**Megan Burton, PhD**

Auburn University

Curriculum and Teaching

5020 Haley Center

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**EDUCATION**

The University of Alabama Ph.D. Elementary Education August 2006

Kennesaw State University M.Ed. Early Childhood Education December 1998

Auburn University B.S. Elem. Ed. (Math) March 1994

**PROFESSIONAL EXPERIENCE**

Auburn University Associate Professor August 2014- present

Auburn University Assistant Professor January 2012-August 2014

The University of South Carolina Assistant Professor August 2006-December 2011

The University of Alabama Teacher in Residence August 2004-May 2006

Shelby County Schools Teacher (grades 2 & 4) August 1998-May 2004

Gwinnett County Schools Teacher (grade 2) August 1997-May 1998

Cherokee County Schools Teacher (grades 1 & 3) August 1994-May 1997

**RESEARCH ACTIVITIES**

1. **Books**

Flores, M. M., **Burton, M.,** & Hinton, V. (2017). *Making mathematics standards accessible to students with diverse learning needs: Using the concrete-representational-abstract sequence*. San Diego, CA: Plural Publishing, Inc. (33% contribution). Google Scholar Citations 2.

**b. Article-length publications**

 **i. Book chapters**

Bass, C. & **Burton, M**. (In press, 2021). In Vaidya, K. (Ed.), *Teach mathematics with a sense of humor: Why (and how to) be a funnier and more effective mathematics teacher and laugh all the way to your classroom* ISBN 978-1-925128-04-8.

**Burton, M.,** Tripp, L. O., Demoiny, S. B., Cardullo, V. M., and Finley, S. L. (2020). Empowering preservice teachers through alternative STEM teaching experiences. In S. Keengwe (Ed.), *Handbook of research of* *on innovative pedagogies and best practices in teacher education.* Hershey, PA: IGI Global.

**Burton, M**. & Mims, P. (2018). How do you measure a puddle? In S. McMillen, E. Friedland, & P. del Prado Hill (Eds.), *Integrating math across the K-6 curriculum*. Reston, VA: NCTM. Reprint of 2012 article, with additional reflections and resources for teachers to utilize.

Silver, E., **Burton, M.** & Audrict, W. (2018) Why focus on formative assessment in relation to mathematics instructional tools, and approaches. InE. Silver & V. Mills (Eds.), *Eliciting and using evidence of student thinking to guide instruction: linking formative assessment to other effective instructional practices.* Reston, VA: NCTM.

**Burton, M.** & Audrict, W. (2018). Focusing on formative assessment to improve mathematics teaching and learning. InE. Silver & V. Mills (Eds.), *Eliciting and using evidence of student thinking to guide instruction: linking formative assessment to other effective instructional practices.* Reston, VA: NCTM.

Thompson, D. R., **Burton, M.,** Cusi, A., Wright, D. (2018) Formative assessment: A critical component in the teaching-learning process. In D. R. Thompson, M. Burton, A., Cusi, & D., Wright (Eds.), *Classroom assessment in mathematics: Perspectives from around the globe (In ICME-13 Monograph Series Edited by G. Kaiser).* (pp. 1-5). Springer International Publishing.

**Burton, M.,** Silver, E., Mills, V., Audrict, W., Strutchens, M., & Petit, M. (2018) Formative assessment and mathematics teaching: Levering powerful linkages in the U.S. context. In D. R. Thompson, M. Burton, A., Cusi, & D., Wright (Eds.), *Classroom assessment in mathematics: Perspectives from around the globe (In ICME-13 Monograph Series Edited by G. Kaiser.).* (pp. 193-205). Springer International Publishing. https://doi.org/10.1007/978-3-319-73748-5\_13

Cardullo, V. & **Burton, M.** (2016). Building relationship through learning communities and participation in online learning environments. In L. Kyei-Blankson (Eds.), *Handbook of research on strategic management of interaction, presence, and participation in online courses*. (pp. 448-471). IGI Global. <https://doi.org/10.4018/978-1-4666-9582-5.ch18>.

**Burton, M.** & Stockdale, L. (2015) Rural schools. In G. Scarlett (Ed.) *Invitation to*

*classroom management: An A-to-Z guide*. Thousand Oaks, CA: SAGE.

 **Burton, M.** (2012). Five strategies for creating meaningful mathematics experiences

in the primary years. In A. Shilllady (Ed.), *Spotlight on young children: Exploring math.* (pp. 10-14). Washington, D.C.: National Association for the Education of Young Children. (Reprinted from Burton, M (2010)). Five strategies for creating inclusive mathematics communities. *Young Children,* *65*(6) 92-96).

**Burton, M**. (2009). Integrating tablet technology into an elementary mathematics

methods course. In C. Maddux (Ed.), *Research highlights in technology and teacher education 2009* (pp. 27-32). Chesapeake, VA:Society for Information Technology and Teacher Education.

 **ii. Articles in refereed journals and invited articles**

**Published**

# Burton, M., Cardullo, V., & Tripp, L. (2020). Multiple perspectives of mathematics in STEM among preservice teachers. *Journal of Research in Innovative Teaching & Learning, 13*(1), ISSN: 2397-7604

**Burton, M**. (2019).Teaching mathematics: Multiple perspectives among teacher candidates during a STEM field experience. *Journal of Mathematics Education, 12*(1), 82-98. <https://doi.org/10.26711/007577152790040>.

Cardullo, V., **Burton, M**., & Tripp, L. (2019). Professional identities of teacher candidates collaborating and developing in an alternative placement. *The Field Experience Journal, 24*, 1-19.

Milton, J., Flores, M., Moore, A., Taylor, J., & **Burton, M.** (2019). Using the Concrete-representational-abstract sequence to teach conceptual understanding and fluency in multiplication and division. *Learning Disabilities Quarterly, 42*(1), 32-45. (10% contribution). [DOI: 10.1177/0731948718790089](https://doi.org/10.1177/0731948718790089)

Cardullo, V., Finley, S. **Burton, M**., & Tripp, L.O. (2017). Pre-service teachers: Attitudes, perceptions, and knowledge about academic language and academic vocabulary. *Journal of Higher Education Theory and Practice, 17*(9), <https://doi.org/10.33423/jhetp.v17i9.1418>.

Flores, M., Hinton, V., & Burton, M. (2016). Teaching problem solving to students receiving tiered interventions using the Concrete-Representational-Abstract Sequence and Schema Based Instruction. *Preventing School Failure: Alternative Education for Children and Youth, 60*(4), 345-355.

Hinton, V., Flores, M., Schweck, M., **Burton, M.** (2016). The effects of a supplemental explicit counting intervention for preschool children. *Preventing School Failure: Alternative Education for Children and Youth.60*(3), 183-193.

Hinton, V., **Burton, M.**, Flores, M., & Curtis, M. (June 2015). An investigation into pre-service special education teachers’ mathematical skills, efficacy, and teaching methodology. *Issues in the Undergraduate Preparation of School Teachers: The Journal, 1.* ISSN 2165-7874.

Nunes-Bufford, K., **Burton, M.,** & Eick, C. (2013). Developing elementary preservice teachers’ initial conceptions of common practices in science and mathematics teaching. *Alabama Journal of Mathematics, 37,* 1-10.

**Burton, M.,** Brown, K., & Johnson, A. (2013). Storylines about rural teachers in

the United States: A narrative review of the literature. *Journal of Research in Rural Education (Online), 28*(12) 1-18.

**Burton, M**. & Mims, P. (2012) Calculating puddle size. *Teaching Children*

*Mathematics, 18*(8), 474- 480.

Evans, K., Holley, J., Richburg-Sellers, F., Robey, S., Suber, S, Field, B., & **Burton, M.** (2012). Rice Creek Elementary School and the university partnerships. The University of South Carolina: A shared vision for excellence. *School-University Partnerships: The Journal of the National Association of Professional Development Schools, 5*(1), 19-27.

**Burton, M**. (2012). What is math? Exploring the perception of elementary pre-

service teachers. *Issues in the Undergraduate Preparation of School Teachers: The Journal*, *5*. Retrieved from

<http://www.k-12prep.math.ttu.edu/journal/5.attributes/burton02/article.pdf>

Field, B., Blakeney, R., **Burton, M.**, Dunlap, E., Faile, J., Hudson, Z., & Jackson,

 M. (2010). The University of South Carolina Professional Development School

Network: Twenty years of effective collaboration. *School-University Partnerships: The Journal of the National Association of Professional Development Schools. 4*(10), 31-42.

**Burton, M.** & Johnson, A. (2010). Where else would I teach? *Journal of Teacher*

*Education, 61*(4), 376-386. DOI: 10.1177/0022487110372362.

Vogler, K. & **Burton, M.** (2010). Mathematics teachers' instructional practices in an

 era of high stakes testing. *School Science and Mathematics, 110*(5), 247-261*.*

**Burton, M** (2010). Five strategies for creating inclusive mathematics communities.

*Young Children,* *65*(6), 92-96.

**Burton, M.** & Baum, A. (2009). Engage families in meaningful mathematics.

*Teaching Children Mathematics, 16*(1), 12-15.

**Burton, M.** (2009). Using think- tac- toe in the elementary classroom.Math Mate: The

Official Journal of the South Carolina Council of Teachers of Mathematics,32(2), 7-9.

**Burton, M.**, Daane, C., & Giesen, J. (May 2008). Infusing mathematics content into

a methods course: Impacting content knowledge for teaching.  Issues in the Undergraduate Mathematics Preparation of School Teachers: The Journal, 1. Retrieved from [www.k-12prep.math.ttu.edu](http://www.k-12prep.math.ttu.edu).

**Burton, M.**(2006). How can I meet the various needs of **ALL** students? Math Mate:

The Official Journal of the South Carolina Council of Teachers of Mathematics, 30(1), 6-8.

**iii. Published Proceedings**

**Burton, M.,** Cardullo, V, Tripp, O., Demoiny, S. & Woods, S. (2020). Elementary preservice teachers’ perceptions of teaching in a summer STEM teaching experience. *15th Hawaii International Conference on Education Published Proceedings.* Honolulu, HI.

**Burton, M.** (August 2019). Student thinking: An examination into the relationship between observing and teaching field experiences. In J. Novotna & H.Moraova (*Eds.), Proceedings of the International Symposium of Elementary Mathematics Teaching: Opportunities in Teaching and Learning Elementary Mathematics*. (pp.98-104). Prague, the Czech Republic.

**Burton, M**., Tripp, L. O., & Cardullo, V. (November 2018). Portraiture of elementary preservice teachers during a STEM camp experience. In T. Hodges, G. Roy, & A. Tyminski (*Eds.), Proceedings of the North American Chapter of the International Group for the Psychology of Mathematics Education*. (pp. 715-719). Greenville, SC. (50% contribution).

Cardullo, V., Finley, S., **Burton, M.,** Tripp, O. (January 2017). Preservice teachers: Attitudes, perceptions, and knowledge about academic language and academic vocabulary. 12th *Hawaii International Conference on Education Published Proceedings.* Honolulu, HI.

**Burton, M.,** Silver, E., Mills, V., Audrict, W., & Strutchens, M. (2016) Connecting formative assessment to current instructional practices. *Thirteenth International Congress on Mathematical Education Published Proceedings.*

**Burton, M.** (2016). Learning about elementary preservice teachers from their

observations of struggling learners. In K. V. Adolphson, & T. A. Olson, (Eds.)

 *Proceedings for the 43rd Annual Meeting of the Research Council on Mathematics Learning.*(pp. 43-49).Orlando, FL.

**Burton, M**. (2009). **Exploring the changing perception of mathematics among**

**elementary teacher candidates through drawings.** In S.L. Swars, D.W. Stinson, S. Lemons-Smith (Eds.) *Proceedings of the Thirty First Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. (pp. 363-370). Atlanta, GA: Georgia State University.<http://www.pmena.org/2009/proceedings/>

**Burton, M**. (2009). Integrating tablet technology into an elementary mathematics methods course.  In I. Gibson, R. Weber, K. McFerrin, R. Carlsen & D. Willis (Eds.), Proceedings of SITE 2009--Society for Information Technology & Teacher Education International Conference (pp. 3241-3246). Charleston, SC, USA: Association for the Advancement of Computing in Education (AACE). Retrieved January 27, 2020 from <https://www.learntechlib.org/primary/p/31145/>.

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**Burton, M.** & Geddings, D. (2008). A triad approach to elementary mathematics

teaching. In M. Qazi (Ed.). *Proceedings of the 5th Annual TEAM Math Partnership Conference Pre-Session.* (pp. 62-69). Tuskegee, AL: Tuskegee University. <http://www.team-math.net/tuskegeeconference/proceedings/5th/index.html>.

**Burton, M.** (2007). Giving all students a voice in the elementary mathematics

classroom. In David K. Pugalee (Ed.). *Proceedings of the Ninth International Conference Mathematics Education in a Global Community*. (pp. 106-111). Charlotte, NC: The Mathematics Education into the 21st Century Project. ISBN Number 83-919465-8-4.

 **iv. Book reviews**

**Burton, M.** (2019) Review of *Friends Count* for author and editors of a mathematics picture book by Lori Brown.Gloucester, VA: Bluewater Publications.

 **Burton, M.** (2012, August). [Review of the book *Old dogs, new math: Homework help*

 *for puzzled parents,* by Rob Eastaway and Mike Askew]. *Teaching Children*

 *Mathematics, 19*(1), 60-61*.*

**Burton, M.** (2011, April). [Review of book *Knowing and teaching elementary Mathematics: Teachers’ understandings of fundamental mathematics in China and the United States,* by Li Ping Ma]. *Teaching Children Mathematics, 17*(8),507-508.

 **v. Non-refereed articles**

Schack, E. & **Burton**, M. (2020). Hidden Ccsts: Deterrents to teacher recruitment. *AMTE: Connections, 29(*4).Retreived from: <https://amte.net/connections/summer-2020>

**Burton,** M. & Evans, K.(2011). Small and tall teachers learning together in a

 professional development school setting. *PDS Partners, 7*(1),13-14*.*

**c. Papers or lecture presentations**

1. **International**

Hatisaru , V., Murphy, C., Vollstedt, M., **Burton, M** & Wong, L.F. (2020, July Cancelled Due to COVID). *“In my picture there is just a mathematician whose brain is exhausted:” Getting to the heart of images of mathematics through drawings*. 14th International Congress on Mathematics Education. Shanghai, China.

**Burton, M.** (2019, August). *Student thinking: An examination into the relationship between observing and teaching field experiences.* International Symposium of Elementary Mathematics Teaching: Opportunities in Teaching and Learning Elementary Mathematics. Prague, the Czech Republic.

**Burton, M**., Tripp, L. O., & Cardullo, V. (2018, November*). Portraiture of elementary preservice teachers during a STEM camp experience*. North American Chapter of the International Group for the Psychology of Mathematics Education Conference. Greenville, SC.

**Burton, M.** (2017, September). *Co-planning for inclusive mathematics in teacher*

 *preparation: Examining perspectives.* Fourteenth International Conference Mathematics Education in a Global Community. Balatonfured, Hungary.

**Burton, M**., Silver, E., Mills, V., Audrict, W., Strutchens, M. (2016, July). *Connecting formative assessment to current educational instructional strategies.* International Congress on Mathematical Education. Hamburg, Germany.

**Burton, M.** (2009, April). *Using a tablet PC in an elementary mathematics methods course.* Society for Information Technology and Teacher Education Conference. Charleston, SC. April 2009.

1. **National**

**Burton, M.** (2020, November). *Keeping the “M “in STEM*. 2020 NCTM Virtual Conference and Exposition.

**Burton, M** (2020, February). *Which is the tool? Elementary teacher candidates’ analysis of instruction in STEM experiences*. Association of Mathematics Teacher Educators Annual Conference. Phoenix, AZ.

Cardullo, V., **Burton, M**., & Tripp, L.O. (2019, April). *Professional identities of teacher candidates: Collaborating and developing in an alternative placement.* National Field Experience Conference, Greely, Colorado.

**Burton, M.** (2019, February). *The power of perspectives: Preservice teachers’ multiple perspectives of a STEM.* Association of Mathematics Teacher Educators Annual Conference. Orlando, FL.

**Burton, M.,** Cardullo, V., Tripp, L. O.(2018, April). *Preservice teachers’ multiple perspectives on teaching and learning.* National Council of Teachers of Mathematics Research Conference. Washington, D.C.

Tripp, L. O., Cardullo, V., & **Burton, M.** (2018, March). *Creative and imaginative ideas: STEM + providing real world application*. National Science Teachers Association.. Atlanta, GA.

Tripp, L. O., Cardullo, V., & **Burton, M.** (2018, March). *The sheep are in the jeep: Forces in motion*. National Science Teachers Association. Atlanta, GA.

**Burton, M.,** Cardullo, V., & Tripp, L. O. (2018, March). *Professional identities of teacher candidates: Collaborating and developing in an alternative placement.* American Association of Colleges for Teacher Education. Baltimore, MD.

Silver, E., **Burton, M.,** & Strutchens, M. (2018, February). *Tying it together:*

*Preparing teachers of mathematics to integrate equity, formative assessment, and effective teaching.* Association of Mathematics Teacher Educators. Houston, TX.

**Burton, M.** (2017, April). *Utilizing a collaborative planning tool for inclusive mathematic*s. National Council of Teachers of Mathematics Research Conference. San Antonio, TX.

\***Burton, M.** Daniel, E., & Hutto, M. (2017, April). *Fractions: Developing understanding through meaningful tasks and discussion*. National Council of Teachers of Mathematics Annual Conference. San Antonio, TX.

Pugalee, D., **Burton, M**., Musgrave, S., Conner, K., Bezuk, N. (2017, February). *Global perspectives on teacher preparation: Topics from ICME 13*. Association of Mathematics Teacher Educators. Orlando, FL

Lee, J., Salinas, A. Miller, T., Sjostrom, M., Evitts, T., & **Burton, M**. (2017, February). *Individual and collective capacities: Strengthening affiliates to become stronger* *advocates*. Association of Mathematics Teacher Educators. Orlando, FL.

Mills, V.L., Silver, E.A., Strutchens, M., **Burton, M**., & Audrict, W. (2016, April). *Findings from the NCSM/ AMTE Joint Task Force on Formative Assessment: Two new powerful lenses on a familiar topic.* National Council of Supervisors of Mathematics. Oakland, CA.

**Burton, M**. (2016, February). *Learning about elementary preservice teachers from their observations.* Research Council on Mathematics Learning. Orlando FL.

Eddy, C; Krupa, E.; Lee, J.; Grady, M.; Miller, T.; & **Burton, M.** (2016, February).

*Connecting and becoming stronger advocates through affiliates*. Association of Mathematics Teacher Educators. Irvine, CA.

Strutchens, M. & **Burton, M**. (2015, April). *Using professional learning communities to improve teacher’s use of formative assessment: Increasing student learning*. National Council of Supervisors of Mathematics. Boston, MA.

**Burton, M**. (2015, April). *Supporting teacher teams in meeting the needs of all students in inclusive classrooms: Involving all educators*. NationalCouncil of Supervisors of Mathematics. Boston, MA.

Coomes, J., Eddy, C. **Burton, M**., Lee, J., & Franz, D. (2015, February). *Affiliates: Becoming stronger advocates.* Association of Mathematics Teacher Educators. Orlando, FL.

Hinton, V., Smith, M., & **Burton, M**. (2015, February). *Inclusive classrooms: Special and general education teachers working together for all students*. Association of Mathematics Teacher Educators. Orlando, FL.

Flores, M., **Burton, M**., & Hinton, V. (2014, October). *Collaborative PD for effective differentiated math instruction.* Conference on Learning Disabilities. Philadelphia, PA.

Hickman, E., **Burton**, M., & Rubio, T. (2014, April). *State initiative and university professional development partnerships.* National Council of Teachers of

 Mathematics. New Orleans, LA.

Hickman, B., Rubio, T., & **Burton,** M. (2013, February). *Advancing effective PD:*

*The journey of one state initiative from inservice to preservice*. Association of Mathematics Teacher Educators Annual Conference. Orlando, FL.

**Burton M.** (2012, April). [*Storylines about rural teachers in the United States: A synthesis of the research literature*](http://convention2.allacademic.com/one/aera/aera12/index.php?click_key=1&cmd=Multi+Search+Search+Load+Publication&publication_id=535700&PHPSESSID=6jurao032h33i29rrmdieqlds0)*.* American Educational Research Association Conference, Vancouver, BC.

\***Burton, M.,** Evans, K. Fickling, J, Holley, J., Richardson, D. & Sellers, F. (2011, March). *Brain compatible learning in a PDS? A mind stretching process for all.* National Association of Professional Development Schools Annual Conference. New Orleans, LA.

**Burton, M.** & Geddings, D.(2011, January). *From freshmen to seniors: A triad, collaborative approach to preparing prospective teachers.* Association of Mathematics Teacher Educators Annual Conference. Irvine, CA.

\***Burton, M.,** Evans, K. Suber, S., Robey, S., & Sellers, F. (2010, March). *Active instruction in math? The journey of enacting brain-based research for one PDS elementary school and university.* National Association of Professional Development Schools Annual Conference. Orlando, FL.

Johnson, A. & **Burton, M.** (2009, April). *“Where else would we teach?”* American Educational Research Association Annual Conference. San Diego, CA.

Vogler, K. & **Burton, M***.* (2009, April). *South Carolina Educators for the practical use of research: Mathematics teachers’ instructional practices in the era of high stakes testing.* American Educational Research Association Annual Conference. San Diego, CA.

Geddings, D. & **Burton, M.** (2009, April). *The triad approach to preparing preservice teachers to effectively teach elementary mathematics*. National Council of Teachers of Mathematics Annual Conference. Washington, D.C.

\***Burton, M.,** Evans, K., Suber, S., & Sellers, F.(2009, March). *Growing as a professional development school: Expanding and enriching.* National Association of Professional Development Schools Annual Conference. Daytona Beach, FL.

**Burton, M.** (2008, April). *Sustaining instructional change through teacher leaders using inquiry and integration.* National Council of Supervisors of Mathematics Annual Conference. Salt Lake City, UT.

Baum, A. & **Burton, M.** (2008, March). *Empowering families to engage preschool children in meaningful math*. Association of Childhood Education International Conference. Atlanta GA.

**Burton, M.** (2008, January). *Experiencing, implementing, and leading mathematics inquiry & integration.* Association of Mathematics Teacher Educators Annual Conference. Tulsa, OK.

VanScoy, I., Field, B., & **Burton, M.** (2007, October). *Continual renewal of school university partnerships: Analysis of new commitments, roles, and strategies at the University of South Carolina*. National Network for Educational Renewal Conference. Charleston, WV.

Sternberg, L., VanScoy, I, Field, B., Chaplin, P., **Burton, M.,** & Baum, A. (2007, March). *Sixteen years of professional development schools at the University of South Carolina: The ebb and flow of a partnership.* National Association of Professional Development Schools Conference. Las Vegas, NV.

Daane, C.J., **Burton, M.,** & Green, A. (2007, March). *Improving problem solving skills using non-routine problems.* National Council of Teachers of Mathematics Annual Conference. Atlanta, GA.

**Burton, M.** (2007, March). *Increasing elementary preservice teachers’ mathematical content knowledge for teaching in a combined mathematics methods and content course.* National Council of Teachers of Mathematics Annual Conference. Atlanta, GA.

**Burton, M.,** Schwery, C., & Ridgway, K. (2006, May). *The changing pedagogical expertise of teacher candidates during their second semester of teaching field experience*. American Educational Research Association Conference. San Francisco, CA.

**Burton, M.** (2005, October). *Dialogue in the mathematics classroom.* National Council of Teachers of Mathematics Regional Conference. Birmingham, AL.

**Burton, M.** (2005, April). *Dialogue in the mathematics classroom.* National Council of Teachers of Mathematics National Conference. Anaheim, CA.

**Burton, M.** (2004, November). *Differentiation of instruction.* National Council of Teachers of Mathematics Regional Conference. New Orleans, LA.

**Burton, M.** (2004, April). *Differentiation of instruction.* National Council of Teachers of Mathematics National Conference. Philadelphia, PA.

**Burton, M.** & Wilson, E. (2003, April). *Social studies journals to promote higher order thinking.* American Educational Research Association Conference. Chicago, IL.

1. **Regional**

**Burton, M.** (2019, October). *Keeping the "M" in STEM: Engaging elementary students in meaningful mathematics*. NCTM Regional Conference: Nashville, TN.

**\*Burton, M.,** Maynard, A., Shell, S. (November, 2018). *Keepting the “M” in STEM: Project-Based learning in a summer STEM experience. Alabama* Council of Teachers of Mathematics Annual Conference. Birmingham, AL.

Cardullo, V., **Burton, M.,** Tripp, L.O., & Demoiny, S. (2018). *Preparing elementary education pre-service teachers: STEM alternate field placements.* Auburn Research Faculty Symposium. Auburn, AL.

**Burton, M.**, Flores, M., & Hinton, V. (2017, November). *Reaching students with*

*diverse learning needs.* Alabama Council of Teachers of Mathematics. Birmingham, AL.

\***Burton, M.,** Daniel, E., & Hutto, M. (2016, November). *Connecting formative assessment to current instructional strategies*. Alabama Council of Teachers of Mathematics Annual Conference. Birmingham, AL.

\*Webb, K. & **Burton, M.** (2015, October). *Cooperative learning in the elementary classroom.* Alabama Council of Teachers of Mathematics. Birmingham, AL.

\*Hutto, M. $ **Burton, M**. (2015, October).*Listening and learning from our students: One preservice teacher’s journey.*Alabama Council of Teachers of Mathematics. Birmingham, AL.

Flores, M., **Burton,** M., Hinton, V., & Smith, M. (2015, February). *Professional development for collaborative mathematics instruction*. Outreach Scholarship Symposium: Advancing Transformative Engagement. Auburn, AL.

Barry, N. **Burton,** M., Tripp, L.O., Love, A., Thomas, C., & Russell, J. (2013, April). *Destination Malawi, Africa: Student reactions to a study abroad experience*. Global Perspectives on College and University Teaching. Auburn, AL.

 **2. Selected Invited Speaking Engagements**

**2019 Invited Elementary STEM teacher** in Shenzhen, China. December 2019- January 2020 on topic of exploring STEM fields through architecture.

**2019 Invited speaker** at Buffalo State University.Focus on to teacher candidates. Original date: February 2019 rescheduled due to weather delay to April 2019.

**SERVICE ACTIVITIES**

**a. University service**

**1. Auburn University**

2016-2019 Student Conduct Advisory Committee

2013-2018 Auburn University Faculty advisor for Auburn University Wesley Foundation

2013-2016 Advisory Committee for a Drug-free Campus and Workplace

2016-2019 Program Coordinator

**2. College of Education**

2020- Scholarship and Innovation Committee

2017-2020 Undergraduate Education Committee

2015-Present Kappa Delta Pi: Education Honor Society Counselor

 Dec. 2017- received official AU Student Involvement Student Organization status

2016-2017 Received Phoenix Rising Award

2015-2016 Received National Chapter Membership Award

2012- 2015 College of Education Faculty Governance Committee

**3. Department**

2020- Ad Hoc Website/ Communications Committee

2020- Ad Hoc Committee on Graduate Faculty Status

2019 Search Committee Chair for Elementary Clinical Faculty

2017- Present Mentoring Committee of Sarah Demoiny

2017-2019 Chair of Mentoring Committee for Stacie Finley

2016-2019 Program Coordinator

2016-2017 Search Committee for Elementary Clinical Faculty

2016-2017 Search Committee for Elementary Social Studies Faculty

2016-2018 Faculty Affairs Committee

2016 Search Committee for Elementary Faculty (failed)

2016 Search Committee for Department Chair

2015- 2016 Graduate Studies Committee

2013- 2018 Mentoring Committee of Victoria Cardullo

2012-2016 Strategic Planning Equity Working Group

2013 Strategic Planning Professional Learning Community Working Group

2012-2013 Strategic Planning Professional Status Working Group

 **4. Local Community**

2018-present Auburn High School Advisory Committee for the Education and Training program

2012- 2014 Auburn City Schools Advisory Federal Programs Advisory Committee

**b. Professional service**

 **1. National Level**

2020-2024 Association of Mathematics Teacher Educators- President Elect/ President/ Past President

2020-2023 Conference Board of the Mathematical Sciences

2019-2020 Association of Mathematics Teacher Educators Constitution and By Laws Chair

2018 Mentor for Early Childhood Early Career Faculty North American Chapter of the

International Group for the Psychology of Mathematics Education

2018- 2020 Association of Mathematics Teacher Educators Conference Program Committee Member

2017-2020 Constitution and By Laws Committee of the Association of Mathematics Teacher Educators

2017-2019 Standards Dissemination Task Force- Association of Mathematics Teacher Educators

2013-2017 Affiliate Director of the Association of Mathematics Teacher Educators

2013-2017 NCSM/ AMTE- Formative Assessment Steering Committee

2011- 2017 Member, Affiliate Committee of Association of Mathematics Teacher Educators

2015- 2016 AMTE Board Subcommittee on Equity

2013-2014 Women in Mathematics Education- Bibliography Committee

2012-2013 Chair, Affiliate Committee of Association of Mathematics Teacher Educators. Submit proposal and organize affiliate meeting at the national conference, communicate affiliate needs to the AMTE board and board needs to affiliates.

2012-2014 Member, Special Task Force on Nonprofit Affiliate Status for Association of Mathematics Teacher Educators

 **2. State level**

2019 K-5 Alabama Math Strategic Planning Committee Member

2018-2019 AMTE-A Past President

2016-2018 AMTE-A President

2015-2016 AMTE-A President Elect

2012-2015 AMTE-A Board Member at Large

2012-2016NCTM Government Relations Officer for ACTM

2007-2010 President/President-Elect, South Carolina Association of Mathematics Teacher Educators (SCAMTE)

2008-2011 Representative to Advisory Assembly of South Carolina Council of

 Teachers of Mathematics

2006-2007 Organizational and Constitutional committee for SCAMTE

**c. Editing/ Reviewing**.

2019 Reviewer for *Elementary and Middle School Mathematics: Teaching Developmentally, 10th edition* by Van de Walle/Karp/Bay-Williams.

2018- present Reviewer for *Mathematics Teacher: Learning and Teaching Pre-K-12*

2018 Served as External Expert Reviewer for a project on pedagogical content knowledge assessment via video sorts by the University of Central Arkansas

2018-2020 Editorial Board for *Journal of Global Education and Research*

2018 Provided feedback on a framework for Bowling Greeen State University colleagues.

2018 Served as External Expert Consultant for an National Science Foundation sponsored project with the University of Michigan study on simulation assessments of student thinking for Meghan Shaughnessy and Tim Boerst.

2018 Proposal reviewer for The Psychology of Mathematics Education- North America Annual Conference

2016-2018 Editorial Board for the Classroom Assessment in Mathematics: Perspectives from Around the Globe: ICME 13 Monograph Series (in press).

2016-2018 Editorial Board for *Eliciting and Using Evidence of Student Thinking to Guide Instruction: Linking Formative Assessment to Other Effective Instructional Practices.* Reston, VA: NCTM (in press).

2016- present Reviewer for *Investigations in Mathematics Learning*

2016-present Reviewer for *The Mathematics Educator*

2016-2018 Proposal reviewer for NCTM Research Conference

2012-2018 Manuscript reviewer for *NCSM Journal*

2011-2019 Manuscript reviewer for *Journal of Teacher Education*

2009-present Proposal reviewer for the Association of Mathematics Teacher Educators

2007- 2018 Manuscript reviewer for *Teaching Children Mathematics*

2015 Reviewer for the *International Congress on Mathematics Education*

2008-2015 Manuscript reviewer for *The MathMate*

2006-09, 2011, 2017 Proposal reviewer for Division K, American Educational Research Association

2007-2009 Proposal reviewer for National Council of Teachers of Mathematics

**Current Membership in Professional Organizations:**

Alabama Council of Teachers of Mathematics

American Educational Research Association

Association of Mathematics Teacher Educators

Association of Mathematics Teacher Educators- Alabama

National Council for Teachers of Mathematics

National Council of Supervisors of Mathematics

Psychology of Mathematics Education- North America

TODOS: Mathematics for All

 SIG: Educators of Native American Students (EONAS)

**ACADEMIC AWARDS AND HONORS**

 **2020 Elected President of Association of Mathematics Teacher Education-** Nominted by a colleague and elected by membership of this professional organization.

 **2014 Auburn University Inramural Exploratory Grant Seed Grant**: Developing a Mathematical Teaching Anxiety Instrument Co-PIs: Michel Smith, Margaret Flores, **Megan Burton,** & Vanessa Hinton$8,000.

 **2014 Kennesaw State University Distinguished Alumni Award.** Nominee for the Bagwell College of Education and selected as one of three distinguished alumni for the university at large. This is based on professional achievements, community activities, and exemplifying the ideals and mission of Kennesaw State University.

 **2011 National Association for Professional Development Schools Award for Exemplary Professional Development School Achievement**. This award was given to the local elementary school, Rice Creek Elementary School, where I served as a university faculty liaison, taught my mathematics methods courses, supervised interns, and worked with teachers on action research projects.

**2009 South Carolina Educators for the Practical Use of Research Distinguished Paper Award.** For Vogler, K. & Burton, M. (April 2009) *Mathematics teachers’ instructional practices in an era of high stakes testing.* Selected as the outstanding paper. Received a cash prize, a certificate, and then presented the paper as a representative for the state organization at the American Educational Researchers’ Association conference.

 **2005-2006 Outstanding Research for a Graduate Student in Elementary Education**

 at the University of Alabama.

 **2004-2005 Outstanding Teaching for a Graduate Student in Elementary Education**

 at the University of Alabama.

 **2003-2004 Outstanding Service for a Graduate Student in Elementary Education** at

 the University of Alabama.

**h. Funded grants and contracts**

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| --- | --- | --- | --- | --- |
| *Years*  | *Project* | *Principal Investigators* | *Role* | *Amount/ Source* |
| 2015-2017 | STEM Enrichment in Physics, Mathematics and Project basedLearning: Meeting K-12 Needs in Alabama | Dr. Allen L. Landers & Dr. Marilyn Strutchens | Consultant- Provide OGAP training and support for professional learning communities for teachers in grades K-5. | $390,000Math Science Partnership- Alabama State Department of Education |
| 2014-2016 | Improving Students’ Mathematical Proficiency through Formative Assessment:Responding to an Urgent Need in the Common Core Era | Edward Silver and Valerie Mills | Grant Board: Plan, facilitate and analyze results from a survey and working meeting on formative assessment within existing mathematical frameworks. The working meeting will be held Oct. 12-15 in Ann Arbor Michigan and will include leaders in the field of: Culturally Relevant Pedagogy, Response to Intervention, Cognitively Guided Instruction, Classroom Discourse Tools, & Mathematical Tasks Framework | National Science Foundation |
| 2012-2013 | TEAM-Math and AMSTI Professional Learning Communities Partnership | Strutchens, M., Hickman, E., Martin, W.G., Stuckwisch, S., & Albrecht, U. | Member of Grant Writing and Implementation Team: Senior Researcher and Mathematics Education faculty member. Participate in triads that provide support for professional learning communities and Grade Level Leaders. Provide professional development training | $234,000Alabama State Department of Education |