

SARAH ROLLER DYESS, PH.D.

The University of Alabama in Huntsville – Department of Curriculum and Instruction
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EDUCATION

- Ph.D. Curriculum, Teaching, and Educational Policy** 2015
Michigan State University, East Lansing, MI
Focus area: Mathematics Education
- M.A. School Principalship** 2008
Central Michigan University, Mount Pleasant, MI
Focus area: Elementary School Administration/Curriculum
- B.S. Elementary Education** 2004
Central Michigan University, Mount Pleasant, MI
Major: Mathematics, Minors: Physical Science and Language Arts
State of Michigan Professional Teaching Certification (expired 6/30/2022)
- Elementary K-5 All Subject (K-8 Self Contained Classroom)
 - Mathematics (EX), 6-8
 - Science (DX) 6-8
 - Language Arts (BX), 6-8

WORK EXPERIENCE

- Associate Professor** 2021 – present
Department of Curriculum and Instruction, The University of Alabama in Huntsville
- Assistant Professor** 2015 – 2021
Department of Curriculum and Instruction, The University of Alabama in Huntsville
- Middle School Teacher** 2007 – 2015
Bath Community Schools, Bath, MI
- Contract Math Audit Consultant** 2013 – 2014
Ingham Intermediate School District, Mason, MI
- Graduate Student Research Assistant** 2012
Department of Teacher Education, Michigan State University, East Lansing, MI
- Course Assistant** 2010 – 2011
Department of Teacher Education, Michigan State University, East Lansing, MI
- Middle School Teacher** 2004 – 2007
Midland Public Schools, Midland, MI
- Title I Summer School Administrator/Teacher** 2005 – 2006
Midland Public Schools, Midland, MI

RESEARCH INTERESTS

- Teacher preparation and mentoring practices
- Research-based instructional strategies for teaching mathematics and STEM education
- Development of prospective/practicing teachers

PUBLICATIONS (Note: Sarah Roller Dyess has also published under the name Sarah A. Roller.)

Refereed Journal Articles

Dyess, S. R., & Plank, C. (in press). Numberless math stories support young learners in problem solving. *Young Children*.

Dyess, S. R., Marin, K. A., & Cunningham, E. P. (2024). What they notice in photographs: A study of preservice teachers' noticings in a formative assessment cycle. *School Science and Mathematics*. <https://doi.org/10.1111/ssm.12642>

Carpenter, K., & **Dyess, S. R.** (2023). GPS: Composing and decomposing shapes across the grades. *Mathematics Teacher: Learning and Teaching PK-12*. 116(12), 956-959. <http://doi.org/10.5951/MTLT.2023.0218>

Dyess, S. R. (2023). You're a Get the Facts Out champion! Now What? *AMTE Connections*. 33(1). <https://amte.net/connections/2023/08/you%E2%80%99re-get-facts-out-champion-now-what>

Plank, C. & **Dyess, S. R.** (2022). Promoting equitable problem solving with numberless math stories. *Mathematics Teacher: Learning and Teaching PK-12*. 115(8), 551-558. <http://doi.org/10.5951/MTLT.2021.0282>

Marin, K. A., & **Dyess, S. R.** (2022). Preparing teachers of mathematics with the virtual conference assignment. *Supplemental Materials for AMTE Standards*. Raleigh, NC: Association of Mathematics Teacher Educators. Retrieved from: <https://amte.net/content/virtual-conference>

Lampley, S. A., **Dyess, S. R.,** Benfield, M. P. J., Davis, A. M., Gholston, S. E., Dillihunt, M. L., & Turner, M. W. (2022). Understanding the conceptions of engineering in early elementary students. *Education Sciences*. 12(1), 43. <http://doi.org/10.3390/educsci12010043>

Slate Young, E., & **Dyess, S. R.** (2021). Supporting prospective teachers in problem solving: Incorporating mindset messaging to overcome math anxiety. *Mathematics Teacher Educator*. 10(1), 9-28. <https://doi.org/10.5951/MTE.2020-0047>

Hamilton, F. A., Hile, K. A., Skelley, D. L., **Roller, S. A.,** Lampley, S. A., & Slate Young, E. (2021). Exploring students' perceptions of collaboration and critical thinking skills following an escape room experience. *The Journal of Campus Activities Practice and Scholarship*, 3(1), 5-16. <https://doi.org/10.52499/2021011>

- Roller, S. A.,** Lampley, S. A., Dillihunt, M. L., Benfield, M. P. J., Gholston, S. E., Turner, M. W., & Davis, A. M. (2020). Development and initial validation of the Student Interest and Choice in STEM (SIC-STEM) Survey 2.0 instrument for assessment of the social cognitive career theory constructs. *Journal of Science Education and Technology*. 29(5) 646-657.
<https://doi.org/10.1007/s10956-020-09843-7>
- Roller, S. A.,** Cunningham, E. P., & Marin, K. A. (2019). Photographs and learning progressions: Supports for intentional assessment and instruction in mathematics. *YC Young Children*. 74(3), 26-32. <https://www.jstor.org/stable/26788999>
- Roller, S. A.** (2019). Preparing teachers of mathematics with a math work station project. *Supplemental Materials for AMTE Standards*. Raleigh, NC: Association of Mathematics Teacher Educators. Retrieved from: <https://amte.net/sptm/supp/work-station-project>
- Roller, S. A.,** Cunningham, E. P., & Marin, K. A. (2019). Capturing disappearing data and strategy development. *Teaching Children Mathematics*. 25(6), 382-383.
<https://doi.org/10.5951/teacchilmath.25.6.0382>
- Roller, S. A.** (2019). Noticing and wondering: A language structure to support mentoring conversations. *Mathematics Teacher Educator*. 7(2), 44-56. <https://doi.org/10.5951/mathteaceduc.7.2.0044>
- Roller, S. A.,** Cozzolino, D., King, A., Schieler, L. (2019). Making time for book study. *Mathematics Teaching in the Middle School*. 24(4), 243-246.
<https://doi.org/10.5951/mathteacmidscho.24.4.0243>
- O'Brien, J. L., **Roller, S. A.,** & Lampley, S. A. (2017). LearningPad conundrum: The perils of using third party software and student privacy. *Journal of Cases in Educational Leadership*, 20(4), 7-26.
<https://doi.org/10.1177/1555458917690191>
- Roller, S. A.** (2016). What they notice in video: A study of prospective secondary mathematics teachers learning to teach. *Journal of Mathematics Teacher Education*, 5(19), 477-498.
<https://doi.org/10.1007/s10857-015-9307-x>

Refereed Book Chapters

- Dyess, S. R.,** Cunningham, E. P., & Marin, K. A. (2024). Photographs and learning progressions: Supports for intentional assessment and instruction in mathematics. In H. Seitz (Ed.), *Spotlight on Young Children: Observation and Assessment, Volume 2*. (pp. 84-91). The National Association for the Education of Young Children.
- Marin, K. A., **Roller, S. A.,** & Cunningham, E. P. (2020). Using photographs and learning trajectories to enhance teacher noticing to support formative assessment. In C. Martin, D. Polly, & R. Lambert (Eds.), *Handbook of Research on Formative Assessment in Pre-K Through Elementary Classrooms* (pp. 134-149). Hershey, PA: IGI Global. <https://doi.org/10.4018/978-1-7998-0323-2.ch007>

Refereed Conference Proceedings

- Roller, S. A.,** Lampley, S.A., Dillihunt, M. L., Benfield, M. P.J., & Turner, M. W. (2018). Student attitudes toward STEM: A revised instrument of Social Cognitive Career Theory Constructs. In

American Society for Engineering Education Annual Conference & Exposition Proceedings, Salt Lake City, UT.

Roller, S. A. & Wessling, F. C. (2017). Reflecting on the reflections driving variations in heat transfer teaching. In *American Society for Engineering Education Annual Conference & Exposition Proceedings*. Columbus, OH.

Roller, S. A. (2016). Noticing and wondering: Supporting mentoring conversations about math teaching. In M.B. Wood, E. E. Turner, M. Civil, & J. A. Eli (Eds.), *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for Psychology of Mathematics Education* (pp.901-904). Tucson, AZ: The University of Arizona.

Wessling, F. C. & **Roller, S. A.** (2016). Lessons learned and adjustments made while teaching heat transfer with a flipped classroom. In *American Society for Engineering Education Annual Conference & Exposition Proceedings*. New Orleans, LA.

Roller, S. A. (2015). Exploring mentoring conversations: What makes them more or less educative? In Bartell, T. G., Bieda, K.N., Putnam, R.T., Bradfield, K., & Dominguez, H. (Eds.). *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 1008). East Lansing, MI: Michigan State University.

Interviews/Podcasts

Thanheiser, E. (2022, February 8). Supporting prospective teachers in problem solving: Incorporating mindset messaging to overcome math anxiety. Audio podcast on the *Mathematics Teacher Educator* article on the Mathematics Teacher Educator Podcast (Episode 36). Retrieved from <https://mtepodcast.amte.net/36>.

Thanheiser, E. (2019, August 12). Noticing and wondering: A language structure to support mentoring conversations. Audio podcast on the *Mathematics Teacher Educator* article on the Mathematics Teacher Educator Podcast (Episode 7). Retrieved from <https://mtepodcast.amte.net/7>.

PRESENTATIONS

Invited National Presentation

Lee, J. S. & **Dyess, S. R.** (2024, March). *Changing the Narrative of the Teaching Profession with Students to Bolster Federal Education Programs*. Presentation for National Association of Federal Education Program Administrators Annual Conference, Washington, D.C.

Refereed International & National Presentations

Slate Young, E., **Dyess, S. R.** & Sun, K. (2024, February). *Measuring and Understanding Teachers' Mindset Beliefs Related to Mathematics Teaching and Learning*. Presentation for Association of Mathematics Teacher Educators Annual Conference, Orlando, FL.

Dyess, S. R. & Lee, J. S. (2024, February). *Building a Teacher Pipeline: Collaborating on High School Recruitment Practices*. Presentation for Association of Mathematics Teacher Educators Annual Conference, Orlando, FL.

- Lee, J. S. & **Dyess, S. R.** (2023, October). *Get the Facts Out: Strategies to Recruit High School Students into the Teaching Profession*. Presentation for American Association for Employment in Education Conference and Career Expo, Chicago, IL.
- Dyess, S. R.** & Marin, K. A. (2023, February). *Establishing Preservice Teaching Networks to Increase Access to Diverse Voices*. Presentation for Association of Mathematics Teacher Educators Annual Conference, New Orleans, LA.
- Hughes, E. R. & **Dyess, S. R.** (2022, September). *Strategies that Support Powerful Problem Solving for All with Numberless Math Stories*. Presentation for NCSM: Leadership for Mathematics Education Annual Conference, Anaheim, CA.
- Marin, K. A., & **Roller, S. A.** (2020, April, Cancelled due to COVID-19). *Diverse Conference Experiences: An Introduction to Professional Networking*. Poster presentation for National Council of Teachers of Mathematics Research Conference. Chicago, IL.
- Gholston, S. E., Davis, A. M., Benfield, M., Turner, M. W., Dillihunt, M. L., **Roller, S. A.**, & Lampley, S. A., (2020, March). *Assessment of Student Interest and Choice in Engineering using Data Visualization*. Presentation for Industry, Engineering, and Management Systems Conference, Clearwater Beach, FL.
- Roller, S. A.** & Marin, K. A. (2020, February). *Math Work Station Project: Supporting Teachers to Notice and Analyze Mathematical Thinking in Photographs*. Presentation for Association of Mathematics Teacher Educators Annual Conference, Phoenix, AZ.
- Marin, K. A. & **Roller, S. A.** (2020, February). *Introducing Teacher Candidates to a Professional Network: Diverse Conference Experiences*. Poster presentation for Association of Mathematics Teacher Educators Annual Conference, Phoenix, AZ.
- Roller, S. A.**, Cunningham, E. P. & Marin, K. A. (2019, April). *In a SNAP! Using Photographs and Learning Progressions as a Formative Assessment Tool*. Presentation for National Council of Teachers of Mathematics Annual Meeting, San Diego, CA.
- Roller, S. A.** & Plank, C. (2019, April). *Leveraging Partnerships to Create Observations that Illuminate Effective Mathematics Teaching Practices in Elementary Classrooms*. Presentation for NCSM: Leadership for Mathematics Education Annual Meeting, San Diego, CA.
- Marin, K. A., Cunningham, E. P. & **Roller, S. A.** (2019, April). *Coaching Teachers to Use Photographs and Learning Progressions as Formative Assessment Tools*. Presentation for NCSM: Leadership for Mathematics Education Annual Meeting, San Diego, CA.
- Levin, M., **Roller, S. A.**, & Enzinger, N. (2019, February). *Storytelling and Summarizing: Mathematical Narratives as Formative Assessment*. Presentation for Association of Mathematics Teacher Educators Annual Conference, Orlando, FL.
- Roller, S. A.**, Lampley, S.A., Dillihunt, M. L., Benfield, M. P.J., & Turner, M. W. (2018, June). *Student Attitudes Toward STEM: A Revised Instrument of Social Cognitive Career Theory Constructs*. Presentation for American Society for Engineering Education Annual Conference & Exposition, Salt Lake City, UT.

- Slate Young, E., & **Roller, S. A.** (2018, February). *Developing Growth Mindsets in Preservice Elementary Teachers while Engaging in Problem Solving and Algebraic Thinking*. Presentation for Association of Mathematics Teacher Educators Annual Conference, Houston, TX.
- Roller, S. A.** & Wessling, F. C. (2017, June). *Reflecting on the Reflections Driving Variations in Heat Transfer Teaching*. Presentation for American Society for Engineering Education Annual Conference & Exposition, Columbus, OH.
- Roller, S. A.** (2017, April). *Noticing and Wondering: A Feedback Approach for Collaboration*. Presentation at National Council of Teachers of Mathematics Annual Meeting, San Antonio, TX.
- Cozzolino, D., **Roller, S. A.**, & Wade, K. (2017, April). *Thinking Outside the Lunchbox: Starting with a Book Study*. Presentation at National Council of Teachers of Mathematics Annual Meeting, San Antonio, TX.
- Roller, S. A.** (2016, November). *Noticing and Wondering: Supporting Mentoring Conversations about Math Teaching*. Presentation for 38th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ.
- Wessling, F. C. & **Roller, S. A.** (2016, June). Lessons learned and adjustments made while teaching heat transfer with a flipped classroom. Presentation for American Society for Engineering Education Annual Conference & Exposition, New Orleans, LA.
- Roller, S. A.** (2015, November). *Exploring Mentoring Conversations: What Makes Them More or Less Educative?* Poster Presentation for 37th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, East Lansing, MI.
- Roller, S. A.** (2015, April). *It's Not Just What They Say, but How They Say It –Exploring the Form and Focus of Mentoring Conversations*. Presentation for American Educational Research Association, Chicago, IL.
- Roller, S. A.** (2015, April). *Prospective Teachers' Noticings in Videos of Their Own Mathematics Teaching*. Presentation for National Council of Teachers of Mathematics Research Conference, Boston, MA.

Refereed Regional & State Presentations

- Dyess, S. R.** (2023, November). *Utilizing Real-World Photographs in Which One Doesn't Belong Routines*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Oxford, AL.
- Dyess, S. R.** & Hughes, E. R. (2022, November). *Numberless Math Story Strategies that Support Problem Solving for All*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Oxford, AL.
- Lampléy, S. A., **Dyess, S. R.**, Benfield, M. P. J., Davis, A. M., Gholston, S. E., Dillihunt, M. L., & Turner, M. W. (2021, November). *Investigating Early Elementary Students' Conceptions of Engineering*. Presentation for Mid-South Education Research Association Annual Meeting, New Orleans, LA.

- Roller, S. A.** (2019, November). *Capturing Disappearing Data: Using Photographs and Learning Progressions as a Formative Assessment Tool*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Birmingham, AL.
- Roller, S. A. & Plank, C.** (2019, October). *Partnering Together to Develop Mathematics Teaching Practices*. Presentation for National Council of Teachers of Mathematics Regional Conference, Nashville, TN.
- Marin, K. A., **Roller, S. A.** & Cunningham, E. P. (2019, September). *Click, Click, Zoom! Using Photographs and Learning Progressions as Tools for Formative Assessments*. Presentation for National Council of Teachers of Mathematics Regional Conference, Boston, MA.
- Blair, M., & **Roller, S. A.** (2018, November). *Learning Walks: A Way to Make Strides in Math Instruction after Book Study*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Birmingham, AL.
- Roller, S. A. & Plank, C.** (2018, November). *Partnering Together to Envision Effective Mathematics Teaching Practices*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Birmingham, AL.
- Roller, S. A.** (2017, November). *Noticing and Wondering: A Feedback Structure to Illuminate Hidden Figures*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Birmingham, AL.
- Holt, S. & **Roller, S. A.** (2017, November). *Empowering the Hidden Figures in Beginning Teachers: A Teacher Panel*. Presentation for Alabama Council of Teachers of Mathematics Fall Forum, Birmingham, AL.
- Crespo, S., Brakonicki, A., Thorpe, J., **Roller, S. A.**, Ji, X. (2012, May). *Using Preservice Teachers' Invented Classroom Dialogues as a Window into their Developing Mathematical Teaching Practices*. Poster Presentation at CREAT-ing the Future of STEM Education, East Lansing, MI.
- Grzesiak, B. & **Roller, S. A.** (2011, March). *We Are Family...All Mi-BLSi Team and Me!* Presentation at Michigan's Integrated Behavior & Learning Support Initiative (MiBLSi) State Implementer's Conference, Lansing, MI.
- Invited Non- Refereed Presentations**
- Dyess, S. R.** (2021, February). *A Transformative Journey: Assessment Practices that Really Matter*. Invited virtual presentation for Prospective Teachers of Mathematics Association, Appalachian State University.
- Roller, S. A.** (2019, October). *A Backstage Pass to Effective Lesson Planning and Design*. Invited presentation for Honors Seminar: The Future of Design, University of Alabama in Huntsville, Huntsville, AL.
- Roller, S. A.** (2018, October). *Behind the Scenes of Lesson Design*. Invited presentation for Honors Seminar: The Future of Design, University of Alabama in Huntsville, Huntsville, AL.
- Roller, S. A. & Van Hal, S.** (2014, August). *Let's Talk About It – Effective Ways of Communicating*

about Teaching. Invited professional development session at Secondary Internship Opening Day, Michigan State University, East Lansing, MI.

Roller, S. A. (2014, August). *Let's Talk About It – Effective Ways of Communicating Feedback*. Invited professional development session at Elementary Internship Opening Day, Michigan State University, East Lansing, MI.

Roller, S. A. (2014, August). *Navigating the Ups and Downs of Grad School*. CITE Ph.D. Orientation. Invited panel discussion at Michigan State University, East Lansing, MI.

Roller, S. A. (2013, November). *Teacher Panel 2: Teaching Diverse Learners*. Invited panel discussion at University of Wisconsin-Milwaukee, Milwaukee, WI.

Roller, S. A. (2013, August). *Let's Talk About It – Effective Ways of Communicating Feedback*. Invited professional development session at Secondary Internship Opening Day, Michigan State University, East Lansing, MI.

Roller, S. A. (2012, April). *MSU Intern Expectations Seminar*. Invited panel discussion at Michigan State University, East Lansing, MI.

Non- Refereed Presentations

Dyess, S. R. (2023, April). *Busting Myths about the Teaching Profession*. Presentation for UAH teacher candidates, Huntsville, Alabama.

Dyess, S. R. (2023, March). *Busting Myths about the Teaching Profession*. Presentation for UAH Education Day, Huntsville, Alabama.

Roller, S. A. (2015, April). *It's Not Just What They Say, but How They Say It –Exploring the Form and Focus of Mentoring Conversations*. Presentation for CITE Academic Showcase, East Lansing, MI.

Harris, M. & **Roller, S. A.** (2003, April). “*CM²PET: Changing Michigan's Mathematics Preparation of Elementary Teachers*.” Poster Presentation at Student Research and Creative Endeavors Exhibition, Mount Pleasant, MI.

RESEARCH EXPERIENCE

Academic Research

Research Projects

University of Alabama in Huntsville, AL

Exploring Students' Perceptions of Teaching Mathematics as a Profession **2023 – present**
(NSF Proposal #2344959 – under review)
Co-PIs: Dyess, S. R., Diagona, T., & Burrows, J.
Evaluators: Lampley, S. A., Skelley, D., & Martin, W. G.

Measuring Mathematics Teaching and Learning Mindset **2021 – present**
Co-PIs: Sun, K., Dyess, S. R., & Slate Young, E.

- Learning about UAH's Teacher Education Population*** 2023 – 2024
Co-PIs: Dyess, S. R. & Cramer, A.
- An Investigation into the Engineering Pipeline Challenges Facing K-12 Students in Alabama's Black Belt Region*** 2016 – 2021
PI: Benfield, M.P.J. Co-PIs: Dillihunt, M., Gholston, S., Lampley, S., & Roller, S. A.
Co-Is: Turner, M., Waddell, E., Smith, D., Curtis, C.
Funded by National Science Foundation
- Investigating the Ways Education Assignments Support Teacher Development*** 2017 – 2021
Co-PIs: Roller, S. A., Cunningham, E. P., & Marin, K. A.
- Learning about Mathematical Mindsets and Anxiety in Prospective Elementary Teachers*** 2016 – 2020
Co-PIs: Slate Young, E. & Roller, S. A.
- Taking Steps: Utilizing Learning Walks to Intentionally Notice and Discuss Effective Mathematics Teaching Practices*** 2016 – 2019
PI: Roller, S. A.
Honors Student Researcher: Blair, M.
- Exploring Mentoring Conversations about Elementary Mathematics Teaching*** 2016 – 2018
PI: Roller, S. A.
Funded by University of Alabama in Huntsville New Faculty Grant
- Dissertation Research** 2013 – 2015
Michigan State University, East Lansing, MI
Learning about Teaching from Mentor-Intern Conversations – Does the Form and Focus Matter?
Directed by: Sandra Crespo
- Research Assistant** 2012
Michigan State University, East Lansing, MI
Exploring Posing, Interpreting, and Responding in the Elementary Classroom (PIR Project)
PI: Sandra Crespo
Funded by National Science Foundation Career Grant
- Research Practicum** 2010 – 2012
Michigan State University, East Lansing, MI
Directed by: Michael Steele
- Mathematics Department Educational Research Assistant** 2003
Central Michigan University, Mount Pleasant, MI
CM²PET: Changing Michigan's Mathematics Preparation of Elementary Teachers
Co-PIs: Donna Ericksen, Dennis St. John, and William Leibfritz
Funded by The Dwight D. Eisenhower Higher Education Grant Fund

TEACHING EXPERIENCE

University Teaching

Assistant Professor, The University of Alabama in Huntsville, Huntsville, AL **2015 – Present**
Department of Curriculum and Instruction

ED 315: Education Evaluation and Measurement (F19, F20, F21, F22, F23)
ED 374/674: Teaching Elementary Mathematics (F16, F17, F18, F19, F20, F21, F22, F23)
ED 410: Foundations of Educational Evaluation (SP16, SP17, SP18, SP19, SP20, SP21, SP22, SP23)
ED 422/522: Middle and Secondary School Mathematics Methods (F15, F16, F17, F18, F19, SP21, SP22, SP23)
ED 493: Elementary School Internship (University Supervisor - SP19, SP20)
ED 497: High School Internship (University Supervisor - F15, SP16, SP20, SP23)
ED 565: Introduction to Differentiated Instruction (SU16)
ED 650: Differentiating Elementary Math and Science Instruction (SP16)
MA 230: Math for Elementary Teachers (F16, F17, F18, F20, F21, F22, F23)
MA 231: Math for Elementary Teachers II (SP17, SP18, SP19, SP20, SP21, SP22, SP23)

Course Assistant, Michigan State University, East Lansing, MI **2010 – 2011**
Department of Teacher Education

TE 407: Teaching Subject Matter to Diverse Learners for Secondary Mathematics (F10)
TE 408: Crafting Teaching Practice for Secondary Mathematics (SP11)
TE 407/408: Microteaching Lab (F10, SP11)

Mentoring Experience

Mentor Teacher of Secondary Seniors, Michigan State University **2007 – 2015**
Field Placement Classroom for TE407/408 Secondary Science and/or English

Supervising Teacher of Intern, Central Michigan University **2013**
Secondary Science (6th grade)

K-12 Teaching

Middle School Teacher

Bath Community Schools, Bath, MI **2007 – 2015**
Midland Public Schools, Midland, MI **2004 – 2007**

- Science: 8 years sixth grade, 3 years eighth grade
- Math: 4 years sixth grade
- English/Language Arts: 4 years sixth grade, 1 year seventh grade, 2 years eighth grade
- Reading Intervention: 2 years sixth grade, 1 year seventh grade, 2 years eighth grade
- Math/ELA Guided Academics: 1 year sixth grade, 1 year seventh grade, 2 years eighth grade
- Computers: 2 years sixth grade

GRANTS

- National Science Foundation Grant (under review for 2024-2025) *Building a Partnership, Program, and Pipeline for Mathematics Teacher Education in Alabama*. **PI: S. R. Dyess**, Co-PIs: T. Diagana & J. M. Burrows. Amount requested: \$99,877

- National Science Foundation Grant (2016 – 2020) *An investigation into the engineering pipeline challenges facing K-12 students in Alabama's black belt region*. PI: M.P.J. Benfield, **Co-PIs:** M. Dillihunt, S. Gholston, S. A. Lampley, & **S. A. Roller**. Amount funded: \$1,239,883.
- UAH Scholarship Enhancement Travel Award (2019) *Math work station project: Supporting teachers to notice and analyze mathematical thinking in photographs*. Amount funded: \$500.
- Alabama Commission on Higher Education (ACHE) Math and Science Teacher Education Scholarships (2017 – 2019) *Advancing chargers to educators of math and science*. **PI: S. A. Roller**. Amount funded: \$10,279.88.
- UAH Scholarship Enhancement Travel Award (2018) *Storytelling and summarizing: mathematical narratives as formative assessment*. Amount funded: \$500.
- UAH Prevost Research Program (2017) *Taking steps: Utilizing learning walks to intentionally notice and discuss effective mathematics teaching practices*. Student: M. Blair, **Advisor: S. A. Roller**. Amount funded: \$2,000/student and \$500/advisor.
- UAH Collaborative Learning Fellow Grant (2017) *Supporting students' learning and teaching with whiteboards*. Amount funded: \$1,500.
- UAH Scholarship Enhancement Travel Award (2017) *Developing growth mindsets in preservice elementary teachers while engaging in problem solving and algebraic thinking*. Amount funded: \$500.
- New Faculty Research Program Grant (2016 – 2017) *Exploring mentoring conversations about elementary mathematics teaching*. **PI: S. A. Roller**. Amount funded: \$9,917.
- UAH Scholarship Enhancement Travel Award (2016) *Noticing and wondering: Supporting mentoring conversations about math teaching*. Amount funded: \$500.
- UAH Humanities Center Faculty Travel Grant (2015) *Identifying educative mentor-intern conversations: What is high-level and low level?* Amount funded: \$750.
- UAH Scholarship Enhancement Travel Award (2015) *Exploring mentoring conversations: What makes them more or less educative?* Amount funded: \$500.
- Michigan State University Council of Graduate Students Conference Grant (2015) *Prospective teachers' noticings in videos of their own mathematics teaching*. Amount funded: \$300.
- Capital Area Science and Mathematics Center Professional Learning Grant Award (2014) *Michigan Science Teachers Association conference*. Amount funded: \$1000.

PROFESSIONAL SERVICE

University of Alabama in Huntsville, Huntsville, AL

National

- Change Agent, Association of Mathematics Teacher Educators (AMTE) Get the Facts Out (GFO) Task Force (2024-2027)

- Committee Member, Association of Mathematics Teacher Educators (AMTE) STaR Fundraising Committee (2023-2026)
- Champion, Get the Facts Out (2023-2024)
- AMTE Manuscript Mentor, AMTE Manuscript Review Groups (2020)
- Peer Reviewer: *Mathematical Thinking and Learning, Journal of Mathematics Teacher Education, Mathematics Teacher Educators*
- Conference Proposal Reviewer:
 - *AMTE Annual Conference* (2018, 2021)
 - *PMENA-38* (2016)

State

- Secretary, Association of Mathematics Teacher Educators of Alabama (AMTEA) (2023-2025)
- Partner Campus Liaison, SEED4ALCS Project (2021-present)
- Program Reviewer, Continuous Improvement in Educator Preparation (CIEP) Secondary Mathematics Programs for Alabama State Department of Education (2023)
- External Evaluator, NSF S-STEM Grant MATRIX: MAE Assistance for Transfer Improvement and Excellence (2019-2023)
- Board Member-at-Large, Association of Mathematics Teacher Educators of Alabama (AMTEA) (2018-2023)

University

- UAH Faculty Senate Representative for the Department of Curriculum & Instruction (2020-2023)
- CoED Representative, UAH Faculty Senate Finance and Resources Committee (2022-2023)
- CoED Representative, UAH Faculty Senate Personnel Committee (2022-2023)
- Alternate, Faculty Appeals Committee (2022-2023)
- CoED Representative, UAH Faculty Senate Undergraduate Scholastic Affairs Committee (2020-2022)
- CoED Representative, UAH Faculty Senate Faculty and Student Development Committee (2020-2022)
- UAH Faculty Senate Representative, Strategic Plan Institutional Effectiveness Subcommittee (2021)
- CoED Representative, Faculty Senate Lecturer By-Law Special Ad Hoc Committee (2021)
- CoED Representative, Faculty Senate Undergraduate Curriculum Committee (2017-2019)
- Committee Member, Fifth Year Comprehensive Review of Director of the Institute for Science Education (2018-2019)
- CoED Representative, University Academic Supports Ad Hoc Committee (Fall 2016)
- CoED Representative, University SIE Ad Hoc Committee (Fall 2016)

College

- Committee Member, Department Awards Committee (2017-present)
- Prepared State Certification Documents (CIEP) for Undergraduate and Graduate Secondary Mathematics Programs (2018- 2020, 2022)
- CoED Judge, Research Horizons Virtual Poster Session (2021)
- Committee Member, Elementary Lecturer Search Committee (2018)
- Committee Member, Department edTPA Ad Hoc Committee (2016-2017)
- Committee Chair, Early Childhood/Special Education Search Committee (Fall 2016)
- CoED Project Leader, Paint the Town Blue Competition (2015, 2016)
- Project Leader, College of Education's First Annual Week of Welcome Event (2016)
- Committee Member, Elementary Education Search Committee (2016)

- CoED Representative for recruitment events (2015-2019)

Local

- Planning Committee Member, Tech Trek (2016-present)

Bath Community Schools, Bath, MI

- Committee Member, Science Professional Learning Committee (2013-2015)
- Committee Member, Multi-Tier System of Supports (MTSS, 2013-2015)
- Participant, TRIG (Technology Readiness Infrastructure Grant) – Pilot (2013-2014)
- Bath Middle School Disney Team Teacher - Disney Youth Education Series Trip (2011-2014)
- Mentor Teacher (2011-2013)
- Team Leader, Multi-Tier System of Supports (MTSS)/MiBLSi (2010-2013)
- Committee Member, Science/Social Studies & Spanish Interview Team (2010)
- Director, Reading Incentive Program (2010)
- Public Relations/Donations Chair - Family Fun Night (2007-2010)
- Committee Member, Energy Essentials Task Force (2008-2009)
- Committee Member, Positive Behavior Intervention Support program (2007-2009)
- Committee Member, Bath Community Schools Planning Task Force (2007-2008)

Midland Public Schools, Midland, MI

- Committee Member, School Improvement Team collaborated with Michigan Schools in the Middle/Middle Start on curriculum and MEAP analysis
- Assisted in organizing Title I Math/ELA Parent Nights

HONORS

Associate Professor

- UAH College of Education Research Incentive Award (2022)

Assistant Professor

- UAH College of Education Outstanding Faculty Award (2019)
- AMTE “Service, Teaching, and Research” (STaR) Fellow (2016)

Graduate Student

- The Carol and Michael LeMense Family Endowed Graduate Fellowship (2014)
- MSU College of Education Doctoral Fellowship (2009, 2010)
- Harry and Margaret Towsley Center for Science and Mathematics Teachers Scholarship (2009)

Undergraduate Student

- CMU Mathematics Department Whitmore Award for Excellence in Mathematics Elementary Education
- Student of the Month, Central Michigan University
- CMU Teacher Education Department Lee R. Lyons Prize Scholarship
- CMU Mathematics Department Whitmore and Richtmeyer Scholarship

PROFESSIONAL ACTIVITIES

- Association of Mathematics Teacher Educators (AMTE, 2016-present)
- Association of Mathematics Teacher Educators of Alabama (AMTEA, 2017-present)
- National Council of Teachers of Mathematics (NCTM, 2015-present)
- Alabama Council of Teachers of Mathematics (ACTM, 2017-present)
- Leadership in Mathematics Education (NCSM, 2018-present)
- Alabama Mathematics Leadership Alliance (AMLA, 2019-2021)
- American Society for Engineering Education (ASEE, 2016-2019)
- North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA, 2015, 2018)
- American Educational Research Association (AERA, 2015-2016)
 - Division K: Teaching and Teacher Education
 - SIG: Research in Mathematics Education