GABRIEL T. MATNEY
https://www.gabrielmatney.com/

1801 Timber Ridge Drive **419-819-5600**
Bowling Green, OH 43402 **gabrielmatney@gmail.com**

I. Academic Degrees

Date	Degree	Major	University
2004	Ph.D.	Mathematics Education	University of Oklahoma, Norman OK
2000	M.S.	Applied Mathematics	University of Oklahoma, Norman OK
1997	B.S.E	Mathematics Education (Endorsement in Computer Science)	Oklahoma Baptist University, Shawnee, OK

II. Academic Positions

A. Teaching Positions

2018 – Present **Professor.** School of Teaching and Learning, College of Education and Human Development, Bowling Green State University, Bowling Green, OH.

2011 – 2018 **Associate Professor.** School of Teaching and Learning, College of Education and Human Development, Bowling Green State University, Bowling Green, OH.

2004 – 2011 **Associate Professor.** Mathematics Department, College of Science, Engineering, Technology, and Mathematics, University of Arkansas – Fort Smith, Fort Smith, AR.

2001 – 2004 **Mathematics Teacher.** Santa Fe South Public Schools, Oklahoma City, OK.

2000 – 2001 **Mathematics Teacher.** Noble Public Schools, Noble, OK.

1997 – 2004 **Graduate Teaching Instructor.** Department of Mathematics, College of Arts and Science, University of Oklahoma, Norman OK.

B. Administrative Positions

Department Chair. (2001 – 2004). Mathematics Department, Santa Fe South Public Schools, Oklahoma City, OK

Gear-UP Grant Coordinator (2002 – 2004). Santa Fe South Public Schools, Oklahoma City, OK

III. Non-academic Positions

1998 – 2000 **Online Tutor.** Tutored mathematics via voice and online whiteboard technology to students from school districts across the United States for Tutornet.com, Reston, VA

1996 – 1999 **Dillard's.** Sales Associate

1995 – 1997 **Technology Lab Assistant.** Oklahoma Baptist University

1995 – 1996 **Produce Stocker.** Budget Saver Grocery Store

1995 **Expo Culinary Cook.** Red Lobster

1991 – 1995 **Janitorial Supervisor.** JaniKing Franchise #49

IV. Teaching Experiences or Academic Service

A. Teaching Experiences

1. Undergraduate Courses

At Bowling Green State University (2011-Present)

EDTL 2741 FA 2024: *Algebra in the Secondary Mathematics Classroom*
EDTL 4740 FA 2024: *Mathematics in Secondary Schools*
EDTL 2742 SP 2024: *Geometry and Probability in the Secondary Mathematics Classroom* (1 section)
EDTL 4840 SP 2024: *Advanced Seminar in Mathematics Teaching*
EDTL 2741 FA 2023: *Algebra in the Secondary Mathematics Classroom*
EDTL 4740 FA 2023: *Mathematics in Secondary Schools*
EDTL 2742 SP 2023: *Geometry and Probability in the Secondary Mathematics Classroom* (1 section)
EDTL 2741 FA 2022: *Algebra in the Secondary Mathematics Classroom*
EDTL 2742 SP 2022: *Geometry and Probability in the Secondary Mathematics Classroom* (1 section)
EDTL 2741 FA 2021: *Algebra in the Secondary Mathematics Classroom*
EDTL 2742 SP 2021: *Geometry and Probability in the Secondary Mathematics Classroom* (1 section)
EDTL 2741 FA 2020: *Algebra in the Secondary Mathematics Classroom*
EDTL 1320 FA 2020: *Introduction to Teaching Elementary School Mathematics* (2 sections)
EDTL 2740 SP 2019: *Introduction to Secondary Mathematics* (1 section)
EDTL 2742 SP 2019: *Geometry and Probability in the Secondary Mathematics Classroom* (1 section)
EDTL 2741 FA 2018: *Algebra in the Secondary Mathematics Classroom* (1 section)
EDTL 2742 SP 2018: *Introduction to Secondary Mathematics II* (1 section)
EDTL 2741 FA 2017: *Introduction to Secondary Mathematics 1* (1 section)
EDTL 2742 SP 2017: *Introduction to Secondary Mathematics II* (1 section)
EDTL 2741 FA 2016: *Introduction to Secondary Mathematics 1* (1 section)
EDTL 3230 FA 2015: *Early Childhood Mathematics Methods* (2 sections)
EDTL 4460 FA 2014: *Investigations in Mathematics for the Middle Childhood Teacher*, BGSU (1 section)

EDTL 2740 SP 2014: *Introduction to Secondary Mathematics* (1 section)
EDTL 4900 FA 2013: *Culture and Learning in Thailand* (1 section)
EDTL 3230 FA 2013: *Early Childhood Mathematics Methods* (2 sections)
EDTL 4840 SP 2013: *Advanced Seminar in Mathematics Teaching* (1 section)
EDTL 3230 FA 2012: *Early Childhood Mathematics Methods* (2 sections)
EDTL 3230 SP 2012: *Early Childhood Mathematics Methods* (1 sections)
EDTL 2740 FA 2011: *Introduction to Secondary Mathematics* (1 section)
EDTL 3230 FA 2011: *Early Childhood Mathematics Methods* (2 sections)

At University of Arkansas Fort Smith (2004-2011)
MATH 1403 *College Algebra*
MATH 1453 *College Trigonometry*
MATH 2333 *Structures of Arithmetic*
MATH 2343 *Informal Geometry*
MATH 3803 *Pedagogy for Numeric Systems*
MATH 3813 *Pedagogy for Geometry and Spatial Reasoning*
MATH 3823 *Pedagogy for Advanced Mathematics*
EDUC 490A *Mathematics Education Internship*

At the University of Oklahoma (1997-2004)
Calculus for Business, Life, and Social Sciences
Calculus for Engineering and Science
Geometric Systems
Introduction to Elementary Functions
Secondary Mathematics Education Mentoring
Mathematical Systems
Mathematical Systems and Data Analysis
Pre-calculus for Business, Life, and Social Science
Special Topics and Methods for Secondary Mathematics Teachers

2. Undergraduate-Graduate Courses
EDTL 4501/5501 SU 2023: *Upper Elementary Mathematics Instruction*
EDTL 4501/5501 SU 2012: *Upper Elementary Mathematics Instruction*

3. Graduate Courses
EDTL 5860 SP 2023: *Culture, Mathematics, and English in Malawi: Examining Malawi Culture and Approaches to Learning*.
EDTL 6800 FA 2016: *Researching Teacher Knowledge of the SMP's*
EDTL 6800 FA 2016: *Researching Lesson Study and the SMP's*
EDTL 6800 SU 2016: *Mathematics Learning Across Cultural Contexts*
EDTL 6800 SP 2016: *Culture and Chinese Mathematics Teachers Knowledge*
EDTL 6800 SU 2015: *Culture and Learning in New Zealand and Fiji*
EDTL 6410 SU 2014: *Advanced Methods in Elementary School Mathematics*
EDTL 6800 SP 2014: *Reasoning and Sense Making in Elementary Mathematics*
EDTL 6800 SU 2014: *Curriculum Design for Connections in Elementary Mathematics*
EDTL 6800 FA 2014: *Models for Reasoning in Elementary Mathematics*
EDTL 6800 FA 2013: *Culture and Learning in Thailand*

EDTL 6410 SU 2013: *Advanced Methods in Elementary School Mathematics*
EDTL 6800 SP 2013: *Reasoning and Sense Making in Elementary Mathematics*
EDTL 6800 SU 2013: *Curriculum Design for Connections in Elementary Mathematics*
EDTL 6800 FA 2013: *Models for Reasoning in Elementary Mathematics*
EDTL 6800 SP 2012: *Reasoning and Sense Making in Elementary Mathematics*
EDTL 6800 SU 2012: *Curriculum Design for Connections in Elementary Mathematics*
EDTL 6800 FA 2012: *Models for Reasoning in Elementary Mathematics*

4. Other Teaching

Co-teaching

EDTL 5860 SP 2023: Culture, Mathematics, and English in Malawi: Examining Malawi Culture and Approaches to Learning.
EDTL 6800 SP 2014: *Reasoning and Sense Making in Middle Grades Mathematics*
EDTL 6800 SU 2014: *Curriculum Design for Connections in Middle Grades Mathematics*
EDTL 6800 FA 2014: *Common Core Instruction in Middle Grades Mathematics*
EDTL 6800 SP 2013: *Reasoning and Sense Making in Middle Grades Mathematics*
EDTL 6800 SU 2013: *Curriculum Design for Connections in Middle Grades Mathematics*
EDTL 6800 FA 2013: *Common Core Instruction in Middle Grades Mathematics*
EDTL 6800 SP 2012: *Reasoning and Sense Making in Middle Grades Mathematics*
EDTL 6800 SU 2012: *Curriculum Design for Connections in Middle Grades Mathematics*
EDTL 6800 FA 2012: *Common Core Instruction in Middle Grades Mathematics*

International Teaching

EDTL 4900 WT 2023: Culture and Mathematics Learning in Thailand
EDTL 5850 WT 2023: Culture and Mathematics Learning in Thailand
EDTL 4900 SP 2023: Culture, Mathematics, and English in Malawi: Examining Malawi Culture and Approaches to Learning.
EDTL 4900 WT 2020: Culture and Mathematics Learning in Thailand
EDTL 4900 WT 2019: Cultural & Mathematics Learning in China
EDTL 4900 WT 2018: Culture and Mathematics Learning in Thailand
EDTL 4900 SP 2017: Australia and Fiji: Systems of Learning Across Cultural Contexts
EDTL 4900 FA 2016: Cultural & Mathematics Learning in China
FA 2015: Representations in School Mathematics at Khon Kaen University (KKU)
EDTL 4900 FA 2015: Culture and Learning in Thailand
EDTL 4900 FA 2015: Culture and Learning in New Zealand and Fiji
EDTL 4900 FA 2014: Culture and Learning in Thailand
EDTL 4900 FA 2013: Culture and Learning in Thailand
OSS 4203 SP 2011: Cultural Engagement and Travel in Italy, UAFS
FA 2011: Mathematics Methods at Kamphaeng Phet Rajabhat University (KPRU) Thailand

5. Thesis and Dissertation Students

Master's and Honors Research Projects:

Kaitlyn Solymosi (2024). *Open Problems in Mathematics: Evaluating Connections in Student Discourse*.
KimAnn Brown (2024). *Perceptions of Pre-Service Teachers Regarding Finger Counting*.
Lillian Kloecker (2024). *Image Use to Support Student Confidence in Problem-Solving Assessment*.
Ryan Griesmer (2024). *Introducing Lesson Study to Pre-Service Teachers using Simulation Technology*.
Stephanie Hastings (2024). *How Preservice Teacher's Confidence is Impacted by a Geometry Course.*
Cameron Willis (2024). *Arts Integration in the Middle School Math Classroom.*
Kayla Fruth (2023). *Analyzing the Impact of an Informal Mathematics Teaching Experience on Preservice Teacher Mathematics Teaching Self-Efficacy*.
William Brandt (2023). *Environmental Impacts of Programmatic Informal Learning*.
Keith Damschroder (2023). *Effects of Picture Use in Eighth Grade Mathematics Assessment Items*.
Nick Parr (2023). *Connecting Music to the Mathematics Classroom*.
Nick Drown (2022). *Understanding Problem-Solving Self-Efficacy*.
Christine Painter (2022). *Linear Equations: Connections and Misconceptions*.
Abigail Martin (2022). *Examining the Diversity in Problem-Solving Strategies between Experts and Students*.
Karley Becker (2022). *Effects of Interdisciplinary Instruction on Students' Connection of Knowledge Across Learning Domains*.
Kaleb Wourms (2022). *Connecting Confidence to College Mathematics and High School Ability Tracks*.
Kaitlyn Solymosi (2022). *Open-Ended Problems: How Much Time is Enough Time?*
Stephanie Kafer (2022). *Teacher Education Programs of Top PISA Scoring Countries*.
Julia McCavitt (2021). *Level of Preservice Teacher's Reflections: Results from Engagement in Fragmentary Lesson Study.*
Miranda Fox (2021). *Preservice Teachers' Perceptions of Lesson Study: Thai versus U.S.A. Context*.
Ben Lawson (2021). *Using Sports to Develop Community in the Mathematics Classroom*.
Paige Murta (2021). *Metacognition in the Mathematics Classroom*.
Scott Knapke (2020). *Exploring Inhibiting Factors Towards the Sustainability of Lesson Study.*
Mackenzie Murray (2020). *Investigating Preservice and Inservice Teachers Experiences with a Universal Design for Learning Lesson Study*.
Chelsea Caswell (2020). *The Perceptions of Teachers and Administrators on Ethnic Studies in Secondary Schools*.
Taylor Nicholson (2019). *Evaluating Response Processes Validity Evidence for a Problem-Solving Measure*.
Olivia Henderson (2019). *Formative Assessment as a Learning Tool*.
Karen Izor (2019). *The Effect of Exit Slips on Student Motivation within the Classroom*.
Rachel Lundeen (2018). *Young Women in STEM: An Analysis of Outreach Programs for Middle School Girls.*

Julia Porcella (2018). *Teacher Dialogue about the Standards for Mathematical Practice (SMPs) Occurring in the Debriefing Phase of Open-Approach Lesson Study*.
Alyssa Lustgarten (2018). *Impact of Number Talks on Pre-service Teachers' Number Sense*.
Rachel Wiemken (2018). *Examination of Students' Problem Solving through a Model Eliciting Activity*.
Allison Marino (2017). *Preservice Teacher Knowledge of the Standards for Mathematical Practice.*
Nisakorn Boonsena (2017). *Teachers' Perceptions about Teaching Practice in Lesson Study incorporating Open Approach.*
Kelly Largent (2017). *Preservice Teacher Development through Math Camp Involvement*.
Corrinne Sullivan (2016). *An Investigation of Students' Perceptions of Doing Mathematics*.
Gregory Sattler
(2015) *Open to Change; Using the NZ Curriculum Model to Shape a New Curricular Foundation*.
Morgan Tucker (2015). *Enlightenment in Education: Buddhist Influences of Kindness in Thai Education*.

BGSU ACTION Research Advisor

Robert Conarroe (2024). *Relationship between Student Perceived Engagement and Assessment in the Classroom.*
Laney Ventimiglia (2024). *Effect of Students' Self Confidence on Mathematical Performance.*
Ashleigh Bettum (2024). *How does the Learning Environment Created by the Teacher Relate to Students' Perceived Engagement and Motivation?*
Ashely Post (2022). *How Does Multi-Sensory Instruction in an Eighth-Grade Math Classroom Impact Student Interest and Engagement*
Nick Drown (2021). *Journaling and Mathematics Self-Efficacy in the Secondary Classroom*.
Chris Irick (2020). *Building Student Confidence and Performance through Emphasis on Academic Language.*
Makenna Geise (2020). *The Impact of Frayer Models in a Mathematics Classroom*.
Natalie Herning (2020). *Exploring Students' Interaction with Problem Solving Techniques*.
Scott Knapke (2019). *The Effect of Inquiry-Based Lessons on Students' Attitudes toward Mathematics*.
Miranda Fox (2019). *Level of Student Engagement during a Launching Task.*
Taylor Nicholson (2018). *The Effectiveness of Think-Pair-Share in the Classroom*.
Jessica Huot (2018). *The Effectiveness of Lesson Openers on Students' Engagement in Class*.
Alyssa Lustgarten (2017). *Impact of Kinesthetic Learning on Student Knowledge Retention and Attitudes toward Mathematics*.
Brittany Gates (2017). *Student Attitudes towards Mathematical Problem Solving about Athletics Based Questions*.

Allison Marino (2016). *Homework Turn-In Procedures Effect on Student Effort and Time*.
Rachel Wiemken (2016). *Formative Assessment in a Secondary Mathematics Classroom.*
Megan Kelly (2015). *Perceived Student Relevance on the Different Contexts of Real-World Problems.*
Georgia Ike (2014). *The Effects of Inquiry Problems on Students Construction of Mathematical Reasoning and Viable Arguments.*
Arianna Sampsel (2013). *Finding the Effects of Think-Pair-Share on Student Confidence and Participation.*
Tyler Erb (2013). *Gamification of the Math Classroom to Engage Students*.

6. Membership on Dissertation Committees

Richard Maguire (2024-Present) in Leadership Studies – *Student Sponsorship Program in Malawi*.
Mohammad Yousef (2019) in Mathematics & Statistics - *Two-Stage SCAD Lasso for Linear Mixed Model Selection.*

7. Membership on Thesis Committees

Megan Mortier: M.Ed. Curriculum & Teaching, BGSU, 2014
Tyler Spears: M.Ed. Curriculum & Teaching, BGSU, 2013
Morayo Omosalewa: M.Ed. Curriculum & Teaching, BGSU, 2013
Kait Kasperski: M.Ed. Curriculum & Teaching, BGSU, 2013
Nathan Clark: *An Introduction to Hyperbolic Geometry Design*, UAFS, 2011
Brooke Daugherty: *Pentominos Groups*, UAFS, 2009
Phillip Watson: *Fractal Hausdorff-Besicovitch Dimensions*, UAFS, 2008
Jessica Rainwater: *Effects of Integrated Self-Guided Projects in Calculus*, UAFS, 2008

V. <u>Curriculum Development</u>

A. Courses at BGSU

EDTL 4501/5501 SU 2023: *Upper Elementary Mathematics Instruction*
EDTL 4900 SP 2023: *Culture, Mathematics, and English in Malawi: Examining Malawi Culture and Approaches to Learning.*
EDTL 5860 SP 2023: *Culture, Mathematics, and English in Malawi: Examining Malawi Culture and Approaches to Learning.*
EDTL 2742 SP 2017: *Introduction to Secondary Mathematics II*
EDTL 2741 FA 2016: *Introduction to Secondary Mathematics I*
EDTL 2740 SP 2014: *Introduction to Secondary Mathematics*
EDTL 6410 SU 2013: *Advanced Methods in Elementary School Mathematics*
EDTL 6800 SP 2012: *Reasoning and Sense Making in Elementary Mathematics*
EDTL 6800 SU 2012: *Curriculum Design for Connections in Elementary Mathematics*
EDTL 6800 FA 2012: *Models for Reasoning in Elementary Mathematics*
EDTL 6800 SP 2012: *Reasoning and Sense Making in Middle Grades Mathematics*
EDTL 6800 SU 2012: *Curriculum Design for Connections in Middle Grades Mathematics*

EDTL 6800 FA 2012: *Common Core Instruction in Middle Grades Mathematics*

International Studies Program
EDTL 4900 SP 2016: *Australia and Fiji: Systems of Learning Across Cultural Contexts*, BGSU
EDTL 4900 FA 2016: *Cultural & Mathematics Learning in China*, BGSU
EDTL 4900 FA 2015: *Culture and Learning in Thailand*, BGSU
EDTL 4900 FA 2015: *Culture and Learning in New Zealand and Fiji*, BGSU
EDTL 4900 FA 2014: *Culture and Learning in Thailand*, BGSU
EDTL 4900 FA 2013: *Culture and Learning in Thailand*, BGSU

Courses at UAFS (2004-2011)

Early Childhood Program
MATH 1333 *Number Sense and Data Analysis I*
MATH 1343 *Number Sense and Data Analysis II*
MATH 2233 *Geometry and Measurement I*
MATH 2243 *Geometry and Measurement II*
MATH 2353 *Algebraic Thinking for Curricular Connections*

Middle Level Program
MATH 2333 *Structures of Arithmetic*
MATH 2343 *Informal Geometry*

Secondary Program
MATH 3803 *Pedagogy for Numeric Systems*
MATH 3813 *Pedagogy for Geometry and Spatial Reasoning*
MATH 3823 *Pedagogy for Advanced Mathematics*
EDUC 490A *Mathematics Education Internship*

International Studies Program
OSS 4203 SP 2011: *Cultural Engagement and Travel in Italy*, UAFS

B. Workshops and Speeches Given

i. Invited Talks and Speeches

*[Invited **Keynote**]* **Matney, G.** (2024). The Meaning of Authentic Learning of Mathematics: Exploring the Relationship between Real, Realistic, Mathematical, and Authenticity. Meeting of the Greater Cleveland Council of Teachers of Mathematics in Cleveland Ohio, October 30, 2024.

[Invited] **Matney, G.**, Barrett, A., Wallster, A., Bumpus, D., Constable, E., Johnson, B., & Mykolayevych, N. (2024). *Engaging Student Affiliates: How a Math Camp Engages Students and the Community.* National Council of Teacher of Mathematics Member and Affiliate Relations Committee Webinar, June 25, 2024.

[Invited] **Matney, G.** (2023). *Engaging Mathematics Teachers in Lesson Study about Statistics and Exponential Functions: A Malawi and USA Collaboration.* Virtual and in-person lesson studies given at Cornerstone Christian High School. Salima, Malawi.

[Invited] **Matney, G.** and Weaver, J. (2022). *International Partnerships through Informal Learning in Mathematics and English Camps.* Special Lecture given at the University of Malawi – Chancellors College. Zomba, Malawi.

[Invited] **Matney, G.** and Weaver, J. (2022). *Engaging Teachers in International Professional Collaborations through Lesson Study: The case of Malawi and USA.* Special Lecture given at Cornerstone Christian High School. Salima, Malawi.

[Invited] **Matney, G.** and Weaver, J. (2022). *Math and English Camps in Malawi.* Special Lecture given at Cornerstone Christian High School. Salima, Malawi.

[Invited] Matney, G. and Fox, M. (2020). *Connecting Problem Solving Norms to the Process Standards*. Special Lecture given at the Master's Seminar on Problem Solving at Khon Kaen University, Khon Kaen Thailand.

*[Invited **Keynote**]* **Matney, G.** (2020). *Importance of Doing Validity Studies of Measures in Education: With an example of measuring complex teacher knowledge about the mathematical practice*. **Keynote** speech given for the Intensive Research Seminar for Masters and PhD candidates of Khon Kaen University. Rayong, Thailand.

[Invited] **Matney, G.**, (2020). *Conjectures and Problem Solving in Mathematics.* Special Lecture given at Kamphaeng Phet Rajabhat University, Kamphaeng Phet Thailand.

[Invited] **Matney, G.**, (2019). *Geometry Curriculum Standards in the United States and the Importance of Connecting Academic Language to Problem Solving.* Special Lecture given on Geometry at Khon Kaen University, Khon Kaen Thailand.

[Invited] **Matney, G.**, (2019). *Algebra Curriculum Standards in the United States and the Quest for Student Understanding.* Special Lecture given on Algebra at Khon Kaen University, Khon Kaen Thailand.

[Invited] **Matney, G.** & Fox, M. (2019). *Exploring Problem Solving and Math Camp as Lesson Study.* Special Lecture given on Lesson Study at Khon Kaen University, Khon Kaen Thailand.

[Invited] **Matney, G.** (2019). *Lesson Study: Giving Teachers the Power to Investigate and Overcome Professional Challenges.* Springfield Local School District Leaders, Holland Ohio.

[Invited] **Matney, G.** (2019). *Model Eliciting Activities and the Case for Global Engagement*. Miami University Council of Teachers of Mathematics, Oxford Ohio.

[Invited] **Matney, G.** (2019). *Model Eliciting Activities and the Case for Global Engagement*. Ohio Northern University Engineering Education and Bowling Green State University Council of Teachers of Mathematics Partnership, Bowling Green, Ohio.

[Invited] **Matney, G.** (2019). *Patterns and Conjectures in Mathematics*. Changsha Bilingual Experimental School, Hunan Province, Changsha, China.

[Invited] **Matney, G.** (2019). *Cross Cultural Comparison of Geometry Pedagogy between China and the United States*. Dizhi Middle School, Hunan Province, Changsha, China.

[Invited] **Matney, G.** (2019). *Generating Possibilities for STEAM Thinking: Perspectives on STEAM Teaching and Learning*. Yuelu Mountain Mathematics Education Forum. Hunan Normal University, Hunan Province, Changsha, China.

[Invited] **Matney, G.** (2018). *Leadership in Mathematics Education: Developing Partnerships across Universities and other difficult distances.* Ignite Leadership Conference at the Sixty-eighth annual conference of the Ohio Council of Teachers of Mathematics, Akron, Ohio.

*[Invited **Keynote**]* **Matney, G.** (2017). *STEM Learning: The Power and Promise of Developing a Conjecturing Modality.* **Keynote** speech given for the NWO STEM Teaching Symposium Conference. Bowling Green, Ohio, USA.

*[Invited **Keynote**]* **Matney, G.** (2017). *Model Eliciting Activities: Conversations about Context, Culture, and Mathematical Assumptions: Possibilities for Cross-border Mathematical Discourse among Students.* **Keynote** speech given at the APEC- Khon Kaen International Symposium 2017. Khon Kaen, Thailand.

*[Invited **Keynote**]* **Matney, G.** (2017). *Creating Global Connections: Engaging the World with a Conjecturing Modality.* **Keynote** speech given at the 4th Annual Conference on Global Engagement. Bowling Green, Ohio, USA.

[Invited] **Matney, G.** (2018). *Developing Leadership Proficiency in Mathematics Education.* Emerging Leadership Conference at the Sixty-seventh annual conference of the Ohio Council of Teachers of Mathematics, Columbus, Ohio.

[Invited] **Matney, G.** (2017). Preparing for College and Career Readiness in the United States. Special Lecture for the International School of Suva. Fiji, Suva.

[Invited] **Matney, G.** (2017). Fluency in Mathematics: Authentic Spaces for Number Development in Pre-K to Grade "N". Special Lecture of Mathematics Numeracy in Primary Contexts for the University of Queensland. Brisbane, Australia.

[Invited] **Matney, G.** (2017). *Impacts of Lesson Study incorporating Open Approach on U.S. Teachers' Mathematics Knowledge for Teaching and Students' Mathematical Knowledge.* Yuelu Mountain Mathematics Education Forum. Hunan Province, Changsha, China.

[Invited] **Matney, G.** (2016). *Creating Mathematical Thinking in College Courses: Thoughts and Practices from Collective Wisdom*. Special Lecture Series: Graduate Students Learning from Professors' Mathematics Teaching Experiences sponsored by SetGo/Wider Mathematics Initiatives.

[Invited] **Matney, G.** (2016). *Leadership in Mathematics Education: The case for how preservice teachers can change the equation on student's mindset.* Emerging Leadership Conference at the Sixty-sixth annual conference of the Ohio Council of Teachers of Mathematics, Sandusky, Ohio.

[Invited] **Matney, G.** & Boonsena, N. (2016). *Lesson Study as Professional Learning and Research*. iTeach iLearn Innovations in Teaching and Learning Seminar. Bowling Green State University, Bowling Green, Ohio.

[Invited] **Matney, G.,** Schlosser, M. Sullivan, C. & Marino, A. (2016, May). *Learning Mathematics through Problem Solving.* Special Lecture for Dizhi Middle School. Changsha, China.

[Invited] **Matney, G.,** Schlosser, M. Sullivan, C. & Marino, A. (2016, May). *Engaging Students for a Growth Mindset through Mathematics Camps.* Special Lecture for Hunan Normal University. Changsha, China.

[Invited] **Matney, G.** (2016, May). *Fluency in Mathematics: Spaces of Cognitive Reorganization in a Child.* Special Lecture for the University of Queensland. Brisbane, Australia.

[Invited] **Matney, G.,** Schlosser, M. Sullivan, C. & Marino, A. (2016, May). *Educational Collaborations in International Contexts*. Special Lecture for the University of Queensland. Brisbane, Australia.

[Invited] **Matney, G.** (2016, April 28). *Fluency in Mathematics: Meaning and Application for Ohio's Children*. Special Lecture for the Ohio Mathematics Education Leadership Council. Columbus, OH.

*[Invited **Keynote**]* **Matney, G.** (2016, February 8). *STEM and the Humanities: Greater than the Sum of Their Parts.* **Keynote** speech given to the Ohio Junior Science and Humanities Symposium. Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

[Invited] **Matney, G.** (2016, February 8). *The Mathematics of Romance: The Intimate Connection between Two Worlds.* Workshop given to the Bowling Green Council of Teachers of Mathematics. Bowling Green State University, OH.

[Invited] **Matney, G.** (2015, January 21). *Developing Faculty-led International Service Learning Courses.* Service Learning Community Special Lecture. Bowling Green State University, OH.

[Invited] **Matney, G.** (2015, December 3). *Researching Mathematical Knowledge for Teaching in the Lesson Study Context*. Special Lecture Series for Khon Kaen University, Khon Kaen, Thailand.

[Invited] **Matney, G.** (2015, November 19). *Teachers'Mathematical Knowledge for Teaching*. US-Thailand Research Collaborative for Mathematics Education. Khon Kaen University, Khon Kaen, Thailand.

[Invited] **Matney, G.** (2015, November 17). *Experiencing Mathematical Knowledge for Teaching*. Special Lecture Series for Khon Kaen University, Khon Kaen, Thailand.

[Invited] **Matney, G.** (2014, October-December). *Connecting the Standards to Best Mathematics Teaching Practice.* Northwest Ohio Center for Excellence in STEM Education's Math Mini Series *(4 sessions).* Bowling Green, OH.

[Invited] **Matney, G.** (2014, May 6). *K-12 Mathematics Applications and Cognitive Demand*. M-Learning Symposium. Center of Excellence for 21st Century Educator Preparation at BGSU, Bowling Green, OH.

[Invited] **Matney, G.** (2014, February 4). *Using social media to promote reflection during international learning courses.* Program Directors Meeting for BGSU Study Abroad. Bowling Green, OH.

[Invited] **Matney, G.** (2013). *Energy: Connecting mathematics and science through roller coasters*. Women in Science, Technology, Engineering, and Mathematics Conference, Continuing and Extended Education at BGSU, Bowling Green, OH.

[Invited] **Matney, G.** & Bostic, J. (2013, August). *GeoGebra as a CCSSM Tool for Reasoning and Sensemaking*. GeoGebra Dynamic Mathematics North American Conference, Miami University, Oxford, OH.

[Invited] **Matney, G.** & Culver, M. (2013, May). *Reflections from a Digital Texts Learning Community Mathematics and Language Arts*. BGSU Digital Texts Symposium sponsored by 21st Century Educator Preparation Center for Excellence.

[Invited] **Matney, G.** & Panarach, Y. (2013, April). *Internationalizing Research Agenda's in Mathematics Education*. Mathematics Education Seminar, College of Arts and Science, BGSU.

[Invited] **Matney, G.** & Matney, T. (2011). *Developing number in the early years*. Early Childhood Conference, Continuing and Extended Education at BGSU, Bowling Green, OH.

[Invited] **Matney, G.** (2011). *Energy: Connecting mathematics and science through roller coasters*. Women in Science Conference, Continuing and Extended Education at BGSU, Bowling Green, OH.

[Invited] Bostic, J. & **Matney, G.** (2011). *Teaching and assessing through problem-solving contexts*. NWO Symposium on Science, Mathematics, and Technology Teaching, Perrysburg, OH.

[Invited] **Matney, G.** (2011). *Slide translations*. Invited speaker for the Bowling Green Council of Teachers of Mathematics.

[Invited] **Matney, G.** (2002). *Algebraic processes of formula creation*. Tulsa Council of Teachers of Mathematics Fall Conference. Tulsa, OK.

[Invited] **Matney, G.** (2002). *The integration of algebra across subjects: Algebra as formula creation for the enrichment of further student experience*. Algebra Institute at the Annual Meeting of the Oklahoma Council of Teachers of Mathematics. Oklahoma City, OK.

[Invited] **Matney, G.** (2002). *Math authenticity: A brain storming session*. Fifth Annual Winter Institute of Oklahoma Universities Center for Educational and Community Renewal. Norman, OK.

ii. Workshops or Professional Consultantships

Matney, G. & Recker, M. (2024, Nov 26). *FIT for Equity: Development and Implementation. Huron City High School*, Huron Ohio.

Matney, G., & Soper, O. (2024, Nov 5). *Algebra Tiles for the Learning and Thinking of Mathematics. Washington Local Schools*. Career Technology Center.

Matney, G., Bettum, A., Bajwa, A., Recker, M., Chalfant, R.J., & Soper, O. (2024, October 17). *Mathematicians in Heels.* The 41st Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G., Recker, M., Chalfant, R.J., Soper, O., Bettum, A., & Bajwa, A. (2024, October 17). *Prime Time for Women.* The 41st Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G., Brown, K., Griesmer, R., Hastings, S., Kloecker, L., Mwale, L., Solymosi, K. (2023, November 1). *Solving Problems of Infinity and Beyond.* The 40th Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G., & Weaver J. C. (2023, June). *Overcoming professional challenges: Learning together*. Two-day workshop for K-12 teachers. Project IMPACT (Improving Motivation, Pedagogy, Assessment, and Collaboration for Teachers): Perrysburg, OH.

Matney, G. (2023, February). Lesson Study for Overcoming Teachings Most Difficult Challenges in the Mathematics Classroom. Perrysburg Exempted Village Schools, Perrysburg OH.

Matney, G. (2022, December). Professional Learning Communities for Improving Rigor and Problem Solving. Perrysburg Exempted Village Schools, Perrysburg OH.

Matney, G., Brandt, W., Damschroder, K., Lawson, B., & Solymosi, K. (2022, November 1). *Dietetics and Mathematics: A Math Camp Experience.* The 38th Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G. (2022, October). Professional Learning Communities for Improving Mathematical Rigor. Sandusky City Schools: Sandusky OH.

Matney, G. (2022, September). Knowing the Mathematical Practices: A guide for school leaders. Sandusky City Schools: Sandusky OH.

Matney, G., & Weaver, J. (2022, August-May). IMPACT Lesson Study Facilitator Training. 16 hours of professional training for K-12 teachers seeking to lead lesson study teams for their school or district: BGSU, Bowling Green, OH.

Matney, G., & Weaver, J. (2022, July). *Overcoming Professional Challenges Together: The Power of Teacher Driven Lesson Studies*. One day workshop for K-12 teachers. Project IMPACT (Improving Motivation, Pedagogy, Assessment, and Collaboration for Teachers): Perrysburg, OH.

Bostic, J., **Matney, G.,** Stone, G., & May, T. (2022, June). *Developing & evaluating assessments of problem solving: Supporting K-12 school-based practices.* Workshop for midwestern USA DEAP participants: Bowling Green, OH.

Bostic, J., **Matney, G.,** Stone, G., & May, T. (2022, June). *Developing & evaluating assessments of problem solving: Supporting K-12 school-based practices.* Workshop for western USA DEAP participants: American Fork, UT.

Matney, G. (2022, May 18). Professional Learning Communities for Improving Students' Mathematical Reasoning and Sensemaking. Presented at Sandusky City Schools, Sandusky OH.

Matney, G., Goedde, A., & Weaver, J., & (2022, March 23). Lesson Study: How Teacher Learning Communities Improve Instruction. Presented at Teaching and Learning Summit 2022, Center for Faculty Excellence, Bowling Green State University, Bowling Green, OH.

Matney, G. (2022, February 17, 18, 24, 25). Research Lesson PLC's for Improving Students' Mathematical Reasoning and Sensemaking. Sandusky City Schools, Sandusky, OH.

Bostic, J., **Matney, G.**, Stone, G., & May, T. (2022, February). *Developing & evaluating assessments of problem solving: Supporting mathematics teacher educators' scholarship and practice.* Multi-day workshop at annual meeting of Association of Mathematics Teacher Educators: Henderson, NV.

Matney, G. (2022, February 8). Lesson Study PLC's for Improving Students' Mathematical Reasoning and Sensemaking. Sandusky City Schools, Sandusky, OH.

Matney, G. (2022, January 21). Mathematics Teaching Practices to Develop Student Reasoning. Lakota Local Schools, Kansas, OH.

Matney, G. (2022, January 13). Professional Learning Communities for Improving Students' Mathematical Reasoning and Sensemaking. Sandusky City Schools, Sandusky, OH.

[Invited] **Matney, G.** (2022, January). Mathematics Teaching Practices to Develop Student Reasoning. A professional workshop for K-4 and Intervention teachers at Lakota Local Schools, Kansas OH.

[Invited] **Matney, G.** (2022, January-May). Mathematics Teaching Practices to Develop Student Reasoning. A professional workshop for grades 4-12 and Intervention teachers at Sandusky City Schools, Sandusky OH.

[Invited] **Matney, G.** (2021, April-May). *Nordonia High Schools Mathematics Lesson Study.* A mathematics professional development for the instantiation of Lesson Study among three teacher teams at Nordonia HS, Macedonia OH.

Matney, G., Irick, C., McCavitt, J., & Matney, T. (2021, January). The Strategic Staffing Task. Black Swamp Math Teachers' Circle, Bowling Green State University, OH.

Matney, G., Irick, C., Fox, M., McCavitt, J., & Matney, T. (2021, January). The Mathematics of Amusement. Black Swamp Math Teachers' Circle, Bowling Green State University, OH.

Matney, G. (2007-2020) Educational Consultant: Santa Fe South Public Schools in Oklahoma City requested an evaluation of the mathematics teaching for the entire schools system. I conducted a program analysis using observations, interviews, the RTOP instrument, and survey data. Offer professional development for teachers of mathematics district wide. I then develop a series of professional developments to help their teachers grow and their students to be successful in mathematics. Through this collaboration I have the longitudinal study on *Restructure and Approach in Algebra 1* and the publication *We're seeing spots: Visions of multiplicative sense making* in Mathematics Teaching in the Middle School.

Matney, G. (2019, October). *Establishing School and Collegiate Partnerships for the Development of Preservice Teachers and Students*. Ohio Mathematics Education Leadership Council conference, Sandusky, OH.

Fox, M., **Matney, G.**, Knapke, S., & Murray, M. (2019, October 30) *Sailing with STEM.* The 35th Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Knapke, S., Murray, M., Fox, M., & **Matney, G.** (2019, October 30) *Leaning Tower of Pasta.* The 35th Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G. & McDonald, J. (2019, June 3). *Connecting Curriculum to Developing Students' Mathematics Proficiency*. Huron City Schools, Huron, OH.

Matney, G. (2019, May 29). *Developing Student Understandings of Volume*. Springfield Local Schools, Holland OH.

Fox, M., Hicks, T., **Matney, G.** (2019, April 15). *Mathematical Problem Solving: The use of TedEd Video's to Spawn Student Inqui*ry. Black Swamp Math Teachers' Circle, Bowling Green State University, OH

Matney, G. (2019, March 6 & 13). *How to Develop Students' Mathematics Proficiency*. Huron City Schools, Huron, OH.

Caswell, C., Nicholson, T., & **Matney, G.** (2018, October 30). *Become a Mathmagician*. The 34th Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G. (2018, October-November). *How to Develop Students' Mathematics Proficiency*. Six-day mathematics professional development series developed for algebra and geometry teachers of Bowling Green High School.

Matney, G. & Speer, W. (2018, October). *Teachers Should "Know Relevant Mathematical Content." Do We ALL Agree?* Ohio Council of Teachers of Mathematics conference, Arkon, OH.

Matney, G. & Lane, S. (2018, September). *Mathematics Problem Solving and Proficiency in Algebra*. Three-day mathematics institute for secondary teachers at Santa Fe South Schools, Oklahoma City, OK.

Matney, G. & Matney, T. (2018, July). *Mathematical Development for Algebraic Thinking and Generalization among K-8 Students*. Five-day professional learning seminar at STEM House, Ho Chi Min City, Vietnam.

Matney, G. (2018, February – March). *Problem Solving Pedagogies for the Development of Student's Mathematical Understanding.* 16 hours of workshops for IREX Teaching

Excellence and Achievement fellows from Nigeria, India, Cambodia, and Zambia, Bowling Green State University, OH.

Matney, G., Wiemken, R., Lustgarten, A., & Porcella, J. (2017, October 31). *Experiencing Energy in Multiple Forms*. The 33rd Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Porcella, J., Lustgarten, A., **Matney, G.,** Wiemken, R. (2017, October 31). *Product Design Workshop*. The 33rd Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

[Invited] **Matney, G.,** Lane, S., & Howell, M. (2017, July). *Re-envisioning Mathematics Teaching for Student Learning through Understanding.* A mathematics professional development institute at Santa Fe South Secondary School, Oklahoma City, OK.

Matney, G. (2018, February – March). *Problem solving and USA mathematics standards*. 20 hours of workshops for IREX Teaching Excellence and Achievement fellows at Bowling Green State University Scholars: Bowling Green, OH.

Matney, G. & Lane, S. (2017 March-November). Lesson Study for Secondary Mathematics Professional Learning. Workshop for teachers of Santa Fe South Public Schools, Oklahoma City, OK.

Polly, D., **Matney, G.**, & Bostic, J. (2017). *Becoming Involved with Investigations in Mathematics Learning*. 44th Annual Meeting of the Research Council on Mathematics Learning. Fort Worth, TX.

Matney, G. & Bostic, J. (2016, October). *Promoting Mathematical Practices*. Workshop for teacher leaders of Akron Public Schools, Akron, OH.

Matney, G. & COMP Teachers (2016, October). *Lessons for Developing Mathematics Proficiency: Grades 6 – 8*. Ohio Council of Teachers of Mathematics conference, Sandusky, OH.

Matney, G. & COMP Teachers (2016, October). *Lessons for Developing Mathematics Proficiency: Grades 3 – 5*. Ohio Council of Teachers of Mathematics conference, Sandusky, OH.

Matney, G. & COMP Teachers (2016, October). *Lessons for Developing Mathematics Proficiency: Grades K – 2*. Ohio Council of Teachers of Mathematics conference, Sandusky, OH.

Marino, A., Boonsena, N., & **Matney, G.** (2016, October 21). *The Geometry of Origami* The 32nd Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G. & Nisakorn, B. (2016, October 11). *Math Camp Tasks: Engagement into Deeper and more meaningful Mathematics*. Black Swamp Math Teachers Circle of Northwest Ohio, Bowling Green State University, Bowling Green, OH.

Marino, A., Nielsen, M., & **Matney, G.** (2016, October 5). *Mathematics Education and Cultural Experiences in Thailand.* Global Engagement Conference, Bowling Green State University, Bowling Green, OH.

Matney, G. (2016, April 21). *Thinking More Deeply about Rationale Number Operations: Comparison Research between the US and China*. Workshop for the Black Swamp Math Teachers Circle, Bowling Green, OH.

Matney, G. (2016, April 14). *Developing a Meaningful Study Abroad Experience for Education Students.* Workshop for Education Faculty, College of Education and Human Development, Bowling Green State University, OH.

Matney, G. (2016, March 22). *Service Learning in International Contexts: The case of Thailand.* Presentation given at 10th Annual BGSU Teaching and Learning Fair. Center for Faculty Excellence, Bowling Green, OH.

Matney, G. (2016, March 5). *For the Love of Mathematics*. Workshop give to Santa Fe South Schools. Oklahoma City, OK.

[Invited] **Matney, G.,** & Lane, S. (2016, July). *Designing Student Understanding in Geometry through Problem Solving and Modeling.* A mathematics professional development institute at Santa Fe South Secondary School, Oklahoma City, OK.

[Invited] **Matney, G.,** & Lane, S. (2015, February). *Understanding Precision and Accuracy in Mathematics and Statistics.* A mathematics professional development institute at Santa Fe South Secondary School, Oklahoma City, OK.

[Invited] **Matney, G.** (2015, February*). Numerical Connections among Language, Quantity, and Symbol*. A mathematics professional development for Findlay City Schools, Findlay, OH.

Schlosser, M., Sullivan, C., & **Matney, G.** (2015, November). *Is this game really fair?!* The 31st Annual Women in STEM Program of the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University, OH.

Matney, G., Walston, A., Schlosser, M., Sullivan, C., Kruse, L., Coder, H., Knapke, K., Nielsen, M., Gerges, R., Largent, K. & Lustgarten, A. (2015, October). *Mathematics Camps Activities: Pathways to Student Enjoyment of Mathematics*. Ohio Council of Teachers of Mathematics conference, Cincinnati, OH.

Matney, G., Conrad, J., Coles, E., & Pitcher, D. (2015, October). *Lessons for Developing Mathematics Proficiency: Grades 3 and 5*. Ohio Council of Teachers of Mathematics conference, Cincinnati, OH.

Coder, H., **Matney, G.**, Kruse, L., Sullivan, C., Schlosser, M. & Haynes, E. (2015). *Mathematics Camps Activities: Pathways to Student Enjoyment of Mathematics Part 2*. Ohio Council of Teachers of Mathematics conference, Cincinnati, OH.

Bostic, J. & **Matney, G.** (2015, October). *Buy Modeling with Mathematics and Get More SMPs Free*. Ohio Council of Teachers of Mathematics conference, Cincinnati, OH.

Matney, G. (2015, June). *Why Good Professional Development Matters*. Ohio Mathematics Professional Development Summit by OCTM and OMELC, Plain City, OH.

Matney, G. & Shrewsberry, K. (2015, June). *Planning to Collect, Share and Communicate Success Stories of Teachers, Classrooms, Schools, and PD Projects.* Ohio Mathematics Professional Development Summit by OCTM and OMELC, Plain City, OH.

Matney, G. & Bostic J. (2015, April). *Productive Professional Development for Transforming Instruction of K-5 Teachers of Mathematics: The (CO)^{2}MP OMSP Grant.* Ohio Mathematics Education Leadership Council conference, Columbus, OH.

Bostic J., & **Matney, G.** (2015, April). *Professional Development for Transforming Instruction of 6-8 Mathematics Teachers: An overview of the (CA)^{2}MP OMSP Grant.* Ohio Mathematics Education Leadership Council conference, Columbus, OH.

Matney, G. & Bostic J. (2015, April). *Mathematics Camps as Authentic Experiences in the Field.* Ohio Mathematics Education Leadership Council conference, Columbus, OH.

Matney, G. (2015, April). *Developing Rich Mathematics Content Knowledge for Teachers: A report on the Black Swamp Math Teachers Circle.* Ohio Mathematics Education Leadership Council conference, Columbus, OH.

Matney, G. & Hern, T. (2015, March). *From Reasoning to Proof: Persuasions on what makes mathematical sense?* Mathematics Education Colloquium. Department of Mathematics and Statistics, Bowling Green State University.

Matney, G. (2015, February). *Thailand 2013-2015: Learning and Meaningful Experience*. Study Abroad Directors Meeting. Bowling Green State University.

Matney, G. (2015, January). *Teaching and Learning Place Value Mathematics in English.* KPRU- Teaching Mathematics in English Course. Kamphaeng Phet Rajabhat University: Kamphaeng Phet, Thailand.

Matney, G. (2014, October). *Early Mathematics Fluency with the Common Core State Standards for Mathematics.* Ohio Department of Education: Network of Regional Leaders Meeting for State Mathematics, Westerville, OH.

Bostic, J. & **Matney, G.** (2014, October). *Connecting Cedar Point and the Geometry-focused Common Core State Standards*. Ohio Council of Teachers of Mathematics conference, Cleveland, OH.

Matney, G., Bostic, J., Matney, T., Coder, H., Haynes, E., Kruse, L., Schlosser, M. & Sullivan, C. (2014, October). *Mathematics Camps: Overcoming the Stigma*. Ohio Council of Teachers of Mathematics conference, Cleveland, OH.

Burtchin, D., Gallagher, D., & **Matney, G.** (2014, October). *Math Teachers' Circle: A New Type of Professional Development*. Ohio Council of Teachers of Mathematics conference, Cleveland, OH.

Matney, G. & CORES Elementary Team (2014). *Human number line between 6 and 7: A Common Core State Standards lesson for 5th grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2014). *Multiplicative comparison models: A Common Core State Standards lesson for 4th grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2014). *I have you have and understanding rounding: A Common Core State Standards lesson for 3rd grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2014). *Playing with pairs: A Common Core State Standards lesson for 2nd grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2014). *Two color beans: A Common Core State Standards lesson for 1st grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

[Invited] **Matney, G.,** & Bostic, J. (2014, December). *Common Core for Reasoning and Sense Making in Secondary Schools.* A mathematics professional development for Sidney City Schools, Sidney, OH.

[Invited] **Matney, G.** (2014, November). *Developing K-5 Student's Mathematics Proficiency:*
Important Aspects of Curriculum to Meet the Expectations of the Common Core State Standards. A mathematics professional development for Maumee City Schools, Maumee, OH.

[Invited] **Matney, G.,** Lane, S. & Matney, T. (2014, October). *Developing preK-5 Students' Mathematical Voices.* A mathematics professional development institute at Santa Fe South Elementary School, Oklahoma City, OK.

[Invited] **Matney, G.,** Bostic, J., & Matney, T. (2014, July). *Implementing the Mathematical Practices with the Common Core State Standards in Grades K-5.* A week long professional development institute, Sidney, OH.

[Invited] **Matney, G.,** & Matney, T. (2014, June 16-17). *Mathematical Discourse among K-2 Students*. Millstream Career Center, Findlay OH.

[Invited] **Matney, G.,** & Matney, T. (2014, June 9-10). *Mathematical Discourse among 3-5 Grade Students*. Millstream Career Center, Findlay OH.

[Invited] **Matney, G.,** Bostic, J., & Matney, T. (2014, January). *Implementing Research Based Best Practice with the Standards for Mathematical Practice in Grades K-5.* Sidney, OH.

[Invited] **Matney, G.** & Lane, S. (2013, July). *Designing Ecologies of Effective Mathematics Discourse.* Three day mathematics institute for Santa Fe South Schools, Oklahoma City, OK.

[Invited] **Matney, G.** (2013, June). *Essential Components of Implementing the Common Core State Standards.* Imagine Schools, Toledo, OH.

[Invited] **Matney, G.** (2013, May). *Understanding the Real-World with Mathematics*. Findlay City Schools, Findlay OH.

[Invited] **Matney, G.** (2013, April). *Implementing the 6 through 8th grade Common Core State Standards for Mathematics*. Findlay City Schools, Findlay OH.

[Invited] **Matney, G.** & Matney, T. (2013, February). *Learning to Implement the Kindergarten through 5th grade Common Core State Standards for Mathematics*. Findlay City Schools, Findlay OH.

[Invited] **Matney, G.** & Matney, T. (2013, February). *Learning to Implement the Common Core State Standards for Mathematics for Grades 6-10*. Millstream Career Center, Findlay OH.

Matney, G. & CORES Elementary Team (2013). *Trading ten with decimals: A Common Core State Standards lesson for 5th grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2013). *Comparing place values: A Common Core State Standards lesson for 4th grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2013). *Representing preference: A Common Core State Standards lesson for 3rd grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2013). *Problem solving within 100: A Common Core State Standards lesson for 2nd grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2013). *The apple count down: A Common Core State Standards lesson for 1st grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2013). *Mouse count: A Common Core State Standards lesson for Kindergarten.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G., & Bostic, J. (2013, October). *Promoting Students' Fluency with the Common Core State Standards*. Ohio Council of Teachers of Mathematics, Dayton, OH.

Bostic, J. & **Matney, G.** (2013, October). *Making Sense of Modeling with Mathematics*. Ohio Council of Teachers of Mathematics conference, Dayton, OH.

Matney, G. & Panarach, Y. (2013, April). *Engaging Students in Mathematics through Camp Activities*. Bowling Green Council of Teachers of Mathematics.

Matney, G. (2013). *Re-engagement in urban Schools: A case for K-12 student understanding of multiplication* Educators in Context and Community Conference, Bowling Green State University, Bowling Green, OH.

Pratt, S. & **Matney, G.** (2012). *Motivating Students and Managing Classrooms Based on Theories of Knowledge*. Lecture at the University of North Texas. Denton, TX.

Matney, G. & CORES Elementary Team (2012). *Graphing cats and dogs: A Common Core State Standards lesson for 5th grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2012). *Breaking the factor: A Common Core State Standards lesson for 4th grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2012). *Jose's birthday problem: A Common Core State Standards lesson for 3rd grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2012). *Tricky triangles: A Common Core State Standards lesson for 2nd grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2012). *The stuck duck: A Common Core State Standards lesson for 1st grade.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & CORES Elementary Team (2012). *Learning number with pumpkins: A Common Core State Standards lesson for Kindergarten.* The Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching, Bowling Green, OH.

Matney, G. & Daugherty, B. (2012). *Exploring multiplicative connections: From dot arrays to double distribution*. National Council of Teachers of Mathematics Regional Conference, Chicago, IL.

Matney, G., Bostic, J. (2012, October) *The big core theory: Teaching and learning the Common Core*. Ohio Council of Teachers of Mathematics, Columbus, OH.

Matney, G. (2011-2013) International Educational Consultant: Examined and helped develop a program for Kamphaeng Phet Rajabhat University to train teachers to teach mathematics in English to Thailand K-12 students.

Bostic, J. & **Matney, G.** (2012). *Modern standards: Teaching with and for the Common Core State Standards.* Ohio Council of Teachers of Mathematics conference, Columbus, OH.

Matney, G. (2012). *Complexity of student mathematical interest: A case of an urban student's engagement with shape*. Urban Education Conference, Bowling Green State University, Bowling Green, OH.

[Invited] **Matney, G.** & Matney, T. (2012). *Learning to implement the Common Core State Standards for Mathematics*. 4-day PD for 25 teachers in the district of Finlay, Ohio.

[Invited] **Matney, G.** & Matney, T. (2012). *Teaching the Common Core State Standards for Mathematics*. 2-day PD for 30 teachers in the districts of Hancock County, Ohio.

[Invited] **Matney, G.** & Panarach, Y. (2011). *Teaching mathematics through games and puzzles.* Education Exhibition: Kamphaeng Phet Rajabhat University, Kamphaeng Phet, Thailand.

Matney, G., & Lane, S. (2010). *Congruence and similarity*. NCTM Regional Conference, New Orleans, LA.

Matney, G., & Lane, S. (2010). *Geometric reasoning and proof*. Arkansas Curriculum Conference, Little Rock, AR. November 4-5

Matney, G. & Lane, S. (2009 - 2015). *SFS mathematics teaching institute for middle and high school classrooms* (16 days per year). Santa Fe South Public Schools, Oklahoma City, OK. [Partially funded by a grant through NCLR and the Bill and Melinda Gates Foundation]

Matney, G., & Lane, S. (2009) *Engaging students for understanding congruence and similarity*. Arkansas Curriculum Conference in Little Rock.

Matney, G., & Lane, S. (2009, November) *Comparing area through tangrams*. Arkansas Curriculum Conference in Little Rock.

Matney, G. & Lane, S. (2007). *Shapes, area, perimeter, and relationships*. Arkansas Curriculum Conference, Little Rock, AR.

Matney, G. (2004). *Integrating mathematics and science with calculator based laboratories*. Santa Fe South High School, Oklahoma City, OK.

Matney, G. & Becker, J. (2004). *Robotics in the mathematics classroom: Oklahoma City student robotics demonstration*. 31st Annual Meeting of the Research Council for Mathematics Learning, Oklahoma City, OK.

Matney, G. & Richardson, K. (2003). *Building hovercraft with the OU Sooner Flight Academy*. Oklahoma Gear Up 4th Annual State Conference, Tulsa OK.

Matney, G. & Richardson, K. (2003). *GEAR UP with the OU Sooner Flight Academy*. National Council for Community and Education Partnerships Annual Conference, Washington D.C.

Matney, G. & Richardson, K. (2003). *GEAR UP with the OU Sooner Flight Academy*. 30th Annual meeting of the Research Council on Mathematics Learning. Tempe, AZ.

Matney, G., Desailler, J. & Fry, C. (2003). *Geometry Learning by Development of the Local Community*. Sixth Annual Winter Institute of Oklahoma Universities Center for Educational and Community Renewal. Norman, OK.

Matney, G. & Richardson, K. (2002). *Come and soar with the OU Sooner Flight Academy*. Oklahoma GEAR Up 3rd Annual State Conference, Lone Wolf, OK.

C. Educational Materials

Roller Coaster Physics (2003): Mathematics activity designed for studying Algebra and science concepts for middle grades students. Through the GEAR-UP grant students were supplied materials to create a model of the roller coasters based on their mathematics. Then students analyzed the physics of actual roller coasters at a local amusement park. Students then spent several hours riding the roller coasters and using mathematical measures to solve real-life problems involving total energy, potential energy, kinetic energy, and velocity of the ride.

D. Program Development

2013-2016 Worked with the faculty and director to re-develop the MCE and AYA programs at BGSU. Additionally, I worked with mathematics educators in Arts and Science and the College of Education and Human Development to develop new courses for the AYA and MCE mathematics education programs.

2011-2014 Examined and helped develop a program for Kamphaeng Phet Rajabhat University to train teachers to teach mathematics in English to Thailand K-12 students.

2004-2011 During my time at UAFS I helped to develop/revise three programs: Early Childhood Education (P-4), Middle Level Math-Science Education (5-8), and Secondary Education (7-12). All three of these programs were approved by the Arkansas Department of Education and the University of Arkansas. I was the lead developer on the programmatic adjustments that took place in the Mathematics with Secondary Licensure degree for the mathematics education majors as well as the lead developer for the mathematics portions of the Middle Level Math-Science degree and the Early Childhood degree.

VI. Professional Development

2024	American Education Research Association Association for Experiential Learning Association of Mathematics Teacher Educators International Congress on Mathematics Education Lesson Study Alliance (Chicago Lesson Study Conference) National Council of Teachers of Mathematics Ohio Council of Teachers of Mathematics Ohio Mathematics Education Leadership Council Psychology of Mathematics Education – North America Research Council on Mathematics Learning Symposium for Experiential Education World Association of Lesson Study
2023	American Association of Colleges for Teacher Education Association of Mathematics Teacher Educators Research Council on Mathematics Learning Lesson Study Alliance (Chicago Lesson Study Conference) National Council of Teachers of Mathematics Ohio Council of Teachers of Mathematics Ohio Mathematics Education Leadership Council National Service-Learning Conference (NYLC) Vaud University of Education: HEP Vaude, Switzerland World Association of Lesson Study
2022	American Association of Colleges for Teacher Education Association of Mathematics Teacher Educators Research Council on Mathematics Learning National Council of Teachers of Mathematics Ohio Council of Teachers of Mathematics Ohio Mathematics Education Leadership Council Psychology of Mathematics Education Conference (Spain) American Education Research Association World Association of Lesson Study
2021	International Cooperation Development in Mathematics Education (ICDME) Association of Mathematics Teacher Educators Research Council on Mathematics Learning National Council of Teachers of Mathematics Ohio Council of Teachers of Mathematics Ohio Mathematics Education Leadership Council Ohio Confederation of Teacher Education Conference

Ohio Council of Teachers of English Language Arts Conference
International Society for Technology in Education (ISTE) Conference
Psychology of Mathematics- North America Education Conference
American Education Research Association
World Association of Lesson Study

2020 Thailand Society of Mathematics Education
Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council
Fleet Defense – Alert Driving Training (15 Passenger Vans)
Visiting Professor at Khon Kaen University for IRDTP
Psychology of Mathematics Education Conference
American Education Research Association
World Association of Lesson Study

2019 Visiting Professor at Khon Kaen University for IRDTP
Psychology of Mathematics Education Conference
APEC Lesson Study Conference
Japanese National Lesson Study Conference
APEC MInside Chilean Conference
American Education Research Association
World Association of Lesson Study
Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council

2018 Association of Mathematics Teacher Educators
Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council
Fleet Defense – Alert Driving Training (15 Passenger Vans)

2017 EduRisk Prevention of Sexual Violence
EduRisk Prevention of Discrimination and Harassment
OHIO Desmos Institute
Association of Mathematics Teacher Educators
Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council

2016 Campus SaVE Act Training

CITI IRB Training
Association of Mathematics Teacher Educators
Research Council on Mathematics Learning
Chicago Lesson Study Conference
World Association of Lesson Study Conference (England)
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council

2015 World Association of Lesson Study Conference (Thailand)
Asia-Pacific Economic Cooperation Meetings (APEC)
EDU: Eliminate Campus Sexual Violence (OH)
EDU: Stop Harassment & Discrimination (Lenses US-13F)
Research Council on Mathematics Learning
School Science and Mathematics Association
National Council of Supervisors of Mathematics
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council

2014 How to Run a Math Teachers' Circle (AIM, Washington D.C.)
EDU: Stop Harassment & Discrimination (Lenses US-13F)
EDU: Report and Prevent Sexual Misconduct (Ohio)
EDU: Stop Harassment & Discrimination (US-13H)
Research Council on Mathematics Learning
National Council of Supervisors of Mathematics
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council
M-Learning Symposium
Digital Texts Learning Community

2013 GeoGebra North American and Digital Ethics Conference
East Asia Regional Conference on Mathematics Education
Annual Mathematics Meetings of Thailand
Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Ohio Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council
EDHD International Research Learning Community
EDHD Digi-Texts Learning Community
EDHD Education Lecture Series
BGSU Urban Education Conference
BGSU Apple's Reaching All Learners
BGSU Canvas for EDHD
BGSU Canvas 101

BGSU Canvas 102
BGSU Canvas 201
NCSM Webinar on the Common Core State Standards for Mathematics

2012 International Group for the Psychology of Mathematics Education
International Congress on Mathematics Education
Research Council on Mathematics Learning
School Science and Mathematics Association
National Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council
Ohio Council of Teachers of Mathematics
EDHD Research Learning Community
EDHD International Research Learning Community
BGSU Urban Education Conference

2011 Research Council on Mathematics Learning
School Science and Mathematics Association
National Council of Teachers of Mathematics
Arkansas Council of Teachers of Mathematics
Ohio Mathematics Education Leadership Council
Ohio Council of Teachers of Mathematics
Ohio Confederation of Teacher Education Organizations
EDHD Research Learning Community

2010 Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Complexity Science and Educational Research
Arkansas Council of Teachers of Mathematics
Arkansas Curriculum Conference

2009 Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Complexity Science and Educational Research
Arkansas Council of Teachers of Mathematics
Arkansas Curriculum Conference

2008 Research Council on Mathematics Learning
National Council of Teachers of Mathematics
Association of Mathematics Teacher Educators
Complexity Science and Educational Research
Arkansas Council of Teachers of Mathematics
Arkansas Curriculum Conference

VII. <u>Academic Advising</u> (as assigned by EDHD Student and Academic Affairs)

A. Undergraduate

Year	Number of Students	Institution
2024	51	Bowling Green State University
2023	55	Bowling Green State University
2022	58	Bowling Green State University
2021	22	Bowling Green State University
2020	23	Bowling Green State University
2018	36	Bowling Green State University
2017	23	Bowling Green State University
2016	18	Bowling Green State University
2015	34	Bowling Green State University
2014	36	Bowling Green State University
2013	26	Bowling Green State University
2012	14	Bowling Green State University
2011	0	Bowling Green State University
2010	18	University of Arkansas Fort Smith
2009	24	University of Arkansas Fort Smith
2008	21	University of Arkansas Fort Smith

B. Graduate

Year	Number of Students	Institution
2022	4	Bowling Green State University
2021	3	Bowling Green State University
2020	4	Bowling Green State University
2019	2	Bowling Green State University
2018	3	Bowling Green State University
2017	3	Bowling Green State University
2016	2	Bowling Green State University
2015	2	Bowling Green State University
2014	2	Bowling Green State University
2013	1	Bowling Green State University
2012	1	Bowling Green State University

VIII. Research Interests

My research focuses on areas related to understanding the authenticity of learning, specifically how we come to know and think about the relationships among number, algebra,

and spatial quantity. What does it mean to really know mathematics and to have quantitative knowledge and understandings? What does it mean to be able to make sense of problems about number, algebra and spatial relationships? How do our own interest, family, and societal cultural experiences affect mathematics learning? Authenticity has many interactive and reflexive elements within educative phenomena and as such is connected to complexity theory. Additionally, I want to understand how authenticity plays a role in teacher's professional learning, including practicing professionals (in-service teachers) and preservice teachers at the university level. How does engagement in authentic teaching contexts, whether formal or informal, affect the professional growth of a teacher? A large part of the focus here is on professional learning done in communities, specifically when teachers engage in the processes of Lesson Study.

In order to begin to grasp at authenticity in the context of mathematics learning and teaching I have chosen several more focused research selections including mathematical proficiency, teacher efficacy, problem solving professional development, culture, and the experience of authentic learning for birth to 12^{th} grade students, preservice teachers, graduate students, and teachers. Improvement of mathematics teaching and student learning is at the core of my research. Through continued research I seek to provide and published meaningful results that pragmatically address ways in which teachers can strive to improve student learning and mathematical well-being. I have also found that teachers' understanding about the interconnectedness of mathematics is profoundly transformative. My research continues to look for ways to help teachers see mathematics, not as discrete disconnected procedures, but as meaningfully interconnected relations among quantitative ideas. Lastly, I am interested in the way culture (societal, department, and classroom) can shape the learning and teaching of mathematics. These elements, student mathematical proficiency, professional development of teachers, and culture are three nodes upon which I am furthering the study of authenticity of mathematics learning as a career research goal.

Current Projects:

1. *Curriculum Development of Mathematics Camps for the Enhancement of Problem Solving for students in Grades 1 through 3* - An international research collaboration being done with Dr. Panarach in Thailand of Kamphaeng Phet Rajabhat University. Approved HSRB [308970-2]
2. *Lesson Study* – Researching Lesson Study effects on students' mathematics learning and teachers' professional learning.
3. *The Effect of Mathematics Camps on Preservice Teacher Efficacy* - An international research collaboration being done with Dr. Panarach in Thailand of Kamphaeng Phet Rajabhat University. Approved HSRB [KPRU]
4. *Examining the effects of problem-solving professional development on K-10 teachers' and students' outcomes.* Working with Dr. Bostic on a full scale research project involving qualitative and quantitative measures to analyze the impact of 1-year long professional developments. Approved HSRB [313774]
5. *Restructure and Approach in Algebra 1: Helping At-Risk Urban Students Succeed on End of Instruction Exams* – A longitudinal project done in conjunction with the teachers of Algebra 1 in Santa Fe South Public Schools.

IX. Research Projects and Grants

(List the funding agency, the agency project number if known, the dates, the dollar amount of support, and the title of the project. Do not list pending or unsuccessful applications. Any special research equipment or travel grants should be included under this heading.)

A. Funded Grants while at BGSU

Total Grant Funding at BGSU: $10,901,365

Suh, J. M., **Matney, G. (Co-PI)**, Lewis, J. M., Huang, R. (2024). Framework for Integrating Technology for Equity (FIT for Equity) funded by the National Science Foundation under Innovative Technology Experiences for Students and Teachers. Collaborative award: Jennifer M. Suh (PI), NSF#2342625.	$302,718
Matney, G. (PI), Recker, M., Bajwa, A. (2023). Enhancing Mathematical Experiences through Math Camps funded by the Mathematics Education Trust (MET) Grant in association with the National Council of Teachers of Mathematics (NCTM).	$1,969
Recker, M., Bajwa, A. **Matney, G.** PI (2022). Math Camp Resources funded by the Emalou Brumfield Affiliate Grant from the Ohio Council of Teachers of Mathematics (OCTM).	$1000
Bajwa, A., Painter, C., **Matney, G.** PI (2022). Developing Growth Mindset through Math Camp Resources funded by the Emalou Brumfield Affiliate Grant from the Ohio Council of Teachers of Mathematics (OCTM).	$500
Sondergeld, T., PI, Jonathan, B., PI, **Matney, G.**, Co-PI (2021-2026). *Developing & Evaluating Assessments of Problem Solving – Computer Adaptive Testing* (DEAP-CAT) funded by the National Science Foundation under DRK-12 program: NSF #2100988. Collaborative award Co-Principal Investigator: Toni Sondergeld, NSF#2101026.	$3,122,630
Dotger, S., PI, **Matney, G.**, Co-PI, & Chandler-Olcott, K. (2020-2021). *Understanding the Role of Lesson Study in K-12 Mathematics and Science Teacher Education*. Funded by National Science Foundation under NSF 17-584 Discovery Research PreK-12, NSF Grant # 2010137.	$89,285
Huziak-Clark, T., PI, **Matney, G.**, Co-PI, et. al. (2018-2023). *Improving Motivation, Pedagogy, Assessment, and Collaboration for Teachers* (Project IMPACT). Extremal grant supported by the Federal Department of Education.	$2,667,817
Matney, G., PI (2019-2020). *Examining Effects of Lesson Study PD on*	$10,000

Problem Solving and Proficiency. Building Strength Grant Program from the Vice President for Research and Economic Engagement at Bowling Green State University.

Consultant: $1,385,095. *Gateways to Open Approach with Lesson Study (GOALS) for Mathematical Functions,* Funding from U.S. Department of Education, Institute of Education Sciences, submitted August 29, 2019. Tracking #GRANT R305A190494 (PI: Eddy 19-0590)

$1,543,241

Bostic, J., PI, **Matney, G., Co-PI**, Sondergeld, T., Co-PI (2017-2021). *Developing & Evaluating Assessments of Problem Solving (DEAP).* Funded by National Science Foundation under DRK-12 program, NSF Grant #1720646, 1720661.

$1,858,362

Matney, G., PI & Bostic, J., Co-PI (2014-2018). *Common Core for Mathematical Proficiency in Elementary Schools (CO)^{2}MP.* Funded by Ohio Department of Education under Ohio Mathematics Science Partnership program. Grant Number 10009927 (ODE)

$798,149

Bostic, J., PI, **Matney, G., Co-PI** (2014-2017). *Common Core for Achievement and Middle Grades Mathematical Proficiency (C^{2}AM^{2}P).* Funded by Ohio Department of Education under Ohio Mathematics Science Partnership program.

$46,595

Gallagher, D. & **Matney, G.** Improving Teacher Quality State Grants Program from the Ohio Board of Regents. 1/2015-5/2016, *Black Swamp Math Teachers Circle (BS-MTC).* Grant Number 14-06

$10,000

Peet, S., Bertelsen, C., Green, R., Wooldridge, D., **Matney, G**., & Newbury, K (January 2015). Developing Math-Ready Kindergarten Students through Adaptive Dual Platform Scalable Software Applications. Awarded by the Faculty Research Committee – "Building Strengths" Grant Program, BGSU.

$500.00

Matney, G., Lustgarten, A., Wilcox, C. & Sullivan, C. (2016). Emmalou Brumfield Affiliate grant through the Ohio Council of Teachers of Mathematics. *Changing K-12 and College Students Mathematics Mindset.*

$1,500

Matney, G., Cassel, C., Lustgarten, A., Nielsen, M. & Knapke, K. (2015). NCTM Affiliate grant funded through the Mathematics Education Trust grant. *Enhancing Mathematical Experiences through Math Camps.* Funding for this grant was for enacting mathematics camps to improve students problem solving.

$2,000

Gallagher, D. & **Matney, G.** American Institute of Mathematics Seed Grant for Mathematics Teachers Circles. Awarded 3/10/2015. Award

given for the startup of the Black Swamp Math Teachers Circle.

Gallagher, D. & **Matney, G.** American Institute of Mathematics Award. Awarded 4/2/2014. This award paid for our team of teachers, mathematicians, mathematics educators, and school administrators to go to Washington D.C. to be trained and start a Mathematics Teacher Circle in our local area. $10,000

Matney, G. Capacity Building in International Contexts Faculty Travel Award from the International Coordinating Committee for the College Educations and Human Development. Awarded 11/8/2012, Culture and Learning in Thailand. My responsibilities for this grant were to work with my partners at Kamphaeng Phet Rajabhat University to establish a student travel course to Thailand. $1500.00

Matney, G. Research and Travel Grant from BGSU's Office of Sponsored Programs and Research. Awarded 12/21/2012. The East Asia Regional Conference on Mathematics Education accepted two research papers for their peer-reviewed proceedings. The names of the two papers were Matney, G., Panarach, Y. & Jackson, J. (2013). Translating mathematics efficacy. Proceedings of the 6th East Asia Regional Conference on Mathematics Education. Phuket, Thailand and Panarach, Y. & Matney, G. (2013). Developmental 5T model for learning and enjoying. Proceedings of the 6th East Asia Regional Conference on Mathematics Education. Phuket, Thailand. $750.00

Matney, G., PI, Bostic, J., Co-PI, & Brahier, D., Co-PI. Improving Teacher Quality State Grants Program from the Ohio Board of Regents. 1/2014-5/2015, *Common Core for Reasoning and Sense Making in Elementary Schools (CO2RES Elementary).* Grant Number 13-05 $93,006

Matney, G., PI & Bostic, J., Co-PI, & Brahier, D., Co-PI. Improving Teacher Quality State Grants Program from the Ohio Board of Regents. 1/2013-5/2014, *Common Core for Reasoning and Sense Making in Elementary Schools (CO2RES Elementary).* Grant Number 12-08 $89,164

Matney, G., PI, Bostic, J., Co-PI, & Brahier, D., Co-PI. Improving Teacher Quality State Grants Program from the Ohio Board of Regents. 1/2012-5/2013, *Common Core for Reasoning and Sense Making in Elementary Schools (CO2RES Elementary).* Grant Number 11-08 $81,476

The three grants above are yearlong grant projects which provided K-5 teacher participants professional development to deeply know the format and mathematics content of the CCSSM and Ohio's College and Career Ready Standards and to assist teachers with developing strategies that promote reasoning and sense making in the classroom through the use of technology and research-based best practices such as inquiry and the use of effective questioning strategies. My duties as PI included developing grant based research projects, grant management and coordination of partners, facilities arrangement, curriculum development and alignment across instructions, coordinating data collection, providing the majority of instruction in spring, summer, and fall, and disseminating findings through different venues such as conferences and peer-reviewed journals.

Bostic, J., **Matney, G., Co-PI** & Brahier, D. (). Improving Teacher Quality State Grants Program from the Ohio Board of Regents. Common 1/2014 – 5/2015, *Common Core for Reasoning and Sense Making: Secondary (CO) ^2RES Secondary.* Grant Number 13-04. $92,753

Bostic, J., PI, **Matney, G., Co-PI**, & Brahier, D., Co-PI. Improving Teacher Quality State Grants Program from the Ohio Board of Regents. 1/2013-5/2014, *Common Core for Reasoning and Sense Making: Secondary (CO) ^2RES Secondary*. Grant Number 12-07 $87,545

Bostic, J., PI, **Matney, G., Co-PI**, & Brahier, D., Co-PI. Improving Teacher Quality State Grants Program from the Ohio Board of Regents. 1/2012-5/2013, *Common Core for Reasoning and Sense Making: Secondary (CO) ^2RES Secondary.* Grant Number 11-07 $78,190

The three grants above are yearlong professional developments aimed to help grades 5-10 mathematics teachers become familiar with the content and format of the new Ohio Standards and develop instructional strategies that promote effective problem solving through reasoning and sense-making activities, technology, and research-based practices such as inquiry-oriented lessons and fostering mathematical discourse. My duties as Co-PI included curriculum development, instruction in the spring, summer, and fall, helping to coordinate data collection with the PI, and disseminating findings through different venues such as conferences and peer-reviewed journals.

B. Grants Under Review

C. Unfunded Grants

Matney, G. (2004). Oklahoma City Public Schools Foundation Great Ideas Grants, $1000: "Autonomous Robotics and the Mathematics Curriculum."

D. Grants Before BGSU

Algebra II: Gateway to a Smart Future (AGSF): This was a three-year project funded by a competitive USDOE Title II Part B Mathematics/Science Partnership grant to the Arch Ford Education Service Cooperative. I was brought on as a mathematics content specialist to mentor teachers in their classroom instruction and instruct them on mathematics content knowledge (2009-2011)	$241,000.00
Enrich, Enhance, and Engage (E-Cubed): E^3 was a three-year Mathematics and Science Partnership grant written and developed by Sherry Lane, Caroline Neel, and myself. The grant was operated out of the Fort Smith Public School district for teachers of grades 4-10. Besides development of the grant and curriculum I was the mathematics content and pedagogy instructor for 40 local area teachers from the districts of Fort Smith, Alma, Waldron, and Van Buren AR (2007-2009)	$105,548.40
Total PI/Co-PI Funding 2008-2011 before BGSU:	**$346,548.40**

Western Arkansas Middle School Mathematics Partnership: This grant was a three year Mathematics and Science Partnership grant for $100,025.00, originally written by Tim Martin of UAFS. After year one, Sherry Lane and I took over the grant and began instructing. In addition to helping create the grants mathematics curriculum I mentored the 40 middle school teachers who took part in the grant by visiting their schools several times a semester to observe and discuss improving their teaching. As the grant was finishing out Sherry Lane took a position elsewhere and I finished writing the reports and assessments (2004-2007)

Matney, G. (2004). *Texas Instruments Pre-service Teacher Mini-grant*. I applied for this mini-grant to provide UAFS preservice teachers with a short course on integrating calculator technology into the classroom.

Matney, G. (2004). Oklahoma City Public Schools GEAR-UP Grant, $4799.50: Grant proposal for school wide technology in math and science.

Matney, G. (2004). Best Buy Te@ch Grant, $2500: Grant awarded to teachers who are creatively integrating interactive technology into the curriculum.

Matney, G. (2003). University of Oklahoma Roberson Travel Grant, $500: Grant given to Graduate Students who desire to present their work at national conferences.

Matney, G. (2002). The Zoo Fund for Kids Grants, Oklahoma City Zoo, $700: Zoo Mobiles for authentic and interdisciplinary study.

Matney, G. (2001). Noble Public Schools Foundation for Academic Excellence, $500: "Algebra Alive."

Matney, G. (2000). Faculty Enrichment Grant Proposal. University of Oklahoma, $702.05: Mathematics teaching aids for Math 4232 Mathematics Methods.

X. Publications or Equivalencies [Authors listed in order of contribution]

A. Publications at BGSU

1. Books

a. Textbooks

b. Scholarly Books

Editor – Dotger, S., **Matney, G.**, Heckathorn, J., Chandler-Olcott, K., & Fox, M. (2024). *Lesson Study with Mathematics and Science Preservice Teachers*: Find the Form. New York, NY: Routledge.

c. Anthologies

d. Chapters of books – Peer Reviewed

Weaver, J.C. & **Matney, G.** (2024). Adapting lesson study for preservice teachers' instruction and learning. In S. Dotger, G. Matney, Heckathorn, J., K. Chandler-Olcott, & M. Fox (Eds.), *Lesson study with mathematics and science preservice teachers: Finding the form* (pp. 182-191). New York, NY: Routledge.

Weaver, J.C., **Matney, G.,** Huang, R., Huang, X., Painter, C., & Wilson, J. (2023) Hybrid cross-cultural lesson study impacts teacher learning. In R. Huang, N. Helgevold, J. Lang, & Z. Jiang (Eds.), *Teacher professional learning through lesson study in virtual and hybrid environments: Opportunities challenges, and future directions* (pp. 34-50). New York, NY: Routledge.

Matney, G., Bostic, J., & Lavery, M. (2019). A validation process for complex pedagogical knowledge: The standards for mathematical practice knowledge assessment. In J. Bostic, E. Krupa, & J. Shih (Eds.), *Quantitative measures of mathematical knowledge: Researching instruments and perspectives* (pp. 179-204). New York, NY: Routledge.

e. Contributions to Books

Dotger, S., **Matney, G.**, Heckathorn, J., Chandler-Olcott, K., & Fox, M. (2024). Tracing lesson study's use with preservice teachers: From origins to present day. In S. Dotger, G. Matney, Heckathorn, J., K. Chandler-Olcott, & M. Fox (Eds.), *Lesson study with mathematics and science preservice teachers: Finding the form* (pp. 1-10). New York, NY: Routledge.

Dotger, S., **Matney, G.**, Heckathorn, J., Chandler-Olcott, K., & Fox, M. (2024). Finding connections through form. In S. Dotger, G. Matney, Heckathorn, J., K. Chandler-Olcott, & M. Fox (Eds.), *Lesson study with mathematics and science preservice teachers: Finding the form* (pp. 204-209). New York, NY: Routledge.

Matney, G. Contributor to Collins, J., & O'Brien, N. (Eds.) (2003). Greenwood Dictionary of Education. Westport, CN. Greenwood Press.

2. Journals Articles

a. Refereed articles

1) Journals

Fan, Y. "Kate," Koskey, K. L. K., Bright, D., **Matney, G.**, Bostic, J., May, T. A., & Stone, G. E. (2024). Exploring Sources of Bias to Improve the Universal Design of Mathematical Problem-Solving Tests. *Educational Assessment*, *29*(4) 274–292. https://doi.org/10.1080/10627197.2024.2418554

Griesmer, R. & **Matney, G.** (2024). Teacher candidate perceptions of learning through simulation technology. Ohio Journal of School Mathematics, 98, 1-8. https://ohiomathjournal.org/index.php/OJSM/issue/view/FA24

Weaver, J. C., **Matney, G.**, & Matangula, T. (2024). The power of feedback in teacher education. *International Journal for Lesson and Learning Studies 13*(3), 190-204. https://doi.org/10.1108/IJLLS-01-2024-0001

O'Mellan, A., Kosko, K., Pachnowski, L. M., **Matney, G.**, & Driskell, S. O. (2024). The potential impact of the removal of a middle grades' licensure band on Ohio's teacher education majors. Ohio Journal of School Mathematics, 96, 47-56. https://ohiomathjournal.org/index.php/OJSM/issue/view/SP24

Wiemken, R., **Matney, G.**, & Floro, B. (2024). Devising a Mathematical Model to Represent Football Rankings. *Mathematics Teacher: Learning and Teaching Pre-K – 12*, 117(1), 52-57. https://doi.org/10.5951/MTLT.2023.0089

Huang, R., Weaver, J. C., **Matney, G.**, Huang, X., Wilson, J., & Painter, C. (2024). Exploring teacher learning through a hybrid cross-cultural lesson study in China and the United States. *International Journal for Lesson and Learning Studies, 13*(1), 41-55. https://doi.org/10.1108/IJLLS-07-2023-0093

Koskey, K. L. K., May, T. A. Fan, Y., Bright, D., Stone, G., **Matney, G.**, & Bostic, J. D. (2023). Flip it: An exploratory (versus explanatory) sequential mixed methods design using Delphi and differential item functioning to evaluate item bias. *Methods in Psychology, 8,* 100117. https://doi.org/10.1016/j.metip.2023.100117

Matney, G., Fischer, C., & Jackson, J. (2023). A Picture is Worth a Thousand Words: Understanding our Students' Mathematical Experiences through Drawing. *Ohio Journal of School Mathematics, 93*, 21-26.

May, T., Koskey, K., Bostic, J., Stone, G., Kruse, L., & **Matney, G.** (2023). Examining How Using Dichotomous and Partial Credit Scoring Models Influence Sixth-Grade Mathematical Problem-Solving Assessment Outcomes. *School Science and Mathematics Journal, 123(2), 54-76.* http://doi.org/10.1111/ssm.12570

Matney, G., Fischer, C., & Jackson, J. (2022). Understanding Students' Perceptions of Doing Mathematics: A Cultural Comparison. *Southeast Asian Mathematics Education Journal, 12*(2), 105-124.

Matney, G., Bostic, J., Fox, M., Hicks, T., May, T., & Stone, G. (2022). Fourth-grade students' sensemaking during multi-step problem solving. *The Journal of Mathematical Behavior, 65*, 1-17. https://doi.org/10.1016/j.jmathb.2022.100933

Wiemken, R., Stewart, M., **Matney, G.**, Folger, T., & Matney, T. (2022). This Happened to You Too? *Mathematics Teacher: Learning and Teaching Pre-K – 12*, *115*(3), 237-240. https://doi.org/10.5951/MTLT.2021.0279

Weaver, J.C., **Matney, G.,** Goedde, A.M., Nadler, J.R. and Patterson, N. (2021). Digital tools to promote remote lesson study. *International Journal for Lesson and Learning Studies, 10*(2), 187-201. https://doi.org/10.1108/IJLLS-09-2020-0072

Wiemken, R., Padmi, R. S., & **Matney, G.** (2021). Global connections through mathematical problem solving. *Mathematics Teacher: Learning and Teaching Pre-K – 12*, *114*(3), 219-226.

Bostic, J., Sondergeld, T., **Matney, G.**, Stone, G., & Hicks, T. (2021). Gathering response process data for a problem-solving measure through whole-class think alouds. *Applied Measurement in Education, 34*(1), 46-60. *DOI: 10.1080.08957347.2020.1835913*

Matney, G., Lustgarten, A., & Nicholson, T. (2020). Black holes of research on instructional practice: The case of number talks. *Investigations in Mathematics Learning, 12*(4), 246-260. http://dx.doi.org/10.1080/19477503.2020.1804273

Roberts, O. T., Bostic, J. D., & **Matney, G. T.** (2020). Modeling with Mathematics in the Moment. *Mathematics Teacher: Learning and Teaching Pre-K – 12*, *113*(10), 864-867.

Matney, G., Porcella, J., & Gladieux, S. (2020). Quick blocks: Developing spatial sense. *Mathematics Teacher: Learning and Teaching PK-12, 113(1), 8-17.*

Colabianchi, K., & **Matney, G.** (2020). Preservice Mathematics Teacher Professional Learning through Informal Field Experiences. Ohio Journal of School Mathematics, 85, 37-46.

Boonsena, N., Inprasitha, M., Changsri, N., & **Matney, G.** (2019). Teachers learning about teaching practice in a modify lesson study. Psychology, 10, 977-988. https://doi.org/10.4236/psych.2019.107064

Bostic, J., **Matney, G.**, & Sondergeld, T. (2019). A validation process for observation protocols: Using the Revised SMPs Look-for Protocol as a lens on teachers' promotion of the standards. *Investigations in Mathematics Learning, 11*(1), 69-82. (DOI): https://doi.org/10.1080/19477503.2017.1379894

Lustgarten, A., & **Matney, G.** (2019). Examining number talks with secondary preservice teachers. *Ohio Journal of School Mathematics, 80*(1), 22-30. Retrieve from: https://library.osu.edu/ojs/index.php/OJSM/article/view/6647/5190

Yuan, X., & **Matney G.** (2018). Searching for the middle zone of Chinese and American Mathematics Teaching through Math Camps. *Journal of Mathematics Education, 11*(2), 1-16. (DOI): https://doi.org/10.26711/007577152790024 Retrieve from: http://educationforatoz.com/images/2018-7-1_JME_Yuan.pdf

Matney, G. (2018). Peer Mentoring Professionalism among Preservice Mathematics Teachers: Safe Spaces for Community Teaching Practice. *Investigations in Mathematics Learning, 10*(2), 67-84. https://doi.org/*10.1080/19477503.2017.1375351*

Isoda, M., Araya, R., Eddy, C., **Matney, G.**, Williams, J., Calfucura, P, Aguirre, C., Becerra, P., Gormaz, R., Soto-Andrade, J., Noine, T., Mena-Lorca, A., Olfos, R., & Baldin, Y. (2017). Teaching energy efficiency: A Cross-Border Public Class and Lesson Study in STEM. *Interaction Design & Achitecture(s), 35*, 7-31. [Acceptance rate ≅ 10%]

Matney, G. & Jackson, J. (2017). Research Projects and Secondary Mathematics Preservice Teachers' Sense of Efficacy. *Investigations in Mathematics Learning 9*(4), 171-186. https://doi.org/*10.1080/19477503.2016.1245048*

Bostic, J., & **Matney, G.** (2016). Leveraging Modeling with Mathematics-focused Instruction to Promote Other Standards for Mathematical Practice. *Journal of Mathematics Education Leadership 17*(2), 21-33.

Matney, G., Panarach, Y., & Jackson, J. (2016). Establishing Validity of the Thai Mathematics Teaching Efficacy Beliefs Instrument. *School Science and Mathematics Journal 116*(3), 164-172.

Bostic, J. & **Matney, G.** (2014). Role-playing the Standards for Mathematical Practice: A Professional Development Tool. *Journal of Mathematics Education Leadership 15*(2), 3-10. [Acceptance rate ≅ 25%]

Matney, G. (2014). Early Mathematics Fluency with the CCSSM. *Teaching Children Mathematics 21*(1), 26-35. Reston, VA: National Council of Teachers of Mathematics. [Acceptance rate ≅ 22%]

Matney, G. (2014). Deepening Teachers' Understandings of Mathematical and Pedagogical Connectedness. *Journal of Mathematics Education Leadership 15*(1), 50-59. [Acceptance rate ≅ 15%]

Davis, S., & **Matney, G.** (2014). "I had never really made sense of that before": Constructing Mathematical Content Knowledge and Teaching through Story Telling. *Journal of the Arkansas Association of Colleges of Teacher Education.* Retrieve at: http://aracte.org/publications/Davis_Fall2013.pdf

Matney, G., Jackson, J., & Bostic, J. (2013). Effects of Minute Contextual Experience on Realistic Assessment of Proportional Reasoning. *Investigations in Mathematics Learning, 6*(1), 41-68.

Matney, G., & Daugherty, B. (2013). Seeing spots and developing multiplicative sense making. *Mathematics Teaching in the Middle School, 19*(3), 148-155. Reston, VA: National Council of Teachers of Mathematics.

Matney, G. & Matney, T. (2013). Leaping without bridges: Implementing the common core with students not previously instructed within its expectations. *Oklahoma Journal of School Mathematics, 5*(1), 14-21.

Bostic, J. & **Matney, G.** (2013). Overcoming a Common Storm: Designing PD for Teachers Implementing the Common Core. *Ohio Journal of School Mathematics, 67*, 12-19.

Matney, G. & Fleener, M.J. (2007). Curriculum clearings as being-with mathematics experiences: Authentic learning through a Heideggerian lens. *Journal of Curriculum and Pedagogy, 3(2),* 92 - 106.

Fleener, M.J., Richardson, K.D. & **Matney, G.** (2004). Deterritorializing the curriculum: Poststructural logic and dynamic process. In L. Coia et al. (Eds.), *Democratic Responses in an Era of Standardization* (pp. 27-38). Troy, NY: Educators International Press.

Under Review

Weaver, J. C., Patterson, N. C., Lewandowski, A., Butler, A. & **Matney, G.** (under review). The role of lesson study in developing inquiry-based instruction among early-stage social studies teacher candidates.

Weaver, J. C., Goedde, A., Matney, G., Nadler, J., & Patterson, N. C. (under review). Critical thinking and technology: Integrating AI in teaching and learning courses. Contemporary Issues in Technology and Teacher Education - Current Practices, V(#), pp-pp.

May, T., Koskey, K., Bostic, J., **Matney, G.**, Teuscher, D., Roth McDuffie, A., Stone, G., & Dingman, S. (Submitted). Building effective instrument development teams: Two case studies. *15th International Congress on Mathematical Education,* Sydney, Australia.

Matney, G. M., Langhals, M. M., **Matney, G. T.**, Rogers, K. C., Hamady, C. M., & Ludy, M-J. (submitted). Incorporating Nutrition Education into an Elementary Mathematics Camp: An Interdisciplinary Approach for Addressing Learning Gaps. *Health Promotion Practice Journal*.

Padmi, R.S., & **Matney, G.** (under review). Fostering global citizenship in mathematics classrooms. The ICDME-Tsukuba Conference: International Cooperation Development in Mathematics Education, Tokyo, 11th – 12th Feb., 2022.

2) Proceedings

Mainzer, E. A., MacDonald, B. L., Matney, G., Cavanna J. M., Jackson, B., Matranga, A., Pak, B., Silverman, J., & Tanck, H. (2024, November). Identifying and studying black holes of mathematics education research on instructional practice. In Editors, *Proceedings of the 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Educatio*n (pp. ###-###). Cleveland, OH.

Koskey, K., Fan, Y., Folger, T., Klein, M., Hanna, C., Yovanov, C., Bostic, J., May, T., **Matney, G.**, & Stone, G. (2024, November). Mapping errors in problem-solving to mathematical practices. In Editors, *Proceedings of the 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Educatio*n (pp. ###-###). Cleveland, OH.

Bostic, J., **Matney, G.**, May, T., Koskey, K., Stone, G., & Folger, T. (2024, November). *Synthesizing bias and fairness evidence for the PSM-CAT*. In Editors, Proceedings of the 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. ###-###). Cleveland, OH.

Mainzer, E., MacDonald, B. L, **Matney, G.**, Cavanna, J. M., Jackson, B., Matranga, A., Pak, B., Silverman, J., & Tanck, H. (2024). Identifying and studying black holes of mathematics education research on instructional practice [Proposal under review]. In K. W. Kosko, J. Caniglia, S. Courtney, & M. Zolfaghari (Eds.), *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.* Kent State University.

Bostic, J., May, T., **Matney, G.**, Koskey, K., Stone, G., & Folger, T. (2023, March). *Computer adaptive mathematical problem-solving measure: A brief validation report.* In D. Kombe & A. Wheeler (Eds.), Proceedings of the 51st annual meeting of the Research Council on Mathematics Learning (pp. 102-110). Columbia, SC.

Koskey, K. L. K., Folger, T. D., Bostic, J. D., Fan, Y., Bright, D. N., Hutson, T. M., May, T. A., **Matney, G.**, Stone, G. E. (Submitted). *A mixed methods study exploring patterns in sixth grade students' mathematical problem-solving errors.* Annual American Educational Research Association Conference, Philadelphia, PA.

Bostic, J., Folger, T., Koskey, K., **Matney, G.**, May, T., & Stone, G. (2023, October). *A modified depth of knowledge framework for word problems.* Paper presented at the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. TBD). Reno, NV.

Bostic, J., Folger, T., **Matney, G.**, May, T., Koskey, K., & Stone, G. (2022, October). *Changing populations: Using the PSMs with teachers.* In A. Lischka, E. Dyer, E., R. Jones, J. Lovett, J. Strayer, & S. Drown (Eds.), Proceedings of the forty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 233-234). Nashville, TN.

Matney, G. & Fox, M. (2022). Examining programmatic lesson study in preservice teacher education. In S. Bateiha & G. Cobbs (Eds.), *Proceedings of the 49th Annual Meeting of the Research Council on Mathematics Learning* (pp. 86-94). Grapevine, TX. https://www.rcml-math.org/assets/Proceedings/RCML%202022%20Proceedings.pdf

Bostic, J., Sondergeld, T., **Matney, G.**, & Stone, G. (2021, October). Three steps forward: Validity evidence for the PSM. In D. Olanoff, K. Johnson, & S. Spitzer (Eds)., *Proceedings of the 43rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 26-30). Philadelphia, PA.

Koskey, K. L. K., Bright, D., Struloeff, K., Sondergeld, T. A., Stone, G., Bostic, J., & **Matney, G.** (2021, November). *Adaptation of the Delphi technique in*

the development of assessments of problem-solving in computer adaptive testing environments (DEAP-CAT). Proceedings of the International Conference of Education, Research and Innovation (pp. 9299-9306). https://doi.org/10.21125/iceri.2021.2142

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2021, April). Whole-class think alouds: A tool for investigating problem solving. *Proceeding paper presented annual meeting of the annual meeting of the American Education Research Association*. Orlando, FL.

Matney, G., Bostic, J., Fox, M., Sondergeld, T., & Stone, G. (2021, March). Fourth-grade students' sensemaking of word problems. In H. Marchionda & S. Bateiha (Eds.), *Proceedings of the 48th Annual Meeting of the Research Council on Mathematics Learning* (pp. 59-66). Denton, TX.

Bostic, J., **Matney, G.,** Sondergeld, T., & Stone, G. (2020, April). Validation as design-based research: Implications for practice and theory. *Proceedings paper presented at annual meeting of the annual meeting of the American Education Research Association.* San Francisco, CA.

Bostic, J., **Matney, G.,** Sondergeld, T., & Stone, G. (2020, April). Developing a series of problem-solving measures for elementary students. *Proceedings paper presented at annual meeting of the annual meeting of the American Education Research Association*. San Francisco, CA.

Sondergeld, T., Stone, G., Kruse, L., Bostic, J., & **Matney, G.** (2020, April). Evaluating Dichotomous and Partial-Credit Scoring within a Constructed-Response Assessment: Is More Information Always Psychometrically Better? *Proceedings paper presented at annual meeting of the annual meeting of the American Education Research Association*. San Francisco, CA.

Matney, G., Fox, M., Knapke, S., Murray, M. (2020, March). Lesson study and teacher's dialogue about SMP 5. In J. Cribbs & H. Marchionda (Eds.), *Proceedings of the 47th Annual Meeting of the Research Council on Mathematics Learning* (pp. 100-107). Las Vegas, NV.

Bostic, J., **Matney, G.,** Sondergeld, T., & Stone, G. (2020, March). Measuring what we intend: A validation argument for the grade 5 problem-solving measure (PSM5). In J. Cribbs & H. Marchionda (Eds.), *Proceedings of the 47th Annual Meeting of the Research Council on Mathematics Learning* (pp. 59-66). Las Vegas, NV.

Sondergeld, T., Stone, G., Bostic, J., & **Matney, G.** (2019, July). Validity in a different context: Exploring relations to other variables evidence. In M. Graven, H. Venkat, A. Essien, & P. Vale (Eds.), *Proceedings of the 43rd Meeting of the International Group for the Psychology of Mathematics*

Education (Vol. 4, p. 4-10). Pretoria, South Africa. Retrieved from http://www.pmena.org/html/proceedings.html

Bostic, J., **Matney, G.,** Sondergeld, T., & Stone, G. (2019, July). Developing a problem-solving measure for grade 4. In M. Graven, H. Venkat, A. Essien, & P. Vale (Eds.), *Proceedings of the 43rd Meeting of the International Group for the Psychology of Mathematics Education* (Vol. 4, p 4-16). Pretoria, South Africa. Retrieved from http://www.pmena.org/html/proceedings.html

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2019, February). Validation: A Burgeoning Methodology for Mathematics Education Scholarship. In A. Sanogo & J. Cribbs (Eds.), *Proceedings of the 46th Annual Meeting of the Research Council on Mathematics Learning* (pp. 43-50). Charlotte, NC.

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2018, November). Content validity evidence for new problem-solving measures (PSM3, PSM4, and PSM5). In T. Hodges, G. Roy, & A. Tyminski (Eds.), *Proceedings for the 40h Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1641). Greenville, SC.

Bostic, J., **Matney, G.**, & Sondergeld, T. (2017). (Re)Considering Teachers' Promotion of the Standards for Mathematical Practice. In Olson, T. and Venenciano, L. (Eds.). *Proceedings of the 44th Annual Meeting of the Research Council on Mathematics Learning* (pp. 1-8). Fort Worth, TX.

Sullivan, C., **Matney, G.**, & Jackson, J. (2017). An Investigation of Students' Perceptions of Doing Mathematics. In Olson, T. and Venenciano, L. (Eds.). *Proceedings of the 44th Annual Meeting of the Research Council on Mathematics Learning* (pp. 81-88). Fort Worth, TX.

Bostic, J., **Matney, G.,** & Sondergeld, T. (2016). Exploring Validity and Reliability for the Revised SPMs Look-For Protocol. In Adolphson, K. A. and Olson, T. (Eds.). *Proceedings of the 43rd Annual Meeting of the Research Council on Mathematics Learning* (pp. 9-17). Orlando, FL.

Pratt, S., **Matney, G.**, Kadroon, T., Changsri, N., Saengpun, J., & Sudejamnong, A. (2015). Choosing appropriate measures of Mathematical Knowledge for Teaching (MKT) for research studies across international boundaries. *Proceedings for the 13th Annual Hawaii International Conference on Education*, Honolulu, HI.

Bostic, J. & **Matney, G.** (2015). Supporting K-10 Teachers' Instructional Changes to Promote the Standards for Mathematical Practice. In Che, S. M. and Adolphson, K. A. (Eds.). *Proceedings of the 42nd Annual Meeting of the Research Council on Mathematics Learning* (pp. 109-117). Las Vegas, NV.

Bostic, J. & **Matney, G.** (2014). Looking for elementary mathematics teachers' common core-focused instruction. In Matney, G. T. and Che, S. M. (Eds.). *Proceedings of the 41st Annual meeting of the Research Council on Mathematics Learning* (pp. 113-120). San Antonio, TX.

Matney, G., Panarach, Y. & Jackson, J. (2013). Translating mathematics efficacy. *Proceedings of the 6th East Asia Regional Conference on Mathematics Education*. Phuket, Thailand.

Bostic, J. & **Matney, G.** (2013). Preparing K-10 teachers through common core for reasoning and sense making. In Reeder, S. L. and Matney, G. T. (Eds.). *Proceedings of the 40th Annual meeting of the Research Council on Mathematics Learning* (pp. 85-92). Tulsa, OK.

Panarach, Y. & **Matney, G.** (2013). Development of the 5T model for the enjoyment of learning together. *Proceedings of the 6th East Asia Regional Conference on Mathematics Education*. Phuket, Thailand.

Matney, G. (2012). Generating a peer mentoring culture through mathematics camps. In Van Zoest, L. R., Lo, J.-J., & Kratky, J. L. (Eds.). *Proceedings of the 34th annual meeting of the North American chapter of the International Group for the Psychology of Mathematics Education*. Kalamazoo, MI: Western Michigan University.

Matney, G., Panarach, Y., & Matney, T. (2012). Improving attitude and problem solving through mathematics camps. *Proceedings of the 12th International Congress on Mathematical Education*. Seoul, Korea.

Matney, G., Bostic, J., & Brahier, D. (2012). Overcoming a common storm: Designing the PD teachers need for successful common core implementation. *Proceedings of the 39th Annual meeting of the Research Council on Mathematics Learning* (162-172). Charlotte, NC.

Matney, G., and Jackson, J. (2010). The effective difference of research projects on secondary mathematics preservice teachers' sense of efficacy. *Proceedings of the 37th Annual meeting of the Research Council on Mathematics Learning* (73-83). Conway, AR.

Matney, G. (2003). *Using robotics to throw mathematics learning into different combinations.* Proceedings of the 2nd National Conference on Educational Robotics, Norman, OK.

Matney, G. & Murphy, T. J. (September 2002). Online Diagnostic Mathematics Test for High School Students. *Proceedings of 37th American Society for Engineering Education Midwest Section Conference*, Norman Oklahoma.

b. Non-refereed articles

1) Journals

Matney, G. (2002). *Tower Patterns: Creating Algebraic Representations*. Oklahoma Mathematics Teacher. Oklahoma Council of Teacher of Mathematics.

Matney, G. & Farris, K. (2002). *Castles of the Gods*. Oklahoma Mathematics Teacher. Oklahoma Council of Teacher of Mathematics.

2) Newsletters

Matney, G. (2019, January). Publication Pulse. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning.

Matney, G. (2017, October). Publication Pulse. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20oct%202017.pdf

Matney, G. (2017, May). Publication Pulse. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20may%202017.pdf

Matney, G. (2017, January). Publication Pulse. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20jan%202017.pdf

Matney, G. (2016, October). Publication Pulse. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20oct%202016.pdf

Matney, G. (2016, May). Publication Pulse. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20may%202016.pdf

Conrady, K., **Matney, G.**, & Cerezo, N. (2016, May). Report on the 43rd Annual Conference of the Research Council on Mathematics Learning. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20may%202016.pdf

Matney, G. & Cerezo, N. (2015, April). Shining a Light on Mathematics Learning: A call for proposals. *Intersection Points* the Official Newsletter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20apr%202015.pdf

Matney, G. (2008). Operating in an Epsilon Neighborhood. *Intersection Points*: News Letter of the Research Council on Mathematics Learning. https://www.rcml-math.org/assets/Newsletter/rcml%20newsletter%20oct%202008.pdf

Matney, G. (2003, December). *Santa Fe South School: Aerospace America*. Gear-Up Oklahoma City Public Schools Newsletter. Volume IV Issue 2.

3) **Proceedings**

4) **Miscellaneous**

c. Editorships of journals

Matney, G. (2015-Present). Editorial Board for the Research Council on Mathematics Learning. *Investigations in Mathematics Learning*.

Matney, G. & Che, S. M. (2013-2014). Editor for the Research Council on Mathematics Learning 41st annual conference proceedings publication.

Matney, G. & Reeder, S. (2012-2013). Co-Editor for the Research Council on Mathematics Learning 40th annual conference proceedings publication.

Matney, G. (2007-2010). **Editor** - *Intersection Points,* a publication of the Research Council on Mathematics Learning.

3. Book Reviews

Huang, R., Helgevold, N., Lang, J., & Jiang, H. (2021). Teacher Professional Learning through Lesson Study in Virtual/Hybrid Environments: Opportunities, Challenges, and Future Directions. Taylor & Francis.

Kobett, B. M., Fennell, F., Karp, K. S., Andrews, D., & Mulroe S. T. (2021). Classroom Ready Rich Math Tasks Grades 4-5: Engaging Students in Doing Math. Corwin SAGE: Thousand Oaks, CA.

4. Abstracts

Matney G., Langhals, M., Hamady, C., Ludy, M., (2023). Incorporating Nutrition Education into an Elementary Math Camp. *Journal of the Academy of Nutrition and Dietetics, 123*(9), 32.

5. Reports

a. Published

Matney, G., Burgoon, J., & Belcher, J. (2017). Year 3 report for common core for mathematics proficiency in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2016). Year 2 report for common core for mathematics proficiency in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2015). Year 1 report for common core for mathematics proficiency in elementary schools. Bowling Green, OH: Author.

b. Unpublished

Belcher, J., Stearns, S., Pollock, J., Steiner, J., Midden, W., **Matney, G.**, Bostic, J., & Burgoon, J., (2016). Annual report for NWO FY16. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2016). Year 2 report for common core for mathematics proficiency. Bowling Green, OH: Author.

Belcher, J., Stearns, S., Pollock, J., Steiner, J., Midden, W., **Matney, G.**, Bostic, J., & Burgoon, J., (2015). Annual report for NWO FY15. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2015). Final project report for year 3 of common core for reasoning and sense making in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2014). Interim project report for year 3 of common core for reasoning and sense making in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2014). Final project report for year 2 of common core for reasoning and sense making in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2013). Interim project report for year 2 of common core for reasoning and sense making in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2013). Final project report for year 1 of common core for reasoning and sense making in elementary schools. Bowling Green, OH: Author.

Matney, G., Burgoon, J., & Belcher, J. (2012). Interim project report for year 1 of common core for reasoning and sense making in elementary schools. Bowling Green, OH: Author.

6. Dissertation

Matney, G. (2004). *The Clearings of Authentic Learning in Mathematics*. (Doctoral Dissertation, University of Oklahoma, 2004). *Dissertation Abstracts International* (UMI No. AAT 3138956).

XI. Papers Read to Professional Societies [Names listed in order of contribution]

A. Invited Papers

Matney, G., Weaver, J. C., Goedde, A., Nadler, J., & Butler, A. (2024, May). *Interdisciplinary lesson study innovations with teacher candidates*. American Educational Research Association Lesson Study Special Interest Group, virtual synchronous nation-wide presentation.

Matney, G., Weaver, J., & Mannens, S. (2024, March). *Developing student's mathematics efficacy through understanding time: A research lesson reflection*. The Ireland Advancing Materials for Impact project, St. Laurence O'Tooles N.S. School, Dublin, Ireland.

Matney, G. (2024, February). *The Global and Individual Impact of CRME on Mathematics Education.* Contribution to 20th Anniversary Establishing of CRME, Khon Kaen, Thailand.

Weaver, J., **Matney, G.**, Goedde, A., Nadler, J., & Patterson, N. (2021, April). *Digital tools to promote remote lesson study.* World Association of Lesson Study International Webinar. Available at https://www.walsnet.org/blog/2021/04/22/digital-technologies-online-learning-and-lesson-and-learning-studies/

Matney, G. (2020, February). *One Dream among Many: Imagining the Possibilities for the Interactive Digital Era.* **Keynote** talk for the Thailand Society of Mathematics Education 6th Annual Conference of Mathematics Education: New School Mathematics in Digital Era, Pattani, Thailand.

Matney, G. (2019, May). *Connecting Students to Computational Thinking.* **Keynote** presentation for the APEC Seminar on Computational Thinking Curriculum for the Digital Economy: Establishment of Highly Standardized Informatics and Statistics Curriculum for STEM in APEC Region for the Inclusive Mathematics for Sustainability in a Digital Economy (InMside), Vina Del Mar, Chile.

Matney, G. (2018, January). *Safe Spaces to Connect Preservice Teachers' Mathematical Reasoning with Pedagogical Content Knowledge: Informal Opportunities to Grow in Teaching Competence.* **Keynote** presentation for the plenary session of the Japanese Academic Society of Mathematics Education, Hiroshima, Japan.

Matney, G. (2017, September). *Model Eliciting Activities: Context, Culture, and Mathematical Assumptions: Possibilities for Cross-border Mathematical Discourse among Students*. **Keynote** presentation at the APEC- Khon Kaen International Symposium 2017: Innovation of Mathematics Education through Lesson Study Textbook Development for SDGs, STEM, and Energy by Cross-border Education, Khon Kaen, Thailand.

Matney, G. (2017, September). *Cross Border Lesson Study on Energy Efficient between the United States and Chile.* The 10th International Conference on Educational Research (ICER) 2017, Khon Kaen, Thailand.

Matney, G. (2017, September). *Lesson Study Challenges to Energy Efficiency on STEM and Cross-border Education*. Paper presented at the APEC- Khon Kaen International Symposium 2017: Innovation of Mathematics Education through Lesson Study Textbook Development for SDGs, STEM, and Energy by Cross-border Education, Khon Kaen, Thailand.

Bostic, J. & **Matney, G.** (2017, May). *Leveraging classroom observation data for meaningful growth: Using the revised standards for mathematical practice protocol*. Paper presented at the Maryland Council of Teachers of Mathematics Coaching Conference, Stevenson, MD.

Bostic, J. & **Matney, G.** (2017, June). *Rough drafts and mathematics teaching practices: Supporting teachers' promotion of the mathematics teaching practices*. Paper presented at the Elementary Mathematics Specialists and Teacher Leaders Conference, Westminster, MD.

Eddy, C., Araya, R., **Matney, G.** (2016). *Energy Efficiency and Cross-Border Education* **Keynote** paper presented at APEC-ICER joint conference: Innovation of Mathematics Education through Lesson Study Challenges to Energy Efficiency on STEM and Cross-border Education and the 9th International Conference on Educational Research (ICER). Khon Kaen, Thailand.

Matney, G. (2016). *The Common Core State Standards for Mathematics: The U.S.A's Quest for Greater Focus and Coherence*. **Keynote** paper presented at SEAMEO RECSAM-University of Tsukuba Joint Seminar: Searching for Quality Mathematics Curriculum Framework on the Era of Globalization, Tokyo, Japan.

Eddy, C., **Matney, G.**, & Wang-Iverson, P. (2016). *Lesson Study across Borders for Student Modeling of Energy Footprints.* Paper presented at SEAMEO RECSAM-University of Tsukuba Joint Seminar: Searching for Quality Mathematics Curriculum Framework on the Era of Globalization, Tokyo, Japan.

Eddy, C., **Matney, G.**, & Wang-Iverson, P. (2016). *United States: Explorations of the Household Energy Footprint.* Paper presented at APEC-Tsukuba International Conference X. Innovation of Mathematics Education through Lesson Study: Challenges to Energy Efficiency on STEM and Cross-border Education, Tokyo, Japan.

Matney, G. (2015). *Teachers Mathematical Knowledge for Teaching in the Application of Open Approach*. Paper presented at the US-Thailand Research Collaborative for Mathematics Education. Khon Kaen, Thailand.

Bostic, J., Burgoon, J., **Matney, G.**, & Belcher, J. (2015, November). *Addressing research designs: A close look at (CO)^{2}MP*. Paper presented at the fall meeting of the Ohio Mathematics Science Partnership, Columbus, OH.

B. Refereed Papers

Butler, A. S., Patterson, N. C., Weaver, J. C. & **Matney, G.** (2025, April). *Improving feedback through lesson study: The impact on early-stage teacher candidates*. Lesson Study SIG, American Educational Research Association. Denver, CO.

Folger, T., Fan, Y., Koskey, K., Hanna, C., Klein, M., Yovanov, C., May, T., **Matney, G.**, Bostic, J., & Stone, G. (2025, April). *Solving mathematical word problems: Examining seventh-grade students' errors across Common Core Standards for Mathematics Content* [Roundtable Presentation]. American Educational Research Association Annual Meeting. Denver, CO.

Fan, Y., Folger, T., Koskey, K., Klein, M., Hanna, C., Yovanov, C., May, T., **Matney, G.**, Bostic, J., & Stone, G. (2025). *Exploring patterns in middle-grade students' mathematical problem-solving errors by domain to identify areas for growth*. American Educational Research Association Annual Conference. Denver, CO.

Matney, G., Weaver, J.C., Mannens, S., Hoznour, P-I., Boonsena, N., McCormick, B., & Holden, M. (2024). *Lesson Study's Power to Promote Interthinking across Borders and Cultures*. Paper presented at the meeting of the World Association of Lesson Study conference. Astana, Kazakhstan.

Weaver, J.C., Lewandowski, A., **Matney, G.**, & Bettum, A. (2024). *Lesson Study Promotes the Development of Inquiry-Based Instruction among Early-Stage Social Studies Teacher Candidates*. Paper presented at the meeting of the World Association of Lesson Study conference. Astana, Kazakhstan.

Mainzer, E. A., MacDonald, B. L., **Matney, G.**, Cavanna J. M., Jackson, B., Matranga, A., Pak, B., Silverman, J., & Tanck, H. (2024, November). Identifying and studying black holes of mathematics education research on instructional practice [Working Group presentation]. The 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Cleveland, OH.

Koskey, K., Fan, Y., Folger, T., Klein, M., Hanna, C., Yovanov, C., Bostic, J., May, T., **Matney, G.**, & Stone, G. (2024, November). *Mapping errors in problem-solving to mathematical practices* [Poster presentation]. The 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Cleveland, OH.

Bostic, J., **Matney, G.**, May, T., Koskey, K., Stone, G., & Folger, T. (2024, November). Synthesizing bias and fairness evidence for the PSM-CAT. Paper presented at the 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Cleveland, OH.

Mainzer, E., MacDonald, B. L, **Matney, G.**, Cavanna, J. M., Jackson, B., Matranga, A., Pak, B., Silverman, J., & Tanck, H. (2024). Identifying and studying black holes of mathematics education research on instructional practice (2024, November). In K. W. Kosko, J. Caniglia, S. Courtney, & M. Zolfaghari (Eds.), *Proceedings of the forty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.* Kent State University.

Butler, A. S., Goedde, A. M., **Matney, G.**, Nadler, J. R., Patterson, N. C. & Weaver, J. C. (2024, May). *Interdisciplinary Lesson Study Innovations with Teacher Candidates*.

Paper presented at annual meeting of the American Education Research Association. Philadelphia, PA.

Matney, G. & Weaver, J. C. (2024, May). *Exploring Mathematics Teacher Candidates' Learning Through Lesson Study and Teaching Simulations*. Paper presented at annual meeting of the American Education Research Association. Philadelphia, PA.

Matney, G., Goedde, A. & Weaver, J. C. (2024, May). *Supporting Teacher Candidates Through Lesson Study: AI for Creative Lesson Planning*. Paper presented at annual meeting of the American Education Research Association. Philadelphia, PA.

Bostic, J., Folger, T., May, T., Koskey, K., **Matney, G.**, & Stone, G. (2024, April). *Borrowing theory from engineering: Applying empathic design principles to mathematics assessment development.* Paper presented at annual meeting of the American Education Research Association. Philadelphia, PA.

Koskey, K., Folger, T., Bostic, J., Fan, Y., Bright, D., Hutson, T., May, T., **Matney, G.**, & Stone, G. (2024, April). *A mixed methods study exploring patterns in sixth-grade students' mathematical problem-solving errors.* Paper presented at annual meeting of the American Education Research Association. Philadelphia, PA.

Stone, G., May, T., Koskey, K., Bostic, J., & **Matney, G.** (2024, April). *Establishing multi-level benchmarks for small-scale, complex examinations using objective standard setting.* Paper presented at annual meeting of the American Education Research Association. Philadelphia, PA.

Bostic, J.D, May, T., **Matney, G.**, Koskey, K., Stone, G., & Folger, T. (2024, March). *Brave new world: Computer-adaptive, problem-solving tests.* Paper presented at 51st annual meeting of the Research Council on Mathematics Learning. Columbia, SC.

Solymosi, K., & **Matney, G.** (2024, March). *The influence of problem-solving discourse on student comprehension.* Paper presented at 51st annual meeting of the Research Council on Mathematics Learning. Columbia, SC.

Brown, K., & **Matney, G.** (2024, March). *Perceptions and attitudes of pre-service teachers regarding finger-counting.* Paper presented at 51st annual meeting of the Research Council on Mathematics Learning. Columbia, SC.

Hastings, S., & **Matney, G.** (2024, March). *How pre-service teacher's confidence is impacted by a geometry course.* Paper presented at 51st annual meeting of the Research Council on Mathematics Learning. Columbia, SC.

Griesmer, R., & **Matney, G.** (2024, March). *Introducing lesson study to preservice teachers using simulation technology.* Paper presented at 51st annual meeting of the Research Council on Mathematics Learning. Columbia, SC.

Kloecker, L., & **Matney, G.** (2024, March). *Image use to support confidence in test-taking.* Paper presented at 51st annual meeting of the Research Council on Mathematics Learning. Columbia, SC.

Weaver, J., & **Matney, G.** (2023, November). *Secondary students improve justification of claims through interdisciplinary lesson study*. Paper presented at the meeting of the World Association of Lesson Study conference. Zwolle, Netherlands.

Goedde, A., Weaver, J., **Matney, G.**, & Nadler, J. (2023, November). *Creative use of technology: AI integration for critical thinking*. Paper presented at the meeting of the World Association of Lesson Study conference. Zwolle, Netherlands.

Hemmelgarn, C., Zwyer, K., Newell, R., & **Matney, G.** (2023, October). *Squid Games - A Lesson Study*. Paper presented at the annual conference of the Ohio Council of Teacher of Mathematics. Sandusky, OH.

Matney, G., Solymosi, K., Matney, G.M., Griesmer, R., Brown, K., Bajwa, A., Recker, M., & Hastings, S. (2023, October). *ElectroLyte It Up: Connecting Mathematics to Health and Nutrition*. Paper presented at the annual conference of the Ohio Council of Teacher of Mathematics. Sandusky, OH.

Matney, G., Fan, Y., Koskey, K. L. K., Bright, D. N., Hutson, T. M., May, T. A., Bostic, J. D., Stone, G. E., & Klein, M. (2024, February). *Researched strategies for minimizing bias sources to improve equitable assessment of mathematical problem-solving skills*. Paper presented at the meeting of the Association of Mathematics Teacher Educators conference. Orlando, FL.

Bostic, J., Folger, T., Koskey, K., **Matney, G.**, May, T., & Stone, G. (2023, October). *A modified depth of knowledge framework for word problems.* Paper presented at the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. TBD). Reno, NV.

Matney, G., Solymosi, K. Griesmer, R., & Hastings, S. (2023, September). *Reaching and Connecting Multiple Communities through Academic Enrichment Camps*. Paper presented at the Society for Experiential Education Conference. Orlando, FL.

Matney, G., Koskey, K. L. K., Bright, D., Fan, Y., Bostic, J., May, T. A., Damschroder, K., & Lawson, B. (2023, March). *Dialogue about Minimizing Mathematics Problem-Solving Bias*. Paper presented at the 50th annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Damschroder, K., & **Matney, G.** (2023, March). *Effects of Using Figures in Mathematics Assessments Items.* Paper presented at the 50th annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Solymosi, K., & **Matney, G.** (2023, March). *Open Problems in Mathematics: Evaluating Connections in Student Discourse*. Paper presented at the 50th annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Brandt, W. & **Matney, G.** (2023, March). *Environmental Effects of Programmatic Informal Learning Experiences on PSTs.* Paper presented at the 50th annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Lawson, B., Bostic, J., & **Matney, G.** (2023, March). *Score Reports: What Details Do School Personnel Want?* Paper presented at the 50th annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Matney, G., Bostic, J., May, T., Stone, G., & Koskey, K. L. K. (2023, February). *Examining Student Sensemaking on Multistep Problems.* Paper presented at the meeting of the Association of Mathematics Teacher Educators conference. New Orleans, LA.

Solymosi, K., Griesmer, R., Waymire, O., & **Matney, G.** (2022, October). *Mathematics as Art Infusion – Connecting Mathematics with Student Interests and Ways of Being*. Paper presented at the annual conference of the Ohio Council of Teacher of Mathematics. Sharonville, OH.

Wiemken, R., **Matney, G.**, & Floro, B. (2022, October). *College Football Playoff Modeling Task: Towards Student Justification using Mathematical Reasoning*. Paper presented at the annual conference of the Ohio Council of Teacher of Mathematics. Sharonville, OH.

Nadler, J., Weaver, J., **Matney, G.**, & Patterson, N. (2022, September). *Advancing the Connections of Essential Skills and Interdisciplinary Teaching with Teacher-Candidates*. Paper presented at the meeting of the World Association of Lesson Study conference. Universiti Kebangsaan Malaysia, Bangi, Malaysia.

Bostic, J., Folger, T., **Matney, G.**, May, T., Koskey, K., & Stone, G. (2022, October). *Changing populations: Using the PSMs with teachers.* Proceedings of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. TBD). Nashville, TN.

Bostic, J., Folger, T., **Matney, G.**, May, T., Koskey, K., & Stone, G. (2022, October). *Changing populations: Using the PSMs with teachers.* Poster presented at 44th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Nashville, TN.

Bostic, J.D., **Matney, G.,** May, T., Stone, G., & Folger, T. (2022, April). *PSM5: Measuring elementary students' mathematical problem solving.* Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.

Matney, G. (2022, March). *Examining programmatic lesson study in preservice teacher education*. Paper presented at the 49th annual meeting of the Research Council on Mathematics Learning. Dallas, TX.

Bostic, J., **Matney, G.**, & Folger, T. (2022, March). *Assessment standard setting: What, How, and Why?* Paper presented at the 49th annual meeting of the Research Council on Mathematics Learning. Dallas, TX.

Drown, N., & **Matney, G.** (2022, March). *Understanding Problem Solving Self-Efficacy*. Poster presented at the 49th annual meeting of the Research Council on Mathematics Learning. Dallas, TX.

Martin, A., & **Matney, G.** (2022, March). *Examining the Diversity in Problem-Solving Strategies between Experts and Students*. Poster presented at the 49th annual meeting of the Research Council on Mathematics Learning. Dallas, TX.

Painter, C. & **Matney, G.** (2022, March). *Can [Are] Students Connecting Slope to Context*? Poster presented at the 49th annual meeting of the Research Council on Mathematics Learning. Grapevine, TX.

Matney, G., and Padmi, R. S. (2022, February). *Fostering Global Citizenship in Mathematics Classrooms.* Paper presented at the International Cooperation Development in Mathematics Education (ICDME) Conference. Tsukuba University, Tokyo, Japan.

Matney, G., Fong, J., Weaver, J. (2022, January). *Using Social Justice with Math & Science Frames to Integrate Students' Critical Reflection Skills: A TS4A Lesson Study*. Paper presented at the PROJECT IMPACT Winter Virtual Conference: Educators for Impact Reaching All Learners. Bowling Green, OH.

Bostic, J., Sondergeld, T., **Matney, G.**, & Stone, G. (2021, October). *Three steps forward: Validity evidence for the PSM*. Paper presented annual meeting of 43rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Philadelphia, PA.

Weaver, J. C., **Matney, G.**, Goedde, A. Patterson, N., & Nadler, J. R. (2021, July). Building professional networks to sustain and nurture our practice. Scholarship of Teaching and Learning Conference 2021, Bowling Green, Ohio.

Padmi, R. S., & **Matney, G.** (2021, July). *Fostering Global Citizenship in Mathematics Classrooms.* ICME TSG 61 International Cooperation in Mathematics Education, Shanghai, China.

Goedde, A., Weaver, J., **Matney, G.**, Nadler, J., and Patterson, N. (2021, June). Digital Tools to Promote Remote Lesson Study. International Society for Technology in Education Live 21 Conference. Virtual.

Matney, G., Fox, M., Irick, C., & McCavitt, J. (2021, April). *Investigating Teacher Knowledge about SMP1 through Lesson Study Dialogue.* Poster presented annual

meeting of the annual meeting of the American Education Research Association. Orlando, FL. (virtual)

Bostic, J., **Matney, G.,** Sondergeld, T., & Stone, G. (2021, April). *Whole-class think alouds: A tool for investigating problem solving*. Poster presented annual meeting of the annual meeting of the American Education Research Association. Orlando, FL.

Matney, G., Bostic, J., Fox, M., Sondergeld, T., & Stone, G. (2021, February). *Students' Sense Making in Multistep Word Problems*. Paper presented at annual meeting of the Research Council on Mathematics Learning. Denton, TX. (virtual)

Fox, M. & **Matney, G.** (2021, February). *Preservice Teachers' Perceptions of Lesson Study: Thai versus U.S. Context.* Paper presented at annual meeting of the Research Council on Mathematics Learning. Denton, TX. (virtual)

Weaver, J., **Matney, G.**, Goedde, A., Nadler, J., and Patterson, N. (2021, February). Lesson Study: Collaborative Learning, Planning, and Reflection Promotes Student Learning and Strengthens Instructional Practice. Ohio Council of Teachers of English Language Arts 2021 Spring Conference.

Goedde, A. Weaver, J. C., **Matney, G.**, Nadler, J. R., Patterson, N. (2021, January). *Lesson study promotes collaboration*. Project IMPACT Conference, Bowling Green, Ohio.

Weaver, J. C., **Matney, G.**, Goedde, A., Nadler, J. R., Patterson, N. (2020, October). *Lesson Study Promotes Innovative Pedagogy and Student Learning*. Ohio Conference of Teacher Education Organization.

Sondergeld, T., Stone, G., Bostic, J., & **Matney, G.** (2021, July). *Standardized testing administration time differences on problem-solving outcomes*. Poster presented at the meeting of the International Council on Mathematics Education, Shanghai, China. COVID19

Stone, G., Sondergeld, T., Bostic, J., & **Matney, G.** (2021, July). *Handling missing data on advanced problem solving measures.* Poster presented at the meeting of the International Council on Mathematics Education, Shanghai, China. COVID19

Matney, G., Bostic, J., Sondergeld, T., & Stone, G. (2020, October). Exploring Problem-Solving Assessment through Lesson Study. Paper presented at the annual meeting of the Ohio Council of Teachers of Mathematics, Sharonville, OH.

Sondergeld, T. A., Stone, G. E., Kruse, L., Bostic, J. D. & **Matney, G.** (2020, Apr 17 - 21) *Evaluating Dichotomous and Partial-Credit Scoring Within a Constructed-Response Assessment: Is More Information Always Psychometrically Better?* [Roundtable Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/uvb3whq (Conference Canceled)

Bostic, J. D., **Matney, G.**, Sondergeld, T. A. & Stone, G. E. (2020, Apr 17 - 21) *Developing a Series of Problem-Solving Measures for Elementary Students* [Symposium]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/wfjgkks (Conference Canceled)

Matney, G., Fox, M., Knapke, S., & Murray, M. (2020, Apr 17 - 21) *Teacher Dialogue About Mathematical Practices Occurring in the Debriefing Phase of Lesson Study* [Poster Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/yxxkgrpt (Conference Canceled)

Matney, G., Fox, M., Knapke, S., & Murray, M. (2020, March). *Lesson Study and Teacher's Dialogue about the Mathematical Practices.* Paper presented at annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2020, March). *Measuring what we intend: Problem-solving Measure (PSM5).* Paper presented at annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2019, October). *Connecting problem solving and assessment: Lessons from the field.* Paper presented at the annual meeting of the Ohio Council of Teachers of Mathematics, Sandusky, OH.

Matney, G., Nicholson, T.H., Nielsen, M., & Wiemken, R. (2019, October). *Worth the Risk: Practical Strategies for Moving Ourselves and our Colleagues in Innovative Pedagogies.* Paper presented at the annual meeting of the Ohio Council of Teachers of Mathematics, Sandusky, OH.

Fox, M., Hicks, T., & **Matney, G.** (2019, October). *Riddle Me This. Riddle Me That. Who's Afraid of Giant Cats?* Paper presented at the annual meeting of the Ohio Council of Teachers of Mathematics, Sandusky, OH.

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2019, September). *Measuring students' problem solving and informing your practice with standards-aligned results.* Paper presented at the meeting of the National Council of Teachers of Mathematics regional conference, Boston, MA.

Matney, G., Fox, M., Knapke, S., & Murray, M. (2019, September). *Teacher dialogue about mathematical practices occurring in the debriefing phase of Lesson Study*. Paper presented at the meeting of the World Association of Lesson Study conference. Amsterdam, Netherlands.

Bostic, J., **Matney, G.,** Sondergeld, T., Stone, G., & Steinmiller, H. (2019, September). *Gathering response process validity evidence and influencing classroom instruction in the process.* Paper presented at annual National Council on Measurement in Education special conference on classroom assessment. Boulder, CO.

Sondergeld, T., Stone, G., Bostic, J., & **Matney, G.** (2019, July). *Validity in a different context: Exploring relations to other variables evidence.* Paper presented at the meeting of the Psychology of Mathematics Education (PME 43). Pretoria, South Africa.

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2019, July). *Developing a problem-solving measure for grade 4.* Paper presented at the meeting of the Psychology of Mathematics Education (PME 43). Pretoria, South Africa.

Matney, G., & Bostic, J. (2019, February). *A Quantitative Measure of Teachers' SMP Knowledge: The SMP-KA*. Paper presented at the 46th Annual Meeting of the Research Council on Mathematics Learning. Charlotte, NC.

Caswell, C., & **Matney, G.** (2019, February). *Lesson Study's Role in Teacher Dialogue about SMPs*. Paper presented at the 46th Annual Meeting of the Research Council on Mathematics Learning. Charlotte, NC.

Bostic, J., & **Matney, G.** (2019, February). *Validation as Design Based Research: Examples from Building the PSMs*. Paper presented at the 46th Annual Meeting of the Research Council on Mathematics Learning. Charlotte, NC.

Bostic, J., **Matney, G.**, Sondergeld, T., & Stone, G. (2018, November). *Content validity evidence for new problem-solving measures (PSM3, PSM4, and PSM5).* Poster presented at the 40^{h} Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC.

Wiemken, R., & **Matney, G.** (2018, February). *Lesson Studies on Model Eliciting Activities.* Paper presented at the 45th Annual Meeting of the Research Council on Mathematics Learning. Baton Rouge, LA.

Lustgarten, A., & **Matney, G.** (2018, February). *Impacts of Number Talks on Pre-service Teachers' Number Sense.* Paper presented at the 45th Annual Meeting of the Research Council on Mathematics Learning. Baton Rouge, LA.

Porcella, J., & **Matney, G.** (2018, February). *Teacher Views on Lesson Study.* Paper presented at the 45th Annual Meeting of the Research Council on Mathematics Learning. Baton Rouge, LA.

Bostic, J., & **Matney, G.** (2018, February). *Current Trends: Improving Test Development and Implementation Practices.* Paper presented at the 45th Annual Meeting of the Research Council on Mathematics Learning. Baton Rouge, LA.

Brahier, D., Bostic, J., & **Matney, G.** (2018, February). *Action Research in Undergraduate Teacher Preparation*. Paper presented at the 45th Annual Meeting of the Research Council on Mathematics Learning. Baton Rouge, LA.

Mizoguchi, T., **Matney, G.**, Wagner, D. (2018, February). *Conditions and Constraints on the Notion of a Good Mathematics Teacher.* Paper presented at APEC & UNESCO-

MGIEP-Tsukuba Conference XII: Innovation of Mathematics Education through Lesson Study Textbook Development for SDGs, STEM, and Energy by Cross-border Education, Tokyo, Japan.

Matney, G. & Bostic, J. (2018, February). *Examining preservice Teachers informal field experiences.* Paper presented at the meeting of the Association of Mathematics Teacher Educators conference. Houston, TX.

Matney, G. & Sullivan, C. (2017, November). *Lesson Study and Problem Solving as Impactful Professional Learning.* Paper presented at the School Science and Mathematics Convention. Lexington, KY.

Sullivan, C. & **Matney, G.** (2017, November). *Students' Perceptions of Doing Mathematics through Drawing*. Paper presented at the School Science and Mathematics Convention. Lexington, KY.

Boonsena, N., **Matney, G.**, Inprasitha, M., & Changsri, N. (2017, September). *Teachers' Perceptions about Teaching Practice in Lesson Study incorporating Open Approach.* The 10th International Conference on Educational Research (ICER) 2017, Khon Kaen, Thailand.

Wiemken, R., & **Matney, G.** (2017, September). *Exploring the Benefits of Formative Assessment in a Secondary Mathematics Context.* The 10th International Conference on Educational Research (ICER) 2017, Khon Kaen, Thailand.

Matney, G., & Porcella, J. (2017, September). *Informal Learning Experiences and the Promotion of Peer Mentoring Professionalism among Preservice Teachers: Connections between the US and Thailand.* The 10th International Conference on Educational Research (ICER) 2017, Khon Kaen, Thailand.

Boonsena, N., Inprasitha, M., Changsri, N., & **Matney, G.** (2017). *A Comparative Study of Teaching Practice in Lesson Study incorporating Open Approach.* Paper presented at World Association of Lesson Study Conference. Nagoya, Japan.

Bostic J., & **Matney, G.** (2017, October). *Promoting the Standards for Mathematical Practice during classroom instruction.* Paper presented at the meeting of the Ohio Council of Teachers of Mathematics conference, Columbus, OH.

Bostic, J. & **Matney, G.** (2017, April). *Considering K-10 Teachers' Promotion of the SMPs.* Poster presented at the meeting of the National Council of Teachers of Mathematics research conference. San Antonio, TX.

Matney, G., & Marino, A. (2017). *Surveying Preservice Teachers' Knowledge of the SMPs.* Paper presented at the 44th Annual Meeting of the Research Council on Mathematics Learning. Fort Worth, TX.

Matney, G., & Boonsena, N. (2017). *Comparison of Lesson Studies that Incorporate Open Approach: Thailand and US.* Paper presented at the 44th Annual Meeting of the Research Council on Mathematics Learning. Fort Worth, TX.

Sullivan, C. & **Matney, G.** (2017). *An Investigation of Students' Perceptions of Doing Mathematics.* Paper presented at the 44th Annual Meeting of the Research Council on Mathematics Learning. Fort Worth, TX.

Bostic, J. & **Matney, G.** (2017). *(Re)Considering Teachers' Promotion of the Standards for Mathematical Practice.* Paper presented at the 44th Annual Meeting of the Research Council on Mathematics Learning. Fort Worth, TX.

Matney, G., & Bostic, J. (2017). Aligning Lesson Study with Professional Development Aims. Poster presented at the 21st Annual Conference of the Association of Mathematics Teacher Educators. Orlando, FL.

Matney, G. (2017). Application of Validity Acceptance in Mathematics Education. *Validity Evidence for Measurement in Mathematics Education* (V-M^{2}Ed) conference, San Antonio, TX.

Matney, G. (2016, December). *Quantitative Evidence of Teacher MKT and Student Achievement from Common Core for Mathematics Proficiency*. National Science Teachers Association Conference, Columbus, OH.

Matney, G., Sullivan, C., & Bostic, J. (2016, November). *Using Lesson Study to Connect Actions with Students Mathematical Proficiency.* Paper presented at the meeting of the National Council of Teachers of Mathematics regional conference, Philadelphia PA.

Matney, G., & Lane, S. (2016). *Lesson Study by Open Approach in the USA: A Comparison of Students' Mathematical Knowledge.* Paper presented at World Association of Lesson Study Conference. Exeter, United Kingdom.

Pratt, S., Eddy, C. **Matney, G.**, Wilkerson, T., Inprasith, M., Inprasith, N., Srichompoo, S., Changsri, N., Kadroon, T., & Moonpoo, P. (2016, July). *Facilitating Teachers' Instruction to Elicit Student Processes in Thinking of Mathematics.* The 13th International Congress on Mathematics Education, Hamberg, Germany.

Eddy, C., Pratt, S., **Matney, G.**, Thinwiangthong, S., Suttiamporn, W., Wilkerson, T., Saengpun, J., Sudejamnong, A., & Premprayoon, K. (2016, July). *Common Observation Tool for Math Teacher's Use of Formative Assessment in the U.S. and Thailand*. The 13th International Congress on Mathematics Education, Hamberg, Germany.

Matney, G. (2016, March). *Lesson Study Development for Student Learning: The Case for Lesson Study by Open Approach*. Paper presented at the meeting of the Ohio Middle Level Association. Bowling Green, OH.

Bostic, J., **Matney, G.**, & Belcher, J. (2016, March). *Fostering Mathematical Proficiency and Developing At-Scale Problem-solving Measures*. Poster presented at meeting of the U.S. Department of Education Mathematics and Science Partnership Research Council on Mathematics Learning. Baltimore, MD.

Matney, G., Belcher, J., & Bostic, J. (2016, March). *Lesson Study Approach to Teacher and Student Learning and Engagement in Grades K – 8 Urban/Sub-Urban Districts*. Poster presented at U.S. Department of Education - Mathematics and Science Partnerships Program Conference, Baltimore, MD.

Matney, G. (2016). *Developing a Peer Mentoring Culture among Mathematics Preservice Teachers.* Paper presented at the 43rd Annual Meeting of the Research Council on Mathematics Learning. Orlando, FL.

Sullivan, C. & **Matney, G.** (2016). *Impacts of the Launch of Professional Development on Teachers' Instruction.* Paper presented at the 43rd Annual Meeting of the Research Council on Mathematics Learning. Orlando, FL.

Bostic, J., & **Matney, G.** (2016). *First Look! A Validation Study of the SMPs Look-for Protocol.* Paper presented at the 43rd Annual Meeting of the Research Council on Mathematics Learning. Orlando, FL.

Bostic, J., & **Matney, G.** (2016). *Measuring Teachers' Promotion of the Standards for Mathematical Practice.* Paper presented at the Association of Mathematics Teacher Educators conference. Irvine, CA.

Pratt, S., Eddy, C., **Matney, G.**, Wilkerson, T., Inprasitha, M., Inprasitha, N., Srichompoo, S., Changsri, N., Kadroon, T., & Moonpoo, P. (2016). *Facilitating teachers' instruction to elicit student processes in thinking of mathematics*. Paper accepted to the 13th International Congress on Mathematical Education 2016, Hamburg, Germany.

Eddy, C., Pratt, S., Thinwiangthong, S., Suttiamporn, W., Wilkerson, T., **Matney, G.**, Saengpun, J., Sudejamnong, A., & Premprayoon, K. (2016). *Common observation tool for math teacher's use of formative assessment in U.S. and Thailand*. Paper accepted to the 13th International Congress on Mathematical Education 2016, Hamburg, Germany.

Bostic, J., & **Matney, G.** (2015, November). *What do you want on it? Statistics, modeling, and pizza.* Paper presented at the meeting of the National Council of Teachers of Mathematics regional conference, Minneapolis, MN.

Matney, G., Bostic, J., & Mortier, M. (2015, October). *Profession Development for Growth in Middle-Grades Teachers' Classroom Discourse*. Paper presented at the 2015 Annual Meeting of the School Science and Mathematics Association. Oklahoma City, OK.

Matney, G., Bostic, J., & Sullivan, C. (2015, October). *Thinking Differently about Preservice Teacher Field Experiences: Benefits of Math Camp*. Paper presented at the 2015 Annual Meeting of the School Science and Mathematics Association. Oklahoma City, OK.

Bostic, J., & **Matney, G.** (2015, April). *Using the look-for rubric to examine elementary teachers' instruction.* Paper presented at the 2015 Annual Meeting of the American Educational Research Association. Chicago, IL.

Matney, G., & Bostic, J. (2015, February). *Supporting K-10 Teachers' Instructional Changes to Promote the Standards for Mathematical Practice.* Presented at the 42nd Annual Meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

Bostic, J., & **Matney, G.** (2015, February). *Fostering growth in middle-grades teachers' classroom discourse practices.* Paper presented at the Association of Mathematics Teacher Educators conference. Orlando, FL.

Matney, G., & Pratt, S. (2015, January). *Choosing Appropriate Measures of Mathematical Knowledge for Teaching for Research Studies*. Presented at the 13th Annual Hawaii International Conference on Education. Honolulu, HI.

Matney, G., & Bostic, J. (2014, April). *Creating Spaces to Develop Mathematically Proficient Students: Essential Instructional Elements of the CCSSM*. Annual Meeting of the National Council of Supervisors of Mathematics. New Orleans, LA.

Matney, G., & Bostic, J. (2014, April). *Spaces for Children's Development of Structure, Pattern, and Repeated Reasoning.* Annual Meeting of the National Council of Teachers of Mathematics. New Orleans, LA.

Pratt, S., **Matney, G.**, & Richardson, K. (2014, March). *Conceptual Tasks in Secondary Mathematics.* Paper presented at the 41st Annual Meeting of the Research Council on Mathematics Learning. San Antonio, TX.

Eddy, C., **Matney, G.**, Pratt, S., Wilkerson, T., Kuehnert, E., & Olsen, M. (2014, March). *A Bilateral, International Research Network for Algebraic Reasoning.* Paper presented at the 41st Annual Meeting of the Research Council on Mathematics Learning. San Antonio, TX.

Bostic, J., **Matney, G.** (2014, March). *Opportunities to Engage in the Standards for Mathematical Practice.* Paper presented at the 41st Annual Meeting of the Research Council on Mathematics Learning. San Antonio, TX.

Bostic, J., & **Matney, G.** (2014, February). *Role-playing the Standards for Mathematical Practice: A Professional Development Tool*. Association of Mathematics Teacher Educators conference. Irvine, CA.

Bostic, J., & **Matney, G.** (2013). *An overview of Common Core for Reasoning and Sensemaking: Secondary.* Paper presented at Association of Mathematics Teacher Educators conference. Orlando, FL.

Matney, G., & Matney, T. (2013, October). *Promoting Students' Fluency with the Common Core State Standards*. National Council of Teachers of Mathematics, Louisville, KY.

Matney, G. & Bostic J. (2013, October). *Promoting Students Fluency with the Common Core State Standard*. Ohio Council of Teachers of Mathematics, Dayton, OH.

Bostic J. **Matney, G.** (2013, October). *Making Sense of Modeling with Mathematics*. Ohio Council of Teachers of Mathematics, Dayton, OH.

Matney, G. & Bostic J. (2013, October). *Issues with the transition to Common Core instruction and resources to overcome them.* Ohio Mathematics Education Leadership Council conference, Dayton, OH.

Matney, G., Panarach, Y. & Jackson, J. (2013). Translating mathematics efficacy. *Proceedings of the 6th East Asia Regional Conference on Mathematics Education*. Phuket, Thailand.

Bostic, J., **Matney, G.**, Brahier, D., Gojak, L., & Speer, W. (2013, March). *Preparing teachers for the CCSS: Looking towards the future.* Paper presented at the 40th Annual Meeting of the Research Council on Mathematics Learning. Tulsa, OK.

Panarach, Y. & **Matney, G.** (2013). *Developmental 5T model for learning and enjoying*. Proceedings of the 6th East Asia Regional Conference on Mathematics Education. Phuket, Thailand.

Matney, G., & Daugherty, B. (2012). *We're seeing spots: Visions of multiplicative sense making.* Regional meeting of the National Council of Teachers of Mathematics. Chicago, IL.

Matney, G. (2012, November). *Improving Mathematics Preservice Teacher Efficacy through Field Based Research*. School Science and Mathematics Association annual meeting, Birmingham, AL.

Matney, G. (2012, November). *Generating a Peer Mentoring Culture through Mathematics Camps*. North American Chapter of the International Group for the Psychology of Mathematics Education, Kalamazoo, MI.

Matney, G., Bostic, J. (2012, October). *Divergent Perceptions of the SfMP among K- 10 Teachers*. Ohio Mathematics Education Leadership Conference, Columbus OH.

Matney, G., Panarach, Y., Matney, T. (2012). *Improving Attitude and Problem Solving through Mathematics Camps.* The 12th International Congress on Mathematics Education, Seoul, Korea.

Matney, G., Jackson, J. (2012). *Researching Connections between Real-World Assessments and Student Experiences*. 39th Annual meeting of the Research Council on Mathematics Learning, Charlotte NC.

Matney, G., Bostic, J., & Brahier, D. (2012). *Overcoming a common storm: Designing the PD teachers need for successful common core implementation*. Proceedings of the 39th Annual meeting of the Research Council on Mathematics Learning, Charlotte, NC.

Matney, G., & Jackson, J. (2011). *Assessment and complexity of non-routine problem solving involving proportion reasoning of middle school students*. 38th Annual meeting of the Research Council on Mathematics Learning, Cincinnati, OH.

Matney, G., & Jackson, J. (2010). *Effects of research projects on undergraduate preservice teachers' sense of teacher efficacy.* 37th Annual meeting of the Research Council on Mathematics Learning, Conway, AR.

Matney, G. (2008) *Teacher Openings: Emergence of a learning community among middle school mathematics teachers*. 35th Annual meeting of the Research Council on Mathematics Learning, Oklahoma City, OK.

Matney G. (2007). *Emergent mathematics teacher communities*. 34th Annual meeting of the Research Council on Mathematics Learning, Cleveland, OH.

Matney G. (2006). *Relational spaces for the learning of mathematics*. 33th Annual meeting of the Research Council on Mathematics Learning, Las Vegas, NV.

Matney G. (2005). *Authentic learning and complexity*. Complexity Science and Education Research Annual meeting, Roberts, LA.

Matney G. & Fleener, M.J. (2005). *Curriculum Clearings as Being-With Experiences: Authentic Learning Through a Heideggerian Lens*. American Educational Research Association Annual meeting, Montreal, Canada.

Matney G. (2005). *Experiencing Authenticity in Mathematics*. 32nd Annual Meeting of the Research Council for Mathematics Learning, Little Rock, AR.

Fleener, M.J., Richardson, K. & **Matney G.** (2004). *Fights of Fancy: Deleuze meets Foucault in a High School Flight Academy*. Foucault and Education SIG Roundtable 20, 62.019. San Diego California.

Fleener, M. J., **Matney, G.** & Richardson, K. (2004, January). *Expanding the Curricular Terrain*. Annual Meeting of the Oklahoma Educational Studies Association.

Matney, G., Che, M. & Arbuckle, W. (2003). *Exploring the Ramifications of Enacting the Spirit of Problem Centered Learning in a Standardized Environment.* Fourth Annual Curriculum and Pedagogy Conference, Decatur, Georgia.

Fleener, M.J., Richardson, K. & **Matney G.** (2003). *Experiences of Authenticity and Meaning: Post-Phenomenological Approaches to Curriculum Studies.* Fourth Annual Curriculum and Pedagogy Conference, Decatur, Georgia.

Matney, G. (2003). *Using robotics to throw mathematics learning into different combinations.* The 2nd National Conference on Educational Robotics, Norman, OK.

Fleener, M. J., **Matney, G.**, Reynolds, A. & Richardson, K. (2003). *What is mathematics?* 30th Annual Meeting of the Research Council for Mathematics Learning, Arizona State University.

Matney, G. & Murphy, T. J. (2002). *Online Diagnostic Mathematics Test for High School Students.* 37th American Society for Engineering Education Midwest Section Conference, Norman Oklahoma.

C. Non-refereed Papers

XII. Service

A. Department/School

Program Coordinator: Adult and Young Adolescent Mathematics Program (2022-Present; BGSU)

Member: Personnel Committee (2021-Present; BGSU)

Member: GA Allocation Committee (2018 – Present; BGSU)

Advisor: Bowling Green Council of Teachers of Mathematics (2012-Present)

Advisor/Mentor: Junior Faculty T & P Mentor (2017 – Present; BGSU)

Member: STL TPRC (2014 – Present; BGSU)

Member: Adult and Young Adolescent Program (2011-Present; BGSU)

Member: Merit School C Review Committee (2022-2023; BGSU)

Co-Chair: Graduate Faculty Affairs (2020-2021; BGSU)

Member: STL Diversity and Inclusion Committee (2018 – 2019; BGSU)

Chair: STL Curriculum Committee (2018 – 2019; BGSU)

Chair: STL Full Professor TPRC Committee (2018-2019; BGSU)

STL Representative: Family Campaign (2013-2017; BGSU)

Chair: STL Diversity and Inclusion Committee (2017 – 2018; BGSU)

Member: STL Curriculum Committee (2014 – 2017; BGSU)

Member: Inclusive Early Childhood Faculty Search Committee (2016; BGSU)

Member: Early Childhood Methods Committee (2011-2015; BGSU)

Member: Early Childhood Education Program Committee (2011-2014; BGSU)

Chair: Mathematics Education Assessment Committee (2004-2011; UAFS)

Member: Mathematics Curriculum Committee (2006-2008; UAFS)

Member: Faculty Search and Hiring Committee (2006-2011; UAFS)

Co-Chair: Technology and Website Committee (2004-2005; UAFS)

Member: Mathematics Senior Project Development Committee (2005-2006; UAFS)

B. College

Director: EDHD Academic Enrichment Camps (2020-Present; BGSU)

Member: Committee on Innovative Teaching (2021-Present; BGSU)

Member: CAEP Committee - Adolescence/Young Adult Mathematics Education Advisory Board (2017-2019; BGSU)

Member: International Coordinating Committee (2012-2018; BGSU)

Member: Multicultural Initiatives Committee (2014 – 2016; BGSU)

Member: Course Evaluation Committee (2014 -2015; 2017-2018, BGSU)

Member: Inclusive Early Childhood Program Steering Committee (2012; BGSU)

Member: Technology Task Force (2012; BGSU)

Member: College of Education NCATE Committee (2007-2011; UAFS)

Member: Teacher Education Council (2006-2011; UAFS)

Member: Secondary Education Advisory Committee (2004-2011; UAFS)

Coordinator: Early Childhood Mathematics Education (2005-2011; UAFS)

Member: NCATE Standard 5 Assessment Committee (2008-2011; UAFS)

Member: College of Education Dean Search Committee (2006; UAFS)

C. University

Judge: Undergraduate Research Symposium and Scholarship (2024).

Member: Search Committee for the Director of the Office of Sponsored Programs (2022-2023)

Member: Mathematics Education Program Content Committee between the A&S and EDHD faculty (2011-Present; BGSU)

Faculty Advisor: BGSU Math Camps (2014-Present)

Member: Elliott L. Blinn Award Selection Committee (2017-Present)

Faculty Co-advisor: Bowling Green Council of Teachers of Mathematics (2012-Present)

Judge: Symposium on Diversity, CURS BGSU (2021-Present)

Judge: Ohio Junior Science and Humanities Symposium (2011-Present)

Teacher Advisory Board for the School of Inclusive Teacher Education (2023)

Faculty Associate: Northwest Ohio Center of Excellence in Science and Mathematics Education, Bowling Green State University (2011-2019)

Faculty Advisor: Sigma Nu Fraternity (2017-2019)

Member: Embracing Global Engagement Advisory Council (2016-2018)

Friends of the University Libraries Member (2017)

Faculty Marshall A: Commencement (2016; BGSU)

Board Member: Academic Investment in Math and Science – AIMS Program (2014-2015; BGSU)

Member: Civic Engagement Rubric Committee; Office of Service Learning (2015-2016; BGSU)

Co-Chair: Mathematics Education Seminar (2012-2015; BGSU)

Advisor: Bowling Green Christian Educators Organization (2013-2015)

Advisor: Crosswalk Campus Ministries (2011-2013)

Faculty Marshall: Commencement (2015; BGSU)

Member: Student Union Advisory Committee (2011-2015; BGSU)

Faculty Marshall A: Commencement (2014; BGSU)

Member: International Studies Committee (2008-2011; UAFS)

Member: Student Life Advisory Board (2008-2011; UAFS)

Member: Order of Omega (2008-2011; UAFS)

Chair: Faculty Senate Standing Committee for Academic Integrity (2005-2008; UAFS)

Member: Greek Life Faculty Advisors Committee (2008-2011; UAFS)

Sponsor: Sigma Nu Fraternity (2007-2011; UAFS)

Member: Social Interaction Committee; Learning Community Board (2005-2006; UAFS)

Member: Student Learning Committee (2005-2007; UAFS)

Member: Investiture Committee (2006; UAFS)

Member: Graduate Student Senate Committee on Academic Misconduct (1998-1999; OU)

D. Profession

International

Council Member: World Association of Lesson Study (2022-Present)

Editorial Board: Southeast Asian Mathematics Education Journal (2024-Present)

Reviewer: 7th International Symposium on Mathematics Education and Innovation (2022-Present)

Chair: World Association of Lesson Study Task Force 3: Conferences/Regional Alliances (2022-2023)

Member: World Association of Lesson Study Conference Committee (2021-2022)

Program Chair: AERA Lesson Study SIG (2019-2021)

Member: Psychology of Mathematics Education Conference Local Organizing Committee for Khon Kaen Thailand. https://pme44.kku.ac.th/home/committees/ (2018-2021)

Moderator (Online): PME Special Meeting during COVID19 (2020)

Moderator: World Association of Lesson Study Conference (2015)

Poster Evaluator: World Association of Lesson Study Conference (2015)

Speaker: Asia-Pacific Economic Cooperation (2015)

National

Editor Committee: Research Council on Mathematics Learning Editor Selection Committee for the Investigations in Mathematics Learning Journal (2024).

Officer (Secretary): Research Council on Mathematics Learning (2021-2023)

Conference Committee Members: Association of Mathematics Teacher Educators, AMTE, (2021-2024)

Officer (Vice-President for Publications): Research Council on Mathematics Learning (2016-2021)

Editorial Board Member: Investigations in Mathematics Learning Journal (2015-Present)

Manuscript Reviewer: *Journal for Research in Mathematics Education* (2016-Present)
Manuscript Reviewer: *Intern. Development in Mathematics Education* (2020 – Present)
Manuscript Reviewer: *Intern. Journal of Lesson and Learning Studies* (2018 – Present)
Manuscript Reviewer: *Mathematical Thinking and Learning (2018-Present)*
Manuscript Reviewer: *Mathematics Teacher: Teaching and Learning (2018- Present*)
Manuscript Reviewer: *Action in Teacher Education* (2015-Present)
Manuscript Reviewer: *Journal of Mathematics Education Leadership* (2013-Present)
Manuscript Reviewer: *School Science and Mathematics Journal* (2012-Present)
Manuscript Reviewer: *Investigations in Mathematics Learning* (2007-Present)
Manuscript Reviewer: *RCML Proceedings* (2009-Present)
Manuscript Reviewer: *Ohio Journal of School Mathematics* (2019 – Present)
Manuscript Reviewer: *Origami in Science, Mathematics, and Education* (2017-2021)
Manuscript Reviewer: *Mathematics Teaching in the Middle School* (2013 – 2018)

Chair of Publications Committee: Research Council on Mathematics Learning (2016-2021)

Publications Committee: School Science and Mathematics Association (2014-2016)

Research Journal Editor Search Committee: Research Council on Mathematics Learning (2015)

Publications Committee: Research Council on Mathematics Learning (2014-2015)

Nominations Committee: Research Council on Mathematics Learning (2014)

Editor: Research Council on Mathematics Learning 41st annual research proceedings (2013-2014)

Co-Editor: Research Council on Mathematics Learning 40th annual research proceedings (2012-2013)

Member: Program Committee for the National Council of Teachers of Mathematics New Orleans Regional Conference (2009-2010)

Member: Conference Committee; Research Council on Mathematics Learning (2010-2013)

Editor - *Intersection Points* a publication of the Research Council on Mathematics Learning (2007-2010)

NCATE SPA Reviewer: Served as a Program Reviewer for the mathematics Specialized Program Area for universities submitting to NCATE for national recognition and teacher certification (2007-2011)

Manuscript Reviewer: AERA proposal and manuscript reviewer for Division B Curriculum Studies (2006-2008)

Member: Conference Committee of Mathematics Assoc. of America Section Conference (2008)

State

President: Ohio Council of Teachers of Mathematics (2022-2024)

President-Elect: Ohio Council of Teachers of Mathematics (2021-2022)

Chair: Publicity Committee Ohio Council Teachers of Mathematics Conference (2019)

Faculty Associate: Northwest Ohio Center of Excellence in Science and Mathematics Education, Bowling Green State University (2013 – 2019)

Math Teacher Circles: Lead and create sessions for the Black-Swamp Mathematics Teachers Circle alongside the team below. We create six sessions a year that are free to teachers. During 2013 and 2014 I worked to find a team of mathematics teachers and mathematics educators to work together to create a Math Teacher Circle in Northwest Ohio. From my inquiries via personal communication Deb Gallagher, Tami Matney, Joan Funk and Marcia Miller agreed to work as a team to start the Black Swamp Math Teachers Circle. This team completed Math Teacher Circle training from the American

Institute of Mathematics in Washington DC in the summer of 2014. Deb Gallagher and I wrote an ITQ grant to fund the start-up of the Math Teachers Circle (2013 – Present)

Network of Regional Leaders: In 2014 I was invited by the Ohio Department of Education to join their efforts by being a member of their Network of Regional Leaders for mathematics teachers. I have presented to these state leaders on several topics including the Common Core State Standards and mathematical fluency (2014 – Present)

Vice-President for Universities: Ohio Council of Teachers of Mathematics (2015-2018)

Higher Education Member: Ohio Performance Assessment Pilot Project. I applied and was approved to work with ODE on developing and implementing mathematics performance assessments for grades 4 and 5 in the state of Ohio. The project will establish the reliability factor for large scale performance assessments. If the reliability factor is good, the model is likely to be adopted by PARCC and Smarter Balance consortiums for assessing the Common Core State Standards for Mathematics (2011-2014)

Vice-president: Arkansas Council of Teachers of Mathematics (2010-2011)

State Exam Writer: Wrote, edited, and distributed the Algebra I test for the regional mathematics competition put on by the Arkansas Council of Teachers of Mathematics. The test was aligned to the NCTM Standards and the Arkansas Frameworks for Mathematics Learning and was analyzed for reliability and content validity (2006-2008)

Advance Baton Rouge – At the invitation of the Dean of College of Education at LSU I attended to the Community and Education: Leadership Conversations" in order to invigorate ideas to help post Katrina Louisiana rebuild its community and educational endeavors (2007)

Local

Advisor: How to Life (2023-Present)
Advisor: Crosswalk Ministries (2012-2014)
Sebastian County, AR, Conservation Education Program Consultant – Volunteer mathematical and education expertise to the State and County Conservation groups who were working on statewide educative modules for soil, water, vegetation, forestry, energy, recycling, pollution, and schoolyard habits (2006 - 2008)

Member: Mathematics Task-Force of Fort Smith Public Schools, AR. Task force assembled to help Fort Smith Public Schools increase their mathematics achievement and student understanding by aligning curriculum across grade levels. Evaluated the end of quarter assessments and gave feedback on its validity and reliability. Worked with teachers in the district to make curriculum maps and pacing guides and provide supplementary materials for SLEs not adequately addressed in the textbook (2005-2011)

Outdoor Education Week Committee Chair: Santa Fe South High School. Chaired the committee of faculty responsible for organizing, curriculum developing, and planning an

entire week of educational "minds-on" experiences outside of the school building. Events included learning experiences at the Omniplex and Air Space Museum, Titanic Exhibit, Little River Zoo, Fred Jones Art Museum, the University of Oklahoma, and the Oklahoma City Zoo (2003-2004).

GEAR-UP Site Leader: Santa Fe South High School. Administered and coordinated all GEAR-UP related activities for the faculty and students. Partnered with Oklahoma University, Oklahoma City University, Rose State College, Langston University and Oklahoma State University Oklahoma City Campus (2002-2004)

Robotics Club Sponsor: State and national robotics competitions for secondary school students organized by the KISS Robotics Institute, Botball. In 2003 the Santa Fe South School robotics team won first place in a *national* competition for their robotics drilling research. In 2004 the Santa Fe South School robotics team won third place in a *national* competition for their research on Assistive Robotics (2001-2004)

Member: Authentic Teaching Alliance. I was a teacher participant with the University of Oklahoma's ATA. Designed and collected data on authentic secondary mathematics projects. Projects include function modeling in basketball, learning geometry through CAD design of buildings, studying volumetric flow rates and volumes through a trip to the local water treatment plant, and constructing model geodesic domes as well as a 25ft diameter geodesic dome to study complex networks of triangles are related to 3-dimensional figures, patterns, and to study efficiency of spherical surfaces versus the more common rectangular prisms (2001-2003)

Aerospace Expo: Organized school wide trip for 300+ students and faculty to Aerospace day. Students learned about aviation careers and received some hands on instruction as to what different people in the aviation industry do on a daily basis (2003)

Sooner Flight Academy: Partnered with Oklahoma University's flight academy to teach mathematics content involving aviation to students. Students and their teachers participated in aviation training and flight practice with a certified instructor. The students also build their own hover-craft and compare the aviation principles in hover-craft to those of an airplane (2001-2004)

Noble High School Attendance Committee Member (2000-2001)

E. Community

Director of BGSU's Academic Enrichment Camps - Mission Statement: Through Bowling Green State University's Academic Enrichment Camp (AEC) program, we seek to sustain and enrich grades 3-8 students' academic learning during the summer months through interactive experiences in the four content areas: Language Arts, Mathematics, Science, and Social Studies. These experiences are designed by trained teachers who are experts in their content for the purpose of ensuring student preparedness for their next

academic school year. The AEC program's primary goal is to positively impact all students' grade level understanding and knowledge retention across the summer months to promote opportunity toward successful graduation. We seek to establish partnerships, philanthropic opportunities, and grant funds to ensure opportunity for students of poverty to participate and advance their education toward graduation. https://www.bgsu.edu/pre-college-programs/summer-academic-and-youth-programs/academic-summer-programs/academic-enrichment-camps.html

Co-Creator and Advisor for BGSU's Math Camps:

- 1st through 4th grade Mathematics Camp Lesson Studies at the Helen M. Knight Elementary School in Moab Utah (May 13, 2024).
- 6th through 8th grade Mathematics Camp given at Timberline Middle School in Alpine Schools in Utah (May 11, 2024).
- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (April 6, 2024).
- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (April 13, 2024).
- 4th and 5th grade Mathematics Camp given at Green Springs in Clyde Ohio (February 24, 2024).
- BGSU Collegiate Mathematics Camp given at Eppler (February 2-3, 2024).
- 4th and 5th grade STEM Camp given at Cory-Rawson Schools (January 15th, 2024).
- 4th grade Mathematics Camp given at Central Elementary School in Napoleon Ohio (November 4, 2023).
- 6th through 8th grade Mathematics Camp given at Toledo School for the Arts in Toledo Ohio (September 30, 2023).
- 6th through 8th grade STEM Camp given at Washington Local Schools (June 5th and 6th, 2023).
- 9th grade Mathematics Camp given at Cornerstone Christian High School in Salima Malawi (May 6th, 2023).
- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (April 15, 2023).
- 5th grade Mathematics Camp given at Springfield Local Schools in Holland Ohio (March 25, 2023).
- 4th and 5th grade Mathematics Camp given at Chamberlain Hills in Findlay Ohio (February 25, 2023).
- BGSU **Collegiate Mathematics Camp** given at Springfield Local Schools in Holland Ohio (February 10-11, 2023).
- 4th grade Mathematics Camp given at Central Elementary School in Napoleon Ohio (November 5, 2022).
- 7th and 8th grade Mathematics Camp given at Washington Local Schools in Toledo Ohio (October 1, 2022).
- 5th-8th grade Mathematics Camp given at ILEAD Spring Meadows School in Holland Ohio (September 24, 2022).
- 5th and 6th grade Gifted Mathematics Camp given at Washington Local Schools in Toledo Ohio (June 7, 2022).

- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (April 9, 2022).
- 5th grade Mathematics Camp given at Springfield Local Schools in Holland Ohio (March 26, 2022).
- 4th and 5th grade Mathematics Camp given at Green Springs in Clyde Ohio (February 26, 2022).
- BGSU **Collegiate Mathematics Camp** given at Eppler Building in Bowling Green Ohio (February 4-5, 2022).
- 3rd and 4th grade Mathematics Camp given at Ottawa Hills Elementary School in Sylvania Ohio (January 29, 2022).
- 6th through 8th grade Mathematics Camp given at Toledo School for the Arts in Toledo Ohio (October 23, 2021).
- BGSU **Collegiate Mathematics Camp** given at Education Building in Bowling Green Ohio (September 25, 2021).
- 5th and 6th grade Mathematics Camp given at ILEAD Spring Meadows School in Holland Ohio (May, 2021).
- 3rd and 4th grade Mathematics Camp given at ILEAD Spring Meadows School in Holland Ohio (April, 2021).
- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (February, 2020).
- 4th grade Mathematics Camp given at Central Elementary School in Napoleon Ohio (February, 2020).
- 4th and 5th grade Mathematics Camp given at Springfield Local Schools in Holland Ohio (February, 2020).
- 4th and 5th grade Mathematics Camp given at Green Springs in Clyde Ohio (March, 2020).
- BGSU **Collegiate Mathematics Camp** given at Springfield Local Schools in Holland Ohio (October, 2019).
- 6-8th grade Mathematics Camp given at McComb Middle School in McComb Ohio (April, 2019).
- BGSU and Heidelberg University Mathematics Camp at Noble Elementary School in Tiffin Ohio (March, 2019).
- 4th grade Mathematics Camp given at Central Elementary School in Napoleon Ohio (March, 2019).
- 4th and 5th grade Mathematics Camp given at Green Springs in Clyde Ohio (March, 2019).
- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (February, 2019).
- 6-8th grade Mathematics Camp given at Imagine Middle School in Toledo Ohio (February, 2019).
- 4th and 5th grade Mathematics Camp given at Springfield Local Schools in Holland Ohio (February, 2019).
- BGSU and Hunan Normal Mathematics Camp given at DiZhi Middle School in Changsha China (January, 2019).

- BGSU and Hunan Normal Mathematics Camp given at Liuyang Xinwen School in Changsha China (January, 2019).
- BGSU **Collegiate Mathematics Camp** given at Imagine Clay Middle School in Toledo Ohio (October, 2018)
- 4th and 5th grade Mathematics Camp given at Ottawa Hills Elementary School in Sylvania Ohio (April, 2018).
- 6-8th grade Mathematics Camp given at Imagine Middle School in Toledo Ohio (March, 2018).
- 6-8th grade Mathematics Camp given at Bowling Green Middle School in Bowling Green Ohio (March, 2018).
- 4th grade Mathematics Camp given at Central Elementary School in Napoleon Ohio (February, 2018).
- 4th and 5th grade Mathematics Camp given at Hull Prairie Intermediate School in Perrysburg Ohio (February, 2018).
- 1st and 2nd grade Mathematics Camp given at Osborne Elementary School in Sandusky Ohio (January, 2018).
- 6-8th grade Mathematics Camp given at McComb Middle School in McComb Ohio (March, 2017).
- 6-8th grade Mathematics Camp given at Imagine Middle School in Toledo Ohio (March, 2017).
- 4th grade Mathematics Camp given at Central Elementary School in Napoleon Ohio (February, 2017).
- 1st and 2nd grade Mathematics Camp given at Osbourne Elementary School in Sandusky Ohio (February, 2017).
- 5-6th grade Mathematics Camp given at Ottawa Hills Elementary School in Ottawa Hills Ohio (February, 2017).
- BGSU 5-6th grade Mathematics Camp given at Springfield Local Schools in Holland Ohio (February, 2017).
- 6-8th grade Mathematics Camp given at Imagine City Schools in Toledo Ohio (March, 2016).
- K-5th grade Mathematics Camp given at Imagine City Schools in Toledo Ohio (March, 2016).
- 6-8th grade Mathematics Camp given at McComb Schools
- in McComb Ohio (February, 2016).
- 4th grade Mathematics Camp given at Napoleon City Schools in Napoleon Ohio (February, 2016).
- 6-8th grade Mathematics Camp given at McComb Schools
- in McComb Ohio (March, 2015).
- 4th grade Mathematics Camp given at Napoleon City Schools in Napoleon Ohio (February, 2015).
- 5-7th grade Mathematics Camp given at Imagine Clay Avenue School in Toledo Ohio (March, 2014).

Thailand Diversity Project: Worked with elementary teachers in Bowling Green and Toledo to provide diversity experiences for their students involving visiting professors from Thailand and my own experiences in Thailand via pen pal letters with pictures (2011)

Volunteer: Volunteer for Fort Smith Public Schools, AR. Booneville Elementary, Chaffin Jr. High, Sunny Meade Elementary, Spradling Elementary, Trinity Jr. High, and Darby Jr. High. Teachers requested to work with me and asked for model lessons. I taught elementary students at two elementary schools in the Fort Smith district. I volunteered at Bonneville and Sunny Meade. At Sunny Meade I engaged the students in the study of the relationship between mathematics, science, and utility in the real world. We studied the connections of creating formulas using mathematical operations that match our sense of what something "is." Then we used these formulaic creations practically to design safe and stable roller coasters. The principle scientific ideas were energy, potential, kinetic, and total (2004-2011)

Class Sponsor: Santa Fe South High School class of 2005; freshman, sophomore, and junior class sponsor (2001-2003)

Student Council Sponsor: Santa Fe South High School (2001-2003)

Website Designer and Manager: Created and maintained Santa Fe South Website (2003-2004)

President: Sigma Beta Mu, Men's Fraternity (1996-1997)

President: Delta Sigma Pi, Mathematics Organization (1996-1997)

Member: Omicron Delta Kappa and Kappa Delta Pi, Academic Honors Society (1995-1997)

XIII. Membership in Professional Organizations

World Associating of Lesson Study (WALS)
Association for Experiential Education (AEE; SEER)
Asia-Pacific Economic Cooperation (APEC)
Ohio Mathematics Education Leadership Council (OMELC)
Ohio Council of Teachers of Mathematics (OCTM)
Bowling Green Council of Teachers of Mathematics (BGCTM)
School Science and Mathematics Association (SSMA)
American Educational Research Association (AERA)
Association of Mathematics Teacher Educators (AMTE)
Research Council on Mathematics Learning (RCML)
National Council of Teachers of Mathematics (NCTM)
Complexity Science and Educational Research (CSER)
National Council of Supervisors of Mathematics (NCSM)
Arkansas Council of Teachers of Mathematics (ACTM)
Oklahoma Council of Teachers of Mathematics (OkCTM)
Coalition for the Advancement of Science and Mathematics Education in Oklahoma (CASMEO)

XIV. Honors And AWARDS

A. Membership in Honor Societies

Omicron Delta Kappa – National Leadership Honor Society

Order of Omega – Greek Leadership Honor Society

B. Awards

Nominee -- Outstanding Honors College Faculty Award (2024)
NCTM Affiliate Outreach and Engagement Award Recipient (Math Camp; Advisor, 2023)
Professor of Teaching Excellence Award, BGSU (2023-2026)
Nominated – AMTE Excellence in Teaching in Mathematics Teacher Education Award by AMTE President Elect Megan Burton (2020)
Ohio Council of Teachers of Mathematics Kenneth Cummins Award (2018)
Finalist – David Hoch Memorial Award for Excellence in Service (2018) from Ohio Campus Compact
Embracing Global Engagement Award – Fox, Knapke, Hicks, and Brown (2019; Advisor)
Embracing Global Engagement Award – Henderson and Kuhlman (2018; Advisor)
Embracing Global Engagement Award – Caswell and Nicholson (2017; Advisor)
Nominated – Outstanding Community Partnership, Center for Community and Civic Engagement; Math Camp (2016-2017)
Nominated - Master Teacher Award, BGSU Office of Alumni &Development (2016-2017)
Kurt E. Hofmeister Outstanding Undergraduate Student Group Award (2016; Advisor)
Embracing Global Engagement Award – Marino and Nielsen (2016; Advisor)
NRHH Enlightening Educator Award, BGSU Chapter (2015-2016)
Embracing Global Engagement Award – Tucker (2015; Advisor)
Group Excellence in Service Learning and Civic Engagement Award (2015; Advisor)
NRHH Deb Novak Advisor Achievement Award, BGSU Chapter (2013-2014)
Lucille Speakman Excellence in Teaching Award, UA-Fort Smith (2010)
Distinguished Alumni Award, ODK (2007)
Who's Who Among America's Teachers (2005)
Teacher of the Year for Oklahoma City/Moore Region (2004)
Who's Who Among America's Colleges, Oklahoma Baptist University (1997)
Oklahoma Baptist University Outstanding Senior in Mathematics Education (1997)

XV. Teaching Evaluations and Merit

Bowling Green State University					
Year and Term	**Course #**	**Enrollment**	**Mean Rating 5 point scale**	**Standard Deviation**	**STL Unit Mean Rating (SD)**
S 2024	EDTL 2742-1001	23	4.91	0.030	4.39(0.942)
F 2023	EDTL2741-1001	24	4.96	0.082	4.46(0.870)
F 2023	EDTL4740-1001	22	4.86	0.330	4.46(0.870)
F 2023	EDTL4900-1004	9	5.00	0.000	4.46(0.870)
SU 2023	EDTL 4900-1005	9	4.95	0.099	4.57(0.872)
SU 2023	EDLT 5501-1601	8	4.85	0.260	4.57(0.872)
SU 2023	EDTL 5860-5002	8	5.00	0.000	4.57(0.872)
S 2023	EDTL 2742-1001	23	4.79	0.416	4.38(0.941)
F 2022	EDTL 2741-1001	25	4.96	0.092	4.34(0.937)
S 2022	EDTL 2742-1001	19	4.91	0.268	4.35(0.946)
F 2021	EDTL 2741-1001	21	4.97	0.101	4.44(0.883)
S 2021	EDTL 2742-1001	32	4.87	0.372	4.43(0.885)
F 2020	EDTL 2741-1001	33	4.92	0.273	4.41(0.882)
F 2020	EDTL 1320-1001	31	4.96	0.167	4.41(0.882)
F 2020	EDTL 1320-1002	30	4.83	0.389	4.41(0.882)
W 2020	EDTL 4900 - 1001	10	4.75	0.157	4.33(0.928)
S 2019	EDTL 2740 - 1001	18	4.79	0.374	4.36 (0.896)
S 2019	EDTL 2742 - 1001	23	4.92	0.199	4.36 (0.896)
W 2019	EDTL 4900 - 1001	10	4.64	0.442	4.36 (0.896)
F 2018	EDTL 2741-1001	23	4.89	0.269	4.32 (0.923)
S 2018	EDTL 2742 - 1001	28	4.82	0.408	4.35 (0.860)
F 2017	EDTL 2741-1001	30	4.91	0.267	4.26 (0.907)
F 2017	EDTL 4900-1001	10	4.85	0.376	4.26 (0.907)
S 2017	EDTL 2742-1001	17	4.78	0.417	4.30 (0.899)
F 2016	EDTL 2741-1001	15	4.88	0.328	4.24 (0.939)
F 2016	EDTL 4900-1004	12	4.81	0.417	4.24 (0.939)
F 2015	EDTL 3230-1001	23	4.63	0.581	4.19 (0.953)

F 2015	EDTL 4900-1004	10	4.93	0.163	4.19 (0.953)
SU 2015	EDTL 4900-1001	8	4.6	0.704	4.29 (0.95)
F 2014	EDTL 4460-1001	23	4.64	0.734	4.19 (1.011)
F 2014	EDTL 6800-5002	24	4.77	0.462	4.19 (1.011)
S 2014	EDTL 2740-1002	21	4.56	1.012	4.37 (0.894)
F 2013	EDTL 3230-1001	29	4.55	0.629	4.32 (0.903)
F 2013	EDTL 3230-1002	27	4.57	0.701	4.32 (0.903)
F 2013	EDTL 6800-5002	23	4.9	0.330	4.32 (0.903)
SU 2013	EDTL 6410-501W	16	4.90	0.141	4.32 (0.938)
S 2013	EDTL 6800-5008	25	4.88	0.316	4.40 (0.867)
S 2013	EDTL 4840-1001	25	4.86	0.373	4.40 (0.867)
F 2012	EDTL 6800-5002	23	4.33	1.238	4.30 (0.955)
F 2012	EDTL 3230-1003	27	4.74	0.45	4.30 (0.955)
F 2012	EDTL 3230-1004	25	4.62	0.964	4.30 (0.955)
S 2012	EDTL 3230-11233	28 (n = 4)	3.975	0.92	4.348 (0.958)
Year and Term	**Course #**	**Enrollment**	**Mean Rating 4 point scale**	**Standard Deviation**	**Unit Mean Rating (SD)**
F 2011	EDTL 2740-1001	27	3.92	0.27	3.58 (0.64)
F 2011	EDTL 3230-1001	27	3.99	0.14	3.58 (0.64)
F 2011	EDTL 3230-1002	27	3.92	0.29	3.58 (0.64)

Previous Merit Scores

Year	Score
2012	Level 3 Exceeds Expectations
2013	Level 3 Exceeds Expectations
2014	Level 3 Exceeds Expectations
2015	Level 3 Exceeds Expectations
2016	Level 3 Exceeds Expectations
2017	Level 3 Exceeds Expectations
2018	Level 3 Exceeds Expectations
2019	Level 3 Exceeds Expectations
2020	Level 3 Exceeds Expectations
2021	Level 3 Exceeds Expectations
2022	Level 3 Exceeds Expectations
2023	Level 3 Exceeds Expectations

University of Arkansas Fort Smith					
Year and Term	Course #	Enrollment	Mean Rating 5 point scale	College Mean	University Mean
F 2010	Math 2343-0G2	30	4.89	4.32	4.41
F 2010	Math 2333-0G2	30	4.87	4.32	4.41
F 2010	Math 1403-020	37	4.77	4.32	4.41
F 2010	Math 3823-001	6	4.69	4.32	4.41
F 2009	Math 2333-0G1	35	4.86	4.28	4.40
F 2009	Math 1403-0X3	27	4.74	4.28	4.40
F 2009	Math 2333-0G2	32	4.72	4.28	4.40
F 2009	Math 1403-0X5	22	4.45	4.28	4.40
S 2009	Educ 490A-003	1	4.92	4.39	4.44
S 2009	Math 1403-010	34	4.82	4.39	4.44
S 2009	Math 3803-001	9	4.79	4.39	4.44
S 2009	Math 2343-0G1	28	4.73	4.39	4.44
S 2009	Math 2343-0G2	30	4.70	4.39	4.44
F 2008	Math 2333-0G1	34	4.80	4.28	4.40
F 2008	Math 1453-001	29	4.76	4.28	4.40
F 2008	Math 2333-0G2	22	4.71	4.28	4.40