# SANDRA B. COOPER

One Bear Place #97314 Waco, Texas 76798 (254) 710-3246 (Work)

1030 Old Ranch Road Crawford, Texas 76638

E-Mail: sandra cooper@baylor.edu

# **Academic Degrees**

Ph.D.	Texas A&M University	1994	Curriculum & Instruction
M.A.	Louisiana Tech University	1988	Elementary Education
B.A.	Louisiana Tech University	1985	Elementary Education

## **Professional Experience**

2022 -	Present	Associate Chair, Curriculum and Instruction, Baylor University
2018 -	2022	Graduate Program Director, EdD Online Program
2014 -	Present	Professor, Mathematics Education, Baylor University
2007 -	2014	Associate Professor, Mathematics Education, Baylor University
2001 -	2007	Associate Professor, Mathematics Education, Texas Tech University
1999 -	2007	Elementary Education Program Coordinator, Texas Tech University
1995 -	2001	Assistant Professor, Mathematics Education, Texas Tech University
1994 -	1995	Assistant Professor, Mathematics Education, Auburn University
1991 -	1994	Lecturer, Educational Curriculum & Instruction, Texas A&M University
1988 -	1991	Jr. High Mathematics Teacher, State of Louisiana
1985 -	1987	Elementary Teacher, State of Louisiana

# Significant Leadership in Professional Organizations

President-Elect, School Science and Mathematics Association, 2023-2024

Associate Vice President for Marketing, Association of Mathematics Teacher Educators, 2020-2023

Board of Directors, School Science and Mathematics Association, 2018-2021

Secretary, Board of Directors for the Association of Mathematics Teacher Educators, 2017-2020

Past-President, Texas Council of Teachers of Mathematics, 2019-2020

President, Texas Council of Teachers of Mathematics, 2017-2019

President-Elect, Texas Council of Teachers of Mathematics, 2016-2017

Board of Directors, Texas Council of Teachers of Mathematics, 2012-2015

Co-Executive Director, School Science and Mathematics Association, 2006-2010

Affiliates Director, Association of Mathematics Teacher Educators, 2009-2013

President, Association of Mathematics Teacher Educators in Texas, 2008-2010

Past-President, Association of Mathematics Teacher Educators in Texas, 2010-2011

President, Central Texas Council of Teachers of Mathematics, 2012-2014

President-Elect, Central Texas Council of Teachers of Mathematics, 2011-2012

Conference Program Co-Chair, School Science and Mathematics Association, 2013

Conference Steering Committee Chair, Association of Mathematics Teacher Educators in Texas, 2013

Conference Program Chair, National Council of Teachers of Mathematics Regional Conference, 2008

Conference Program Chair, Association of Mathematics Teacher Educators Conference, 2007

# **Scholarship and Creative Activities**



http://orcid.org/0000-0001-5982-5806

- \*- Denotes graduate student collaboration
- \*- High Impact Publication

## **Journal Publications (Refereed)**

- Cooper, S., Crowley, B., \*Matsuo, H., &\*Donham, M. (2022). Mathematics courses matter: Preparing PSTs for certification. Journal of Mathematics Teacher Education in Texas, 12(3): 4-7.
- Cooper, S., Shelton, R. N., \*Padgett, R. N., Crowley, B., Kerschen, K., & \*Donham, M. P. (2022) The impact of a summer intervention focused on foundational concepts of number sense for early learners, Investigations in Mathematics Learning, 14(3): 199-214. DOI: 10.1080/19477503.2022.2073120
- Cooper, S., \*Crowley, B., \*Warren, M., \*Donham, M., \*Salisbury, K., \*Ritter, K., \*Eubank, M. (2022). Teacher noticing for preservice teachers in an early childhood field experience, Journal of Mathematics Teacher *Education in Texas*, 12(1): 13-14.

- Blevins, B., Cooper, S., Crocker Papadakis, L., Earl, J., Howell, L., Lively, C., Meehan, J., Murray, E. A., Pratt, S., Sanguras, L., Talbert, S., Talbert, T. L., & Werse, N. R. (2022). Reframing the problem of practice: Transitions in Baylor University's Ed.D. in learning and organizational change program. *Impacting Education: Journal on Transforming Professional Practice*, 7(1): 32-41. DOI:10.5195/ie.2022.230
- Nesmith, S., Walter, C., Cooper, S., Matson, C. Emerson, T., Mullins, M., Daniel, J., & Martens, P. (2021). Water, river, and community: Bridging community, environment, and outreach through a transdisciplinary course. Connected Science Learning, 3(4). https://www.nsta.org/connected-science-learning/connected-science-learning-july-august-2021/water-river-and-community
- Lively, C., Blevins, B., Talbert, S. & Cooper, S. (2021). Building community in online professional practice doctoral programs. *Impacting Education: Journal on Transforming Professional Practice*, 6(3): 21-29. https://doi.org/10.5195/ie.2021.187
- Nesmith, S., and **Cooper, S.** (2021). Connecting engineering design and inquiry cycles: Impact on elementary preservice teachers' engineering efficacy and perspectives toward teaching engineering. *School Science and Mathematics* 121(5): 251-262. https://doi.org/10.1111/ssm.12469
- \*Shelton, R., \*Kerschen, K., & Cooper, S. (2020). The impact of a varied field experience on preservice teachers' perceptions of their personal growth: A summer math academy for early learners. *The Teacher Educator*. 55(1): 28-46. https://doi.org/10.1080/08878730.2019.1618424.
- Nesmith S.M., & Cooper S. (2019). Engineering process as a focus: STEM professional development with elementary STEM-focused professional development schools. *School Science and Mathematics*. 119(8):487–498. https://doi.org/10.1111/ssm.12376
- Wilkerson, T., Eddy, C., Quebec-Fuentes, S., Sorto, A., Gupta, D., Ward, L., Jasper, W., Parker, Y., Mallam, W., Cooper, S., & \*Kerschen, K. (2018). Development and Validation of the Algebra Teachers' Self-Efficacy Instrument: Assessment of Algebra Teachers' Knowledge and Personal Teaching Efficacy. *School Science Mathematics Journal*, 118(6): 206-217. https://doi.org/10.1111/ssm.12291
- \*Kershen, K., Cooper, S., & \*Shelton, R. (2018). The impact of a summer mathematics academy on rising kindergartners' understanding of early number concepts. *Journal of Research in Childhood Education*, 32(4): 419-434. https://doi.org/10.1080/02568543.2018.1497738
- **Cooper, S.,** Rogers, R. M., Purdum-Cassidy, B., & Nesmith, S. M. (2018). Selecting quality picture books for mathematics instruction: What do preservice teachers look for? *Children's Literature in Education*, *51*:110-124. https://doi.org/10.1007/s10583-018-9363-9
- Nesmith, S. M., Purdum-Cassidy, B., **Cooper, S.**, & Rogers, R. D. (2017). Love it, like it, or leave it—Elementary preservice teachers' field-based perspectives toward the integration of literature in mathematics. *Action in Teacher Education*, 39(3), 321-339. https://doi.org/10.1080/01626620.2017.1292158
- Nesmith, S., Schwarz, G., Cooper, S., and \*Walker, A. (2016). Are graphic novels always "cool"? Parent and student perspectives on elementary math and science graphic novels: The need for action research by school leaders. *Planning and Changing*, 47 (3/4), 228-245.
- **Cooper**, **S**. and Thomas, J. (2016), On the team, but not in the game: Did we mean to sideline parents in science and mathematics reform? *School Science and Mathematics*, 116 (1): 1–2. DOI: 10.1111/ssm.12153
- Thomas, J.A. & Cooper, S. (2016). The road to reform: A grounded theory study of parents' and teachers' influence on elementary school science and mathematics. *School Science and Mathematics*, 116 (1): 29–42. DOI: 10.1111/ssm.12151
- Rogers, R. M., Cooper, S., Nesmith, S. M., & Purdum-Cassidy, B. (2015). Ways that preservice teachers integrate children's literature into mathematics lessons. *The Teacher Educator*, *50*(3), 170-186. DOI: 10.1080/08878730.2015.1038493
- Eddy, C. M., Fuentes, S. Q., Ward, E. K., Parker, Y. A., Cooper, S., Jasper, W. A., Winifred A. Mallam, M. Alejandra Sorto & Wilkerson, T. L. (2015). Unifying the algebra for all movement. *Journal of Advanced Academics*, 26(1), 59-92. DOI: 10.1177/1932202X14562393
- Eddy, C.M., Quebec Fuentes, S., Ward, E.K., Parker, Y.A., **Cooper, S.**, Jasper, B., Mallam, W., Sorto, M.A., & Wilkerson, T. (2015). Characterizing school algebra: Implications for educational policy. *Journal of Advanced Academics*. *1*(1), 1-34. DOI: I0.II77/1932202XI4562393
- Purdum-Cassidy, B., Nesmith, S., Meyer, R., & Cooper, S. (2015). What are they asking? An analysis of the questions planned by preservice teachers when integrating literature in mathematics. *Journal of Mathematics Teacher Education*. 18(1): 79-99. DOI: 10.1007/s10857-014-9274-7
- **Cooper, S.** & Nesmith, S. (2013). Exploring the role of field experience context in pre-service teachers' development as mathematics educators. *Action in Teacher Education*, 35(3): 165-185, DOI: 10.1080/01626620.2013.770376.
- Nesmith, S., **Cooper**, **S.**, & Schwarz, G. (2011). Exploring graphic novels for elementary science and mathematics. *School Library Media Research* [Online Serial], *14*. Available: [http://www.ala.org/aasl/aaslpubsandjournals/slmrb/slmrcontents/volume14/cooper]

- **Cooper, S.**, Wilkerson, T., Eddy, C., Kamen, M., Marble, S., Junk, D., & Sawyer, C. (2011). Lesson study among mathematics educators: Professional collaboration enabled through a virtual community. *Learning Communities Journal* [Online Serial], *3*, Available: [http://celt.muohio.edu/lej/index.php]
- **Cooper, S.** (2011). An exploration of the potential for mathematical experiences in informal learning environments. *Visitor Studies*, 14(1): 48-65.
- **Cooper, S.,** Thomas, J., & Motley, T. (2011). No duck left behind: Children's data analysis supports scientists' theory of declining duck populations. *Science and Children*, 48(5): 45-49.
- Nesmith, S. & Cooper, S. (2010). Trade books in the mathematics classroom: The impact of many, varied perspectives on determination of quality. *Journal of Research in Childhood Education*, 24(4): 1-19.
- Cooper, S. (2009). Preservice teachers' analysis of children's work to make instructional decisions. *School Science and Mathematics Journal*, 109 (6), 355-362.
- Ponticell, J. A., Thomas, J.A., Cooper, S.B. (2006). Conflict in staff development implementation: A case study. *Journal of School Public Relations*, 27(2), 147 – 160.
- \*Tallent-Runnels, M.K., Thomas, J.A., Lan, W.Y., Cooper, S.B., & Ahern, T. (2006). Teaching courses online: A review of research. *Review of Educational Research*. 76 (1): 93-135. DOI: 10.3102/00346543076001093 \*Cited by 646 publications according to Scopus (as of 1/22/24); Cited by 518 publications, according to the Web of Science (as of 1/22/24); Cited by 1985 publications according to Google Scholar (as of 1/22/24)
- Ahern, T., Thomas, J. A., Tallent-Runnels, M.K., Lan, W. Y., Cooper, S., \*Cyrus, J., & \*Lu, X. (2006). The effect of social grounding on collaboration in a computer-mediated small group discussion. *The Internet and Higher Education*.9(1):37-46.
- Tallent-Runnels, M. K., Lan, W. Y., Fryer, W., Thomas, J. A., Cooper, S., & \*Wang, K. (2005). The relationship between problems with technology and graduate students' evaluations of online teaching. *The Internet and Higher Education*, (8) 167-174.
- Runnels, M.K., Cooper, S.B., Thomas, J.A., Lan, W.Y., Busby, C. (2005). How to teach online: What the research says. *Distance Learning*, *2*(1): 21-27.
- Thomas, J. & Cooper, S. (2004). Preparing tomorrow's teachers to teach with technology: Getting past Go in science and mathematics. Contemporary Issues in Technology and Teacher Education [Online serial], 4(3). Available: http://www.citejournal.org/vol4/iss3/currentpractice/article2.cfm
- Thomas, J.A., Cooper, S.B., & Haukos, D. (2004). Skateboards or wildlife? Wetland problem solving. *Science and Children*, 41(7): 20-24.
- Lan, W., Tallent-Runnels, M.K., Fryer, W., Thomas, J., Cooper, S., & \*Wang, K. (2003). An examination of the relationship between technology problems and teaching evaluation of online instruction. *Internet and Higher Education*, 6: 365-375. Available at http://authors.elsevier.com/sd/article/S1096751603000563.
- **Cooper, S.B.** (2001). Benefits of a technology committee in a teacher education course. *Journal of Technology and Teacher Education*, 9 (1), 75-82.
- Thomas, J.A. & Cooper, S.B. (2000) Teaching technology: A new opportunity for pioneers in teacher education. *Journal of Computing in Teacher Education*, 17 (1), 13-19.
- **Cooper**, **S.B.** (1998). Instructor-created computer tutorials for students in an elementary mathematics education course. *Journal of Computing in Childhood Education*, *9*(1), 93-101.
- Boyd, P. & Cooper, S.B. (1998). Communication in the mathematics classroom. The Record, 34 (3), 102-105.
- **Cooper**, **S. B.** (1996). Case studies of students in a field-based and a university-based elementary mathematics methods course. *Journal of Teacher Education*, 47(2), 139-146. (Published work from Dissertation)
- Bennett, Sandra. (1991). Extra readings: Readings outside the classroom. The Reading Teacher. 44 (7), 526-527.
- Bennett, Sandra. (1989). Home video games: Competition for motivating students to read. *Reading: Exploration and Discovery.* 12 (1), 53-59.

## **Book Chapters (Refereed)**

- **Cooper**, **S.** (accepted for 2024). *Preservice teachers find "math in the museum."* In L.Sun & C.Y. Lin (Eds.), Cases on Informal Learning for Science and Mathematics Education. IGI Global Publishers.
- Shelton, R. N., Kerschen, K., Crowley, B. N., & Cooper, S. (Chapter Revisions Requested, Chapter Under Review). Building a collaborative partnership to support early learners in mathematics during a summer experience at a museum. In M. A. Huntley, C. Suurtamm, & D. Thompson (Eds.), International perspectives on mathematics outreach. Information Age Publishing.
- Werse, N., Cooper, S., Meehan, J., & Sanguras, L. (2023). Designing dissertation courses for the fundamental intersection of the dissertation in practice: Both dissertation and practice. In C. Benedetti and A. Cavarrubias (Eds.), *Teaching Critical Inquiry and Applied Research in Ed.D. Programs: Moving beyond Traditional Methods*.
- Werse, N., Murray, A., Cooper, S., Sanguras, L., & Crocker Papadakis, L. (2023). Innovation and excellence in the Baylor University Ed.D. in learning and organizational change program. In H.T. Rasmussen and K. Ingle (Eds.) *Innovation and Impact*.

- Nesmith, S., & Cooper, S. (2020). Elementary STEM learning. In C.C. Johnson, M. Mohr-Schroeder, T. Moore, L. Bryan, and L. English (Eds.), *Handbook of Research on STEM Education*, (pp.101-114). Routledge/Taylor & Francis
- Wilkerson, T. L., Sorto, M. A., Jasper, W. A., Cooper, S., Mallam, W., Eddy, C. M., Parker, Y. A., Fuentes, S. Q., Taylor, J. M., & Ward, E. K. (2020). A framework for measuring algebra teacher self-efficacy. In P. M. Jenlink (Ed.), *Examining the Role of Self-Efficacy in Teacher Preparation and Practice: A Research Monograph*. Lanham, MD: Rowman and Littlefield.
- **Cooper, S.**, Thomas, J., & Motley, T. (2012). No duck left behind: children's data analysis supports scientists' theory of declining duck populations. In L. Froschauer (Ed.), *A Year of Inquiry: A Collection for Elementary Educators* (pp. 102-107). Arlington, VA: NSTA Press.
- Kamen, M., Junk, D., Marble, S., Cooper, S., Eddy, C., Wilkerson, T., and Sawyer, C. (2011). Walking the talk: Lessons learned by university mathematics methods instructors implementing lesson study for their own professional development. In L. Hart, A. Alston, & A. Murata (Eds.) *Lesson-study Research and Practice in Mathematics Education* (pp. 167-176). New York, NY: Springer.
- Thomas, J. A., Cooper, S. B., & Ponticell, J. A. (1999). Doing math the science way: Staff development for integrated teaching and learning (pp. 10-26). In D.M. Byrd & D.J. McIntyre (Eds.) *Effective Models of Teacher Education:* Association of Teacher Education Yearbook VII.
- Bennett, Sandra. (1993). Extra readings: Readings outside the classroom. In M.W. Olson & S.P. Homan (Eds.) *Teacher to teacher: Strategies for the elementary classroom* (pp.85-88). Newark, Delaware: International Reading Association.

## **Editorial Work**

- Editorial Panel (2017-2020), *Teaching Children Mathematics*, a National Council of Teachers of Mathematics journal.
- Co-Editor for Focus Issue (January 2016), Parent Engagement in Science and Mathematics Learning, School Science and Mathematics Journal
- Co-Editor for Focus Issue (January 2014), Rational Number Sense, *Mathematics Teaching in the Middle School* Editorial Panel (2011-2014), *Mathematics Teaching in the Middle* School, a National Council of Teachers of Mathematics journal.
- Co-Editor (1998-2003), Issues in the Undergraduate Mathematics Preparation of School Teachers: The Journal (Electronic Journal at http://www.k-12prep.math.ttu.edu)

### **Publications (Refereed Conference Proceedings)**

- Shelton, R. N., Kerschen, K., Cooper, S., Wilkerson, T., & Rogers, R. (2023). Exploring Mathematics Preservice Teachers' Experiences in a Summer Field Experience (pp.51-16). In Hammack, R. & Cory, B. (Eds.), Proceedings of the 122nd Annual Convention of the School Science Mathematics Association (Vol. 10). Colorado Springs, CO: SSMA. Published at <a href="http://www.ssma.org/convention-proceedings">http://www.ssma.org/convention-proceedings</a>.
- Kerschen, K., Shelton, R. N., & **Cooper**, **S.** (2020). Impact of a summer mathematics academy on students' early number sense: A two-year case study (pp. 31-39). In Brandl, R. & Herron, J. (Eds.), *Proceedings of the 119th annual convention of the School Science and Mathematics Association* (Vol. 7). Minneapolis, MN: SSMA. Published at a <a href="http://www.ssma.org/convention-proceedings">http://www.ssma.org/convention-proceedings</a>.
- Eddy, C. M., Jasper, W. A., Wilkerson, T. L., Sorto, M. A., **Cooper, S.**, Ward, E., Fuentes, S., Mallam, W. A., & Parker, Y. A. (2014). A conceptual model for algebra teacher self-efficacy. In Matney, G. T. and Che, S. M. (Eds.). *Proceedings of the 41st Annual Meeting of the Research Council on Mathematics Learning* (pp.129-137). San Antonio, TX. Also Published at <a href="http://web.unlv.edu/RCML/">http://web.unlv.edu/RCML/</a>.
- Kamen, M., Marble, S., Junk, D. Wilkerson, T., Eddy, C., Cooper, S., & Sawyer, C. (2007). *Let's Walk the Talk: Japanese Lesson Study in Our University Classrooms*. Lesson Study Discussion Group Year 2 paper published in the conference proceedings for the Psychology of Mathematics Education-North American Chapter (Lake Tahoe, Nevada).
- Cooper, S., Wilkerson, T., Eddy, C., Kamen, M., Marble, S., Junk, D. & Sawyer, C. (2007). Mathematics Educators form Virtual Communities to Conduct Lesson Study. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2007* (pp. 3227-3232). Chesapeake, VA: AACE.
- Kamen, M., Junk, D., Wilkerson, T., Eddy, C., Marble, S., Sawyer, C., & Cooper, S. (2006). Public Math Methods Lessons Presented at Conferences: Japanese Lesson Study in Our University Classrooms. *Proceedings of the Psychology of Mathematics Education-North American Chapter*.
- Cooper, S. & Fryer, W. (2006). Mathematics Educators use iTV via the Internet to Conduct Lesson Study. In C. Crawford et al. (Eds.), Proceedings of Society for Information Technology and Teacher Education International Conference (pp. 3704-3711). Chesapeake, VA: AACE.

- Wilhelm, J., Cooper, S., and McMillan, S. (2004). Pre-service teachers experiencing mathematics through interdisciplinary moon projects and spinning tops. *Conference proceedings for the North American Chapter of the International Group for the Psychology of Mathematics Education, (Toronto, Ontario)*.
- Cooper, Sandra B. (1999). Using the web as a tool for promoting the integration of technology in teacher education. In J.D. Price, J. Willis, D. Willis, M. Jost, & S. Boger-Mehall (Eds.) *Technology and Teacher Education Annual*, Proceedings of the 10th International Conference of the Society for Information Technology and Teacher Education (SITE), (pp. 528-532). Charlottesville, VA: Association for the Advancement of Computing in Education.
- Cooper, Sandra B. (1998). Electronic diagnostic portfolios: Advantages and disadvantages of this technological approach. In J.D. Price, J. Willis, P. Mumma, & C. Crawford (Eds.) *Technology and Teacher Education Annual*, Proceedings of the 9th International Conference of the Society for Information Technology and Teacher Education (SITE), (pp. 673-675). Charlottesville, VA: Association for the Advancement of Computing in Education.
- Cooper, Sandra B. (1996). Electronic-mail journals in teacher education. In B. Robin, J.D. Price, J. Willis, & D. Willis (Eds.) *Technology and Teacher Education Annual*, Proceedings of the 7th International Conference of the Society for Information Technology and Teacher Education (SITE), (pp. 700-701). Charlottesville, VA: Association for the Advancement of Computing in Education.
- Thomas, J., Cooper, S., Baker, B., Rogers, D., Mitchell, S., Wilson, R. & Harsh, C. (1996). *Improving teacher education: Rationale and strategies for integrating technology within a field-based preservice program.*An Academics 2000 white paper developed for the Panhandle-South Plains Center for Professional Development and Technology.
- **Cooper, Sandra B.** (1995). The use of student tutorials in a mathematics education course. In D. Willis, B. Robin, & J. Willis (Eds.) *Technology and Teacher Education Annual*, Proceedings of the 6th International Conference of the Society for Information Technology and Teacher Education (SITE), (pp. 146-147). Charlottesville, VA: Association for the Advancement of Computing in Education.
- **Bennett, Sandra D.** (1994). Integration of technology in mathematics methods for elementary teachers. In D. Willis, B. Robin, & J. Willis (Eds.) *Technology and Teacher Education Annual*, Proceedings of the 5th Annual Conference of the Society for Technology and Teacher Education (STATE), (pp. 238-239). Charlottesville, VA: Association for the Advancement of Computing in Education.

## **Invited Publications**

- **Cooper, S.** & Wilkerson, T. (October 2015). Advocacy can work in many ways. *Association of Mathematics Teacher Educators-Texas Link Newsletter*.
- **Cooper, S.** (2004). Theory and Practice: Preparing teachers to integrate math and science. *Connections*, 13(3): 8-9. Association of Mathematics Teacher Educators Newsletter.

## **Externally Funded Research**

- **\$46,281** Nesmith, S. & Cooper, S. (2023). Camp Launch: Rising 5th Graders and Elementary Teachers "Blast Off" with STEM+. Project supported by the Cooper Foundation, Waco, Texas.
- \$75,000 Cooper, S. & Crowley, B. (2019) *Math for Early Learners Academy*, Project supported by the Cooper Foundation, Waco, Texas.
- **\$200,000 Cooper, S.** Project Director (2006-2007), Texas Regional Collaborative for Excellence in Mathematics Teaching. Project supported by the Texas Regional Collaboratives, University of Texas in Austin.
- **\$240,000** Cooper, S.B. & Thomas, J.A. (1999-2002) *TechLinks: Making Connections to Prepare Preservice Teachers for Teaching with Technology*. Project supported by the Preparing Tomorrow's Teachers for Technology program of the U.S. Department of Education with matching funds of \$244,000 from collaborative partners.
- **\$70,000** Thomas, J.A.& Cooper, S.B. (1999-2000). *Doing math the science way: High Plains Ecology*. Project supported by the Dwight D. Eisenhower Professional Development Grants Program associated with the Texas Higher Education Coordinating Board.
- **\$36,949** Maki, R.H., Maki, W.S., Cooper, S.B., & Thomas, J.A. (1998-2000). *Web-Based Courses*. This support is a portion of a National Science Foundation Grant currently supporting efforts in the TTU Psychology Department.

- **\$70,000** Cooper, S.B. & Thomas, J.A. (1997-1998). *Doing math the science way*. Project supported by the Dwight D. Eisenhower Professional Development Grants Program associated with the Texas Higher Education Coordinating Board.
- **\$20,000** Byerly, R.E., Cooper, S.B., Drager, L., Harris, G.A. & Pearce, K. (1996-1998). Web site dedicated to the collegiate mathematics preparation of preservice K-12 teachers: A development and installation project at Texas Tech University. Project supported by the Texas Statewide Systemic Initiative (SSI) for implementing the Guidelines for the Mathematical Preparation of Prospective Elementary Teachers.
  - **\$2000** Cooper, S.B. & Thomas, J.A. (1997). *Dramatizations of case studies in mathematics and science education reform: An interactive computer application*. Research supported by the College of Education from funds available for case-based teaching research activities from FIPSE.
- **\$70,000** Thomas, J.A. & Cooper, S.B. (1996). *Doing math the science way*. Projected supported by the Dwight D. Eisenhower Professional Development Grants Program associated with the Texas Higher Education Coordinating Board.

## **Proposals for External Funding**

- **\$2.3M** Cooper, S., Morgan, G., Jones, T., & Ketterlin Gellar, L. (2023). Developing a Culturally Relevant and Research-Based Summer School Curriculum to Support Early Number Sense for Prekindergarten and Kindergarten Children. Proposal submitted to the National Science Foundation DRK12. (Submitted November, 2023)
- **\$1.8M** Cooper, S., Morgan, G., & Ketterlin Gellar, L. (2021). Kindergarten Readiness in Math: Developing an Intervention Curriculum and Assessment of Early Number Sense for Prekindergarten and Kindergarten Children. Proposal submitted to the National Science Foundation DRK12. (Not Funded)
- **\$55,337 Cooper, S.** & Crowley, B. (2020). *Mathematics for Early Learners Academy: A Summer Learning Experience Focused on the Development of Early Number Sense*. Proposal submitted to Honda Foundation. (**Not Funded**)
- \$399,774 Cooper, S., Crowley, B., Padgett, N., & Morgan, G. (2020). Kindergarten Readiness in Math: Developing an Intervention Curriculum and Assessment of Early Number Sense for Prekindergarten and Kindergarten Children. Proposal submitted to the Spencer Foundation, Research-to-Practice Grants Program. (Not Funded)

## **University Funded Research**

- **\$60,000** Cooper, S. (2023). *Math for Early Learners Academy*, Continued project supported by the School of Education in partnership with Waco ISD, LaVega ISD, Midway ISD, and Mayborn Museum.
- **\$56,000** Cooper, S. (2022). *Math for Early Learners Academy*, Continued project supported by the School of Education in partnership with Waco ISD, LaVega ISD, Midway ISD, and Mayborn Museum.
- **\$36,000** Cooper, S. (2021). *Math for Early Learners Academy,* Continued project supported by the School of Education in partnership with LaVega ISD and Mayborn Museum.
  - **\$7500** Cooper, S. & Crowley, B. (2019-2020). *Developing an Assessment of Early Number Sense for Pre-Kindergarten and Kindergarten Children*. Research project supported by the University Research Committee at Baylor University.
- **\$30,000** Cooper, S. & Crowley, B. (2018). *Math for Early Learners Academy*, Continued project supported by the School of Education in partnership with Waco ISD and Mayborn Museum.
- **\$30,000** Cooper, S. (2017). *Math for Early Learners Academy*, Continued project supported by the School of Education in partnership with Waco ISD and Mayborn Museum.
- **\$40,000** Cooper, S. (2016). *Math for Early Learners Academy*, Pilot project supported by the School of Education in partnership with Waco ISD and Mayborn Museum.
  - **\$5000** Cooper, S. (2016-2019). Characteristics that Define Effective Elementary Mathematics Teachers. Centennial Professor project.

- \$7500 Cooper, S. (2008-2009). *An exploration of mathematical thinking in informal learning environments*. Research project supported by the Young Investigators Development Program at Baylor University.
- **\$6000** Cooper, S. (2008). *Math in the museum: An exploration of mathematical thinking in informal learning environments*. Research project supported by the University Research Committee at Baylor University.
- **\$5000** Lan, W., Thomas, J., Cooper, S., & Runnels, M. (2006-2007). *Creating Strategy Instruction Curriculum to Improve Students' Math Learning*. Maxi-grant offered by the College of Education State Organized Research Funds at Texas Tech University.
- **\$5000** Cooper, S.B. & Price, M.A. (2001-2002) STEP: Support for Tomorrow's Educators Program Initiative. Academic Excellence in Programming Grants, supported by Student Affairs, Texas Tech University.
- **\$5000** Cooper, S.B., Thomas, J.A., & Haukos, D. (2001). WebWorks: A Virtual Research Collaborative for K-12 Schools and Texas Tech University. Maxi-grant offered by the College of Education State Organized Research Funds at Texas Tech University.
- **\$5000** Tallent-Runnels, M., Thomas, J.A., Lan, W.Y., Cooper, S.B., Ahern, T. (2001). *The effect of social grounding on collaboration in a computer-mediated small group discussion*. Maxi-grant offered by the College of Education State Organized Research Funds at Texas Tech University.
- **\$500** Tallent-Runnels, Mary, Thomas, Julie A., Lan, William Y., Cooper, Sandra B., Ahern, Terence. (2000-2001). New Models of Learning: A Study of the Importance of Social Interaction and Involvement in Courses Conducted on the World Wide Web. Mini-Grant offered by the College of Education State Organized Research Funds at Texas Tech University.
- **\$900** Cooper, Sandra B. (1997). A Technological Approach to Promoting the Understanding the NCTM Standards. Mini-Grant offered by the College of Education State Organized Research Funds at Texas Tech University.
- **\$3340** Cooper, Sandra B. & Thomas, Julie A. (1996). *Dramatizations of case studies in mathematics and science education reform: An interactive computer application*. Grant offered by The Teaching, Learning, and Technology Center at Texas Tech University for 1996-1997 academic year.
- **\$900** Cooper, Sandra B. (1996). *Electronic diagnostic portfolios: Advantages and disadvantages of this technological approach*. Mini-Grant offered by the College of Education State Organized Research Funds at Texas Tech University.

### **Proposals for University Funded Research**

- **\$49,400** Cooper, S. & Morgan, G. (2023). *Validation of Early Number Assessment to Strengthen an NSF DRK12 Proposal*. Research project submitted to the University Research Committee at Baylor University. (**Not Funded**)
- **\$27,600** Cooper, S. & Morgan, G. (2022). *Collaboration to Strengthen an NSF DRK12 Proposal*. Research project submitted to the University Research Committee at Baylor University. (**Not Funded**)

#### **National and International Presentations**

- Shelton, R. N., Kerschen, K., Cooper, S., Wilkerson, T. L., & Rogers, R. M. (October, 2023). *Exploring mathematics preservice teachers' experiences in a summer field experience*. Presentation at the annual conference of School Science and Mathematics Association, Colorado Springs, CO.
- **Cooper, S.,** Wilkerson, T., & \*Smith, M. (October, 2023). *Developing mathematical identities from contributions of historically excluded women in STEM*. Presentation at the annual conference of School Science and Mathematics Association, Colorado Springs, CO.
- Nesmith, S., Cooper, S., Chou, D., & Case, L. (October, 2023). *Launching rising 5th graders and elementary teachers in STEM+ engagement through a summer camp*. Presentation at the annual conference of School Science and Mathematics Association, Colorado Springs, CO.
- Cooper, S., Rogers, R., Wilkerson, T., \*Jones, L. (March, 2023). *Building Community Through Mathematics Education Partnerships*. Presentation at the annual conference of the Association of Teacher Educators, Jacksonville, FL.

- **Cooper, S.,** \*Donham, M., \*Jones, L., \*Smith, M., and \*Ritter, K. (February, 2023). *Engaging elementary preservice teachers in teacher noticing through video clubs*. Presentation at the annual conference of the Association of Teacher Educators, Jacksonville, FL.
- Rigelman, N., Fennel, F., & Cooper, S. (February, 2023). *Elementary mathematics specialists policy and practice issues: advocacy, responsibilities, impact, and support.* Presentation at the annual conference of the Association of Mathematics Teacher Educators in New Orleans, Louisiana.
- Crowley, B., Ritter, K., & Cooper, S. (February, 2023) *Learning to notice in video clubs: Preservice teacher noticing during a varied field experience*. Presentation at the annual conference of the Association of Mathematics Teacher Educators in New Orleans, Louisiana.
- **Cooper, S.,** Crowley, B., & Ritter, K. (October, 2022). *Learning to notice in video clubs: Preservice teacher noticing in a summer math field experience*. Session presented at the annual School Science and Mathematics Association in Missoula, Montana.
- Nesmith, S., & Cooper, S. (October, 2022). *Enhancing elementary preservice teachers' integration of content in engineering design*. Session presented at the annual School Science and Mathematics Association in Missoula, Montana.
- **Cooper, S.,** Donham, M., & Ritter, K. (September, 2022) *Literature in math? How about authentic stories of women who made a difference?* Session presented at the National Council of Teachers of Mathematics Annual Meeting in Los Angeles, California.
- **Cooper, S.**, Warren, M., Donham, M., Ritter, K., Eubank, M. (March. 2022). *Learning to notice: PSTs noticing during a varied field experience*. Research presentation at the annual conference of the Research Council on Math Learning in Grapevine, Texas.
- **Cooper, S.**, Wilkerson, T., Mitrea, D., & Abnoussi, A. (March, 2022). *Building community through mathematics education leadership collaborative*. Presentation at the annual conference of the Research Council on Math Learning in Grapevine, Texas.
- Donham, M., Ritter, K., and Cooper, S. (February, 2022). Learning to notice: A study on PSTs teacher noticing during an early childhood field experience. Research presentation at the annual conference of the Association of Mathematics Teacher Educators in Las Vegas, Nevada.
- **Cooper**, **S.**, Donham, M., and Ritter, K. (November, 2021). *Empowering girls in mathematics: Let's reveal the contributions of historically excluded women*. Session presented at the National Council of Teachers of Mathematics Virtual Conference.
- **Cooper, S.,** Donham, M., and Ritter, K. (October, 2021). *The development of teacher noticing for PSTs in a varied field experience*. Session presented at the annual School Science and Mathematics Association, Virtual Conference.
- Lively, C., Blevins, B., Cooper, S., & Talbert, S. (July, 2021). *Community building in virtual environments* [Webinar]. Carnegie Project for the Education Doctorate (CPED). Tempe, AZ.
- **Cooper, S.**, Warren, M., Salisbury, K., Crowley, B., Donham, M., Eubank, M., and Bailey, K. (March, 2021). *PST Noticing: Reflecting after watching their own videos*. Session to be presented at the annual conference of the Research Council for Math Learning, virtual event.
- **Cooper**, **S.**, Donham, M., and Bailey, K. (February, 2021). *Teacher noticing for PSTs in an early childhood field experience*. Session to be presented at the annual meeting of the Association of Mathematics Teacher Educators, Virtual Conference.
- **Cooper, S.**, Crowley, B., and Donham, M. (February, 2021). *Geometry for early childhood: The important thing is...?* Session to be presented at the National Council of Teachers of Mathematics Virtual Conference.
- Blevins, B., Cooper, S., Howell, L., and Talbert, S. (November, 2020). *EdD not ABD: Supporting students in rigorous research in a 3-year program*. Session presented at the annual Online Learning Consortium, virtual event.
- Lively, C., Blevins, B., Cooper, S., Earl, J., Kaul, C., Pratt, S., Sangurus, L., Talbert, S. (November, 2020). *From a distance: Community building in virtual environments*. Session presented at the annual convening of the Carnegie Project for the Education Doctorate, virtual event.
- Lively, C., Blevins, B., Cooper, S., Earl, J., Kaul, C., Pratt, S., Sanguras, L., & Talbert, S. (October, 2020). From a distance: Community building in virtual environments [Conference session]. #CPED20 October Convening of Carnegie Project for the Education Doctorate (CPED). Tempe, AZ. https://cped.memberclicks.net/
- **Cooper, S.**, Blevins, B., Howell, L., Lively, C., Meehan, J., Pratt, S., and Talbert, S. (October, 2020). *Supporting EdD students to conduct rigorous research in a three-year, online program*. Session presented at the annual convening of the Carnegie Project for the Education Doctorate, virtual event.
- **Cooper, S.,** Donham, M., and Bailey, K. (November, 2020). *The development of teacher noticing for PSTs in a varied field experience*. Session presented at the annual School Science and Mathematics Association, Virtual Conference.
- Shelton, R., Kerschen, K, and Cooper, S. (November, 2020). *Impact of a summer mathematics academy on students' early number sense: A two-year case study*. Session presented at the annual School Science and Mathematics Association, Virtual Conference.

- Crowley, B., Eubank, M., Warren, M., Cooper, S., and Salisbury, K. (November, 2019). *Preservice teacher noticing in a varied mathematics field experience*. Session presented at the annual School Science and Mathematics Association conference in Salt Lake City, UT.
- Nesmith, S., Cooper, S., & Ogodo, J. (November, 2019). *Engineering for early childhood educators*. Session presented at the annual School Science and Mathematics Association conference in Salt Lake City, UT.
- Salisbury, K., Warren, M., Crowley, B., and Cooper, S. (February, 2019). *The Development of Teacher Noticing for PSTs in a Varied Field Experience*. Session presented at the annual meeting of the Association of Mathematics Teacher Educators in Orlando, Florida.
- Crowley, B. and Cooper, S. (November, 2018). 5E Lesson Planning in the Elementary Mathematics Classroom. Session presented at the annual School Science and Mathematics Association conference in Little Rock, Arkansas.
- **Cooper**, **S.** and Nesmith, S. (November, 2018). *Partnering to Enhance STEM Integration*. Session presented at the annual School Science and Mathematics Association conference in Little Rock, Arkansas.
- Nesmith, S. and Cooper, S. (November, 2018). *Engineering for Early Childhood Educators*. Session presented at the annual School Science and Mathematics Association conference in Little Rock, Arkansas.
- **Cooper, S.** and Nesmith, S. (November, 2017). *STEM PD for STEM PDSs.* Session presented at the annual School Science and Mathematics Association conference in Lexington, Kentucky.
- Cooper, S., Terry, K., and Welsh, K. (April, 2017). *Embrace the Digital Age: Using iPad Apps with Children's Literature*. Presentation shared at the National Council of Teachers of Mathematics Annual Meeting, San Antonio, Texas.
- Perry, D., Cooper, S., & Wilkerson, T. (April 2017). *Building Community Through Partnerships to Impact Student Learning*. Presented at the National Council of Supervisors of Mathematics annual conference, San Antonio, TX.
- Cooper, S., Kerschen, K., Shelton, R., and Terry, Kylie. (March, 2017). *A summer math academy for early learners:*Development of early number sense. Session presented at the annual meeting of the Research Council for Mathematics Learning in Fort Worth, Texas.
- Kerschen, K., Shelton, R. and Cooper, S. (February, 2017). Summer math academy for early learners: Varied field experiences for preservice teachers. Session presented at the annual meeting of the Association of Mathematics Teacher Educators in Orlando, Florida.
- Cooper, S. & Purdum-Cassidy, B. (February, 2017). Fostering Partnerships to Connect Formal and Informal Learning: A University Course Experience. Poster session presented at the annual conference of the Informal Science Educators Association in San Marcos, Texas.
- Nesmith, S. and Cooper, S. (2016). *Using the Value of Integratedness Rubric to Explore Elementary Preservice Teachers' Lesson Plans*. Session presented at the annual School Science and Mathematics Association conference in Phoenix, Arizona.
- Cooper, S. and Routt, S. (2016). *Measurement concepts for early grades: Building teachers' level of understanding.*Session presented at the annual meeting of the National Council of Teachers of Mathematics in San Francisco, CA.
- Cassidy, B., Cohn, B., Cooper, S., Fischer, J., Goree, K., Howell, L., Nesmith, S., and Strot, R. (2016). *There's something special about specialized PDS campuses*. Session presented at the annual meeting of the National Association of Professional Development Schools in Washington, D.C.
- Strot, R., Cohn, B., Cooper, S., Nesmith, S., McGraf, D. and Ward, V. (2016). *Becoming a STEM campus: Bell's Hill Elementary PDS and Baylor University*. Session presented at the annual meeting of the National Association of Professional Development Schools in Washington, D.C.
- Cooper, S. and Nesmith, S. (2015). *Elementary Teachers' Perceptions of Mathematics/Science Integration as Revealed through a Summer Academy*. Session presented at the annual School Science and Mathematics Association conference in Oklahoma City, Oklahoma.
- Cooper, S. and Routt, S. (2015). *Big Ideas in Measurement for Early Grades: Teachers' Level of Understanding*. Session presented at the annual School Science and Mathematics Association conference in Oklahoma City, Oklahoma.
- Gupta, D., Jasper, W., Quebec-Fuentes, S., Mallam, W., and Cooper, S. (2015). *Advancing the Field: Development and Validation of Algebra Teachers' Self-efficacy Instrument*. Session presented at the annual School Science and Mathematics Association conference in Oklahoma City, Oklahoma.
- Cooper, S., Wilkerson, T., and Perry, D. (2015). *Building Community with Mathematics Education Leadership Partners*. Session presented at the annual meeting of the Association of Mathematics Teacher Educators in Orlando, Florida.
- Cooper, S. & Routt, S. (2014). *Big Ideas in Measurement for Early Grades: Teachers' Level of Understanding.*Session presented at the annual meeting of the Research Council on Mathematics Learning in San Antonio, Texas.
- Corp, A. & Cooper, S. (2014). *Building Numerical Fluency through Children's Multicultural Literature*. Session presented at the annual meeting of the National Council of Teachers of Mathematics in New Orleans, LA.

- Cooper, S., Foley, G., & Bray, W. (2013). *Turning Your Research into an Article for Teachers*. Session presented at the annual meeting of the National Council of Teachers of Mathematics in Denver, Colorado.
- Cooper, S. & Spencer, E. (2013). *Using Children's Literature to Promote Reasoning in the Early Grades*. Session presented at the annual meeting of the National Council of Teachers of Mathematics in Denver, Colorado.
- Nesmith, S., & Cooper, S. (2012). Exploring conceptual change through the lens of an elementary mathematics/science teachers' academy. Paper presented at the Annual School Science and Mathematics Association Conference in Birmingham, Alabama.
- Cooper, S. & Wiech, E. (2012). *Using technological probes to enhance mathematical learning in early grades*. Session presented at the annual conference of the National Council of Teachers of Mathematics in Philadelphia, PA.
- Nesmith, S. & Cooper, S. (2012). *Who thinks Math + Science = Integration?* Session presented at the annual conference of the Association of Teacher Educators in San Antonio, Texas.
- Gupta, D., Wilkerson, T., Meyer, R., & Cooper, S. (2012). *Reflective teaching practices: facilitating research for teaching*. Paper presented at the annual conference of the Association of Teacher Educators in San Antonio, Texas.
- Eddy, C., Quebec-Fuentes, S., Sorto, A., Wilkerson, T., Cooper, S., Parker, Y, Mallam, W, & Ward, E. (2012). Algebra: Crossroads between educational policy, teacher education, and teacher self-efficacy. Paper presented at the Annual Meeting of the Association of Mathematics Teacher Educators in Fort Worth, Texas.
- Cooper, S., and Nesmith, S. (2011). *Learning to Integrate Math and Science: An Assignment for Elementary Preservice Teachers*. Session presented at the annual convention of the School Science and Mathematics Association in Colorado Springs, Colorado.
- Nesmith, S. and Cooper, S. (2011). Summer Fun! The Design and Impact of a Summer Math/Science Teacher Academy. Session presented at the annual convention of the School Science and Mathematics Association in Colorado Springs, Colorado.
- Purdum-Cassidy, B., Nesmith, S., Meyer, R., and Cooper, S. (2011). Now I Get It! Utilizing Children's Literature to Build Preservice Teachers' Mathematics Efficacy. Paper presented at the Annual Meeting of the Association of Teacher Educators in Orlando, Florida.
- Wilkerson, T., Cooper, S., Meyer, R., & Baker, B. (2011). Effect of Lesson Implementation, Assessment of Student work and Reflection on PSTs Understanding of Fractions. Paper presented at the Annual Meeting of the Association of Mathematics Teacher Educators in Irvine, CA.
- Cooper, S., and Nesmith, S. (2010). *Creating a math/science integrated experience*. Session presented at the annual convention of the School Science and Mathematics Association in Ft. Myers, Florida.
- Nesmith, S. and Cooper, S. (2010). *Using vernier technology to promote the integration of mathematics and science*. Session presented at the annual convention of the School Science and Mathematics Association in Ft. Myers, Florida.
- Cooper, S. and Sandefur, J. (2010). *Finding math in the museum*. Presentation shared at the National Council of Teachers of Mathematics Annual Meeting, San Diego, CA.
- Cassidy, B., Cooper, S., Meyer, R., & Nesmith, S. (2010). From theory to practice examining pre-service teacher's use of children's literature in the PDS mathematics classroom. Paper presented at the National Association for Professional Development Schools in Daytona Beach, Florida.
- Cooper, S., Meyer, R., and Wilkerson, T. (2010). *Engaging Preservice Teachers in the Analysis of Children's Thinking*. Paper presented at the annual conference of the Association of Mathematics Teacher Educators in Irvine, CA.
- Thomas, J. and Cooper, S. (2009). What about integrating science and mathematics it's history and future? Monograph proposal presented at the annual convention of the School Science and Mathematics Association in Reno, Nevada.
- Wilkerson, T., Cooper, S., Twamley, S., Baker, B., Sharp, P., (2009). *Developing Fractional Thinking in Early Grades: Do Models and Varied Representations Matter?* Paper presented at the National Council of Teachers of Mathematics Annual Meeting, Washington, DC.
- Sharp, P., Baker, B.R., Cooper, S., & Cooper-Twamley, S.(2009). *The impact of research on learning from all levels of educational degree work.* Paper presented at the annual conference of the Association of Teacher Educators in Dallas, Texas.
- Cooper, S., Fisher, C., Merritt, M., Rainey, S., and Sandefur, J. (2009). *Elementary preservice teachers explore possibilities for math learning in informal learning environments*, Paper presented at the annual conference of the Association of Teacher Educators in Dallas, Texas.
- Wilkerson, T., Cooper, S., Sharp, P., Baker, B.R., & Montgomery, M. (2009). *Effects of participation in research on pre-service teachers mathematical and pedagogical content knowledge*. Paper presented at the annual conference of the Association of Mathematics Teacher Educators in Orlando, Florida.

- Cooper, S. (2009). An analysis of preservice teachers' level of understanding of mathematical thinking, Paper presented at the annual conference of the Association of Mathematics Teacher Educators in Orlando, Florida.
- Cooper, S. (2008). *Math in the museum: An exploration of mathematical thinking in informal learning environments*, Paper presented at the annual convention of the School Science and Mathematics Association in Raleigh-Durham, North Carolina.
- Cooper, S., Gupta, D., and Mechell, S. (2008). *Discrete or continuous: Fraction models for young students*, Paper presented at the annual convention of the School Science and Mathematics Association in Raleigh-Durham, North Carolina.
- Nesmith, S. & Cooper, S. (2008). *Educators multiple perspectives towards mathematics trade books*. Paper presented at the annual conference of the Association of Teacher Educators in New Orleans, Louisiana.
- Wilkerson, T., Baker, B.R., Sharp, P., Cooper, S., Meyer, R.D., Cooper-Twamley, S. (2008). *Engaging teacher candidates in collaborative research: An empowering approach to best practice and life-long learning*. Paper presented at the annual conference of the Association of Teacher Educators in New Orleans, Louisiana.
- Thomas, J., Haukos, D., & Cooper, S. (2008). Ducks and STEM education for elementary classroom teachers: Case study research leading to a new professional development model. Paper presented at the annual conference of the Association of Science Teacher Educators in St. Louis, Missouri.
- Cooper, S. (2008). An Analysis of Preservice Teachers' Level of Understanding of Mathematical Thinking. Paper presented at the annual conference of the Association of Mathematics Teacher Educators in Tulsa, Oklahoma.
- Wilkerson, T., Baker, B.R., Sharp, P., Cooper, S., Meyer, R.D., Cooper-Twamley, S. (2008). *Engaging preservice teachers research on mathematical thinking in K-3 students*. Paper presented at the annual conference of the Association of Mathematics Teacher Educators in Tulsa, Oklahoma.
- Schrock, C., Cooper, S., Pape, S. (2008). *Pointers for submitting AMTE proposals*. Special presentation given at the annual conference of the Association of Mathematics Teacher Educators in Tulsa, Oklahoma.
- Cooper, S., Thomas, J., Smajic, A., Lan, W., Runnels, M., Narayan, R., To, Y., Zaier, A., Bunuan, R., Gosselin, K., & Clem, D. (2007). *Creating a Strategy Instruction Curriculum to Improve Math Students' Learning*. Paper presented at the annual convention of the School Science and Mathematics Association in Indianapolis, Indiana.
- Cooper, S., Wilkerson, T., Eddy, C., Kamen, M., Marble, S., Junk, D., & Sawyer, C. (2007). *Mathematics educators from virtual communities to conduct lesson study*. Paper presented at the International Conference of the Society for Information\_Technology and Teacher Education, USA.
- Wilkerson, T., Marble, S., Eddy, C., & Cooper, S. (2007). Supporting teacher educator learning through lesson study: A cross institution model. Paper presented at the Association of Mathematics Teacher Educators Conference in Irving, California.
- Kamen, M., Junk, D., Wilkerson, T., Eddy, C., Marble, S., Sawyer, C., & Cooper, S. (2006). *Public math methods lessons presented at conferences: Japanese lesson study in our university classrooms*. Poster presented at the Psychology of Mathematics Education-North American Chapter.
- Cooper, S. & Fryer, W. (2006). *Mathematics educators use iTV via the Internet to conduct lesson study*. Paper presented at the annual Society for Information Technology and Teacher Education conference in Orlando, Florida.
- Nesmith, S. & Cooper, S. (2006). *Methods of integrating field experience within math methodology courses for EC- 4 preservice teachers.* Paper presented at the annual Association of Teacher Educators conference in Atlanta, Georgia.
- Cooper, S. & Thomas, J. (2006). *Preparing preservice teachers to work with parents*. Paper presented at the annual Association of Teacher Educators conference in Atlanta, Georgia.
- Nesmith, S. & Cooper, S. (2006). *Math camp: A varied field experience for a mathematics methods course*. Paper presented at the Annual Association of Mathematics Teacher Educators conference in Tampa, Florida.
- Cooper, S. (2006). The journey to becoming a middle level mathematics teacher: The road from methods course to first year. Paper presented at the Annual Association of Mathematics Teacher Educators conference in Tampa, Florida.
- Thomas, J., Cooper, S., Cikla, O., & Ozdemir, P. (2006). *Creative Drama Teaching Methods in Science and Mathematics: A Preservice Elementary Methods Course Experiment.* A paper presented at the Association of Science Teacher Educators Meeting in Anaheim, California.
- Thomas, J. & Cooper, S. (2006). Preparing Preservice Teachers to Communicate with Parents of Elementary Students and Improve Student Learning Opportunities. A paper presented at the Association of Science Teacher Educators Meeting in Anaheim, California.
- Cooper, S., & Thomas, J. (2005). *Preparing preservice teachers to communicate with parents of elementary students and improve learning opportunities*. Paper presented at the Annual Conference of the School Science and Mathematics Association in Fort Worth, Texas.

- Kamen, M., Cooper, S., Junk, D., Wilkerson, T., Eddy, C., & Marble, S. (2005). Implementing Japanese lesson study among three elementary methods instructors improving our practice. Paper presented at the Annual Conference of the School Science and Mathematics Association in Fort Worth, Texas.
- Reys, R., Cooper, S., Flores, A., Karp, K., Lester, F. (2005). What Information is Needed on Institutional Doctoral Programs in Mathematics Education and How can We Go About Getting It? Panel discussion presented at the Annual Association of Mathematics Teacher Educators conference in Dallas, Texas.
- Cooper, S.B. & Wilhelm, J. (February, 2004) *Learning mathematics from inquiry activities for preservice teachers*. Annual Conference of the Research Council on Mathematics Learning, Oklahoma City, OK.
- Cooper, S.B. & Wilhelm, J. (2003). *Mathematics learning in an inquiry-enhanced environment for preservice teachers*. Paper presented at Research Council on Mathematics Learning National Conference in Tempe, AZ.
- Tallent-Runnels, M., Thomas, J.A., Lan, W.Y., Cooper, S.B., Ahern, T. (2002) *Social Coherence: The effect of social grounding on collaboration in a computer-mediated small group discussion.* Paper presented at the Annual Meeting of the American Educational Research Association in New Orleans, Louisiana.
- Cooper, S.B. & Shields, A. (2002). *Who wants to be a problem solver?* Workshop presented at the National Council of Teachers of Mathematics Las Vegas, Nevada.
- Tallent-Runnels, Mary, Thomas, Julie A., Lan, William Y., Cooper, Sandra B., Ahern, Terence. (April, 2001) *New models of learning: a study of the importance of social interaction and involvement in courses conducted on the internet.* Paper presented at the Annual Meeting of the American Educational Research Association in Seattle, Washington.
- Ponticell, Judith A., Thomas, Julie A., & Cooper, Sandra B. (April, 2001). Competing demands: A case study of teachers' struggles to develop problem-based, integrative science and mathematics instruction and authentic assessment in a context of curricular mandates and accountability testing. Paper presented at the Annual Meeting of the American Educational Research Association in Seattle, Washington.
- Cooper, Sandra B., Thomas, Julie A., & Ponticell, Judith A. (April, 2001). *Looking beyond the technology horizon: What support do faculty really need?* Paper presented at the Annual Meeting of the American Educational Research Association in Seattle, Washington.
- Thomas, Julie A., Cooper, Sandra B., Ponticell, Judith A., and Price, Margaret (2000). Finding a place for new ideas within school contexts: Professor lessons in empowering. Paper presented at the Annual Meeting of the American Educational Research Association in New Orleans, Louisiana.
- Ponticell, Judith A., Thomas, Julie A., & Cooper, Sandra B. (2000). *The "ah-ha" moment in staff development: Triggering cognitive dissonance*. Paper presented at the Annual Meeting of the American Educational Research Association in New Orleans, Louisiana.
- Thomas, Julie A., Cooper, Sandra B., & Ponticell, Judith A. (2000) *Doing math the science way: Staff development for integrated teaching and learning*. Book chapter presented at the 80<sup>th</sup> Annual Meeting of the Association of Teacher Educators in Orlando, Florida.
- Thomas, Julie A. & Cooper, Sandra B. (1999). *Going online: Improving the preparation of elementary science and mathematics teachers*. Paper presented at the Annual Conference of the School Science and Mathematics Association in Greensboro, North Carolina.
- Cooper, Sandra B. (1999). Using the web as a tool for promoting the integration of technology in teacher education. Paper presented at the 10<sup>th</sup> International Conference of the Society for Information Technology and Teacher Education in San Antonio, Texas.
- Thomas, Julie A. & Cooper, Sandra B. (1999). Web-based methods learning: Improving teacher preparation in math and science. Paper presented at the 79th Annual Meeting of the Association of Teacher Educators in Chicago, Illinois.
- Cooper, Sandra B. (1998). *Electronic diagnostic portfolios: Advantages and disadvantages of this technological approach*. Paper presented at the 9th International Conference of the Society for Information Technology and Teacher Education in Washington, D.C.
- Thomas, Julie A. & Cooper, Sandra B. (1997). *Doing math the science way: New angles on integrated math and science inservice with elementary teachers.* Workshop presented at the Annual Conference of School Science and Mathematics Association in Milwaukee, Wisconsin.
- Cooper, Sandra B., Purkiss, Christine, & Thomas, Julie A. (1997). *The dream team: How does collaborative team teaching work?* Paper presented at the Annual Meeting of the American Educational Research Association in Chicago, Illinois.
- Cooper, Sandra B. (1997). *The initial stages of the implementation of the NCTM Standards: Case studies.* Paper presented at the 75th Annual Meeting of the National Council of Teachers of Mathematics in Minneapolis, Minnesota.
- Cooper, Sandra B. (1996). *Electronic-mail journals in teacher education*. Paper presented at the 7th International Society for Information Technology and Teacher Education Conference (SITE '96) in Phoenix, Arizona.
- Cooper, Sandra B. (1996). *E-mail as a communication tool in teacher education*. Paper presented at Annual Meeting of the Association of Teacher Educators in St. Louis, Missouri.

- Cooper, Sandra B. (1995). Case studies of students in a field-based and a university-based elementary mathematics methods course. Paper presented at the 75th National Council of Teachers of Mathematics National Conference in Boston, Massachusetts.
- Cooper, Sandra B. (1995). *The use of student tutorials in a mathematics education course*. Paper presented at the Sixth International Society for Information Technology and Teacher Education Conference (SITE '95) in San Antonio, Texas.
- Bennett, Sandra D. (1994). *Integration of technology in mathematics methods for elementary teachers*. Paper presented at the 1994 Technology and Teacher Education Conference (STATE '94) in Washington, D.C.
- Bennett, Sandra D. (1994). A study of the development of teaching concepts of teacher education students in a field-based and a university-based mathematics methods course. Paper presented at the 74th Annual Meeting of The Association of Teacher Educators in Atlanta, Georgia.

## **Regional Presentations**

- Cooper, S. & Liem, K. (2012). Writing for Mathematics Teaching in the Middle School journal. Session presented at the regional conference of the National Council of Teachers of Mathematics in Dallas, TX.
- Montgomery, M., & Cooper, S. (2010). *Engaging parents to increase students' achievement*. Paper presented at the Regional Conference of the National Council of Teachers of Mathematics in New Orleans, LA.
- Wilkerson, T., Baker, B.R., Cooper, S., Montgomery, M., and Cox, P. (2010). *Understanding fractions: A key "part" to a "whole" mathematical experience*. Workshop presented at the Regional Conference of the National Council of Teachers of Mathematics in New Orleans, LA.
- Cooper, S., & Nesmith, S.(2006). *Mathematical problem-posing in the context of children's literature*. Workshop presented at the annual Western Regional Conference of the National Council of Teachers of Mathematics in Phoenix, Arizona.
- Cooper, S.B., Dean, R., Jones, L. (2003). *Making literature connections in middle level mathematics*. Panhandle Area Math and Science Conference, Canyon, TX.
- Wilhelm, J. & Cooper, S. (2003). Building successful tops: Learning math through inquiry. Panhandle Area Math and Science Conference, Canyon, TX.
- Cooper, S.B. & Shields, A. (2002). *Who wants to be a problem solver?* Workshop presented at the Southern Regional National Council of Teachers of Mathematics in Oklahoma City, Oklahoma.
- Thomas, Julie A. & Cooper, Sandra B. (1999). *Integrating technology learning & teaching applications within elementary science and mathematics methods courses*. Paper presented at the 22<sup>nd</sup> Annual Meeting of the Southwest Educational Research Association in San Antonio, Texas.
- Cooper, Sandra B. (1998). Autobiographies in a graduate education course: A study of the development of math educators. Paper presented at the 21<sup>st</sup> Annual Meeting of the Southwest Educational Research Association in Houston, Texas.
- Cooper, Sandra B. (1998). *Getting educators "on-line" with the integration of technology*. Paper presented at the 21th Annual Meeting of the Southwest Educational Research Association in Houston, Texas.
- Cooper, Sandra B. (1998). *Math, literature, and technology: A special combination for creative learning experiences.* Paper presented at the NCTM Regional Conference in Dallas, Texas.
- Cooper, Sandra B. (1997). *The development of a technology committee in undergraduate teacher education courses: Is this an effective strategy?* Paper presented at the 20th Annual Meeting of the Southwest Educational Research Association in Austin, Texas.
- Cooper, Sandra B. (1996). The implementation of the NCTM standards: Do undergraduate teacher education students continue the process? Paper presented at the Annual Meeting of the Southwest Educational Research Association in New Orleans, Louisiana.
- Cooper, Sandra B. (1995). Assessment strategies: Using manipulatives. Paper presented at the 1995 Southern Regional Conference of the National Council of Teachers of Mathematics in Houston, Texas.
- Bennett, Sandra D. (1994). A comparison of observation reactions of teacher education students in a field-based and a university-based elementary mathematics methods course. Paper presented at the 1994 Southern Regional Conference of the National Council of Teachers of Mathematics in Tulsa, Oklahoma.
- Bennett, Sandra D. (1993) A description of the planning process of methods courses offered in a school-university partnership. Paper presented at the sixteenth annual meeting of the Southwest Educational Research Association, Austin, Texas.

### **State and Local Presentations**

- **Cooper, S.**, Wilkerson, T., Jones, L., & Smith, M. (September, 2023). *Developing mathematical identities from contributions of historically excluded women in STEM*. Session presented the annual conference of the Association of Mathematics Teachers Association of Texas in Denton, Texas.
- Jones, L., Cooper, S., Smith, M., & Martinez, A. (September, 2023). *Coaching for questioning: A conceptual framework for developing quality questioning practices*. Session presented the annual conference of the Association of Mathematics Teachers Association of Texas in Denton, Texas.

- **Cooper, S.,** Ritter, K., Donham, M., Jones, L., & Smith, M. (September, 2022) *Elementary PSTs engage in teacher noticing through video clubs*. Session presented the annual conference of the Association of Mathematics Teachers Association of Texas in Corpus Christi, Texas.
- **Cooper, S.** (July, 2022). *Not just counting, but connecting...taking number sense to the next level.* Session presented at the annual meeting of the Conference for the Advancement of Mathematics Teachers in San Antonio, Texas.
- Ritter, K., Donham, M., and Cooper, S. (September, 2021). *Learning to notice: Preparing elementary PSTs to notice in video clubs.* Poster session presented the annual conference of the Association of Mathematics Teachers Association of Texas.
- **Cooper, S.**, Crowley, B., Donham, M., and Bailey, K. (January, 2021). *Literature in math? How about authentic stories of women who made a difference?* Presentation shared at the Central Texas Council of Teachers of Mathematics Annual Meeting, Waco, Texas.
- **Cooper, S.** and Crowley, B. (January, 2020). *The important thing about geometry for early childhood is...*Presentation shared at the Central Texas Council of Teachers of Mathematics Annual Meeting, Waco, Texas.
- Salisbury, K., Warren, M., Crowley, B., and Cooper, S. (July, 2019). *Teacher Noticing for PSTs in a Summer Field Experience*. Session presented at the annual meeting of the Conference for the Advancement of Mathematics Teachers, AMTE-Tx Strand of Sessions.
- Crowley, B. and Cooper, S. (September, 2018). *5E Lesson Model*. Session presented at the annual Fall Conference of the Association of Mathematics Teacher Educators in Texas, Nacogdoches, Texas.
- Cooper, S., Bailey, M., and Musgrove, M. (2016). *Embrace the Digital Age: Using iPad Apps with Children's Literature*. Presentation shared at the Central Texas Council of Teachers of Mathematics Annual Meeting, Waco, Texas.
- Cooper, S. & Spencer, E. (2013). *Using Children's Literature to Promote Reasoning in the Early Grades*. Keynote Session presented at the Austin Area Council of Teachers of Mathematics annual "Math Lollapalooza" in Austin, Texas.
- Cooper, S., Spencer, E., & Haugh, S.J. (2013). *Making sense of number sense*. Session presented at the Conference for the Advancement of Mathematics Teaching in San Antonio, Texas.
- Cooper, S., Spencer, E., & Haugh, S.J. (2012). *Making sense of math stations*. Session presented at the annual Back to School Summit for Midway ISD in Hewitt, Texas.
- Cooper, S. & Wiech, E. (2011). *Enhance early numeracy experiences through children's literature*. Session presented at the annual Back to School Summit for Midway ISD in Hewitt, Texas.
- Cooper, S. & Parks, A. (2011). *Mathematical problem-posing using children's literature*. Session presented at the annual Back to School Summit for Midway ISD in Hewitt, Texas.
- Cooper, S. and Parks, A. (2011). *Mathematical problem-posing using children's literature*. Presentation shared at the Central Texas Council of Teachers of Mathematics Annual Meeting, Waco, Texas.
- Cooper, S. and Parks, A. (2010). *Mathematical problem-posing using children's literature*. Session presented at the annual conference of TAIR in Waco, Texas.
- Cooper, S. (2010). *Using children's literature in mathematics*. Session presented at the Texas Association of Baptist Schools Convention in Waco, Texas.
- Nesmith, S. and Cooper, S. (2010). *Using venier technology in preschool to university classrooms to promote the integration of math and science*. Session presented at the First Annual Educational Technology Showcase hosted at Baylor University.
- Cooper, S., Sandefur, J., and Merritt, M. (2010). *Finding math in the museum*. Presentation shared at the Central Texas Council of Teachers of Mathematics Annual Meeting, Waco, Texas.
- Cooper, S. (2009). *Integrating children's literature in the mathematics classroom*. Session presented at the annual conference of TAIR in Waco, Texas.
- Cooper, S. & Hernandez, V. (2009). *Finding MATH in the museum*. Session presented at the Conference for the Advancement of Mathematics Teaching in Houston, Texas.
- Cooper, S. (2009). *Integrating literature into the mathematics classroom.* Session presented at the annual conference of the Central Texas Council of Teachers of Mathematics in Waco, Texas.
- Cooper, S. (2008). Who wants to be a problem solver? Using trivia and fun facts for problem solving. Session presented at the annual conference of the TAIR in Waco, Texas.
- Cooper, S. & Nesmith, S. (2008). Who wants to be a problem solver? Using trivia and fun facts for problem solving. Session presented at the Conference for the Advancement of Mathematics Teachers in Dallas, Texas.
- Nesmith, S. & Cooper, S. (2008). *Problems with problem solving? Look to a book!* Session presented at the Conference for the Advancement of Mathematics Teachers in Dallas, Texas.
- Wilkerson, T. & Cooper, S. (2008). Achieving excellence through understanding fractions: Discrete or continuous? That is the question! Presentation given at the Conference for the Advancement of Mathematics Teachers in Dallas, Texas.

- Cooper, S., Fisher, C., Gatlin, G., Merritt, M., Rainey, S. & Sandefur, J. (2008). *An exploration of mathematical thinking in informal learning environments*. Research presentation given for local museum educators, faculty, and students at Baylor University, Waco, Texas.
- Cooper, Sandra B., Miller, Amy, & Littrell, Larry. (2001). *Investigating math on the internet*. Workshop presented at the Seventh Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B., & Campbell, Ashley. (2001). WOW! Wired to outstanding women in math and science. Workshop presented at the Seventh Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. & Shields, Amy. (2001). Who wants to be a Problem Solver? Workshop presented at the Conference for the Advancement of Mathematics Teachers in San Antonio, Texas.
- Cooper, Sandra B. & Thomas, Julie A. (2000). *Playa wetlands: It's alive!* Workshop presented at the Seventh Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. & Shields, Amy (2000). *Who wants to be a problem solver?* Workshop presented at the Seventh Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. & Thomas, Julie A. (1999). *High plains ecology: Exploring math and science in our own backyard*. Workshop presented at the Sixth Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. & Shields, Amy (1999). *Teaching fractions: A sweet idea*. Workshop presented at the Sixth Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. & Thomas, Julie A. (1998). *Integrating math and science: Literature connections*. Workshop presented at the Lubbock Area Reading Conference sponsored by the Texas Association for the Improvement of Reading (TAIR) in Lubbock, Texas.
- Cooper, Sandra B. & Thomas, Julie A. (1998). *Exploring geometry through science: Geopanes*. Workshop presented at the Fifth Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. (1998). *Using the computer as an instructional tool in mathematics: On-screen manipulatives.*Worshop presented at the Conference for the Advancement of Mathematics Teachers in San Antonio, Texas.
- Cooper, Sandra B. & Thomas, Julie A. (1997). *Activities for integrating math and science*. Workshop presented at the Fourth Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Cooper, Sandra B. (1997). *On-screen manipulatives*. Presentation at the Conference for the Advancement of Mathematics Teachers in Houston, Texas.
- Cooper, Sandra B. (1996). *Integrating math and children's literature*. Workshop presented at the Lubbock Area Reading Conference sponsored by the Texas Association for the Improvement of Reading (TAIR) in Lubbock, Texas.
- Cooper, Sandra B. (1996). *Assessment Strategies: Using Manipulatives*. Workshop presented at the Third Annual Panhandle Area Math and Science Conference in Canyon, Texas.
- Bennett, Sandra D. (1993) *Extra readings: Readings outside the classroom*. Paper presented at the Fall Conference of the Sam Houston Area Reading Council, Bryan, Texas.
- Bennett, Sandra D. (1992) *Activities to promote critical thinking in middle school mathematics*. Workshop conducted at the seventh annual Fall conference of the Trinity-Brazos River Valley Council of Teachers of Mathematics, Bryan, Texas.
- Bennett, Sandra D. (1992) *A review of early field experiences in teacher education during the 80's: Implications for the future*. Paper presented at the annual Spring conference on Teacher Education, Corpus Christi, Texas.

## **Invited Presentations**

- Scott, L., Talbert, T. L., Wilkerson, T. L., Shanks, N., Cooper, S., Nesmith, S., Talbert, S., Hagan-Burke, S., McCall, M., Purdum-Cassidy, B., Shelton, R. N., Smith, J., Cox, H., & Magill, K. (2023, March 27). *The Baylor experience part 1: A 100-year journey of light and learning*. Presentation given at the Association of Teacher Educators Annual Meeting, Jacksonville, FL.
- Cooper, S. (2019). The ever-evolving nature of effective professional development: Are your strategies still relevant? Invited plenary session for the AMTE-TX Fall Conference in Waco, Texas.
- Cooper, S. (2005). *A teacher's journey: O' the places you'll go.* Keynote address for Kappa Delta Pi Initiation Ceremony, College of Education, Texas Tech University.

## **Other Scholarly Activities**

- Contributed to authorship of supplemental instructor's manual for textbook Reys, R., Lindquist, M.M., Lambdin, D.V., & Smith, N.L. (2009 & 2011). *Helping children learn mathematics*, 9<sup>th</sup> Edition. Hoboken, NJ: John Wiley & Sons.
- Research work featured in an article in the **2009 Baylor Research Magazine**, *Research in Education at Work*. Undergraduate Scholar's Day at Baylor University (2008). Assisted four undergraduate students in preparations to share a poster session based on research conducted under my direction.

- National Conference on Doctoral Programs in Math Education (2007). Invited to participate in this NSF funded event to evaluate the current status of doctoral programs in mathematics education, collaborate with leading mathematics educators from across the globe, and debate current issues related to building effective doctoral programs in mathematics education.
- NCTM Research Catalyst Conference (2003) Selected to participate in this highly prestigious event that involved well-known mathematics educators from all over. The NCTM coordinated this event to establish working groups that would design relevant research to learn more about the impact of the Standards.

### **Creative Products/Publications**

- Cooper, S., and Harbin Miles, R. (2019). *Exploring Measurement Concepts* (Second and Third Grades). Rowley, MA: Didax, Inc.
- Cooper, S., and Harbin Miles, R. (2018). *Exploring Measurement Concepts* (Kindergarten to 1<sup>st</sup> Grade). Rowley, MA: Didax, Inc.
- Cooper, S. and Nesmith, S. (2017). Baylor Aviation Sciences Activity Booklet. Editors and Forward, *What is STEM and Why does it Matter for Young Children?* Published under the direction of Baylor University Institute for Air Science.
- Cooper, S. (1997 2007). *Teaching and learning mathematics*. A course-linked Web-site: <a href="http://courses.ttu.edu/cooper">http://courses.ttu.edu/cooper</a>
- Thomas, J. & Cooper, S.B. (2000 2007). *High plains ecology*. A project-based Web-site: <a href="http://www2.tltc.ttu.edu/msw">http://www2.tltc.ttu.edu/msw</a>
- Cooper, S.B. & Thomas, J. (1999-2001). *Techlinks*. A project-based Web site: <a href="http://www3.tltc.ttu.edu/techlinks">http://www3.tltc.ttu.edu/techlinks</a> Thomas, J. & Cooper, S.B. (1999). *Dilemmas in teaching elementary science and mathematics*. A CD-ROM of video case studies with interactive Web components.

## **Media Coverage**

#### 2023

Waco Trib Photo Essay and Video: Young math learners meet Baylor athletes at MELA (July 25, 2023) <a href="https://wacotrib.com/news/local/education/photos-young-math-learners-meet-baylor-athletes/collection\_7beec0d2-2ad8-11ee-8e18-1b573ee0ad7b.html#1">https://wacotrib.com/news/local/education/photos-young-math-learners-meet-baylor-athletes/collection\_7beec0d2-2ad8-11ee-8e18-1b573ee0ad7b.html#1</a>

KWTX News Story: Baylor summer program helps improve elementary students' math skills (July 12, 2023) <a href="https://www.kwtx.com/2023/07/12/baylor-summer-program-helps-improve-elementary-students-math-skills/">https://www.kwtx.com/2023/07/12/baylor-summer-program-helps-improve-elementary-students-math-skills/</a>

Baylor Media and Communications: Baylor University Hosts Mathematics for Early Learners Academy July 5 – 28<sup>th</sup> (posted July 3, 2023) <a href="https://news.web.baylor.edu/news/story/2023/baylor-university-hosts-mathematics-early-learners-academy-july-5-28th">https://news.web.baylor.edu/news/story/2023/baylor-university-hosts-mathematics-early-learners-academy-july-5-28th</a>

Baylor Media and Publication Relations: Baylor Partners with Transformation Waco Schools on STEM+ Camp Launch (June 2, 2023)

 $\underline{https://news.web.baylor.edu/news/story/2023/baylor-partners-transformation-waco-schools-stem-camp-launch}$ 

Waco Trib Front Page Story: Baylor Camp Engages Transformation Waco Fifth Graders as Scientists (June 8, 2023) <a href="https://wacotrib.com/news/local/education/baylor-camp-engages-transformation-waco-fifth-graders-as-scientists/article\_e2889330-063a-11ee-b7a3-af9fc92731d1.html">https://wacotrib.com/news/local/education/baylor-camp-engages-transformation-waco-fifth-graders-as-scientists/article\_e2889330-063a-11ee-b7a3-af9fc92731d1.html</a>

KWTX News: Baylor University organizes STEM+ camp for Central Texas youth (June 23, 2023) https://www.kwtx.com/2023/06/24/baylor-university-organizes-stem-camp-central-texas-youth/

## 2022

Waco Trib Front Page Story: Baylor School of Education camp teaches 'number sense' to youngest students (July 20, 2022)

 $\frac{https://wacotrib.com/news/local/education/baylor-school-of-education-camp-teaches-number-sense-to-youngest-students/article~7b1d7fbc-0870-11ed-916c-a37b70043ab2.html$ 

KWTX News Story: Baylor hosts mathematics academy to help young learners (July 18, 2022) <a href="https://www.kwtx.com/2022/07/18/baylor-hosts-mathematics-academy-help-young-learners/">https://www.kwtx.com/2022/07/18/baylor-hosts-mathematics-academy-help-young-learners/</a>

Baylor Media and Communications: Baylor Education and Research Program Returns to Campus and Mayborn Museum to Help Young Learners Improve Math Skills (July 15, 2022) https://www.baylor.edu/mediacommunications/news.php?action=story&story=229595

#### 2020

COVER STORY: Researchers in Early Math Education Aim for Change Baylor School of Education Impact - Spring/Summer 2020 https://www.baylor.edu/soe/impact/news.php?action=story&story=219321

#### 2019

Waco Trib Front Page Story: Rep. Flores touts newly expanded Math for Early Learners Academy at Baylor (July 2, 2019)

 $\frac{https://wacotrib.com/news/education/rep-flores-touts-newly-expanded-math-for-early-learners-academy/article~72327446-4ed5-569c-8bc5-a0303ce26e4f.html$ 

KRHD Channel 25: Representative Bill Flores visits math students at the Mayborn Museum (July 2, 2019) <a href="https://www.kxxv.com/hometown/mclennan-county/representative-bill-flores-visits-math-students-at-the-mayborn-museum">https://www.kxxv.com/hometown/mclennan-county/representative-bill-flores-visits-math-students-at-the-mayborn-museum</a>

Baylor Media and Publication Relations: Research-proven Early-intervention Math Program Launches for 2019 (July 3, 2019) https://www.baylor.edu/mediacommunications/news.php?action=story&story=211007

#### 2016

Waco Trib Front Page Story: New Baylor program gives pre-K kids a jump on math (July 26, 2016) <a href="https://wacotrib.com/news/higher\_education/new-baylor-program-gives-pre-k-kids-a-jump-on-math/article">https://wacotrib.com/news/higher\_education/new-baylor-program-gives-pre-k-kids-a-jump-on-math/article</a> 3f113243-6d58-52dc-843d-854875fc1aba.html

MELA Web Site (via Baylor School of Education) https://www.baylor.edu/soe/index.php?id=935594

# **Teaching Activities**

## **Undergraduate and Graduate Courses Taught**

<u>Baylor University (2007-Present)</u> – TED 4326- Mathematics in the Elementary Grades; EDC 5331-Assessment Issues in Mathematics Education; EDC 6342-Cognitive Theories in Mathematics Education; EDC 5310-Classroom Management and Discipline; EDC 5391 – Social Foundations in Education; TED 4361/EDC 5361 – Curriculum and Teaching in Informal Environments; TED 4362/EDC 5362 - Capstone in Informal Education with Practicum

#### **New Courses Developed**

TED 5v98 - STEM for Young Learners (still in pilot phase)

TED 4361/EDC 5361 - Curriculum and Teaching in Informal Environments

TED 4362/EDC 5362 - Capstone in Informal Education with Practicum

EDC 5331-Assessment Issues in Mathematics Education

EDC 6342-Cognitive Theories in Mathematics Education

EDC 6362-Community Leadership and Collaboration (for EdD-LOC Online Program)

<u>Texas Tech University (1995-2007)</u> - Teaching Mathematics in the Elementary School (undergraduate); Middle Level Mathematics Instruction (undergraduate); Developing Mathematics Programs in Elementary Education (post-bac); Variable Topics Course in Mathematics Education (graduate); Assessment Issues in Mathematics and Science Education (graduate); Seminar in Curriculum and Instruction (graduate, Hill Country Campus)

Doing Math the Science Way Projects (Texas Tech University)

(1999-2000) - Integration of math and science with focus on High Plains Ecology, for teachers grades 3-8

(1997-1998) - Integration of math and science with focus on Geometry Concepts, for teachers grades 3-6

(1996-1997) - Integration of math and science with focus on Earth Science Concepts, for teachers grades 3-6

## **Online Courses Developed**

Baylor University(2007-Present)

EDC 6362-Community Leadership and Collaboration (for EdD-LOC Online Program)

<u>Texas Tech University (1995-2007)</u> - Developing Mathematics Programs in Elementary Education (post-bac certification); Doing Math the Science Way: Exploring the Integration Process (graduate level course); Studies of Women in Mathematics and Science (graduate level course); Language in Mathematics (graduate level course); Working with Families in Elementary and Middle School Mathematics; Learning through Inquiry in Mathematics

## **Professional Development for Teachers**

(Summer, 2023) – STEM+ for Elementary Teachers: Space Science and Engineering Cycle for Exploration (2016-2018) - STEM Specialized Professional Development Schools: Bell's Hill PDS and Mountainview PDS (2012-2013) - Elementary Math and Science Teacher Academy (three sessions), for teachers K-5 (2010-2011) - Integrating Earth Science Concepts with Measurement, for teachers grades 3-5

## **Graduate Research Direction**

Ph.D. Student Committees	Completion
Baylor University	Completion
Andrea Martinez (Chair)	In Progress
Margeaux Smith (Chair)	In Progress
Melissa Eubank	In Progress
Michael Warren	In Progress
Kenley Ritter	August, 2023
Melissa Donham (Chair)	August, 2023
Brandy Crowley (Chair)	August, 2023
Anthony Luevanos	August, 2021 August, 2020
Ryann Shelton	May, 2020
Keith Kerschen	August, 2018
Sage Bentley	August, 2018
Kim Hardin (Educational Psychology)	December, 2016
Dittika Gupta	August, 2014
Mark Montgomery (Chair)	August, 2014 August, 2014
Bianca Ochoa	December, 2013
Texas Tech University (1995-2007)	December, 2013
Stacey Harwell	August, 2010
Suzanne Nesmith (Chair)	May, 2007
Kim Perry	Spring, 2007
Ashley Campbell	Summer, 2002
Mark Jamison	Spring, 2001
Tara Stevens	Spring, 2001 Spring, 2000
Jiang Tan	Fall, 1998
Jidiig Taii	Tall, 1990
Ed.D. Student Committees	
Baylor University	
Shametria Routt (Chair)	August, 2019
Jeffery Gasaway (Chair)	December, 2018
Ashley Canuteson (Chair)	August, 2017
Amy Corp (Chair)	August, 2014
Brandon Moore	August, 2013
Kris Ward	August, 2012
Anne Zandstra (Chair)	May, 2012
Brent Merritt	August, 2011
Susan Cooper-Twamley	August, 2009
Homer Guevara	December, 2007
	,
Online Ed.D. in Learning and Organizational Change Program	
Member: Abigail Feeley, Ryan Zieno, Rachel Reneau	December, 2023
Chair: Debra Arnold, Andrea Bacle, Debra Canady,	December, 2021
Brent Fessler, Andrietta Gayles, Debra Lacy, Jennifer Landrum,	
Chris Lund, Rosemary Meredith, Charity Miller, Tony Moore,	
Scott Nelmark, Edward Pena, Michaela Postell, Chris Sanders,	
Michelle Toma, Wendi Walker-Schmidt	
Member: Michelle Bowman, Tammy Chambers, Marta Carmona,	December, 2021
Lourdes Cloud, Wendi Duric, Shavonne Gibson, Hamza Haqqi,	

James Hylton, Romel Muex, Corey Schneider, Jeffrey Smith, Angie Torres, Andrea Whitener

## **Master's Degree Student Committees**

**Baylor University** 

Leslie Wolff (M.A. w/Thesis) (Chair)

Melissa Donham (M.A. w/Thesis)

Alex Farrell (M.Ed.)

August, 2023

August, 2019

Fall, 2015

Texas Tech University (1995-2007)

Ashlee Malouf Summer, 2007 Xiaobo She Fall, 2006 Amy Shields (Chair) Spring, 1997

## **Undergraduate Research Direction**

Intern Action Research Project Guidance and Support

Shelby Taylor, Debbie Chou, Liz Perkins, Julia Morrison,

Riley Godwin Fall, 2022/Spring 2023

Jordan Nguyen, Emily Engen, Claire Milinski, Adriana Diaz,

Domonique Rendon Fall 2023/Spring 2024

# **Specialized Training**

Children's Thinking in Measurement, Grade Bands K-5 (Training for Trainers Module, 2008)

Mathematics TEKS Connections, Grade Bands K-5 (Training for Trainers Modules, 2007)

Mathematics TEKS Refinement, Grade Bands K-5 (Training for Trainers Modules, 2006)

National Council of Teachers of Mathematics NCATE SPA Reviewer (Training, 2006)

ASEP Oversight Team, State of Texas, 1999

## Honors and Awards

E. Glenadine Gibb Achievement Award, Texas Council of Teachers of Mathematics, 2022 Baylor Fellow, 2021-2022

Leadership as Founding Director, CPED Outstanding EdD Program of the Year Award, 2022

Outstanding Service Award, Association of Mathematics Teacher Educators in Texas, 2019

Excellence in Integrating Mathematics and Science, School Science and Mathematics Association, 2018

Centennial Professor for 2016, Baylor University

Nominated for Outstanding Faculty Research, School of Education, Baylor University, 2015

Nominated for Outstanding Faculty (Non-Tenured, Tenure-Track), School of Education, Baylor University, 2008

Honored at Tribute to Teachers by TSTA-SP, Texas Tech University, 2003

McDonald's Excellence in Teaching Award, College of Education, Texas Tech University, 2002

President's Excellence in Teaching Award, Texas Tech University, 2001

Inducted into the Teaching Academy, Texas Tech University, 2000

Best Research Paper Award (Faculty Development), International Society of Information Technology and Teacher Education Conference, 1999

Hemphill-Wells New Professor Excellence in Teaching Award, Texas Tech University, 1999

Ex-Students Association New Faculty Award, Texas Tech University, 1999

Outstanding Advisor of the Year, Texas Student Education Association, 1997-1998 and 1998-1999

Dean's Service Award, College of Education, Texas Tech University, 1997-1998

Piper Professor, College of Education, Texas Tech University, 1997

Apple Polishing - Professor Recognition sponsored by the Mortar Board Chapter, Texas Tech University, 1996

Superior Rating - Louisiana Evaluation of Teachers System, 1990-1991

Teacher of the Year, Sikes Elementary School, Louisiana, 1987

Rookie of the Year, Sikes Elementary School, Louisiana, 1986

## **Service Activities**

## **Baylor University**

Graduation Marshall, 2007-present

General Education Assessment Committee, 2023-2024

Lecturer Search Committee, Museum Studies, 2022-2023

Graduate Curriculum Committee, 2010-2023

Centennial Professor Committee, 2020-2023

Teaching, Learning, and Technology Committee, 2020-2023

Cornelia Marschall Professor of the Year Committee, 2020-2021

Task Force, Promotion to Full Policy, 2017-2018

University Tenure Committee, 2015-2018

Advisor/Development Team for "Air Show" Student Booklets, Baylor Aviation Department, 2016

Advisory Board, Mayborn Museum, 2015-2016

General Education Committee, 2012-2015

Undergraduate Research and Scholarly Activities Committee, 2010-2011

Faculty Partner, North Russell Hall, 2009-2010

Communications/Media Committee, 2008- 2011

## **School of Education**

Teacher Education Task Force (Chair), 2022-2023

Prospective Student Recruitment Committee, 2016-2018

Undergraduate Enrollment/Scholarship Committee, 2015-2018; 2019

Learning Resources Center Office Manager Search Committee, 2017

Learning Resources Center/Media Center Study Group/Task Force, 2016-2017

Faculty Advisor for SOE Student Advisory Council, 2015-2017

Coordinator of SOE Student Ambassadors, 2014-2018

LRC Study Committee, 2016

Education Living and Learning Center Advisory Committee, 2014-2017

South Russell Education LLC Faculty Partner, 2015-2017

SOE Dean's Search Committee, 2014-2015

Distinguished Scholar's Day Committee, 2014-2016

(Education) Living and Learning Center Committee, 2014-2015

Review Committee for Sabbatical and Research Leave applications, 2013

SOE Professional Education Ten-Year Review Task Force, 2011-2013

Professional Development Committee, 2010-2013

Professional Education Faculty Executive Committee (PEFX), 2010-2011; and 2016-2018

PDS Research Task Force, 2009

#### **Curriculum and Instruction**

Clinical Faculty Search Committee, Elementary Reading (Chair), 2023-2024

Clinical Faculty Search Committee, Elementary Science/STEM (Chair), 2023-2024

Chair of Curriculum and Instruction Search Committee, 2023-2024

Clinical Faculty Search Committee, Elementary Education (Chair), 2021-2022

List of Scholarly Journals Task Force (Chair), 2020-2021

Curriculum and Instruction Full-Time Lecturer Search Committee (Chair), 2019 and 2020

Review of Faculty Promotion and Tenure Guidelines Committee, 2018-2019

Assistant Professor Faculty Search Committee, 2018-2019

Assistant Professor Faculty Search Committee (Chair), 2017-2018

Assistant Professor Faculty Search Committee (Chair), 2016-2017

Assistant Professor Faculty Search Committee (Chair), 2015-2016

Clinical Faculty Search Committee (Chair), 2014-2015

Faculty Search Committee (Chair), 2013-2014

Clinical Faculty Promotion Criteria Task Force (Chair), 2013-2014

Coordinator, Mathematics Education Program, 2013-present

Secondary Science Education Faculty Search Committee, 2010-2011

Science Education Faculty Search Committee, 2008-2009

Graduate Admissions Committee, Curriculum and Instruction, Fall 2008

Site Coordinator for TEDS-M (Teacher Education Study in Mathematics conducted by Michigan State University)

### **National**

President-Elect, School Science and Mathematics Association, 2023-2024

Publications Review Committee, Association of Mathematics Teacher Educators, 2024-2027

Publications Committee, Research Council for Mathematics Learning, 2022-2025

50<sup>th</sup> Anniversary Committee, Research Council for Mathematics Learning, 2022-2023

NCTM Research Committee, 2020-2023

Associate Vice President, Marketing for Association of Mathematics Teacher Educators, 2020-2023

Joint Association Writing Team for Elementary Math Specialists Position Statement (served as representative for

AMTE and other associations included NCTM, NCSM, and ASSM) – 2022-2023

Board of Directors for the School Science and Mathematics Association, 2018-2021

Chair, Nominations and Elections Committee, School Science and Mathematics Association, 2018-2021

Secretary, Board of Directors for the Association of Mathematics Teacher Educators, 2017-2020

NSF Proposals Review Panel, 2015-2023

Editorial Panel, Teaching Children Mathematics Journal, 2017-2020

Editorial Panel, Mathematics Teaching in the Middle School Journal, 2011-2014

NCTM Representative for the Association of Mathematics Teacher Educators (ex-officio board member for AMTE, 2009-2012)

Affiliates Committee, Association of Mathematics Teacher Educators, 2008-2011

Program Committee, Association of Mathematics Teacher Educators Conference, 2003-2008

Doctoral Programs Task Force, Association of Mathematics Teacher Educators, 2005-2006

Reviewer for National Council of Teachers of Mathematics NCATE SPA

Appointed to the Commission on Utilizing Technology for Educational Reform,

Association of Teacher Educators, 1998

Consultant, The Mathematics Discourse Project (1997-1998). This Project was a \$2,300,000 grant funded by the National Science Foundation awarded to Arizona State University.

Reviewer (Journal Submissions), Teaching Children Mathematics, Teaching Mathematics in the Middle School, School Science and Mathematics Journal, Journal of Teacher Education.

Reviewer (Conference Proposals), Association of Teacher Educators (ATE), Society for Information Technology in Teacher Education (SITE), American Educational Research Association (AERA).

### **Regional and State**

AMTE-TX President's Council, 2015- present

Texas Council of Teachers of Mathematics, Board of Directors, 2010-2019

Generalist EC-6 Redesign Committee (191) Texas Examination of Educator Standards (TEXES), 2013

Conference Program Coordinator, Association of Mathematics Teacher Educators in Texas, 2013

Program Committee, 2011 NCTM Regional Conference in Albuquerque, NM (November, 2011)

Presidential Awards for Math and Science Teacher Committee for Texas, 2010

Program Chair, T<sup>3</sup> Regional Conference in Waco, Texas, October, 2008

Instructor for Teacher Quality Grant Project (University of North Texas) Geometry and Probability/Statistics for Middle School Teachers in the Rolling Plains Consortium

Texas Master Math Teacher Program Standard Setting Committee, 2003

Reviewer (Conference Proposals), Southwest Educational Research Association (SERA)

#### Local

STEM EcosySTEM Design Team (Coordinated by ESC Region 12), 2019- present

NCTM Representative for the Central Texas Council of Teachers of Mathematics, 2020-2025

Instructor for University for Young People – Math in the Museum Course (3 weeks), 2014

Volunteer, Dr Pepper Museum, 2010-2015

Mathematics Consultant, St. Paul's Episcopal School, 2011-2013 and 2021

Elementary Math Consultant, ESC Region 12, 2009-2010

Carver Middle School PDS Steering Committee, 2008-2009

Lubbock ISD Charter School Committee, 2003-2004

Science Fair Judge and Presenter, Ramirez Elementary, 2003

Science Fair Judge, Honey Elementary, Bayless Elementary, 2004

Science Fair Judge, Smyer ISD, 2002

Technology Committee, Lubbock Independent School District, 1999-2000

Presenter, Ramirez Elementary School Science Fair, 1997, 1998

Presenter, Bozeman Elementary School Outdoor Education Days, 1998, 1997

Judge, Ramirez Elementary School Spelling Bee, 2000

Resource Person, Mathematics and Science Fair, Roscoe Elementary School, 5th/6th grade students, 1996

### **Texas Tech University (1995-2007)**

University Honors & Awards Council, 2005-2008 (Chair, 2006-2007)

Student Media Committee, 2005-2008

Faculty Senate, 1999-2002

University Honors & Awards Council, 1999-2002

Teaching, Learning, & Technology Committee, 1999-2002

Student Publications Committee, 1996-1999

Strategic Planning Committee for Research, 1997

Prepared NCTM SPA Report for NCATE Review (2006)

Undergraduate Academic Affairs Committee (Chair, 2005-2006) 2004-2007

C&I Annual Review Committee, 2003-2006

COE Technology Committee, ELED Rep, 2003-2004

Faculty Advisor - Texas Student Education Association, 1995-2003

COE Dean's Search Committee, 2002-2003

Faculty Council (Chair) 2002-2003

Faculty Council (Chair-Elect) 2001-2002

Search Committee for Teacher Education position (Chair), 2002

Merit Pay Task Force, 2001-2002

Elementary Education Program Co-Coordinator, 1998-2001

Faculty Council Representative for C&I, 1997-2000

Technology Committee for COE, 1999-2000

Distance Education Task Force, 1998-1999

Faculty Awards Committee, (Chair) 1998-1999

Technology Courses Liaison for Elementary Education Faculty

Infusion of Technology Task Group (Chair) -Texas Tech/Baylor Partnership, 1997-1998

Graduate Studies Committee, 1997-1998

University-School Connections Committee, 1997

Information Systems Study Group, 1997

Search Committee for Elementary Education Position, 1997-1998

Search Committee for C&I Chair Position, 1996-1997

Course Load Committee for C&I, 1996

Academics 2000 Technology Committee, 1996

Mentor - Post-Doctoral Fellow from Turkey, 1997-1998

Mentor for a non-tenure track faculty member in EP&L, 1997-1998

# Professional and Academic Association Memberships

National Council of Teachers of Mathematics (Regional Conference Program Chair, 2008; Regional Conference Program Committee, 2011; MTMS Editorial Panel, 2011-2014; TCM Editorial Panel 2017-2020; Research Committee, 2020-2023)

Association of Mathematics Teacher Educators (Conference Program Chair, 2007; Program Committee, 2003-2008; Affiliates Committee, 2008-2011; Board Secretary, 2017-2020; AVP Marketing, 2020-2023; Publications Review Committee, 2023-2025)

Association of Mathematics Teacher Educators in Texas (*President, 2008-2011; Past-President, 2010-2011; President's Council, 2015-present*)

Texas Association of Supervisors of Mathematics

Texas Council of Teacher of Mathematics (Past-President, 2019; President, 2017-2019; President-Elect, 2016-2017; Central Regional Director, 2012–2016)

Central Texas Council of Teachers of Mathematics (*President, 2012-2014; Vice-President, College/University, 2009-2011; NCTM Rep, 2020-2025*)

School Science and Mathematics Association (Co-Executive Director, 2006-2011; Finance Committee, 2010-2013, Conference Program Co-Chair, 2013; Board of Directors, 2018-2021; Chair, Nominations and Elections, 2018-2021; President-Elect, 2023-2024)

Association of Teacher Educators (20 year - Laureate Member)

National Association for the Education of Young Children

Association for Childhood Education International

Texas Association for the Education of Young Children

Brazos Valley Association for the Education of Young Children

Informal Science Education Association of Texas

Texas Association of Museums

Have been a Member, but Not Currently Active in the Following:

Visitor Studies Association

Museum Education Round Table

Association of Science and Technology Centers

Association for the Advancement of Computers in Education

American Educational Research Association

Southwest Educational Research Association

Phi Delta Kappa (Vice-President: Membership, 1992-1993)

Kappa Delta Pi (Honor Society, Membership Chair, 1993-1994) Graduate Student Government (Senate Finance Committee, 1993-1994)