp. 22-29). Hershey: PA: IGI Global. DOI: 10.4018/978-1-4666-6367-1.ch002

Wilkins, P. & Polly, D. (2015). China and the United States: Examining the integration of educational technologies. In C. Wang, W. Ma, & C. Martin (Eds.), *Comparing Education in China and the United States* (pp. 139-148). Charlotte, NC: Information Age Publishing.

Hannafin, M. J., Recesso, A., Polly, D., & Jung, J. W. (2014). Video analysis and teacher assessment: Research, practice, and implications. In B. Calandra & P. J. Rich (Eds.), *Digital Video for Teacher Education: Research and Practice* (pp. 164-176). New York: Routledge.

*Martin, C. S. & Polly, D. (2014). Employing digital tools to support writing in mathematics and the implementation of the Common Core State Standards. In R. Anderson & C. Mims (Eds.), *Digital Tools for Writing Instruction in K-12 Settings: Student Perception and Experience* (pp. 419-430). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-5982-7.ch021.

*Polly, D. (2014). Developing an online mathematics methods course for preservice teachers: Impact, implications, and challenges. In T. V. Yuzer & G. Eby (Eds.), *Emerging Priorities and Trends in Distance Education: Communication, Pedagogy, and Technology* (pp. 308-317). Hershey: PA: IGI Global. DOI: 10.4018/978-1-4666-5162-3.ch021. Reprinted in Information Resources Management Association (Eds.), *STEM Education: Concepts, Methodologies, Tools, and Applications* (pp. 1367-1376). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-7363-2.ch073.

Saunders, A. F., Lo, Y., Polly, D. (2014). Beginning Numeracy Skills. In D. M. Browder and F. Spooner (Eds.), *MORE Language Arts, Math, and Science for Students with Significant Cognitive Disabilities*. Baltimore, MD: Brookes Publishing.

Erbas, A. K., Ledford, S. D., Orrill, C. H., & Polly, D. (2013). Supporting pattern explanation and algebraic reasoning through the use of spreadsheets. In D. Polly (Ed.), *Common Core Mathematics Standards and Implementing Digital Technologies* (pp. 228-233). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-4086-3.ch015

LeHew, A. J. & Polly, D. (2013). The use of digital resources to support elementary school teachers' implementation of the Common Core State Standards. In D. Polly (Ed.), *Common Core Mathematics Standards and Implementing Digital Technologies* (pp. 332-338). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-4086-3.ch022

*Martin, C. S. & Polly, D. (2013). Supporting the Common Core State Standards in Mathematics through mathematics journals. In D. Polly (Ed.), *Common Core Mathematics Standards and Implementing Digital Technologies* (pp. 250-262). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-4086-3.ch017.

Orrill, C. H. & Polly, D. (2013). Supporting mathematical communication through technology. In D. Polly (Ed.), *Common Core Mathematics Standards and Implementing Digital Technologies* (pp. 23-37). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-4086-3.ch002. Reprinted in Information Resources Management Association (Eds.), *STEM Education: Concepts, Methodologies, Tools, and Applications* (pp. 216-232). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-7363-2.ch012.

*Polly, D. (2013). Designing and Teaching an Online Elementary Mathematics Methods Course: Promises, Barriers, and Implications. In R. Hartshorne, T. L. Heafner, & T. Petty (Eds.), *Teacher education programs and online learning tools: Innovations in Teacher Preparation* (pp. 335-356). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-1906-7.ch018. Reprinted in Information Resources Management Association (Eds.), *STEM Education: Concepts, Methodologies, Tools, and Applications* (pp. 644-665). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-7363-2.ch034.

Polly, D. & LeHew, A. J. (2012). Supporting elementary teachers' retention through professional development: Developing teachers' understanding of the Common Core State Standards in Mathematics. In California Mathematics Project Monograph: Mathematics Teacher Retention. Los Angeles, CA: California Mathematics Project.

Orrill, C. H. & Polly, D. (2012). Technology integration in mathematics: A model for integrating technology through content development. In D. Polly, C. Mims, & K. Perschitte (Eds.), *Developing technology-rich teacher education programs: Key Issues* (pp. 337-356). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-0014-0.ch022.

Good, A. & Polly, D. (2012). Attempting to bridge theory to practice: Preparing for 'moving day' with teleobservation in social studies methods. In D. Polly, C. Mims, & K. Perschitte (Eds.), *Developing technology-rich teacher education programs: Key Issues* (pp. 438-448). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-0014-0.ch028.

Taylor, D.B., Hartshorne, R., Eneman, S., Wilkins, P., & Polly, D. (2012). Lessons learned from the implementation of a technology-focused professional learning community. In D. Polly, C. Mims, & K. Perschitte (Eds.), *Developing technology-rich teacher education programs: Key Issues* (pp. 535-550). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-0014-0.ch034.

Polly, D., Mims, C., & McCombs, B. (2011). Designing district-wide technology-rich professional development. In I. L. Chen & D. McPheeters (Eds.), *Cases on educational technology integration in urban schools*, (pp. 236-243). Hershey, PA: IGI Global.
<https://doi.org/10.4018/978-1-61350-492-5.ch033>.

Popejoy, K., & Polly, D. (2011). Leveraging technology to develop pre-service teachers' TPACK in mathematics and science methods courses. In I. L. Chen & D. McPheeters (Ed.), *Educational*

technology integration in urban schools, (pp. 170-182). Hershey, PA: IGI Global. DOI: 10.4018/978-1-61350-492-5.ch027.

*Polly, D. (2010). Preparing teachers to integrate technology effectively: The case of higher-order thinking skills (HOTS). In S. D'Augustono (Ed.) *Adaptation, resistance and access to instructional technologies: Assessing future trends in education*, (pp. 395-409). Hershey, PA: IGI Global. DOI: 10.4018/978-1-61692-854-4.ch023.

*Polly, D., Mims, C., Inan, F., & Shepherd, C. E. (2010). Evaluating the impact of PT3 projects focused on methods courses and field experiences. In W. Heinecke & P. Adamy (Ed.), *Evaluating Technology in Teacher Education: Lessons from the Preparing Tomorrow's Teachers for Technology (PT3) Program*, (pp. 87-109). Charlotte, NC: Information Age Publishing.

Polly, D. (2009). Employing technology to create authentic learning environments. In H. Song (Ed.), *Distance learning technology, Current instruction, and the future of education: Applications of today, practices of tomorrow*, (pp. 83-94). Hershey, PA: IGI Global.

Polly, D., & Mims, C. (2009). Designing professional development to support teachers' TPACK and integration of Web 2.0 technologies. In T. Kidd & I. Chen (Eds.). *Wired for learning: Web 2.0 guide for educators*, (pp. 301-316). Charlotte, NC: Information Age Publishing.

Polly, D., & Moore, J. A. (2008). The great divide: Preparing pre-service teachers to integrate technology effectively. In M. Orey, V.J. McClendon, R.M. Branch (Eds.), *2008 Educational media and technology yearbook*, (pp. 17-31). Santa Barbara, CA: Greenwood.

*Polly, D. & Shepherd, C. E. (2007). Preservice teachers' perceptions of appropriate technologies. In T. Kidd & H. Song (Eds.), *Handbook of research on instructional systems and technology*, (pp. 198-215). Hershey, PA: IGI Global.

Articles in Refereed (Peer-Reviewed) Journals

*denotes data-based articles

Putman, S. M., Fitzgerald, M., & Polly, D. (in press). Moving from the periphery to practitioner: Investigating the development of a community of practice within a year-long clinical experience. *Journal of Teacher Education*. <https://doi.org/10.1177/00224871251321898>

*Ramsey, H., Oyarzun, B. & Polly, D. (in press). Examining how teachers define And integrate digital citizenship into core content area curriculum. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2024.2392110>

Reinke, L. T., & Polly, D (in press).Evaluating a small group word problem intervention based on a novel attack strategy with elementary school learners. *Investigations in Mathematics Learning*. <https://doi.org/10.1080/19477503.2025.2550909>

Polly, D. (2025). Examining the influence of practice-based teacher education approaches on primary grades teacher candidates' development of inclusive and equity-based mathematics teaching. *The Dialog: A Journal for Inclusive Early Childhood Professionals*, 28(2), 5-20.

*Polly, D., Reinke, L. T., Colonnese, M. W., & Blackwelder, A. (2025). Examining differences between games and pictorial flashcards on multiplication basic fact fluency. *Journal of Educational Research*, 118(2), 77-89. <https://doi.org/10.1080/00220671.2024.2446889>

Rudder, L., Zenkov, K., Colonnese, M. W. & Polly, D. (2025). Collective action school-university partnerships in teacher education: Intentionally designed clinical practice experiences, *School-University Partnerships*. <https://doi.org/10.1108/SUP-11-2024-0035>

*Rudder, L., Zenkov, K., & Polly, D. (2025). Boundary-Spanning in School-University Partnerships and its Related Definitions. *School-University Partnerships*, 18(2), 286-305. <https://doi.org/10.1108/SUP-09-2024-0020>

Zenkov, K., Rozas, E., Knight, J. H., Dudkowski, G., Garin, E., & Polly, D. (2025). Spanning boundaries to support teaching and learning: Reflections from recipients of the NASUP exemplary PK-20 boundary spanner award. *PDS Partners: Bridging Research to Practice*.

*Martin, F., Kumar, S., Ritzhaupt, A., & Polly, D. (2024). Bichronous online learning: Best practices, benefits and challenges from award-winning online instructor perspectives. *Online Learning Journal*, 28(2), 1-27. <https://doi.org/10.24059/olj.v28i2.3945>

*Martin, F., Mushi, D., Bacak, J., Wang, W., Ahlgrim-Delzell, L., & Polly, D. (2024). Elementary student experiences from digital safety immersion summer program. *Educational Media International*, 61(3), 321-343. <https://doi.org/10.1080/09523987.2024.2389485>

*Martin, F., Mushi, D., Long, S., Bacak, J., Polly, D., Wang, W., & Ahlgrim-Delzell, L. (2024). Elementary Teacher Experiences on Digital Safety Professional Development and Facilitation of an Immersion Summer Camp. *Journal of Technology and Teacher Education*, 32(2), 159-186.

*Polly, D. (2024). Examining TPACK Enactment in Elementary Mathematics with Various Learning Technologies. *Education Sciences: Special Issue on Developing Teachers' Technological Pedagogical Content Knowledge (TPACK)*. <https://doi.org/10.3390/educsci14101091>

*Polly, D. (2024). Exploring fractions concepts with virtual fraction bars. *The Banneker Banner: The Official Journal of the Maryland Council of Teachers of Mathematics*, 36(2), 21-28.

*Polly, D. (2024). The exemplary PDS partnership award: An overview and review of publications from award recipients. *PDS Partners: Bridging Research to Practice*. <https://doi.org/10.1108/PDSP-09-2024-0017>

*Polly, D. & Castillo, C. (2024). Teachers' and students' experiences with personalized learning in mathematics. *Journal of Applied Educational and Policy Research*, 9(1), 1-12. Retrieved from: <https://journals.charlotte.edu/jaepr/article/view/1596/1415>

*Polly, D. & Martin, C. S. (2024). Considering the design and use of differentiated activities and fluency games to advance equity-based mathematics practices. *Educational Designer: An International E-Journal for Design and Development in Education*, 5(17), 1-16. <https://www.educationaldesigner.org/ed/volume5/issue17/article69/>

*Polly, D. & Martin, C. S. (2024). Examining the enactment of learning technologies to support learners' access, power, and achievement in elementary school mathematics. *Research in Mathematical Education*, 27(3), 317-334. <https://doi.org/10.7468/jksmed.2024.27.3.317>

*Küsel, J., Martin, F., Byker, E. J., & Polly, D. (2023). Investigating U.S. and German pre-service teachers' beliefs regarding digital technology. *Compare: A Journal of Comparative and International Education*, 1-19. <https://doi.org/10.1080/03057925.2023.2268518>

Martin, F., Bacak, J., Polly, D., Wang, W., & Ahlgrim-Delzell, L. (2023). Teacher and School Concerns and Actions on Elementary School Children Digital Safety, *Tech Trends: Linking Research & Practice to Improve Learning*, 67, 561-571. <https://doi.org/10.1007/s11528-022-00803-z>

Martin, F., Kumar, S., Ritzhaupt, A., & Polly, D. (2023). Bichronous online learning: Award-winning online instructor practices of blending asynchronous and synchronous online modalities, *The Internet and Higher Education*, 56. <https://doi.org/10.1016/j.iheduc.2022.100879>

*McNeill, H. & Polly, D. (2023). Exploring primary grades teachers' perceptions of their students' mathematics self-efficacy and how they differentiate instruction. *Early Childhood Education Journal*, 51, 79-88. <https://doi.org/10.1007/s10643-021-01281-3>

McNeill, H. & Polly, D. (2023). Supporting mathematically promising students in primary grades classrooms. *Teaching for High Potential: Quality Classroom Practice for High-Ability Students.*, May 2023., 12-13.

*Polly, D. (2023). A systematic review of articles in PDS Partners: Bridging Research to Practice (2017-2022). *PDS Partners: Bridging Research to Practice*. <https://doi.org/10.1108/PDSP-01-2023-0004>

Polly, D., Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Goree, K., Stoicovy, D., Zenkov, K. (2023). A refresh of the Essentials of Professional Development Schools: The Second Editon of the NAPDS Nine Essentials. *Connections: Journal of the California Association of School-University Partnerships*, 12(1), 6.

*Polly, D., Martin, F., & Byker, E. J. (2023). Examining pre-service and in-service teachers' perceptions of their readiness to use digital technologies for teaching and learning. *Computers in the Schools*, 40(1), 22-55. <https://doi.org/10.1080/07380569.2022.2121107>

*Putman, S. M., Cash, A. H., & Polly, D. (2023). Development of teacher education candidates' self-efficacy for culturally responsive teaching through extended clinical experiences. *Action in Teacher Education*, 45(2), 142-158.. <https://doi.org/10.1080/01626620.2023.2180111>

Bacak, J., Martin, F., Ahlgrim-Delzell, L., Polly, D. & Wang, W. (2022). Elementary educator perceptions of student digital safety based on technology use in the classroom. *Computers in the Schools*, 39(2), 186-202. <https://doi.org/10.1080/07380569.2022.2071233>

Coler, C. Goree, K., Stoicovy, D., Polly, D, Badali, B., Burns, R. W., Cosenza, M., & Zenkov, K. (2022). The value of school-university partnerships and Professional Development Schools. *The Delta Kappa Gamma Bulletin: International Journal for Professional Educators*, 88(3), 6-14.

*Colonnese, M. & Polly, D. (2022). Using practice-based teaching experiences to leverage teacher candidate effectiveness. *PDS Partners: Bridging Research to Practice*, 17(2), 65-83.

*Colonnese, M., Reinke, L. T., & Polly, D. (2022). An analysis of the questions elementary education teacher candidates pose to elicit mathematical thinking. *Action in Teacher Education*. 44(3), 196-211. <https://doi.org/10.1080/01626620.2021.2020696>

*Gilson, C. M., Polly, D., & Strong, K. W. (2022). Talented teachers' perceptions of an intensive summer symposium and the need for differentiated professional learning. *Journal of Advanced Academics*, 33(4), 231-245. <https://doi.org/10.1177/1932202X221119493>

*Martin, C. S., Mraz, M. E. & Polly, D. (2022). Examining elementary school teachers' perceptions of and use of formative assessment in mathematics. *International Electronic Journal of Elementary Education*, 14(3), 417-425. <https://doi.org/10.26822/i>

*Polly, D. & Colonnese, M. (2022). Developing elementary education candidates' skills to elicit and interpret student thinking through a mathematics tutoring clinical experience. *Early Childhood Education Journal*, 50(3), 435-444. <https://doi.org/10.1007/s10643-021-01152-xf>

*Polly, D., Wang, C., Petty, T. M., & Binns, I. C. (2022). Exploring the empirical connection between student, teacher, school, and district-level variables on fifth grade students' mathematics achievement. *School Science and Mathematics* 122(3), 169-178. <https://doi.org/10.1111/ssm.12520>

*Putman, S. M., Cash, A. H., & Polly, D. (2022). Examining the impact of an embedded, multi-semester internship on teacher education candidates' teacher self-efficacy. *Teacher Educator Quarterly*, 49(4), 28-48.

*Putman, S. M., Cash, A. H., & Polly, D. (2022). Examining the impact of structured clinical experiences within a school-university partnership on student-teacher candidate instructional interactions. *The Teacher Educator*, 57(3), 325-342. <https://doi.org/10.1080/08878730.2021.2014006>

Putman, S. M., Polly, D. & Fitzgerald, M. (2022). Innovative School-University Partnerships: Insights and understandings from a year-long internship. *PDS Partners: Bridging Research to Practice*, 17(1), 31-37.

*Reinke, L. T., Schmidt, L., Myers, A., & Polly, D. (2022). Developing student teachers' skills at eliciting students' mathematical thinking using the coaching cycle. *The Teacher Educator*, 57(2), 215-237. <https://doi.org/10.1080/08878730.2021.1990454>

*Martin, F., Bacak, J., Polly, D., & Dymes, L. (2021). A Systematic Review of Research on K12 Online Teaching and Learning: A Comparison of Research from Two Decades 2000 to 2019. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2021.1940396>

*Martin, F., Gezer, T., Anderson, J., Polly, D., & Wang, W. (2021) Examining Parents Perception on Elementary School Children Digital Safety. *Educational Media International*, 58(1), 60-77. <https://doi.org/10.1080/09523987.2021.1908500>

*Polly, D. & Holshouser, K. (2021). Supporting elementary education teacher candidates' knowledge and implementation of equity-based practices. *PDS Partners: Bridging Research to Practice*, 16(3), 42-53.

Polly, D., Recesso, A. & Hannafin, M.J. (2021). Considering How to Use First Principles of Instruction and Video Technologies to Support Teachers' Professional Learning in Mathematics Education. *RED. Revista Educación a Distancia (Review of Distance Education)*, 21 (68). <http://dx.doi.org/10.6018/red.110421>

*Coles, S., Martin, F., Polly, D., & Wang, C. (2021). Supporting the Digital Professor: Information, Training and Support. *Journal of Applied Research in Higher Education*, 13(2), 633-648. <https://doi.org/10.1108/JARHE-09-2019-0236>

*Gezer, T., Wang, C., Polly, D., Martin, C. S., Pugalee, D. K., & Lambert, R. G. (2021). The relationship between formative assessment and summative assessment in Primary grade mathematics classrooms. *International Electronic Journal of Elementary Education*, 13(5), 73-85.

*Putman, S. M., & Polly, D. (2021). Examining the development and implementation of an embedded, multi-semester internship: Preliminary perceptions of teacher education candidates, clinical educators,

and university faculty. *Peabody Journal of Education*, 96(1), 99-111.
<https://doi.org/10.1080/0161956X.2020.1864250>

*Polly, D. (2021). Advancing equity-based mathematics teaching in the primary grades: The case of two clinical practice experiences. *International Journal of Teacher Education and Professional Development*, 4(1), 68-88.

*Polly, D., Martin, F., & Guilbaud, T. (2021). Examining Barriers and Desired Supports to Increase Faculty Members' Use of Digital Technologies: Perspectives of Faculty, Staff and Administrators. *Journal of Computing in Higher Education*, 33(1), 135-156

*Binns, I. C., Casto, A. R., Polly, D., & Bickmore, S. T. (2020). Examining pre-service teachers' integration of science and literacy through trade books. *Electronic Journal for Research in Science & Mathematics Education*, 24(2), 7-21.

*Guilbaud, T., Martin, F., & Polly, D. (2020). Examining the Digital Professor's Use of Technology and the Required Support. *International Journal of Teaching and Learning in Higher Education*, 32(3), 376-387.

*Martin, F., Polly, D., Coles, S., & Wang, C. (2020). Examining higher education faculty use of current digital technologies: Importance, competence and motivation. *International Journal of Teaching and Learning in Higher Education*, 32(1), 73-86.

*Polly, D. & Byker, E. J. (2020). Considering the role of Zone of Proximal Development and constructivism in supporting teachers' TPACK and effective use of technology. *Revista de Educación a Distancia (Distant Education Journal)*, 20(64), 1-20. <https://doi.org/10.6018/red.408661>

*Polly, D., Byker, E.J., & Putman, M. (2020). Examining elementary education teacher candidates' experiences completing edTPA. *The Teacher Educator Journal*, 55(1), 1-9.
doi: [10.1080/08878730.2020.1805535](https://doi.org/10.1080/08878730.2020.1805535)

*Polly, D., Byker, E. J., Putman, S. M., Handler, L. K. (2020). Preparing elementary education teacher candidates to teach with technology: The role of modeling. *Journal of Digital Learning in Teacher Education*, 36(4), 250-265.

*Polly, D., Burchard, K. P., Castillo, C., Drake, P., Horne, S., Howerton, A., Peake, S., & Schmitt, K. (2020). Examining action research and teacher inquiry projects: How do they help future and current teachers? Themed issue of *School-University Partnerships*, 12(4), 36-47.

*Wilburne, J., Wagstaff, D. A., Franz, D. P., & Polly, D. (2020). Mathematics teachers' Perceptions of Practice: A Q-Methodology Study. *Operant Subjectivity: The International Journal of Q Methodology*, 42(58-85). <https://doi.org/10.15133/j.os.2020.003>

*Martin, C.S. & Polly, D. (2019). Examining the use of multiple writing and discourse tasks in 5th grade mathematics. *Journal of Educational Research*, 112(6), 663-675.
<https://doi.org/10.1080/00220671.2019.1678106>

*Polly, D., Reinke, L. T., & Putman, S. M. (2019). Examining school-university partnerships: Synthesizing the work of Goodlad, AACTE, and NAPDS. Themed issue of *School-University Partnerships*, Goodlad's Legacy: A Deliberation of Simultaneous Renewal, 12(3), 1-17. Retrieved from: <https://napds.org/wp-content/uploads/2019/08/SUP-123-Polly-et-al-Article.pdf>.

*Cash, A. H., Putman, S. M., Polly, D., & Byker, E. J. (2019). Candidate and program characteristics associated with edTPA performance. *Action in Teacher Education*, 41(3), 229-248.
<https://doi.org/10.1080/01626620.2019.1600602>

*Martin, C. S., Polly, D., Mraz, M., & Algozzine, R. (2019). Examining focus, duration, and classroom impact of literacy and mathematics professional development. *Teacher Development: An International Journal of Teachers' Professional Development*, 1-17, 23(1). doi: 10.1080/13664530.2018.1530695 (*)

*Polly, D. & Byker, E. J. (2019). Preparing teacher candidates to successfully complete a high-stakes licensure assessment. *International Journal of Designs for Learning*, 10(1), 147-154. doi: 10.14434/ijdl.v10i1.25629

*Conrad, J., Polly, D., Binns, I., & Algozzine, R. (2018). Student perceptions of a summer robotics camp experience. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 91(3), 131-139. doi: 10.1080/00098655.2018.1436819 (*)

Garin, E., Burns, R. W., & Polly, D. (2018). The intersection of the AACTE clinical practice report and the NAPDS nine essentials. *PDS Partners: Bridging Research to Practice*, 13(3), 5-7.

*Martin, C. S., Kissel, B. T., & Polly, D. (2018). The Mathematics workshop: Teachers and students working as mathematicians. *Talking Points: Transformation in Literacy and Technology*, 30(1).

*Martin, C. S., Polly, D., Mraz, M. & Algozzine, R. (2018). Teacher perspectives on literacy and mathematics professional development. *Issues in Teacher Education*, 27(1), 94-105.

*Polly, D., & Binns, I. (2018). Elementary education candidates' integration of technology in science units. *Contemporary Issues in Technology and Teacher Education*. 18(4). Retrieved from: <https://www.citejournal.org/volume-18/issue-4-18/science/elementary-education-candidates-integration-of-technology-in-science-units/>.

Polly, D., Wang, C., Martin, C., Lambert, R. G., Pugalee, D. K. & Middleton, C. W. (2018). The influence of mathematics teacher development, school-level, and teacher-level variables on primary students' mathematics achievement. *Early Childhood Education Journal*, 46(1), 31-45. doi: 10.1007/s10643-017-0837-y

Schwartz, C., Walkowiak, T. A., Poling, L., Richardson, K., & Polly, D. (2018). The nature of feedback given to elementary student teachers from university supervisors after observations of mathematics lessons. *Mathematics Teacher Education & Development*, 20(1), 62-85. Retrieved from: <https://mtd.merga.net.au/index.php/mtd/article/view/331/313>. (*)

Wilburne, J., Polly, D., Franz, D., & Wagstaff, D. A. (2018). Mathematics teachers' implementation of high-leverage teaching practices: A Q-sort study. *School Science and Mathematics*, 118(6), 232-243. doi: 10.1111/ssm.12293 (*)

*Byker, E. J., Putman, S. M., Handler, L. K., Polly, D. (2017). Educational technology and student voice. *World Journal on Educational Technology: Current Issues*, 9(3), 119-129.

*Franz, D. P., Wilburne, J., Polly, D., & Wagstaff, D. (2017). The teacher action Q-sort: A card-sorting tool for professional learning. *NCSM Journal of Mathematics Education Leadership*, 18(2), 3-14.

*Martin, C. S., Polly, D., & Kissel, B. T. (2017). Exploring the impact of written reflections on learning in the elementary mathematics classroom. *Journal of Educational Research*, 110(5), 538-553. doi:10.1080/00220671.2016.1149793

*Martin, F., Polly, D., Jokiaho, A., & May, B. (2017). Global standards for enhancing quality in online learning. *Quarterly Review of Distance Education*, 18(2).

*Polly, D. (2017). Elementary school teachers' use of curricular materials. *Journal of Curriculum Studies*. 49(2), 132-148. doi:10.1080/00220272.2016.1154608.

*Polly, D. (2017). Providing School-Based Learning in Elementary School Mathematics: The Case of a Professional Development School Partnership. *Teacher Development: An International Journal of Teachers' Professional Development*, 21(5), 668-686. doi: 10.1080/13664530.2017.1308427

*Polly, D., Martin, C. S., McGee, J. R., Wang, C., Lambert, R. G., & Pugalee, D. K. (2017). Designing curriculum-based mathematics professional development for Kindergarten teachers. *Early Childhood Education Journal*, 45(5), 659-669. doi: 10.1007/s10643-016-0810-1

*Polly, D., Wang, C., Lambert, R. G., Martin, C. S., McGee, J. R., Pugalee, D. K., & Lehew, A. J. (2017). Supporting Kindergarten teachers' mathematics instruction and student achievement through a curriculum-based professional development program. *Early Childhood Education Journal*. 45(1), 121-131. DOI: 10.1007/s10643-013-0605-6

*Polly, D., Wang, C., Martin, C. S., Lambert, R. G., Pugalee, D. K., & Middleton, C. W. (2017). The influence of an internet-based formative assessment tool on primary grades students' number sense achievement. *School Science and Mathematics*, 117(3-4), 127-136. doi: 10.1111/ssm.12214

*Rock, T.C., Polly, D., & Handler, L. (2017). Preparing elementary teacher candidates to use global content: An action research study. *Social Studies Research and Practice*, 11(3), 31-44.

*Urbina, A. & Polly, D. (2017). Examining elementary school teachers' integration of technology and enactment of TPACK in mathematics. *International Journal of Information and Learning Technology*, 34(5), 439-451. doi: 10.1108/IJILT-06-2017-0054

*Binns, I. C., Polly, D., Conrad, J., & Algozzine, B. (2016). Student perceptions of a summer ventures in science and mathematics camp experience. *School Science and Mathematics*, 116(8), 420-429. doi: 10.1111/ssm.12196

*Martin, C. S., & Polly, D. (2016). Examining the impact of writing and literacy connections on mathematics learning. *Investigations in Mathematics Learning*, 8(3), 59-74.

*Martin, C. S., Lambert, R. G., Wang, C., & Polly, D. (2016). The measurement properties of the Assessing Mathematics Concepts' assessment of primary students' number sense skills. *Journal of Applied Measurement*, 17(3).

*Martin, C.S., Polly, D., Wang, C., Lambert, R. G., & Pugalee, D. K. (2016). Perspectives and practices of elementary teachers using an internet-based formative assessment tool: The case of Assessing Mathematics Concepts. *International Journal for Technology in Mathematics Education*, 23(1), 3-13.

*Polly, D. (2016). Exploring the relationship between the use of technology with enacted tasks and questions in elementary school mathematics. *International Journal for Technology in Mathematics Education*, 23(3), 111-118. doi: 10.1564/tme_v23.3.03

*Polly, D. (2016). Elementary education teacher candidates' development of lesson planning skills in an online instructional design course. *Journal of Applied Educational and Policy Research*, 2(1), 12-23.

Polly, D. (2016). Considering Professional Development School partnerships in light of CAEP standard two. *School-University Partnerships: The Journal of the National Association for Professional Development Schools*, 9(3), 96-110.

*Polly, D. (2016). Examining Elementary School Teachers' Enactment of Mathematical Tasks and Questions. *Research in the Schools*, 23(2), 61-71.

*Polly, D., Martin, C. S., Wang, C., Lambert, R. G., & Pugalee, D. K. (2016). Primary grades teachers' instructional decisions during online mathematics professional development activities. *Early Childhood Education Journal*, 44(3), 275-287. doi: 10.1007/s10643-015-0711-8

*Polly, D., & Rock, T. C. (2016). Elementary education teacher candidates' integration of technology in the design of interdisciplinary units. *Tech Trends: Linking Research & Practice to Improve Learning*, 60(4), 336-343. doi:10.1007/s11528-016-0059-y

*Martin, C. S., Polly, D., McGee, J. R., Wang, C., Lambert, R. G. & Pugalee, D. K. (2015). Exploring the relationship between questioning, enacted tasks, and mathematical discourse in elementary school mathematics. *The Mathematics Educator*, 24(2), 3-27, <http://tme.journals.libs.uga.edu/index.php/tme/article/view/308/266>

*Polly, D. (2015). Elementary Education Pre-service Teachers' Development of Mathematics Technology Integration Skills in a Technology Integration Course. *Journal of Computers in Mathematics and Science Teaching*, 34(4), 431-453.

*Polly, D. (2015). Examining how professional development influences elementary school teachers' enacted instructional practices and students' evidence of mathematical understanding. *Journal for Research in Childhood Education*, 29(4), 565-582. DOI: 10.1080/02568543.2015.1073198

*Polly, D., Algozzine, R., Martin, C. S., & Mraz, M. (2015). Perceptions of the roles and responsibilities of elementary school mathematics coaches. *International Journal of Mentoring and Coaching in Education*, 4(2), 126-141. DOI:<http://dx.doi.org/10.1108/IJCME-08-2014-0030>

*Polly, D., McGee, J. R., Wang, C., Martin, C., Lambert, R., Pugalee, D. K. (2015). Linking professional development, teacher outcomes, and student achievement: The case of a learner-centered mathematics program for elementary school teachers. *International Journal of Educational Research*, 72, 26-37.

Polly, D., Smaldino, S., Brynteson, K. (2015). Developing a rubric to support the evaluation of professional development school partnerships. *School-University Partnerships: The Journal of the National Association for Professional Development Schools*, 8(1), 20-23.

*Polly, D. (2014). Elementary school teachers' use of technology during mathematics teaching. *Computers in the Schools: Interdisciplinary Journal of Practice, Theory, and Applied Research*, 31(4), 271-292. <https://doi.org/10.1080/07380569.2014.969079>.

*Polly, D., Wang, C., McGee, J.R., Lambert, R.G., Martin, C.S., Pugalee, D.K. (2014). Examining the influence of a curriculum-based elementary mathematics professional development program. *Journal of Research in Childhood Education*, 28(3), 327-343. DOI: 10.1080/02568543.2014.913276.

*Polly, D. (2014). Deepening pre-service teachers' knowledge of technology, pedagogy, and content (TPACK) in an elementary school mathematics methods course. *Journal of Computers in Mathematics and Science Teaching*. 33(2), 233-250.

*Polly, D., Margerison, A., & Piel, J.A. (2014). Kindergarten teachers' orientations to teacher-centered and student-centered pedagogies and their influence on their students' understanding of addition. *Journal of Research in Childhood Education*, 28(1), 1-17. DOI: 10.1080/02568543.2013.822949.

*Polly, D., Neale, H., Pugalee, D.K. (2014). How does ongoing task-focused mathematics professional development influence elementary school teacher's knowledge, beliefs and enacted pedagogies? *Early Childhood Education Journal*, 42(1), 1-10. DOI: 10.1007/s10643-013-0585-6.

*McGee, J. R., Wang, C., & Polly, D. (2013). Guiding teachers in the use of a standards-based mathematics curriculum: Perceptions and subsequent instructional practices after an intensive professional development program. *School Science and Mathematics*, 113(1), 16-28. DOI: 10.1111/j.1949-8594.2012.00172.x

*Polly, D. (2013). The influence of an online elementary mathematics pedagogy course on teacher candidates' performance. *Journal of Distance Education*, 27(2). Retrieved from: <http://www.jofde.ca/index.php/jde/article/view/854>.

Polly, D., Mraz, M., & Algozzine, R. (2013). Implications for developing and researching elementary school mathematics coaches. *School Science and Mathematics Journal*, 113 (6), 297-307. DOI: 10.1111/ssm12029.

*Polly, D., McGee, J. R., Wang, C., Lambert, R. G., Pugalee, D. K., & Johnson, S. (2013). The association between teachers' beliefs, enacted practices, and student learning in mathematics. *The Mathematics Educator*, 22(2), 11-30.

*Wang, C., Polly, D., LeHew, A. J., Pugalee, D. K., & Lambert, R. (2013). Supporting teachers' enactment of an elementary school student-centered mathematics pedagogies: The evaluation of a curriculum-focused professional development program. *New Waves- Educational Research and Development*, 16(1), 76-91.

*Polly, D. & Orrill, C. H. (2012). Developing technological pedagogical and content knowledge (TPACK) through professional development focused on technology-rich mathematics tasks. *The Meridian*, 15. Retrieved from <http://ced.ncsu.edu/meridian/index.php/meridian/article/view/44/43>.

*Polly, D. (2012). Supporting mathematics instruction with an expert coaching model. *Mathematics Teacher Education and Development*, 14(1), 78-93.

*Polly, D., Frazier, J. W., Hopper, C., Chapman, M. W., & Wells, R. (2012). Examining the influence of a support seminar on pre-service teachers' preparedness for student teaching. *School-University Partnerships: The Journal of the National Association for Professional Development Schools*, 5(1), 102-107.

*White, R. B., Polly, D., & Audette, R. H. (2012). A case analysis of an elementary school's implementation of Response to Intervention. *Journal of Research in Childhood Education*, 26(1), 73-90. doi:10.1080/02568543.2011.632067

*Polly, D. (2011). Teachers' learning while constructing technology-based instructional resources. *British Journal of Educational Technology*, 42(6), 950-961. DOI: 10.1111/j.1467-8535.2010.01161.x.

*Polly, D. (2011). Developing teachers' technological, pedagogical, and content knowledge (TPACK) through mathematics professional development. *International Journal for Technology in Mathematics Education*, 18(2), 83-96.

*Polly, D. (2011). Examining teachers' enactment of technological pedagogical and content knowledge (TPACK) in their mathematics teaching after technology integration professional development. *Journal of Computers in Mathematics and Science Teaching*, 30(1), 37-59.

Polly, D. (2011). Technology to develop algebraic reasoning. *Teaching Children Mathematics*, 17(8), 473-478.

*Polly, D. & Hannafin, M. J. (2011). Examining how learner-centered professional development influences teachers' espoused and enacted practices. *Journal of Educational Research*, 104, 120-130.

Polly, D. & Hannafin, M. J. (2010). Reexamining technology's role in learner-centered professional development. *Educational Technology Research and Development*, 58(5), 557-571. doi:10.1007/s11423-009-9146-5.

Polly, D., McGee, J. R., & Martin, C. S. (2010). Employing technology-rich mathematical tasks to develop teachers' technological, pedagogical, and content knowledge (TPACK). *Journal of Computers in Mathematics and Science Teaching*, 29(4), 455-472.

*Polly, D., Mims, C., Shepherd, C. E., & Inan, F. (2010). Evidence of impact: Transforming teacher education with preparing tomorrow's teachers to teach with technology (PT3) grants. *Teaching and Teacher Education: An International Journal of Research and Studies*, 26, 863-870. <https://doi.org/10.1016/j.tate.2009.10.024>

Hannafin, M. J., Shepherd, C. E., & Polly, D. (2010). Video assessment of classroom teaching practices: Lessons learned, problems, and issues. *Educational Technology*, 50(1), 32-37.

*Polly, D. & Ausband L. (2009). Developing higher order thinking skills through WebQuests. *Journal of Computing in Teacher Education*, 26(1), 29-34.

Polly, D. & Brantley-Dias, L. (2009). TPACK: Where do we go now? *Tech Trends: Linking Research & Practice to Improve Learning*, 53(5), 46-47.

Polly, D., & Ruble, L. (2009). Learning to share equally. *Teaching Children Mathematics*, 15(9), 558-565.

*Glazer, E. M., Hannafin, M. J., Polly, D., & Rich, P. J. (2009). Factors and interactions influencing technology integration during situated professional development in an elementary school. *Computers in the Schools*, 26(1), 21-39.

*Polly, D. (2008). Modeling the influence of calculator use and teacher effects on first grade students' mathematics achievement. *Journal of Technology in Mathematics and Science Teaching*, 27(3), 245-263.

*Polly, D. (2006). Participants' focus in a learner-centered technology-rich mathematics professional development program. *The Mathematics Educator*, 16(1), 14-21.

*Bleich, L., Ledford, S. D., Orrill, C. H., & Polly, D., (2006). An analysis of the use of graphical representation in participants' solutions. *The Mathematics Educator*, 16(1), 22-34.

*Mims, C., Polly, D., Shepherd, C., Inan, F. (2006). Examining PT3 projects designed to improve preservice education. *Tech Trends: Linking Research & Practice to Improve Learning*, 50(3), 17-24.

Erbas, A., Ledford, S., Orrill, C., Polly, D. (2005). Promoting problem solving across geometry and algebra by using technology. *The Mathematics Teacher*, 98 (9), 599-603.

Erbas, A., Ledford, S., Orrill, C. H., & Polly, D., (2004). Engaging students through technology. *Mathematics Teaching in the Middle School*, 9, 300-305.

Invited Book Chapters

Polly, D. & Colonnese, M. W. (2025). Examining the link between School-University Partnerships and student learning outcomes. In J. Dresden, J. Ferrara, J. Neapolitan, & D. Yendol-Hoppey (Eds.), Cambridge Handbook of School-University Partnerships (pp. 287-307). Cambridge University Press.

Polly, D. (2024). Leveraging clinical practice experiences to advance equity-based mathematics teaching. In J. Feinberg & S. Ogeltree (Eds.), *Advancing School-University Partnerships and Professional Development Schools through National Research: Revitalized Perspectives for Social Justice, Equity, Growth, and Inclusivity*. Cambridge. <https://doi.org/10.4324/9781003497721-7>

Polly, D. & Persichitte, K. (2023). Careers in K-12 design and instructional technology. In R. West & H. Leary (Eds.), Foundations of Learning and Instructional Design Technology (2nd Edition). Retrieved from: https://edtechbooks.org/becoming_an_lidt_pro/k12_careers. EdTechBooks.

Allman, B., Casto, A., & Polly, D. (2023). Sociocultural perspectives of learning. In R. West & H. Leary (Eds.), Polly, D., Allman, B., Casto, A., & Norwood, J. (2018). Sociocultural perspectives of learning. In R. West (Ed.), *Foundations of Learning and Instructional Design Technology*, 2nd Edition.. Retrieved from: <https://lidtfoundations.pressbooks.com/chapter/sociocultural-learning/>. <https://doi.org/10.59668/473>

Polly, D., Allman, B., Casto, A., & Norwood, J. (2018). Sociocultural perspectives of learning. In R. West (Ed.), *Foundations of Learning and Instructional Design Technology*. Retrieved from: <https://lidtfoundations.pressbooks.com/chapter/sociocultural-learning/>.

Polly, D. & Persichitte, K. A. (2017). Getting and succeeding at a job in K-12. In R. West (Ed.), *Foundations of Learning and Instructional Design Technology* (1st ed.). Available at <https://lidtfoundations.pressbooks.com/chapter/getting-and-succeeding-at-a-job-in-k-12/>

Invited Articles

Polly, D. (2024). *An AI story about moving from reluctance towards thoughtful use*. Invited Use Case for the UNC Charlotte Center for Teaching and Learning Artificial Intelligence Repository.

Polly, D., Dooley, T., & Banks, K. (2013). Leveraging a PDS partnership to design rigorous common mathematics assessments. *PDS Partners*, 8(3), 13-14.

Dacey, L. & Polly, D. (2012). The *Common Core State Standards for Mathematics*: The big picture. Invited article in *Teaching Children Mathematics*, 18(6), 378-383.

Polly, D. & Little, M. (2012). Leveraging professional learning communities and collaborative team meetings to address student achievement in mathematics. Invited article in *PDS Partners*, 8(1), 10-11.

Polly, D., & Orrill, C.H. (2012). CCSSM: Examining the Critical Areas in Grades 5-6. Invited article in *Teaching Children Mathematics*, 18(9), 566-573.

Polly, D. (2011). Developing Students' Higher-Order Thinking Skills (HOTS) through Technology-Rich Tasks: The Influence of Technological Pedagogical and Content Knowledge (TPACK). Invited article in *Educational Technology*, 51(4), 20-26.

*Polly, D., Grant, M. M., & Gikas, J. (2011). Supporting technology integration in higher education through professional development. In D. W. Surry, J. Stefurak, & R. M. Gray, Jr. (Eds.), *Infrastructure and issues for Technology in Higher Education* (p. 58-71). Hershey, PA: Informational Science Reference. DOI: 10.4018/978-1-60960-147-8.ch005.

Mims, C., Polly, D., & Grant, M. M. (2009). Technology integration in K-12. In M. K. Barbour & M. Orey (Eds.), *The Foundations of Instructional Technology*. Retrieved from <http://projects.coe.uga.edu/itFoundations/>

Polly, D. (2008). The AECT internship experience: An example of authentic learning. Invited article in *Tech Trends: Linking Research & Practice to Improve Learning* 52(5), 14.

Non-refereed publications, other publications, and non-refereed contributions to books

NCTM (in press). Enhancing teacher preparation for teaching mathematics to students with learning disabilities: A position of the National Council of Teachers of Mathematics. Author. *Member of the author team*.

Polly, D. (2025). Practice Makes Progress in Mathematics: A Research to Practice Summary. *The Dialog: A Journal for Inclusive Early Childhood Professionals*, 28(2), 88-93.

Zenkov, K., Rudder, L., & Polly, D. (2025). An Introduction to this Collection and Consideration of Boundary-Spanning Work in School-University Partnerships. In K. Zenkov, D. Polly, & L. Rudder (Eds.), *Boundary-Spanning in School-University Partnerships*. Information Age Publishing.

Zenkov, K., Rudder, L., & Polly, D. (2025). A Conclusion to this Collection and Consideration of Boundary-Spanning Work in School-University Partnerships. In K. Zenkov, D. Polly, & L. Rudder (Eds.), *Boundary-Spanning in School-University Partnerships*. Information Age Publishing.

Polly, D. (2025). Looking across the chapters. In D. Polly & C. S. Martin (Eds.), *Elevating Clinical Practice in Mathematics Education: Cases that Showcase Teaching Practices in Action* (pp. 631-636). Information Age Publishing.

Polly, D. (2025). An AI story about moving from reluctance towards thoughtful use. *UNC Charlotte Stories Across the Curriculum*. Retrieved from: <https://teaching.charlotte.edu/an-ai-story-about-moving-from-reluctance-towards-thoughtful-use/>.

Polly, D. & Martin, C. S. (2025). Introduction. In D. Polly & C. S. Martin (Eds.), *Elevating Clinical Practice in Mathematics Education: Cases that Showcase Teaching Practices in Action* (xviii - xix). Information Age Publishing.

Fitzgerald, M. S., Colonnese, M., Evans, K., & Polly, D. (2024). Considering the role of technology and design in ensuring access to high-quality learning experiences [Leveraging Technology to Support Access to Learning Opportunities]. *TechTrends: Linking Research and Practice to Improve Learning*, 68, 854-856. <https://doi.org/10.1007/s11528-024-01003-7>

Polly, D. (2024). Develop learners' fluency in mathematics: How games can help? Invited blog post for Emerald Education. Available at: <https://www.emerald-ed.com/developing-learners-fluency-in-mathematics-how-games-can-help/>.

Doyle, R. & Polly, D. (2023). Impact of educational policies and research on educational practice: A section introduction. In J. M. Spector et al. (Eds.), *Handbook of Learning, Design, and Technology*. Springer. https://doi.org/10.1007/978-3-319-17727-4_129-1

Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Goree, K., Stoicovy, D., Zenkov, K., & Hallinger, K. (2022). Explicating Essential Nine of the Second Edition of the NAPDS Nine Essentials. *PDS Partners: Bridging Research to Practice*, 17(3). 49-54.

Burns, R. W., Badiali, B., Coler, C., Cosenza, M., Goree, K., Polly, D., Stoicovy, D., Zenkov, K. (2022). Essential 2: “Clinical Practice” is what Professional Development Schools do. *PDS Partners: Bridging Research to Practice*, 17(1), 38-41.

Coler, C., Badiali, B., Burns, R. W., Cosenza, M., Goree, K., Polly, D., Stoicovy, D., & Zenkov, K. (2022). Expanding on the Revised Essential 7: Shared governance structures. *PDS Partners: Bridging Research to Practice*, 17(1), 42-44.

Cosenza, M., Burns, R. W., Badiali, B., Coler, C., Goree, K., Polly, D., Stoicovy, D., & Zenkov, K. (2022). Revised Essential 8: The importance of boundary spanning roles. *PDS Partners: Bridging Research to Practice*, 17(1), 44-46.

Goree, K., Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Polly, D., Stoicovy, D., & Zenkov, K. (2022). Essential 6: Articulated agreements – foundation and guidance for PDS work. *PDS Partners: Bridging Research to Practice*, 17(3), 44-48.

Polly, D., Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Goree, K., Polly, D., Stoicovy, D., Zenkov, K. (2022). Essential 3: Professional learning in the context of PDS and School-University partnerships. *PDS Partners: Bridging Research to Practice*, 17(3), 39-42.

Polly, D., Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Goree, K., Polly, D., Stoicovy, D., Zenkov, K. (2022). Essential 5: What can collaborative research look like in PDS and School-University Partnerships? *PDS Partners: Bridging Research to Practice*, 17(3), 42-44.

*Polly, D., Colonnese, M. W., Bacak, J., Holshouser, K. O., & Lewis, W. (2022). Teaching mathematics to elementary school learners: Vignettes related to diversity, equity and virtual teaching. In E. K. Reeves & C. J. McIntyre (Eds.), *Multidisciplinary Perspectives on Diversity and Equity in a Virtual World* (p. 213-232). IGI Global. <https://doi.org/10.4018/978-1-7998-8028-8.ch012>

Stoicovy, D., Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Goree, K., Polly, D., & Zenkov, K. (2022). Essential 4: A shared commitment to reflection, innovation and generative knowledge. *PDS Partners: Bridging Research to Practice*, 17(1), 41-42.

Badiali, B., Polly, D., Burns, R. W., & Garin, E. (2021). Cultivating change in clinical practice: Conclusions from the special issue. *Peabody Journal of Education*, 96(1), 112-116. <https://doi.org/10.1080/0161956X.2020.1864251>

Polly, D., Byker, E. J., & Colonnese, M. W. (2021). Future directions for K-12 technology enhanced learning environments. *Tech Trends: Linking Research and Practice to Improve Learning*, 65, 240-242.

Zenkov, K., Badiali, B., Burns, R. W., Coler, C., Cosenza, M., Goree, K., Polly, D., Stoicovy, D., Bertrand, S., Haddad, K., Crane, N., & Lague, M. (2021). Essential 1: Justice is our “Comprehensive Mission.” *PDS Partners: Bridging Research to Practice*, 16(4), 21-24.

Polly, D. & Martin, C. S. (2020). Introduction to the special issue: Equity in Professional Development School partnerships. *School-University Partnerships*, 13(3), 1-4.

Martin, F., Polly, D., & Ritzhaupt, A. (2020). Bichronous online learning: Blending asynchronous and synchronous online learning. *Educause Review*. Retrieved from: <https://er.educause.edu/articles/2020/9/bichronous-online-learning-blending-asynchronous-and-synchronous-online-learning>

Polly, D., Colonnese, M. W., Casto, A., & Lewis, W. (2018). The importance of considering the mathematical tasks we pose to young children. *Teachers Hub: The Magazine to Cross Ideas in Early Childhood Education*. Retrieved from: <https://www.teachershubmag.com/mathematical-tasks-importance.html>

Polly, D., & Casto, A. (2017). Engaging your students into math with performance tasks and project-based learning. *North Carolina Middle Level Education Journal*, 30(1). Retrieved from: <https://www.ncmlejournal.org/article/engaging-your-students-into-math-with-performance-tasks-and-project-based-learning/>

Polly, D. (2017). Supporting Opportunities for Productive Struggle: Implications for Planning Mathematics Lessons. *Teaching Children Mathematics*, 23(8), 454-457.

Polly, D. (2017). Leveraging the NCTM *Principles to Action* Tool Kit. *Teaching Children Mathematics*, 23(7), 390-391.

Polly, D. (2016). Three steps to collaborative professional learning. edTek Hub: The official website of the International Society for Technology in Education. Available at:

https://www.iste.org/explore/articleDetail?articleId=682&category=Professional-development&article=&utm_source=Facebook&utm_medium=Social&utm_campaign=VMLA

Polly, D. (2016). Evaluating mathematics curricular resources. *Teaching Children Mathematics*, 22(6), 325-326.

Polly, D. (2016). Voices from the Field. In Vacca, R. T., Vacca, J. L., & Mraz, M. (2016). *Content Area Reading: Literacy and Learning across the Curriculum*. Boston: Pearson.

Banas, J. R., & Polly, D. (2016). Instructional Design and Technology Trends in Teacher Education: An AECT Teacher Education Division Special Issue of TechTrends. *Tech Trends: Linking Research & Practice to Improve Learning*, 60(1), 2-3. doi: 10.1007/s11528-015-0007-2

Polly, D. (2013). Voices from the Field. In Vacca, R. T., Vacca, J. L., & Mraz, M. (2013). *Content Area Reading: Literacy and Learning across the Curriculum*. Boston: Pearson.

Wood, K., Jones, J.P., Stover, K. A., & Polly, D. (2011). STEM Literacies: Models and Methods of Integrating Reading, Writing and Technology in Science and Mathematics. *Middle School Journal*. 43(1), 55-62.

Polly, D. (2007). Blogs: Turning technology-driven social fads into an educational tool. *Virginia Society for Technology in Education Journal*, 21(4). Available from: http://www.vste.org/documents/vj_2007_04.pdf.

Teaching Children Mathematics: Articles for the Problem Solvers Section (2011-2013)

Problem Solvers: Problems. 6 articles

Problem Solvers: Solutions. 9 articles

Electronic Resources

Sole Developer- Mathematics Resources for K-5 Teachers
<http://tinyurl.com/nctoolsextended>

Sole Developer- Common Core Math Task Website for Grade 6-
<http://commoncoremathtasks.wikispaces.com/Sixth+Grade>

Sole Developer- eleMath- Mathematics Resources- <http://elemath.pbworks.com/>

Co-developer and contributor- Charlotte-Mecklenburg Schools elementary school resource-
<https://elementarymathematics.org/>

Published Book reviews

Holshouser, K. O. & Polly, D. (2021). Schooling, democracy, and the quest for wisdom: Partnerships and the moral dimensions of teaching. Book Review for the National Association for Professional Development Schools. Retrieved from: <https://napds.org/schooling-democracy-and-the-quest-for-wisdom-partnerships-and-the-moral-dimensions-of-teaching/>

Polly, D. (2021). Making school relevant with individualized learning plans: Helping students create their own career and life goals. *Teachers College Record*. Retrieved from: <https://www.tcrecord.org/Content.asp?ContentId=23628>

Polly, D. (2010). Mathematics and science for a change: Designing, implementing and sustaining high-quality professional development. *Teaching Children Mathematics*, 16(9), 565.

Polly, D. (2009). JRME monograph number 14. Journal for research in mathematics education: A study of teaching multiple lenses, multiple views. *Teaching Children Mathematics*, 15(7), 445-446.

Reviews of Curriculum Materials

Association of Mathematics Teacher Educators, Teacher Education Material Database

Assessing Number Concepts: Kathy Richardson

Developing Mathematical Ideas: Building a Systems of Tens

Developing Mathematical Ideas: Reasoning Algebraically About Operations

Developing Mathematical Ideas: Examining Features of Shape

Developing Mathematical Ideas: Measuring Space in One, Two and Three Dimensions

Developing Mathematical Ideas: Pattern, Functions and Change

Developing Mathematical Ideas: Working with Data

English Language Learners in the Mathematics Classroom

Mathematics and Science for a Change: How to Design, Implement, and Sustain High-Quality Professional Development
One Minute Mysteries: 65 Short Mysteries You Solve with Math!

Conference Proceedings (* = data-based)

Bacak, J., Martin, F., Ahlgrim-Delzell, L., Polly, D. & Wang, W. (2022). Creating a Safer Digital World for Elementary Learner: Lessons Learned from Elementary Educators. In E. Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 962-970). San Diego, CA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved May 3, 2022 from <https://www.learntechlib.org/primary/p/220853/>.

*Pugalee, D. K., Stephan, M., Cifarelli, V., Polly, D., & Raja, S. (2015, March). Teachers' decision making using data from an online assessment recording system. In D. Slykhuis & G. Marks (Eds.), *Proceedings of the 2015 Society for Information Technology and Teacher Education Conference*, 2754-2757.

Hodges, C., Grant, M., & Polly, D. (2013, March). Beyond one-shot workshops: Three approaches to STEM teacher professional development. In *Proceedings of the 2013 Society for Information Technology and Teacher Education Conference*.

*Polly, D. (2009, September). Examining the influence of professional development on elementary mathematics teachers' enacted, espoused and intended practices. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.) (2009). *Proceedings of the 31st Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1042-1050). Atlanta, GA: Georgia State University.

*Polly, D. (2009, September). District-wide implementation of standards-based mathematics instruction. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.) (2009). *Proceedings of the 31st Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1113). Atlanta, GA: Georgia State University.

*Polly, D. & Barbour, M. (2009, March). Developing teachers' technological, pedagogical, and content knowledge in mathematics. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2009* (pp. 4128-4131). Chesapeake, VA: AACE.

*Polly, D., Lock, C. & Bissell, B. (2007, September). Mathematical understanding: Analyzing student thought processes while completing fraction tasks. In D. K. Pugalee, A. Rogerson & A. Schinck (Eds.). *Proceedings of the Ninth International Conference of the Mathematics Education into the 21st Century Project: Mathematics Education in a Global Community* (pp. 535-538). Charlotte, NC: University of North Carolina at Charlotte.

*Polly, D. (2007, September). Examining the influence of learner-centered professional development on elementary mathematics' teachers enacted and espoused practices. In D. K. Pugalee, A. Rogerson & A. Schinck (Eds.). *Proceedings of the Ninth International Conference of the Mathematics Education into the 21st Century Project: Mathematics Education in a Global Community* (pp. 539-543). Charlotte, NC: University of North Carolina at Charlotte.

*Polly, D., & Griffin, T. (2004, June). The internet's impact on teacher education: Implications for online professional development courses for teachers. In L. Cantoni & C. McLoughlin (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2004* (pp. 3161-3166). Chesapeake, VA: AACE.

*Polly, D., Orrill, C.H. Ledford, S.D., & Erbas, A.K. (2004, June). Technology-enhanced math investigations: Facilitating the design and implementation of TEMIs into the classroom. In L. Cantoni & C. McLoughlin (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2004* (pp. 3157-3160). Chesapeake, VA: AACE.

*Keller, M., & Polly, D. (2004, June). Enhancing the teacher-student connection: Innovations in professional development to improve student achievement. In L. Cantoni & C. McLoughlin (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2004* (pp. 3357-3362). Chesapeake, VA: AACE.

*Polly, D., Orrill, C.H., Erbas, A.K., & Ledford, S.D. (2004, March). Teacher growth through technology-enhanced mathematical investigations: The InterMath experience. In R. Ferdig et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2004* (pp. 4505-4508). Chesapeake, VA: AACE.

*Shepherd, C., Polly, D., Rich, P., & Thomas, G. (2004, March). Integrating e-portfolios into teacher education programs. In R. Ferdig et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2004* (pp. 249-252). Chesapeake, VA: AACE.

*Polly, D. (2003). Anchoring student learning in technology-rich authentic environments. In D. Lassner & C. McNaught (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2003* (pp. 1834-1838). Chesapeake, VA: AACE.

*Polly, D. (June, 2003). Infusing cognitive principles in the development of instructional activities. In D. Lassner & C. McNaught (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2003* (pp. 1469-1470). Chesapeake, VA: AACE.

*Polly, D., & Hannafin, R.D. (June, 2003). Employing dynamic software to solve open-ended investigations. In D. Lassner & C. McNaught (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2003* (pp. 1466-1468). Chesapeake, VA: AACE.

Conference Presentations (*=data-based)

Invited Presentations

Polly, D., & LeHew, A. J. (2013, November). Attending to precision and modeling with mathematics in Grades K-2. Invited presentation at the Regional Conference of the National Council for Teachers of Mathematics. Louisville, KY.

Polly, D. (2011, November). Virtual Manipulatives in Grades 3-5. Invited presentation at the 15th Annual William & Mary Mathematics Day. Williamsburg, VA.

Polly, D. (2011, November). Fractions and Problem Solving. Invited presentation at the 15th Annual William & Mary Mathematics Day. Williamsburg, VA.

Polly, D. (2011, June). Common Core State Standards: Mathematics. Featured Session at the Martin Institute for Teaching and Learning Conference: Memphis, TN.

Polly, D. (2011, June). Common Core State Standards: Literacy. Featured Session at the Martin Institute for Teaching and Learning Conference: Memphis, TN.

National/International Presentations

Ogeltree, S., Dresden, J., Burns, R. W., Polly, D., & Rinck, J. (2024, July). Advancing School-University Partnerships and Professional Development Schools through National Research. National Association for School-University Partnerships Virtual Conference.

Cosenza, M., Badiali, B., & Polly, D. (2023, March). The Nine Essentials: What do they mean? Presentation given at the 2023 Conference of the National Association for Professional Development Schools. Jacksonville, FL.

Polly, D. (2023, March). Leveraging partnerships to support elementary education teacher candidates. Presentation given at the 2023 Conference of the National Association for Professional Development Schools. Jacksonville, FL.

Polly, D. (2023, March). Analyzing PDS Partners Articles: 2016 to 2022. Presentation given at the 2023 Conference of the National Association for Professional Development Schools. Jacksonville, FL.

Polly, D. (2022, January). Leveraging clinical practice to advance equity-based teaching in mathematics. Presentation given at the 2022 AERA-GSU Professional Development Schools Research Conference. Virtual Conference.

Putman, S. M., Cash, A. H., & Polly, D. (2021, April). Examining the impact of a year-long internship on candidates' teacher self-efficacy. Presentation given at the 2021 Annual Meeting of the American Educational Research Association. Virtual Conference.

Bostic, J., Cribbs, J., & Polly, D., & Eddy, C. (2021, February). Getting involved with Investigations in Mathematics Learning. Presentation given at the 2021 Conference of the Research Council of Mathematics Learning. Virtual Conference.

Cosenza, M., Burns, R. W., Badiali, B., Coler, C., Goree, K., Polly, D., Stoicovy, D., & Zenkov, K. (2021, March). Launch of the Revised Nine Essentials of NAPDS. Presentation given at the 2021 Conference of the National Association for Professional Development Schools. Virtual Conference.

Ebersole, E., Mourlam, D., Jin, Y., Foulger, T., Mehdi, T., Ortega Iglesias, J. M., Blankenship, R., Bower, M., Miles, C., Polly, D., & Mouza, C. (2021, March). TPACK Wikipedia Page Re-Authorship by a Community of Scholars Symposium. Presentation given at the 2021 Society of Information Technology in Education Virtual Conference.

Polly, D., & Eisner, M. (2021, March). Implementing the “what if”: Carrying out a collaborative, multi-semester classroom-based clinical experience in elementary education. Presentation given at the 2021 Conference of the National Association for Professional Development Schools. Virtual Conference.

Polly, D., Garin, E., & Nowlin, D. (2021, March). PDS Partners: Bridging Research to Practice. Presentation given at the 2021 Conference of the National Association for Professional Development Schools. Virtual Conference.

Putman, S. M., Fitzgerald, M., Diegmann, D., Eisner, M., Polly, D., Parker, A., & Dobbin, L. (2021, March). NAPDS Exemplary PDS Award Winner: Kannapolis City Schools- UNC Charlotte Partnership. Presentation given at the 2021 Conference of the National Association for Professional Development Schools. Virtual Conference.

Polly, D., Bostic, J., & Eddy, C. (2020, March). Getting involved with Investigations in Mathematics Learning. Presentation given at the 2020 Research Council for Mathematics Learning conference. Las Vegas, NV.

Garin, E., & Polly, D., & Nowlin, D. (2020, February). Writing for PDS Partners. Presentation given at the 2020 conference of the National Association for Professional Development Schools. Atlantic City, NJ.

*Polly, D. (2020). Time Well Spent: Rehearsals, practice-based teaching, and immersive clinical practice in an Elementary Education Program. Presentation given at the 2020 conference of the National Association for Professional Development Schools. Atlantic City, NJ.

*Franz, D., Wilburne, J., & Polly, D. (2019, March). Using the Q-Sort for professional development: A card-sorting tool. Presentation to be given at the 2019 Research Council for Mathematics Learning conference. Charlotte, NC.

Garin, E., & Polly, D., & Nowlin, D. (2019, February). Getting involved with PDS Partners: Bridging Research to Practice. Presentation to be given at the 2019 conference of the National Association for Professional Development Schools. Atlanta, GA.

*Gezer, T., Wang, C., Pugalee, D. K., Lambert, R. G., Polly, D., & Martin, C. S. (2019, April). Examining the relationship between online formative assessment applications and classroom assessment. Presentation to be given at the 2019 Annual Meeting of the American Educational Research Association. Toronto, Canada.

Polly, D., Bostic, J. & Eddy, C. (2019, March). Getting involved with Investigations in Mathematics Learning. Presentation to be given at the 2019 Research Council for Mathematics Learning conference. Charlotte, NC.

*Polly, D. (2018, March). Design Case for Asynchronous Online Professional Development in Primary Grades Mathematics. Presentation given at the 2018 Research Council for Mathematics Learning conference. Baton Rouge, LA.

Polly, D. (2018, March). Contributing to Investigations in Mathematics Learning. Presentation given at the 2018 Research Council for Mathematics Learning conference. Baton Rouge, LA.

*Martin, C. S., Wang, C., Polly, D., Lambert, R. G., & Pugalee, D. K. (2017, April). Formative assessment associated with students' mathematical skills. Presentation given at the 2017 Annual Meeting of the American Educational Research Association. San Antonio, TX.

*Martin, C. S., & Polly, D. (2017, March). Examining teachers' perceptions and participation in mathematics professional development. Presentation given at the 2017 Research Council for Mathematics Learning conference. Fort Worth, TX.

Polly, D. (2017, March). Becoming involved with Investigations in Mathematics Learning. Presentation given at the 2017 Research Council for Mathematics Learning conference. Fort Worth, TX.

Polly, D., Brynteson, K., & Smaldino, S. (2016, March). Using a rubric to evaluate professional development school partnerships. Presentation given at the 2016 Annual Conference of the National Professional Development School Association. Washington, DC.

Polly, D., Chapman, M. W., & Eisner, M. (2016, March). Leveraging PDS partnerships and field experiences to support edTPA. Presentation given at the 2016 Annual Conference of the National Professional Development School Association. Washington, DC.

*Polly, D. (2016, February). Examining the Influence of Formative Assessment on Elementary Students' Number Sense. Presentation given at the 2016 Annual Conference of the Research Council of Mathematics Learning. Orlando, FL.

Polly, D. (2016, February). Publishing in the Investigations in Mathematics Learning Journal. Presentation given at the 2016 Annual Conference of the Research Council of Mathematics Learning. Orlando, FL.

*Wang, C., Polly, D., Martin, C. S., Lambert, R. G., & Pugalee, D. K. (2015, April). Formative assessment associated with students' mathematical skills. Presentation given at the 2015 Annual Meeting of the American Educational Research Association.

Polly, D., Brynteson, K., & Smaldino, S. (2015, March). Creating a rubric to evaluate professional development school partnerships. Special session given at the 2015 National Professional Development School Conference. Atlanta, GA.

Polly, D. (2015, March). It takes a village—Detailing our support structure for elementary education teacher candidates from clinicals to edTPA to induction. Presentation given at the 2015 National Professional Development School Conference. Atlanta, GA.

*Polly, D., Wang, C. Martin, C.S., Lambert, R.G., Pugalee, D.K., Stephan, M., & Ringer, C. (2014, April). Examining the influence of professional development on primary students' mathematical achievement. Paper presented at the 2014 Annual Meeting of the American Educational Research Association. Philadelphia, PA.

Eisner, M., Chapman, M. W., Anderson, K., & Polly, D. (2014, March). Leveraging PDS partnerships for dual licensure candidates In Elementary Education And Special Education. Concurrent session presentation given at the 2014 National Association for Professional Development Schools Conference: Las Vegas: NV.

Polly, D. & LeHew, A. J. (2014, March). Establishing a PDS mathematics partnership with a large, urban school district. Concurrent session presentation given at the 2014 National Association for Professional Development Schools Conference: Las Vegas: NV.

Eisner, M., Chapman, M. W., Anderson, K., & Polly, D. (2014, March). Leveraging PDS partnerships for dual licensure candidates In Elementary Education and Special Education. Concurrent session presentation given at the 2014 National Association for Professional Development Schools Conference: Las Vegas: NV.

Polly, D., & LeHew, A. J. (2013, November). *Using formative assessments in K-2 mathematics classrooms*. Presentation given at the 2013 Regional Conference of the National Council for Teachers of Mathematics: Louisville, KY.

Polly, D. & Martin, C. S. (2013, May). *Supporting mathematics instruction in a professional development school with an expert coaching model*. Presentation given at the 2013 Annual Meeting of the American Educational Research Association: San Francisco, CA.

Wang, C., Polly, D., Pugalee, D. K., Lambert, R. G., McGee, J. R., Zuo, H., & Martin, C. S. (2013, May). *Impact of a professional development program on Kindergarten teachers' beliefs and practices and on students' mathematics skills*. Presentation given at the 2013 Annual Meeting of the American Educational Research Association: San Francisco, CA.

Hodges, C., Grant, M., & Polly, D. (2013, March). Beyond one-shot workshops: Three approaches to STEM teacher professional development. Presentation given at the 2013 Conference of the Society for Information Technology and Teacher Education: New Orleans, LA.

Polly, D. (2012, October). TPACK in Elementary Mathematics Classrooms. Presentation given at the 2012 Meeting of the Association for Educational Communications and Technology: Louisville, KY.

Polly, D., Wang, C., Pugalee, D., & Martin, C.S. (2012, April). Evaluation of a curriculum-focused professional development program in elementary school mathematics. Paper presented at the 2012 Annual Meeting of the American Educational Research Association. Vancouver, British Columbia.

Polly, D., Pugalee, D., & Neale, H. (2012, April). Examining the influence of mathematics professional development on elementary school teacher's knowledge, beliefs, and practices. Paper presented at the 2012 Annual Meeting of the American Educational Research Association. Vancouver, British Columbia.

*Polly, D., Wang, C., McGee, J. R., & Lambert, R. G. (2011, April). *Evaluation of a mathematics professional development program focused on supporting standards-based curriculum implementation*. Concurrent session presentation given at the 2011 Annual Meeting of the American Educational Research Association: New Orleans, LA.

*Polly, D. (2011, April). *Teachers' learning while constructing technology-based instructional resources*. Roundtable presentation given at the 2011 Annual Meeting of the American Educational Research Association: New Orleans, LA.

*Wang, C., Lambert, R. G., McGee, J. R., & Polly, D. (2011, April). *Implementation of a standards-based mathematics curriculum in elementary classrooms: A program evaluation perspective*. Roundtable presentation given at the 2011 Annual Meeting of the American Educational Research Association: New Orleans, LA.

Polly, D. (2011, April). *Creating technology-rich teacher education programs: Directions for future research*. Invited concurrent session presentation given at the 2011 Annual Meeting of the American Educational Research Association: New Orleans: LA.

Polly, D., Frazier, J. W., Hopper, C. J., McCabe, M., Cox, C., & Little, M. (2011, March). *Engaging university faculty in PDS partnerships*. Concurrent session presentation given at the 2011 National Association for Professional Development Schools Conference: New Orleans, LA.

*Frazier, J. W., Hopper, C. J., & Polly, D. (2011, March). *Supporting student teachers through the project supervisor model*. Concurrent session presentation given at the 2011 National Association for Professional Development Schools Conference: New Orleans, LA.

Polly, D. & Little, M. (2011, March). *Leveraging professional learning communities and collaborative team meetings to address student achievement*. Concurrent session presentation given at the 2011 National Association for Professional Development Schools Conference: New Orleans, LA.

*Polly, D. & McGee, J.R. (2010, October). *Examining teachers' enactments of standards-based mathematics curricula: The influence of professional development*. Concurrent session presentation given at the School Science and Mathematics Association Annual Convention: Fort Myers, Florida.

*Polly, D. (2010, May). *Developing TPACK in mathematics instruction*. Poster presentation given at the 2010 Annual Meeting of the American Educational Research Association: Denver, CO.

*Polly, D. (2010, May). *Integrating technology and higher-order thinking skills (HOTS) into instruction*. Roundtable presentation given at the 2010 Annual Meeting of the American Educational Research Association: Denver, CO.

*Polly, D. (2010, March). *Leveraging a PDS partnership to support elementary mathematics instruction*. Concurrent session presentation given at the 2010 National Association of Professional Development Schools Annual Conference: Orlando, FL.

*Hopper, C., Chapman, M., Frazier, J. & Polly, D. (2010, March). *Making a difference through support seminars for teacher candidates*. Concurrent session presentation given at the 2010 National Association of Professional Development Schools Annual Conference: Orlando, FL.

*Polly, D. & Bissell, B. (2010, January). *Content development for mathematical investigations: Findings from Year One*. Concurrent session presentation given at the U.S. Department of Education Mathematics Science Partnerships Conference: Washington, D.C.

*#Polly, D. (2009, September). *Examining the impact of learner-centered professional development on elementary mathematics teachers enacted and espoused practices*. Concurrent session presentation given at the 2009 Psychology of Mathematics Education-North America Conference: Atlanta, GA.

*Polly, D. (2009, September). *District-wide implementation of standards-based mathematics curriculum*. Poster presentation given at the 2009 Psychology of Mathematics Education-North America Conference: Atlanta, GA.

*Polly, D. (2009, September). *Supporting teacher induction through a mentorship model*. Presentation given to the Teacher Induction working group at the 2009 Psychology of Mathematics Education-North America Conference: Atlanta, GA.

*Polly, D., Frazier, J., & Hopper, C. (2009, March). *Supporting student teachers through a PDS seminar*. Concurrent session presentation given at the 2009 Professional Development School National Conference: Daytona Beach, FL.

Polly, D. & Dooley, T. (2009, March). *Supporting mathematics teaching and learning through a PDS partnership*. Concurrent session presentation given at the 2009 Professional Development School National Conference: Daytona Beach, FL.

Polly, D., Mims, C., Thomas, G., Rieber, L., Amankwatia, T., Land, K. (2008, November). *Technology integration showcase: Strategies and tools worthy of discussion*. Concurrent session presentation given at the 2008 meeting of the Association for Educational Communications and Technology: Orlando, FL.

Polly, D., Duffield, J., Duffy, F., Dias, L., Mims, C., & Schoffner, M. (2008, November). *Shaping Teacher Education for the 21st Century*: Where are we headed? Panel presentation given at the 2008 meeting of the Association for Educational Communications and Technology: Orlando, FL.

Polly, D. & Ausband, L. (2008, November). *Developing TPCK through professional development: The case of Webquests*. Poster presentation given at the 2008 meeting of the Association for Educational Communications and Technology: Orlando, FL.

*Polly, D. (2008, October). *Supporting standards-based mathematics in elementary classrooms*. Concurrent session presentation given at the Annual Conference of the School Science and Mathematics Association: Raleigh, NC.

*Polly, D. & Mims, C. (2008, July). *Integrating virtual manipulatives into the elementary school classroom*. Bring Your Own Laptop session facilitated at the 2008 National Educational Computing Conference: San Antonio, TX.

Polly, D. (2008, April). *Creating learner-centered professional development schools*. Concurrent session presentation given at the 2008 National Association of Professional Development Schools Conference: Orlando, FL.

*Polly, D., Mims, C., Inan, F., & Shepherd, C.E. (2008, March). *Evaluation methods used to examine the impact of PT3 projects*. Concurrent session presentation presented at the American Educational Research Association Annual Meeting: New York, NY.

*Polly, D., Mims, C., Inan, F., & Shepherd, C.E. (2007, October). *The technology course, the methods courses, and the field experience: How PT3 projects attempted to make programmatic changes*. Concurrent session presentation given at the 2006 Association for Educational Communications and Technology International Conference: Anaheim, CA.

*Polly, D., & Ausband, L. (2007, October). *Non-traditional teachers' technology skills*. Poster presentation given at the 2006 Association for Educational Communications and Technology International Conference: Anaheim, CA.

*Polly, D. (2007, September). *Elementary mathematics' teachers enacted and espoused practices: The impact of professional development*. Concurrent session presentation given at the 9th Annual International Conference of The Mathematics Education into the 21st Century Project. Charlotte, NC.

*Polly, D. & Hannafin, M.J. (2007, April). *Making the link: A look at evidence of students' mathematical understanding in light of elementary school teachers' enacted tasks*. Poster presentation given at the Annual Meeting of the American Educational Research Association: Chicago, IL.

*Polly, D. & Hannafin, M.J. (2007, April). *Examining the influence of learner-centered professional development on elementary mathematics' teachers enacted and espoused practices*. Concurrent session presentation given at the Annual Meeting of the American Educational Research Association: Chicago, IL.

*Orrill, C.H., Ledford, S., Bleich, L., & Polly, D. (2006, April). *Crazy Data: The analysis of Justification, Flow, and Explanation in the Problem-Solving Process*. Roundtable session presented at the American Educational Research Association Annual Meeting: San Francisco, CA.

Polly, D. & Williams, M. (2006, April). *Professional development*. Paper presented in the symposium *Peering into the Peer-Review Process: Mentoring Graduate Students and Junior Faculty in Reviewing and the Work of Editing* at the American Educational Research Association Annual Meeting: San Francisco, CA.

Polly, D., Orrill, C. H., Ledford, S. D., Bleich, L. (2005, October). *InterMath-GPS: Addressing teachers' needs with the design of a learner-centered professional development course*. Concurrent session presentation given at the Association for Educational Communications and Technology International Conference: Orlando, FL.

Polly, D., Webb, H. T., Subramony, D., Park, S., & Strobel, J. (2005, October). *Maximizing AECT involvement as a graduate student: Reflections from the 2004 AECT interns*. Concurrent session presentation given at the Association for Educational Communications and Technology International Conference: Orlando, FL.

*West, R., Watters, S., Subramony, D., Polly, D., & Park, S. (2005, October). *Student-to-student: Facilitating success in graduate programs in instructional technology*. Concurrent session presentation given at the Association for Educational Communications and Technology International Conference: Orlando, FL.

*Polly, D. & Shepherd, C. E. (2005, April). *Understanding pre-service teachers' impressions of technology's role in education*. Concurrent session presentation given at the 2005 American Educational Research Association's Annual Meeting: Montreal, Canada.

*Polly, D., Ledford, S.D., Orrill, C.H., & Bleich, L. (2005, April). *Learning technology in the context of professional development*. Roundtable session presentation given at the 2005 American Educational Research Association's Annual Meeting: Montreal, Canada.

*Shepherd, C. E. & Polly, D. (2004, October). *Redesigning an introduction to computers course for pre-service teachers to focus on multimedia reflection*. Concurrent session presentation given at the Association for Educational Communications and Technology's International Meeting: Chicago, IL.

*Polly, D., & Shepherd, C. E. (2004, October). *Reflective pre-service teachers: Using e-portfolios to facilitate reflection in teacher education*. Concurrent session presentation given at the Association for Educational Communications and Technology's International Meeting: Chicago, IL.

Keller, M., & Polly, D. (2004, June). *Enhancing the teacher-student connection: Innovations in professional development to improve student achievement*. Brief paper presentation given at the 2004 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications: Lugano, Switzerland.

Polly, D., & Griffin, T. (2004, June). *The internet's impact on teacher education: Implications for online professional development courses for teachers*. Brief paper presentation given at the 2004 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications: Lugano, Switzerland.

Polly, D., Orrill, C.H. Ledford, S.D., & Erbas, A.K. (2004, June). *Technology-enhanced math investigations: Facilitating the design and implementation of TEMIs into the classroom*. Full paper presentation given at the 2004 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications: Lugano, Switzerland.

Ledford, S.D, Polly, D., Erbas, A.K., & Orrill, C.H. (2004, April). *Learner-centered professional development: The InterMath experience*. Poster presentation given at the Research pre-session of the 2004 National Council of Teachers of Mathematics Annual Convention: Philadelphia, PA.

*Polly, D., Orrill, C.H., Erbas, A.K., & Ledford, S.D. (2004, March). *Training teachers to integrate technology-rich mathematics investigations*. Brief paper presentation given at the 2004 Society for Information Technology and Teacher Education's Annual Conference: Atlanta, GA.

*Shepherd, C., Polly, D., Rich, P., & Thomas, G. (2004, March). *Integrating e-portfolios into teacher education programs*. Brief paper presentation given at the 2004 Society for Information Technology and Teacher Education's Annual Conference: Atlanta, GA.

Orrill, C.H., Erbas, A.K., Ledford, S.D., & Polly, D. (2004, March). *Integrating technology-enhanced mathematical investigations*. Poster session presentation given at the 2004 Society for Information Technology and Teacher Education's Annual Conference: Atlanta, GA.

Polly, D. (2003, October). *Putting the learner first: Cognitive theories in instructional design*. Concurrent session presentation given at the 2003 Association for Educational Communications and Technology Conference, Anaheim, CA.

Polly, D. (2003, October). *Dropping your anchors: Implications for learning anchors in middle grades classrooms*. Concurrent session presentation given at the 2003 Association for Educational Communications and Technology Conference: Anaheim, CA.

*Moore, J., Polly, D., Deaton, B., Singleton, E., & Wang, F. (2003, October). *The great divide: Pre-service faculty use (or non-use) of technology in pre-service methods courses*. Poster presentation given at the 2003 Association for Educational Communications and Technology Conference: Anaheim, CA.

Polly, D. (2003, June). *Anchoring student learning in technology-rich authentic environments*. Brief paper presentation given at the 2003 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications: Honolulu, Hawaii.

Polly, D. (2003, June). *Infusing cognitive principles in the development of instructional activities*. Brief paper presentation given at the 2003 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications: Honolulu, Hawaii.

*Polly, D., & Hannafin, R.D. (2003, June). *Employing dynamic software to solve open-ended investigations*. Brief paper presentation given at the 2003 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications: Honolulu, Hawaii.

State/Regional Presentations

Blackwelder, & Polly, D. (2024, October) Engaging Elementary Learners in Mathematical Reasoning and Number Sense. Presentation given at the 2024 Whole Child Conference hosted by the North Carolina Association for Supervision and Curriculum Development.

Griffin, J., Hurley, B., Polly, D., DuFresne, E., Hedgepeth, B., Bailey, L., & Duncan, L. (2024, November). Student learning and assessments: Using aligned items, assessments, and data to improve learning. Presentation given at the 2024 Annual Conference of the North Carolina Council of Teachers of Mathematics. Winston-Salem, NC.

Polly, D. (2024, October). Developing Problem Solvers in K-5 Math Classrooms Presentation given at the 2024 North Carolina Department of Public Instruction AIM Conference. Raleigh, NC.

Polly, D. (2024, July). Supporting All Learners' Problem-Solving Skills. Presentation given at the 2024 North Carolina Center for the Advancement of Teaching Virtual Mathematics Conference.

Polly, D. (2024, April). Developing mathematics problem solvers in Pre-K through second grade. Presentation given at the 2024 Virtual Conference of the North Carolina Association for Supervision and Curriculum Development.

Polly, D. (2023, November). Small groups, differentiating, and personalizing mathematics teaching. Presentation given at the 2023 Conference for the North Carolina Council of Teachers of Mathematics. Winston-Salem, NC.

Griffin, J., Hurley, B., & Polly, D. (2023, November). Using data and mathematics tasks to promote mathematical understanding. Presentation given at the 2023 Conference for the North Carolina Council of Teachers of Mathematics. Winston-Salem, NC.

Polly, D. (2023, August). Promoting gateways for problem solving in Grades K-2. Presentation given at the 2023 NC Mathematics Summit. Raleigh, NC.

Polly, D. (2023, August). Promoting gateways for problem solving in Grades 3-5. Presentation given at the 2023 NC Mathematics Summit. Raleigh, NC.

Polly, D. (2023, July). Differentiated and personalized learning in mathematics. Presentation given at the 2023 North Carolina Center for the Advancement of Teaching Virtual Mathematics Conference.

Griffin, J. & Polly, D. (2022, November). Using data to promote mathematics understanding. Presentation given at the 2022 Conference for the North Carolina Council of Teachers of Mathematics. Winston-Salem, NC.

Polly, D. (2022, August). Differentiating the Core in Grades K-2 Mathematics. Presentation given at the North Carolina Math Summit. Raleigh, NC.

Polly, D. (2022, August). Differentiating the Core in Grades 3-5 Mathematics. Presentation given at the North Carolina Math Summit. Raleigh, NC.

Polly, D. (2022, July). Implementing mathematics tasks. Presentation given at the North Carolina Center for the Advancement of Teaching Virtual Mathematics Conference.

Polly, D. (2021, August). Implementing mathematics tasks. Presentation given at the North Carolina Math Summit. Raleigh, NC.

Polly, D. (2021, August). Differentiating the Core in Mathematics. Presentation given at the North Carolina Center for the Advancement of Teaching Virtual Mathematics Conference.

Polly, D. (2021, July). Implementing mathematics tasks. Presentation given at the North Carolina Center for the Advancement of Teaching Virtual Mathematics Conference.

Vintinner, J. P., Holshouser, K., Eisner, M. & Polly, D. (2021, June). Supporting elementary education teacher candidates with edTPA: Focusing on planning and assessment. Pre-recorded session at the 2021 UNC Pembroke Clinical Teacher Conference. Pembroke, NC.

Polly, D., Martin, F., Byker, E. J., Küsel, J. Markic, S. (2021, July). Investigating teacher candidates' preparedness to teach with technology. Presentation given at the 26th German-American Research Symposium between UNC Charlotte and PH Ludwigsburg. Virtual Conference.

Polly, D., & Copeland, S. (2019, October). Depth of Knowledge: What is it? Why should you care? Presentation given at the 2019 North Carolina Council for Teachers of Mathematics Conference. Greensboro, NC.

Polly, D. (2019, March). Supporting K-2 learners with their exploration of mathematical tasks. Presentation given at the 2019 North Carolina Department of Public Instruction Connecting Communities of Stakeholders Annual Conference. Greensboro, NC.

Polly, D. (2019, March). Supporting Grade 3-5 learners with their exploration of mathematical tasks. Presentation given at the 2019 North Carolina Department of Public Instruction Connecting Communities of Stakeholders Annual Conference. Greensboro, NC.

*Schmidt, L., Reinke, L., & Polly, D. (2019, March). Presentation given at the 2019 Conference of the North Carolina Association for Research in Education. Charlotte, NC.

Polly, D. & Rich, W. (2018, October). *New Math Standards are Coming: Come Check out the Elementary Resources!* Presentation given at the 2018 North Carolina Elementary Education Conference. Concord, NC.

Polly, D. (2018, August). Supporting K-2 learners with their exploration of mathematical tasks. Presentation given at the 2018 High Five Regional Math Summit. Raleigh, NC

Polly, D. (2018, August). Supporting students' exploration of rigorous tasks in grades 3-5. Presentation given at the 2018 High Five Regional Math Summit. Raleigh, NC

Polly, D. (2018, March). *New Math Standards are Coming: Come Check out the Elementary Resources!* 2018 North Carolina Department of Public Instruction 2018 Connecting Communities of Education Stakeholders Conference. Greensboro, NC.

Byker, E. J., Cross, K., & Polly, D. (2017, September). It's Academic! Supporting Teacher Candidates through the Discourse and Syntax of edTPA. Presentation given at the 2017 North Carolina Association for Colleges of Teacher Education (NC-ACTE). Raleigh, NC.

Polly, D., Putman, S. M., Byker, E. J., & Cash, A. H. (2016, September). A Tale of Two Programs: edTPA in an Undergraduate and an MAT Elementary Education Program. Presentation given at the 2016 North Carolina Association for Colleges of Teacher Education (NC-ACTE). Raleigh, NC.

Polly, D. (2016, March). Using mathematical tasks to support learning in Grades K-2. Presentation given at the 2016 North Carolina Collaborative Conference for Student Achievement: Greensboro, NC.

Polly, D. (2016, March). Using mathematical tasks to support learning in Grades 3-5. Presentation given at the 2016 North Carolina Collaborative Conference for Student Achievement: Greensboro, NC.

*Wang, C., Martin, C. S., Polly, D., Lambert, R. G., & Pugalee, D. K. (2016, February). Examining the influence of mathematics professional development on elementary school teachers' use of formative

assessment practices. Presentation given at the Annual Meeting of the North Carolina Association for Research in Education: Charlotte: NC.

Polly, D. & Garcia, M. (2014, October). Algebraic reasoning in Grades K-2. Presentation given at the 2014 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Garcia, M. & Polly, D. (2014, October). Algebraic reasoning in Grades 3-5. Presentation given at the 2014 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. (2014, February). Examining the Interplay between Technology Integration and Mathematical Tasks in Elementary School Classrooms. Presentation given at the Annual Meeting of the North Carolina Association for Research in Education: Greensboro, NC.

*Wang, C., Polly, D., Lambert, R. G., Pugalee, D. K., & Evans, A. (2014, February). Examining the influence of elementary mathematics professional development on formative assessment of teachers. Presentation given at the Annual Meeting of the North Carolina Association for Research in Education: Greensboro, NC.

Garcia, M., LeHew, A. J., & Polly, D. (2013, October). Effective strategies for multiplying and dividing fractions. Presentation given at the 2013 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

LeHew, A. J., & Polly, D. (2013, October). Creating extending performance tasks. Presentation given at the 2013 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. (2013, October). Mathematical tasks and strategies to develop students' understanding of fractions. Presentation given at the 2013 Annual Conference of the North Carolina Association for Elementary Education: Greensboro, NC.

Polly, D. (2012, October). Numbers and operations in base ten in grades K-2. Presentation given at the 2012 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. & Lehew, A.J. (2012, October). Smarter balance performance tasks. Presentation given at the 2012 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Lehew, A.J., Gust, S., Polly, D. (2011, October). Algebraic Thinking in the Common Core: Grades K-2. Presentation given at the 2011 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Lehew, A.J., Gust, S., Polly, D. (2011, October). Algebraic Thinking in the Common Core: Grades 3-5. Presentation given at the 2011 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D., Lehew, A. J., & Gust, S. (2010, October). *Teaching algebra through problem solving in Grades 3-5*. Concurrent session presentation given at the 2010 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Lehew, A. J., Gust, S., & Polly, D. (2010, October). Teaching algebra through problem solving in Grades K-2. Concurrent session presentation given at the 2010 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Dooley, T. M., Banks, K., & Polly, D. (2010, October). Creating rigorous, standards-based formative assessments. Concurrent session presentation given at the 2010 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. (2010, March). Virtual manipulatives in elementary mathematics classrooms. Concurrent session presentation given at the NCTIES Educational Technology Conference: Raleigh, NC.

Polly, D. (2010, March). Using Web 2.0 tools to address the revised Bloom's Taxonomy. Poster presentation given at the NCTIES Educational Technology Conference: Raleigh, NC.

Polly, D. (2009, December). Technology integration in elementary mathematics classrooms. Concurrent session presentation given at the 2009 Mid-South Technology Conference: Memphis, TN.

McCombs, B., Polly, D., Mims, C., Baucom, A., Wolcott, N., Rodgers, S., Rineer, J., Hatfield, I., Crawford, D. (2009, December). *Planning district-wide technology professional development*. Concurrent session presentation given at the 2009 Mid-South Technology Conference: Memphis, TN.

Banks, K., Dooley, T, & Polly, D. (2009, October). *Using rigorous and relevant standards-based assessments to evaluate student learning*. Concurrent session presentation given at the 2009 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D., Dooley, T.M., & Banks, K. (2008, October). *Looking at student work*. Concurrent session presentation given at the 2008 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. (2008, October). *Student-centered mathematics in Grades 3 and 4*. Concurrent session presentation given at the 2008 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. & Logan, K. (2008, October). *Problem solving: The new strand in the 2008 Standard Course of Study*. Concurrent session presentation given at the 2008 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. (2008, January). *Mathematics and science: An integrated approach for elementary school classrooms*. Concurrent session presentation given at the Southwest Alliance Conference on Science Education: Charlotte, NC.

Polly, D. (2007, October). *Actions with Fractions*. Concurrent session presentation given at the 2007 Annual Conference of the North Carolina Council for Teachers of Mathematics: Greensboro, NC.

Polly, D. (2007, January). *Integrating mathematical tasks into elementary and middle grades classrooms*. Concurrent session presentation given at the 2007 Southwestern Educational Alliance's Best Practices Conference: Charlotte, NC.

Polly, D. (2006, October). *Excel-in in the elementary classroom*. Concurrent session presentation given at the 2006 North Carolina Council for Teachers of Mathematics Conference: Greensboro, NC.

Polly, D. (2006, October). *Technology-enhanced mathematical investigations*. Concurrent session presentation given at the 2006 North Carolina Council for Teachers of Mathematics Conference: Greensboro, NC.

Ledford, S., Bleich, L., Polly, D. & Orrill, C. H. (2005, October). *Exploring mathematics with dynamic geometry software*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Ledford, S., Bleich, L., Polly, D. & Orrill, C. H. (2005, October). *Unpacking the mathematics: An in-depth look at an open-ended investigation*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Bleich, L., Ledford, S., Polly, D. & Orrill, C. (2005, October). *Problem solving with spreadsheets*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Bleich, L., Ledford, S., Polly, D. & Orrill, C. (2005, October). *InterMath: technology-rich professional development in mathematics*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Polly, D., Orrill, C.H., Ledford, S., & Bleich, L. (2004, October). *Patterns and algebraic thinking through spreadsheets*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Bleich, L., Polly, D., Ledford, S., & Orrill, C.H. (2004, October). *InterMath: Professional development for middle grades teachers*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Ledford, S., Polly, D., Erbas, A.K., & Bleich, L. (2004, October). *Using technology to unpack open-ended problems*. Concurrent session presentation given at the Georgia Council for Teachers of Mathematics Conference: Eatonton, GA.

Polly, D., Erbas, A.K., Ledford, S.D., & Orrill, C.H. (2004, March). *Designing technology-enhanced math investigations*. Concurrent session presentation given at the 2004 Virginia Society for Technology in Education Annual Conference: Roanoke, VA.

Polly, D. (2004, March). *Field of dreams: Fostering effective field experiences for pre-service teachers*. Concurrent session presentation given at the 2004 Virginia Society for Technology in Education Annual Conference: Roanoke, VA.

*Polly, D., Moore, J.M., Ma, I.M., Singleton, E., & Deaton, B. (2004, February). *Technology use in teacher education programs*. Paper presentation given at the 2004 Eastern Educational Research Association's Annual Meeting: Clearwater, FL.

*Polly, D., & Hannafin, R.D. (2004, February). *Investigating the impact of OELE's on student achievement in geometry*. Paper presentation given at the 2004 Eastern Educational Research Association's Annual Meeting: Clearwater, FL.

*Polly, D., Orrill, C.H., Erbas, A.K., & Ledford, S.D. (2004, February). *Training teachers to use technology-enhanced mathematics investigations*. Paper presentation given at the 2004 Eastern Education Research Association's Annual Meeting: Clearwater, FL.

Erbas, A.K., Ledford, S.D., Orrill, C.H., & Polly, D. (2004, February). *Integrating technology-enhanced mathematics investigations into the curriculum*. Concurrent session given at the 2004 Georgia Educational Technology Conference: Macon, GA.

Polly, D. (2003, March). *Technology-enhanced mathematics investigations*. Concurrent session given at the 2003 Virginia Society for Technology in Education Conference: Crystal City, Virginia.

Polly, D., & Tatum, N (2002, October). *Using a collaborative buddy model between primary and upper elementary school students to explore probability and statistics concepts*. Concurrent session given at the College of William and Mary's Eighth Annual Mathematics Institute: Williamsburg, VA.

Polly, D., Jernigan, C., & Wolfe, M. (2002, March). *Exploring patterns with hands-on investigations*. Concurrent session given at the 2002 Virginia Council for Teachers of Mathematics' Annual Conference: Manassas, VA.

Jernigan, C., Polly, D., & Wolfe, M. (2002, February). *Building an algebraic framework through patterns*. Concurrent session given at the 2002 College of William and Mary's Seventh Annual Mathematics Institute: Williamsburg, VA.

Dalton, M., Elliott, M., Goodman, T., & Polly, D. (2001, August). *Exploring the wilderness of probability: A hands-on unit based on Jumanji*. Concurrent session given at the Student University Research Network/College of William and Mary's Sixth Annual Mathematics Institute: Williamsburg, VA.

Funded Grants and Contracts

Funded National Grants and Contracts

Martin, F., Wang, W., Polly, D., Ahlgrim-Delzell, L., & Wilkins, P. (2020). Digital Safety Immersion for Elementary School Students. National Science Foundation Secure and Trustworthy Cyberspace Program. (\$399,999, funded).

Funded State/Local Grants and Contracts

Pitchford, K., Delong, K., Joyner, J., Rich, W., Mawhinney, K., & Polly, D. (2017, February). Tools for Teachers: NC Mathematics Collaborative. Proposal submitted to the NC Mathematics Science Partnership Grant. (\$705,117.00, funded). Project Staff.

Pugalee, D. K., Polly, D., Stephan, M., & Cifarelli, V. (2016, February). Developing Elementary School Teachers' Mathematics Understanding and Instructional Practices. Proposal submitted to the North Carolina QUEST Grant Program. (\$281,163.00, funded). Co-Principal Investigator.

Polly, D. (2015, September). Evaluation of the Charlotte-Mecklenburg Schools Beacon Initiative. Proposal submitted to Charlotte-Mecklenburg Schools Request for Applications for the External Evaluation of the Beacon Initiative. (\$50,000, funded). Principal Investigator.

Pugalee, D. K., Polly, D., Stephan, M., Friel, S., & Cifarelli, V. (2014, July). Assessment Practices to Support Mathematics Learning and Understanding for Students (APLUS). Proposal submitted to the North Carolina Department of Public Instruction Mathematics and Science Partnership Program. (\$342,545, funded). Co-Principal Investigator.

Pugalee, D. K., Polly, D., Stephan, M., Friel, S., & Cifarelli, V. (2014, March). Assessment Practices to Support Mathematics Learning and Understanding for Students (APLUS). Proposal submitted to the North Carolina Department of Public Instruction Mathematics and Science Partnership Program. (\$919,789, funded). Co-Principal Investigator.

Pugalee, D. K., Polly, D., Stephan, M., Friel, S., & Cifarelli, V. (2013, March). Assessment Practices to Support Mathematics Learning and Understanding for Students (APLUS). Proposal submitted to the North Carolina Department of Public Instruction Mathematics and Science Partnership Program. (\$919,789, funded). Co-Principal Investigator.

Pugalee, D.K., Polly, D., Stephan, M., Friel, S., & Cifarelli, V. (2012, June). Assessment Practices to Support Mathematics Learning and Understanding for Students (APLUS). Proposal submitted to the North Carolina Department of Public Instruction Mathematics and Science Partnership Program. (\$1,973,560, funded). Co-Principal Investigator.

Royster, D., Polly, D., Pugalee, D., & Cifarelli, V. (2009). Content Development to Teach Mathematical Investigations. Proposal submitted to the North Carolina Department of Public Instruction Mathematics and Science Partnership Program. (\$2,119,944, funded). Co-principal Investigator.

Royster, D., Polly, D., Pugalee, D. (2008). Building Teacher Leadership for Quality Mathematics Instruction. Proposal submitted to the North Carolina Quest Grant Program. (\$299,981, funded). Co-principal Investigator.

Orrill, C.H., Polly, D., & McMillan, T. (2003). Georgia Department of Education Teacher Quality Initiative. (\$67,585.00, Funded). Co-principal Investigator.

UNC Charlotte Internal Funded Projects and Grants

Colonnese, M. W., Reinke, L. T., & Polly, D. (2023). Examining Two Approaches to Clinical Experiences in Teacher Education. Submitted to UNC Charlotte Scholarship of Teaching and Learning Grant Program. (Funded, \$3,400). Co-principal Investigator.

Polly, D. & Colonnese, M. (2019). Supporting elementary education teacher candidates' use of high-leverage instructional practices in mathematics. UNC Charlotte Office of Assessment and Accreditation. (\$750, funded). Co-principal Investigator.

Chapman, M., Polly, D., Britt, H., Frazier, J., & Hopper, C. (2009). Supporting Elementary Education Yearlong Interns. Proposal submitted to the UNC Charlotte Scholarship of Teaching and Learning Program (\$6,500, funded). Co-principal Investigator.

Polly, D. (2006). Developing Elementary Mathematics Teachers. UNC Charlotte Curriculum Improvement and Development Grant, (\$5,500, Funded). Principal Investigator.

Polly, D. (2006). Exploring Mathematical Tasks. UNC Charlotte Faculty Research Grant, (\$5,750, Funded). Principal Investigator.

SERVICE/ OUTREACH/ ENGAGEMENT

Service to the University, College, and Department

UNC Charlotte

Fall, 2008 - present University Study Abroad Scholarship Committee, Member

Spring, 2010 - present University Study Abroad Odyssean Scholarship Committee, Member

Fall, 2018 – May, 2022 University Grievance Committee

Fall, 2019 – May, 2020 Faculty Executive Council, Cato COED Representative

Spring, 2018 – 2019 University Poll Anywhere Feedback Committee

Fall, 2015- Spring, 2016 Instructional Systems Technology Search Committee, Member

Fall, 2013- Spring, 2014 Instructional Systems Technology Search Committee, Member

Fall, 2012- 2015 Center for Teaching and Learning, Faculty Moodle Advisory Committee, Member

Fall, 2008-2010, Fall, 2012- 2018 UNC Charlotte Undergraduate Course and Curriculum Committee, Member, Chair Spring 2018 semester

Fall, 2010 - 2016 UNC Charlotte Faculty Instructional Technology Services Advisory Committee, Chair from 2013-2016

Spring- Fall, 2014 University Catalog and Curriculum Management System Adoption Committee, Member

Spring- Summer, 2013 Center for Teaching and Learning, Search Committee, Technology Team Manager

UNC Charlotte Cato College of Education
 Spring, 2015 – 2024 Editor, College of Education Connections Newsletter
 Fall, 2024- Spring, 2025 Search Committee, Department of Educational Leadership, Learning Design and Technology Position
 Fall, 2022- Spring, 2023 Search Committee, Department of Educational Leadership, Learning Design and Technology Position
 Fall, 2020 – Spring, 2021 COED Strategic Planning Committee
 Fall, 2018 – May, 2020 Faculty Executive Committee, Alternate COED Representative
 Summer, 2018 – 2020 Lab School Curriculum Design Team, Member
 Lab School Assessment Committee, Chair
 Fall, 2019 Search Committee, Associate Dean for Research and Graduate Studies, Member
 Fall, 2019 – May, 2020 College of Education Faculty Council, Ex-officio member
 Fall, 2008- 2010, Fall, 2012 – 2019 College of Education Undergraduate Course and Curriculum, Chair: 2008-2010, 2012-2018, Member: 2018-2019
 Fall, 2012 – 2016 edTPA Implementation Core Team, Elementary Education Representative
 Fall, 2007 - 2016 UNC Charlotte Professional Development School Network, Co-Director, 2008-2016, Assistant Director, 2007-2008
 Fall 2011- Spring, 2013, College Faculty Council, Chair (2012-2013, 2016-2017), Vice Chair (2015-2016)
 Fall, 2014- 2017
 Fall, 2013 – Spring, 2017 College Information Technology Advisory Committee, Member
 Fall, 2017- Spring, 2018 Educational Leadership Research Position, Search Committee, Member
 Spring, 2013- Elementary Education Licensure Exam Work Group
 Summer, 2013
 Spring, 2012 –Fall, 2012 College Online Course Evaluation Implementation Committee
 Summer, 2013 Office of Field Experiences, Search Committee, Elementary Education Supervisor
 Spring, 2011 Office of Field Experiences, Search Committee, Special Education Supervisor
 Fall, 2009 - Spring, 2011 Task Stream Pilot Program
 Spring, 2009 Search Committee, Office of Field Experiences, Elementary Education
 Teacher-in-Residence
 Spring, 2008 Search Committee, Office of Field Experiences, Special Education

Department of Reading and Elementary Education
 Fall, 2016 – present Program Director, Curriculum and Educator Development strand of the Ph.D in Curriculum and Instruction Program
 Fall, 2009 – present Program Director, Elementary Mathematics Add-on Licensure Program
 Fall, 2024 - present Program Director, Masters of Arts in Teaching in Elementary Education Program
 Fall, 2014 – 2016 Department Leadership Council/Program Directors
 2017-present
 Fall, 2006 – May, 2018 Department webmaster, website liaison to COED OIT
 Summer, 2018 Elementary Education Residency Program Design Team
 Summer, 2018 Elementary Education Undergraduate Focus Practices Planning Team
 Spring, 2019 Lab School, Teacher in Residence Search Committee, Member
 Fall, 2016- Spring, 2017 Elementary Mathematics Education Search Committee, Chair
 July, 2014 – 2016 Program Director, Elementary Education Graduate Certificate in Teaching
 Program/Masters of Arts in Teaching Program
 Fall, 2012 – 2016 edTPA Elementary Education Program Lead
 Fall, 2015- Spring, 2016 Elementary Science Education Search Committee, Co-chair
 Fall, 2010 – Fall, 2014 Department Leadership Council, Assessment Coordinator
 Fall, 2008 – May, 2012 Member, Ph.D. Program in Curriculum and Instruction, Elementary Education strand committee
 2007 – Spring, 2011 Co-advisor, Student National Education Association
 Fall, 2013- Spring, 2014 Elementary Science Education Search Committee, Co-chair

Summer, 2011	Department Administrative Assistant Search Committee
Spring, 2011	Elementary Science Education Search Committee
2009 - 2011	Member, Revisioning Committee for Elementary Education, Masters of Arts in Teaching
2008 - 2011	TK20 evaluator, Graduate Certificate in Teaching Program (2008-2011) Checked over 150 TK20 portfolios
2008 - 2010	Chair, Revisioning Committee for Elementary Education, Graduate Certificate in Teaching

Service to the Profession

Editorships

2015 – 2024	<i>Investigations in Mathematics Learning</i> , Editor (2015-2020) Associate Editor (2020-2024)
2017 – 2022	<i>PDS Partners: Bridging Research to Practice</i> , Co-Editor

Editor of Special Issues of Journals

2023-2024	<i>Tech Trends: Linking Research & Practice to Improve Learning</i> , Co-Editor of Special Issue, How Technology and Design Increase Access to Learning Opportunities.
2021-2022	<i>PDS Partners: Bridging Research to Practice</i> , Co-Editor of Special Issue on School-University Partnerships to Promote Student Achievement and Teacher Inquiry
2019-2021	<i>Tech Trends: Linking Research & Practice to Improve Learning</i> , 65, Co-Editor of Special Issue on K-12 Technology-Enhanced Learning Environments
2019-2021	<i>Peabody Journal of Education</i> , 96(1), Co-editor of Special Issue on Clinical Practice
2019-2020	<i>School-University Partnerships</i> , 13(3), Co-editor of Special Issue on Equity in PDS Partnerships
2015	<i>Tech Trends: Linking Research & Practice to Improve Learning</i> , Co-Editor of Special Issue on Trends and Issues in Teacher Education
2008 - 2009	<i>Tech Trends: Linking Research & Practice to Improve Learning</i> , 53(5), Co-Editor of Special Issue on Technological Pedagogical and Content Knowledge (TPACK)

Editorial Board Service

2025 - present	<i>School Science and Mathematics</i> , Associate Editor
2018 – present	<i>Early Childhood Education Journal</i> , Editorial Board
2009 - present	<i>Educational Technology Research and Development</i> , Consulting editor
2023 – present	<i>Computers in the Schools</i> , Editorial Board
2013 – 2016	<i>Teaching Children Mathematics</i> , Editorial Panel Member and Digital Liaison
2010 – 2012	<i>Teaching Children Mathematics</i> , Co-editor, Problem Solvers section
2004 - 2006	Graduate Student Editorial Board, <i>Educational Researcher</i> , Research, News and Comment Section

Editorial service to Edited Books

2015	<i>Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age</i> , Editorial Advisory Board member
2012- 2013	<i>Digital Tools and Writing in Schools</i> , Editorial Advisory Board Member
2008 - 2009	<i>Adaptation, Resistance and Access to Instructional Technologies: Assessing Future Trends in Education</i> , Editorial Advisory Board Member

Reviewing for Academic Journals

2018 – present	<i>Early Childhood Education Journal</i>
2019 – present	<i>Mathematics Teacher: Teaching and Learning Pre-K - 12</i>

2017 – present	<i>Journal of Technology and Teacher Education</i> <i>Journal for Research on Technology in Education</i>
2016 - present	<i>Teaching and Teacher Education</i>
2015 – present	<i>Journal of Technology and Teacher Education</i> <i>Journal of Teacher Education</i>
2006 - present	<i>Journal for Research in Mathematics Education</i> <i>Teaching Children Mathematics</i> <i>Contemporary Issues of Technology in Education</i> <i>Educational Technology Research & Development</i> <i>Journal for Computer-Assisted Learning</i> <i>Teaching Children Mathematics</i> <i>Mathematics Teaching in the Middle School</i> <i>British Journal of Educational Technology</i> <i>Interdisciplinary Journal for Problem-Based Learning</i> <i>The Mathematics Educator</i> <i>Journal for Research on Technology in Education</i>
	Professional leadership and service positions
2006 – present	North Carolina Council for Teachers of Mathematics (2006-2011) Conference Program Co-Chair/Committee (2017-present) Conference Co-Chair (2015-2017) Conference Program Co-Chair (2009-2011) Conference volunteer (2006- present)
2004 - present	American Educational Research Association (AERA) Instructional Technology Special Interest Group Proposal Reviewer (2004-present) Research in Mathematics Education Special Interest Group Proposal Reviewer (2007-2013) Research in Professional Development Schools Interest Group Proposal Reviewer (2014-present)
2021 – present	U.S. Mathematics Recovery Council, Board Member
2020 – present	Pastors for North Carolina Children, Board Member Financial Team, Member
2002 – 2018	Association for Educational Communications and Technology (AECT) Teacher Education Division Board of Directors Representative (2015-2018) President-Elect, President, Past President (2007-2009) NCATE Standards Writing Committee (2005-2010) Communications committee (2006-2009) Division Program Chair, 2009 Annual Conference Division Program Assistant, 2006 Annual Conference Proposal Reviewer for Annual Conference (2003-2009, 2012-present) Research and Theory Division Proposal Reviewer for Annual Conference (2003-2008) Graduate Student Program Committee (2003-2005) Conference Volunteer (2003-2005)
2013 – Present	National Association of Professional Development Schools Communications Committee (2021- present) Nine Essentials Revision Committee (2018-2022) Secretary, Member of Executive Committee (2013- 2017) Member of Leadership Team (2017-present)

Reviewing for Grant Programs

2021	NC Department of Public Instruction Advanced Teaching Roles Program
2020	NC Department of Public Instruction Office of Charter Schools Access Grants
2019	NC Department of Public Instruction Office of Charter Schools Access Grants
2018	NC Department of Public Instruction Advanced Teaching Roles Program
2018	Netherlands Initiative for Education Research (NRO) grant program from the Programme Council for Practice-based Research
2015	National Science Foundation, DR K-12 Panel
2011	National Science Foundation, ITEST Panel
2010	National Science Foundation, ITEST Panel

Professional consultation

2011 – 2015	Consultant to National Consortium State Collaborative General Supervision Enhancement Special Education Grant, PI: Dr. Shawnee Wakeman
2013- 2017	Consultant to Project Solutions Special Education Grant, PI: Dr. Diane Browder
2011	Consultant to EdCounts, Alignment Study between Common Core Mathematics Standards and Learning Progressions
2009 - 2011	Consultant to General Curriculum Special Education Grant, PI: Dr. Diane Browder

Reviewing Educational Materials

2019	Reviewer, Teaching Student-Centered Mathematics, Pearson Education, Inc.
2018 - Present	Member, Association of Mathematics Teacher Education Materials Review Committee

Reviewing Accreditation Materials

2018-Present	CAEP Review for National Council of Teachers of Mathematics SPA
2012-2016	
2017	North Carolina Teacher Education Programs

Service to the Community and Practitioners

2006 – present	North Carolina Department of Public Instruction, Tools4NCTeachers, NC Collaborative for Mathematics Learning NC K-2 Mid-year and End-of-year assessments (2014-2018, 2020-present), Contributor Tools 4 NC Teachers (2017 – 2019), Project Leadership Team Member NCDPI K-5 Unpacking Documents (2010-2012, 2014, 2018, 2019, 2022), Co-author NC2ML Instructional Frameworks (2017-2019), Contributor NCDPI Common Core Feedback Review Group (2016), Member NCDPI Mathematics Standards Writing Group (2016, 2017), Member Grade 3-5 Common Core Formative Instructional Tasks (2013-2017), Project Co-developer and Contributor Grade K-2 Common Core Formative Instructional Tasks (2011-2012), Contributor Focal Units of the Common Core (2011-2014), Project Co-director, Contributor Unpacking the Common Core documents for Grades K-5, Co-author of the first draft and reviewer of subsequent drafts (2010-2012) Co-author, Common Core-2003 NCSCOS Crosswalks (2010) Reviewer, Unpacking the Common Core documents for Grades 6-8 (2011) Co-author of other Common Core online resources (2011-present)
----------------	--

Essential Standards Mathematics Committee

Member, Essential Mathematics Standards Writing Committee (2006-2009)
Member, Essential Standards Mathematics Descriptor Writing Committee (2007-2009)

Member, North Carolina Standard Course of Study Review Committee (2006)

Technical Outreach to Public Schools / North Carolina End-of-Grade Tests
Item Reviewer, Class Scapes Assessment System, Grades 3-5 (2013-present)
Item Reviewer, North Carolina End-of-Grade Mathematics forms, NC Quarterly Check-ins, Grades 3-6 (2011-2013, 2016- present)
End-of-Grade test specifications committee (2009, 2010, 2016, 2017)

2013- 2018	Department of Public Instruction, Institutes of Higher Education Mathematics Committee to Review Licensure Exam (2018) Program Renewal Reviewer (2017) Advisory Group for Teacher Licensure Exams (July, 2013 – 2015)
2010 – present	Districts within the Southwest Regional Educational Alliance Pro bono consulting Member of the Elementary Education Directors' Job Alike Meeting Member of the Professional Development Directors' Job Alike Meeting Supports mathematics instruction including summer curriculum work, visits to Professional Learning Communities in the region
2006- present	Charlotte-Mecklenburg Schools Pro bono consulting Curriculum Mapping (2012 – present), Contributor Assessment Creation and Review (2013 – present), Contributor Mathematics Facilitator Professional Development (2008 – 2016), Facilitator Mathematics Science Partnership Grant (2012 – 2016) Assisted with the logistics, details, and implementation of a professional development project for 80 teachers in 2012-2013, 80 teachers in 2013-2014, 80 teachers in 2014-2015)
	Mathematics Science Partnership Grant (2009-2012) Co-ordinated the design, implementation, and management of over 80 hours of professional development for teachers; 34 in 2009-2010, 155 in 2010-2011, 230 in 2011-2012. Provided ongoing support to teacher-leaders who co-facilitated workshops Facilitated workshops for learning community (learning zone) leadership, Principals and teacher-leaders about <i>Investigations</i> mathematics curriculum (2009-2010)
2007 – present	School-based service On-going mentoring (co-planning and co-teaching) elementary school teachers related to mathematics Torrance Creek Elementary School, 1 teacher (2006 - 2007) David Cox Road Elementary School, 4 teachers (2007 - 2009) University Meadows Elementary School, 4 teachers (2007 - 2009) Stoney Creek Elementary School, 1 teacher (2009 - 2010) Facilitating team planning meetings (approximately a dozen per year at various schools) Principal Search Committee, David Cox Road Elementary School (2008) Principal Search Committee, University Meadows Elementary School (2009) Kannapolis City Schools

Support for K-6 Mathematics Understanding by Design and Curriculum Development (2015-present)

Pro-bono consultant to the Elementary Education director (2008-present)

Writer of K-2 quarterly mathematics assessments (2010-2012)

Supported data analysis of K-2 quarterly mathematics assessments (2010-present)

Mathematics Science Partnership Grant

Co-coordinated the design, implementation, and management of over 80 hours of professional development for teachers; 34 in 2009-2010, 30 in 2010-2011, 45 in 2011-2012

School-based service

Mentoring (co-planning and co-teaching) elementary school teachers related to mathematics

Shady Brook Elementary School, 2009-2015)

Facilitated half-day workshops about *Investigations*

16 workshops at Shady Brook Elementary School (2009-2010)

2 workshops at Forest Park Elementary School (2009-2010)

IMPACT Technology Grant

Wrote portions of an IMPACT technology grant that provided over \$2.5 million in technology-based resources from North Carolina's IMPACT technology initiative
Co-facilitated week-long professional development sessions about technology integration

Summer 2008- 5 weeks

Summer 2009- 2 weeks

Summer 2011- 3 weeks

Provided support to teachers during team planning sessions through face-to-face meetings and Skype sessions

Facilitated monthly professional development about WebQuests at Kannapolis Intermediate School (2007-2008)

2019 – present

Wilkes County Schools

Pro bono workshops to all elementary school teachers (2021-2022)

Monthly support at Professional Learning Community meetings at Mountain View Elementary School (2020-present)

Facilitator of professional learning workshops (2019, 2020)

2014-2017, 2021-
Present

Union County Schools

Pro Bono Support Professional Learning Communities at Various Schools (2014-2017, 2021-present)

Facilitating Workshops to Teachers Across the District (2014-2017)

2019-present

Iredell-Statesville Schools

Pro Bono Support Professional Learning Communities at various schools (2019-present)

Facilitating sessions at Instructional Facilitator Meetings (2019-2020)

2017-present

Cabarrus County Schools

Pro Bono Support Professional Learning Communities at Various Schools (2017-present)

2021 – present

Corvian Community School, Board Member

2013 – 2016	Mooresville Graded School District Facilitated professional development about Common Core Mathematics during 2013 Summer Professional Development Institute and during 2013- 2014 school year
Other Service Outside of the Region	Various Professional Development Sessions to School Districts in NC Facilitated sessions to instructional coaches in Wilkes County (2018) Facilitated 2 days of workshops in Durham Public Schools (2013)

HONORS AND AWARDS

Overall Honors and Awards

- 2024 North Carolina Governor's Medallion for Volunteer Service
- 2024 National Association for School-University Partnerships, PK-20 Boundary Spanner Award
- 2023 UNC Charlotte Bonnie E. Cone Award for Civic Engagement, Finalist
- 2022 UNC Charlotte Bonnie E. Cone Award for Civic Engagement, Finalist
- 2021 UNC Charlotte Bonnie E. Cone Award for Civic Engagement, Finalist
- 2018 UNC Charlotte Teaching Award (Formerly Bank of America Teaching Award), Finalist
- 2014 North Carolina Council for Teachers of Mathematics Innovator Award for Outstanding Service to Mathematics Education in North Carolina
- 2011 UNC Charlotte College of Education, Award for Sustained Service to Public Schools
- 2007 UNC Charlotte Greek System, Professor of the Year, Finalist
- 2005 Association for Educational Communications and Technology, Teacher Education Division, Recognition of Service to the Division
- 2005 Association for Educational Communications and Technology Graduate Student Internship Award

Honors and Award Related to Scholarship

- 2024 Association for Educational Communications and Technology Division of Distance Learning Practical Application Publication Award- "Bichronous online learning: Award-winning online instructor practices of blending asynchronous and synchronous modalities."
- 2024 Emerald Publications Literati Award for Most Downloaded Paper for "A Systematic Review of Articles: PDS Partners Bridging Research to Practice (2017-2022)" in *PDS Partners: Bridging Research to Practice*
- 2022 Society for Information Technology and Teacher Education Outstanding Paper Award- Creating a Safer Digital World for Elementary Learner: Lessons Learned from Elementary Educators
- 2011 Association for Educational Communications and Technology Teacher Education Division Award for Contributing Scholarly Work to the Field

Honors and Awards Related to Editorial Service and Reviewing

- 2025 *Educational Technology Research and Development*, Reviewer Excellence Award
- 2025 National Association for School-University Partnerships, Recognition for Contributions to the Organization as a Journal Editor of *PDS Partners: Linking Research to Practice*
- 2021 Research Council on Mathematics Learning, Recognition for serving as Journal Editor of *Investigations in Mathematics Learning*
- 2017 *Tech Trends: Linking Research to Practice*, Exceptional Reviewer Award
- 2016 *Educational Technology Research and Development*, Exceptional Reviewer Award

Group Awards Given to Teams that I Have Worked On

- 2025 UNC Charlotte Office of Assessment, Award for Exemplary Curriculum Planning
- 2022 National Association for Professional Development Schools (now National Association for School-University Partnerships), Exemplary Partnership Award

PROFESSIONAL MEMBERSHIPS

Association for Educational Communications and Technology

National Association of School-University of Partnerships (formerly National Assoc. of Professional Development Schools)

National Council for Teachers of Mathematics

North Carolina Council for Teachers of Mathematics