

## **Shirley M. Matteson**

Associate Professor of Middle Level Education  
Texas Tech University College of Education  
Department of Curriculum & Instruction  
P.O. Box 41071  
Lubbock, TX 79409  
(806) 834-3841  
shirley.matteson@ttu.edu

### **EDUCATIONAL EXPERIENCE**

**Texas A&M University, Ph.D.**  
College Station, TX

Curriculum & Instruction – Emphasis in  
Middle Grades Mathematics Education

**Hardin-Simmons University, M.M.**  
Abilene, TX

**Greenville College, B.M.E.**  
Greenville, IL

### **RESEARCH INTERESTS**

- Middle level preservice teacher preparation
- Inservice teachers' perceptions of integration of mathematics and science content
- The “big idea” of equivalence/balance in mathematics and science concepts
- Algebraic representations and interpretations by middle level learners
- Mathematical problem-solving and interpretation of mathematical representations
- The influence of the NBPTS Five Core Propositions: Self-study applied to mathematics methods course assignments
- Equity in the mathematics classroom – “ghost children” and English Language Learners
- Thinking structures and the teaching of thinking in classrooms

### **PROFESSIONAL EXPERIENCE**

Jan. 2018 – present	<b>Associate Professor of Middle Level Education &amp; C&amp;I Graduate Advisor</b> , Texas Tech University, Lubbock, Texas.
Sept. 2013 – Dec. 2018	<b>Associate Professor of Middle Level Education</b> , Texas Tech University, Lubbock, Texas.
August 2008 – August 2013	<b>Assistant Professor of Middle Level Education</b> , Texas Tech University, Lubbock, Texas.
August 1995 – June 2008	<b>Middle grade regular and Pre-AP mathematics teacher</b> at Palo

Alto Middle School in the Killeen Independent School District, Killeen, Texas.

- August 1984 – May 1995     **Elementary music teacher; middle school teacher** – music, band, language arts, and mathematics; and **high school band director** for various campuses in the Killeen Independent School District, Killeen, Texas.
- January 1983 – May 1984     **Graduate Assistant** – Hardin-Simmons University, Abilene, Texas.
- August 1979 – May 1982     **Middle and high school band director** in Illinois.

## AWARDS & RECOGNITION

- 2018    Teaching Academy Member, Texas Tech University
- 2018    SERA Extended Service Award
- 2017    College of Education *Innovative Partnership Research Award*, Texas Tech University
- 2013    Recipient of the College of Education *Chancellor's Council Distinguished Research Award*, Texas Tech University
- 2012    Recipient of the College of Education *President's Academic Achievement Award*, Texas Tech University
- Recipient 2<sup>nd</sup> Annual Linking Research and Practice Outstanding Publication Award – *Mathematics Teaching in the Middle School*, National Council of Teachers of Mathematics
- 2009    Recipient of the College of Education *Hemphill-Wells New Professor Excellence in Teaching Award*, Texas Tech University
- 2007    Graduate Student Research and Presentation Grant - Texas A&M Association of Former Students and the Office of Graduate Studies. \$400
- Graduate Student Research and Presentation Grant - Department of Teaching, Learning, and Culture. \$600
- 2006    Education Research Exchange - Mathematics Education Research Award
- Education Research Exchange– College Qualitative Award

## TEACHING CERTIFICATION

**National Board Certified Teacher** – Early Adolescence/Mathematics (November 2001, renewed through November 2021)

***Texas State Teacher Certificate*** – Elementary General (Grades 1-8), Secondary English (Grades 6-12), Secondary English Language Arts Composite (Gr. 6-12), All-level Music (Grades PK-12)

***Illinois Teacher Certificate*** – All-Level Music

## **CERTIFICATIONS**

TAP Evaluator Certification – National Institute for Excellence in Teaching (NIET)

TEXTTEAMS module *Rethinking Middle School Mathematics: Problem Solving Across the TEKS*  
– Trainer of Trainers

TESA, Teacher Expectations Student Achievement – Trainer of Trainers

## **RESEARCH GRANTS**

### **Externally Funded**

2013 Department of Education, Supporting Effective Educator Development (CFDA 84.367D). *TAP connect national pilot*. Jason Culbertson & Scott Ridley (Co-PIs), Peggy Johnson (Director of the Literacy/Writing Certificate), Fernando Valle & Irma Almager (Co-Directors of the Leadership Certificate), Shirley Matteson (Director of the STEM Certificate, 2013-2016), Doug Hamman (Director of Teacher Education Programs). (\$11,998,642).

2011 Department of Education, Office of Innovation and Improvement. Investing in Innovation Fund (CFDA 84.411C). *Competency-based educator preparation & school intervention*. Scott Ridley (PI), Jeffrey Lee, Shirley Matteson (2011-2015), & Fernando Valle (Co-PIs). (\$3,440,000).

### **Externally Unfunded**

2012 National Science Foundation: Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP). *STEPping on STEM's Leaky Pipeline (STEP-SLP)*. Kent Pearce (PI), Brock Williams, Jerry Dwyer, & Shirley Matteson (Co-PIs) (\$1,988,889, unfunded).

2011 National Council of Teachers of Mathematics/Council for Exception Children. Beginning Substantive Collaboration between Mathematics Education and Special Education: Teaching Mathematics to Students with Disabilities (NSF). *RTI interventions and differentiated instruction focused on Pre-algebra skills with middle school at-risk students and students with disabilities*. Donna Brown & Shirley Matteson (Co-PIs). (unfunded).

2011 Halliburton: A Cross-curriculum Approach to Teaching STEM Subjects (CATSS). Patricia Patrick (PI) & Shirley Matteson (Co-PI). (\$26,363, unfunded)

- 2011 National Science Foundation: Directorate for Education and Human Resources. Discovery Research K-12 (nsf10610). *Picture THIS: Taking Human Impact Seriously*. Patricia Patrick (PI), Jerry Dwyer & Shirley Matteson (Co-PIs). (\$767,736, unfunded).
- 2010 U.S. Department of Education: Institute of Education Sciences. Special Education Research Grants: Exploratory Research in Professional Development for Teachers and Related Service Providers (84.324A). *Factors predicting mathematics achievement in middle-level students with disabilities: Instructional collaboration in inclusive settings (ICIS)*. Doug Hamman (PI), DeAnn Lechtenberger, Shirley Matteson & Zenaida Aguirre-Munoz (Co-PIs). (\$1,142,314, unfunded).

### **Internally Funded**

- 2017 College of Education, 2017 Innovative Partnership Research Award. Shirley Matteson (Faculty Advisor) and Joel Scott Self, Connie Watson, Casey Morris, David Villarreal, Maggie Gilchrest, Tricia Ryan (HIED PhD Doctoral Student Researchers). Partner: West Texas Regional STEM Degree Accelerator grant team (Lead: Roy Bartels, Western Texas College). (\$10,000)

### **CONSULTING AND RESEARCH INSTITUTES**

- 2010-2013 Member – Texas Tech University, College of Education, *Center for Teacher Development and Research*
- 2002 & 2003 Master Teacher Evaluator – *National Science Foundation GK-12 Program* Assessment conducted through the University of Wisconsin - Madison.

### **COURSES TAUGHT**

- Spring 2019 EDCI 5306 – Connecting Instructional Theory to Practice in Curriculum and Instruction (online)
- Fall 2018 EDCI 5333 – Improving the Teaching of Thinking (online)
- Spring 2018 EDCI 5333 – Improving the Teaching of Thinking (face-to-face and online)  
EDCI 5335 – Models of Teaching (face-to-face and online)
- Fall 2017 EDCI 5330 – Ethics and Teaching  
EDCI 6382 – Advanced Field Method in Constructivist Inquiry (online delivery)
- Summer 2017 EDCI 6306 – Special Topics: Curriculum Assessment
- Spring 2017 EDCI 5333 – Improving the Teaching of Thinking (online delivery)  
EDHE 6310 – Higher Education Research Seminar (blended delivery)
- Fall 2016 EDCI 5386 – Constructivist Inquiry Methodologies in Curriculum & Instruction  
EDCI 5306 – Seminar in C&I: Connecting Instructional Theory to Practice in Mathematics Education

Spring 2016 Professional Development Leave

Fall 2015 EDCI 5386 – Constructivist Inquiry Methodologies in Curriculum & Instruction

Spring 2015 EDCI 6382 – Advanced Field Method in Constructivist Inquiry  
EDCI 5333 – Improving the Teaching of Thinking (blended delivery)

Fall 2014 EDCI 5386 – Constructivist Inquiry Methodologies in Curriculum & Instruction

Spring 2014 EDML 3370 – Teaching Mathematics at the Middle Level

Fall 2013 EDML 3320 – Middle-Level Curriculum and Philosophy  
EDEL 3099 – Mathematics Manipulative as Instructional Interventions  
EDCI 5386 – Constructivist Inquiry Methodologies in Curriculum & Instruction

Spring 2013 EDML 3370 – Teaching Mathematics at the Middle Level  
EDCI 6393 – Advanced Practicum in Curriculum and Instruction

Fall 2012 EDML 3320 – Middle-Level Curriculum and Philosophy  
EDML 4375 – Integrated Mathematics and Science

Spring 2012 EDCI 3370 – Teaching Mathematics at the Middle Level (2 sections)

Fall 2011 EDCI 3320 – Middle-Level Curriculum and Philosophy  
EDSE 4399 – Math Vocabulary Development for ESL Middle-Level Learners  
EDEL 5370 – Developing Mathematics Programs in Elementary Education

Spring 2011 EDCI 3370 – Teaching Mathematics at the Middle Level (2 sections)

Fall 2010 EDCI 3320 – Middle-Level Curriculum and Philosophy  
EDCI 5371 – Curriculum and Instruction for Science and Mathematics Education  
(hybrid delivery)

Spring 2010 EDCI 3370 – Teaching Mathematics at the Middle Level (2 sections)

Fall 2009 EDCI 3320 – Middle-Level Curriculum and Philosophy  
EDCI 4375 – Integrated Mathematics and Science  
EDSE 5377 – Science Curriculum and Instruction (hybrid delivery)

Summer 2009 EDEL 6370 – Studies in Mathematics Education

Spring 2009 EDCI 3370 – Teaching Mathematics at the Middle Level (2 sections)

Fall 2008 EDCI 3320 – Middle-Level Curriculum and Philosophy  
EDEL 6370 – Studies in Mathematics Education

## **COURSES DEVELOPED**

EDCI 6306 – Special Topics: Curriculum Assessment

ECTE 5315 – Connecting Instructional Theory into Practice

EDCI 5372 – Assessment Issues in Science and Math Education (online version redesigned for TAP Connect National Pilot STEM certificate students)

- EDCI 5373 – Designing Project-Enhanced Environments for Science and Mathematics (online version redesigned for TAP Connect National Pilot STEM certificate students)
- EDCI 5333 – Improving the Teaching of Thinking (online version redesigned for TAP Connect National Pilot STEM certificate students)
- EDLD 5320 – Data-Driven Communication and Decision Making (online version redesigned for TAP Connect National Pilot STEM certificate students)
- EDML 5301 – Foundations of Middle Level Education (graduate level online course)

## **PUBLICATIONS**

### **Peer Reviewed Publications**

- ❖Cumhur, F., & **Matteson, S. M.** (2017). Mathematics and science teacher candidates' beliefs of developing questioning skills in Turkey. *Journal of Teacher Education and Educators*, 6(3), 297-318.
- Patrick, P., & **Matteson, S.** (2017, February). Elementary and middle level biology concepts: A content analysis of Science & Children and Science Scope from 1990-2014. *Journal of Biological Education* (online). <http://dx.doi.org/10.1080/00219266.2017.1293556>
- Matteson, S. M.**, Sherrod, S. E., & \*Cetin, S. C. (2016). Collection, storage, protection, and sharing issues with large-scale data sets. *SAGE Research Methods Cases* (invited publication). doi: <http://dx.doi.org/10.4135/9781473999053>
- Matteson, S. M.**, Sherrod, S. E., & \*Cetin, S. C. (2016). Rubrics: Evaluation tools for the pedagogical and content knowledge of grades 6-9 mathematics teachers. *SAGE Research Methods Cases* (invited publication). doi: <http://dx.doi.org/10.4135/9781473979628>
- Matteson, S. M.** (2016, August). The “brick wall” graphic organizer. *Mathematics Teaching in the Middle School*, 22(1), 38-45.
- Han, S., \*Cetin, S. C., & **Matteson, S. M.** (2016). Examining the pattern of middle-grade mathematics teachers' performance: A concurrent embedded mixed methods study. *Eurasia Journal of Mathematics, Science and Technology Education*, 12(3), 387-409. doi: 10.12973/eurasi.2016.1206a.
- #She, X., **Matteson, S.**, Siwatu, K. O., & Wilhelm, J. (2014). Exploring preservice teachers' conceptual understanding of algebraic ideas: Linear function and slope. *International Journal of Education and Social Science*, 1(5), 90-101.
- Matteson, S. M.** (2014). Ghost children: Invisible middle level students. *Middle Grades Research Journal*, 9(2), 19-36.
- Matteson, S. M.**, Özel, S., & Zientek, L.R. (2013). Identifying what inservice teachers want in professional development. *Teacher Education and Practice*, 26(3), 569-580.
- Taylor, J., Zientek, L.R., & **Matteson, S. M.** (2013). Improving achievement in trigonometry by revisiting fraction operations. *Mediterranean Journal for Research in Mathematics Education*, 12(1-2), 135-153.
- Coward, F. L., **Matteson, S. M.**, & Hamman, D. (2012). A case study of teacher identity

- development in middle level student teachers. *Middle Grades Research Journal*, 7(4), 32-42.
- Wilhelm, J., **Matteson, S.**, & \*She, X. (2012). Investigating preservice teachers' understanding of balance concepts utilizing a clinical interview method and a virtual tool. *International Journal of Science and Mathematics Education*. doi: 10.1007/s10763-012-9371-y
- Matteson, S. M.**, Ganesh, B. S., Coward, F. L., & Patrick, P. (2012). Middle level preservice mathematics teachers' mental representations of classroom floor plans. *Teaching Education*, 23(4), 429-450. doi:10.1080/10476210.2012.672407
- Matteson, S. M.**, Capraro, M. M., Capraro, R. M., & Lincoln, Y. S. (2012). Extricating justification scheme theory in middle school mathematical problem solving. *Investigations in Mathematics Learning*, 5(1), 38-62.
- Matteson, S. M.** (2011, October). Three heads are better than one. *Mathematics Teaching in the Middle School*, 17, 136-139.
- Matteson, S. M.**, Swarthout, M., & Zientek, L. R. (2011). Student motivation: Perspectives from mathematics teachers. *Action in Teacher Education*, 33, 283-297. doi: 10.1080/0162666.2011.592123
- Matteson, S. M.**, & Wilhelm, J. (2011, August). Hanging in the balance. *Mathematics Teaching in the Middle School*, 17, 56-61.
- Matteson, S. M.**, Taylor, C. M., Valle, F., Fehr, M. C., Jacob, S. A., & Jones, S. J. (2011, Spring-Summer). Re-examining academic expectations: Using self-study to promote academic justice and student retention. *Journal of Thought*, 46(1,2), 65-83.
- Matteson, S. M.** (2011, May). A different perspective on the multiplication chart. *Mathematics Teaching in the Middle School*, 16, 562-568.
- \*Ganesh, B., & **Matteson, S. M.** (2010, December). The benefits of reteaching lessons in preservice methods classes. *Action in Teacher Education*, 32(4), 52-60. doi: 10.1080/016266620.2010.549718
- $\Delta$ **Matteson, S. M.** (2010, September). Problems with nth-term problems. *Mathematics Teaching in the Middle School*, 16, 88-95.
- Matteson, S. M.**, Box, N., Hartzell, C., & Howell, R. (2009). A sisterhood of mathematics teachers. In G. Zimmerman, P. Guinee, L. Fulmore, & E. Murray (Eds.) *Empowering the Mentor of the Beginning Mathematics Teacher* (p. 43). Reston, VA: National Council of Teachers of Mathematics.
- Matteson, S. M.**, Box, N., Hartzell, C., & Howell, R. (2009). A sisterhood of mathematics teachers. In G. Zimmerman, P. Guinee, L. Fulmore, & E. Murray (Eds.) *Empowering the Mentor of the Experienced Mathematics Teacher* (p. 43). Reston, VA: National Council of Teachers of Mathematics.
- Matteson, S. M.**, & Lincoln, Y. S. (2009). Using multiple interviewers in qualitative research studies: The influence of ethic of care behaviors in research interview settings. *Qualitative Inquiry*, 15, 659-674. doi:10.1177/1077800408330233

Capraro, M. M., Ding, M., **Matteson, S.**, Capraro, R., & Li, X. (2007). Representational implications for understanding equivalence. *School Science and Mathematics, 107*, 86-88. doi: 10.1111/j.1949-8594.2007.tb17773.x

**Matteson, S. M.** (2006). Mathematical literacy and standardized mathematical assessments. *Reading Psychology: An International Quarterly, 27*, 205-233. doi: 10.1080/02702710600642491

**Matteson, S. M.** (2005). At-risk students and their performance on graphing assessments. *The Lamar University Electronic Journal of Student Research, 2*, [http://dept.lamar.edu/lustudentjnl/archived\\_files\\_VOL2\\_summer05.htm](http://dept.lamar.edu/lustudentjnl/archived_files_VOL2_summer05.htm)

\*Doctoral student

❖ Graduate student, International Institution

#From doctoral dissertation

ΔNCTM's 2<sup>nd</sup> Annual *Linking Research and Practice Outstanding Publication Award*

### Peer Reviewed Conference Proceedings

\*Ingram, M. C., & **Matteson, S. M.** (2019, January). *Using explanatory data collection methods to study online air force acquisition courses and personnel participation. Proceedings of the Hawaii University International Conferences 2019 Arts, Humanities, Social Sciences, and Education Conference*, Honolulu, HI: Hawaii University International Conferences. Available from <https://huichawaii.org/wp-content/uploads/2018/12/Ingram-Melissa-AHSE-HUIC.pdf>

\*Gorham, L. M., Meyers, C. A., & **Matteson, S. M.** (2016). Comparing students' writing apprehension scores in a writing course: A pre-test post-test design. *Proceedings of the Southern Agricultural Association of Science: Agricultural Communications Section*, San Antonio, TX. Available from [https://drive.google.com/file/d/0B-erg69\\_pWGUMy02RGQtbkRUbTg/view?pref=2&pli=1](https://drive.google.com/file/d/0B-erg69_pWGUMy02RGQtbkRUbTg/view?pref=2&pli=1)

Şahin, A., & **Matteson, S.** (2015, September). Matematik ve Fen Öğretmen Adaylarının Soru Sorma Becerileri ve Bu Becerileri Elde Etme Yolları (Questioning skills and the skills acquisition paths of mathematics and science teachers). Symposium proceedings of the *3<sup>rd</sup> International Instruction Technologies & Teacher Education Symposium (ITTES 2015)*, Trabzon, Turkey, pp. 1-11. doi: 10.13140/RG.2.1.2710.1529. Available from [https://www.researchgate.net/publication/284655235\\_Matematik\\_ve\\_Fen\\_retmn\\_Adaylarnn\\_Soru\\_Sorma\\_Becerileri\\_ve\\_Bu\\_Becerileri\\_Elde\\_Etme\\_Yollar](https://www.researchgate.net/publication/284655235_Matematik_ve_Fen_retmn_Adaylarnn_Soru_Sorma_Becerileri_ve_Bu_Becerileri_Elde_Etme_Yollar)

\*Cetin, S. C., & **Matteson, S. M.** (2014). Interactive formative assessment and quick polls: Exploring mathematics teachers' practices. In P. Liljedahl, C. Nicol, S. Oesterle, & D. Allan (Eds.) *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education*, 6, 294. Vancouver, Canada: PME.

**Matteson, S. M.**, & \*Cetin, S. C. (2014). Investigating the difficulties of middle school mathematics teachers with lesson structure. In P. Liljedahl, C. Nicol, S. Oesterle, & D. Allan (Eds.) *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education*, 6, 361. Vancouver, Canada: PME.



Wilhelm, J., **Matteson, S.**, & \*She, X. (2010, October). Assessing how pre-service teachers understand balance through clinical interviews and a virtual tool. In P. Brosnan, D. B. Erchick, & L. Flevaris, (Eds.). *Proceedings of the 32nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 1030-1038). Columbus, OH: The Ohio State University.

\*Doctoral student

❖ Graduate student, International Institution

### Peer Reviewed Book Chapters

\*Ryan, P. M., Paton, V. O., & **Matteson, S. M.** (2018). Learning to collaborate: Intersections of the classroom and community. In T.T. York, A. S. Tinkler, & B. E. Tinkler (Eds.) *Service-learning to advance access & success: Bridging institutional and community capacity*. Charlotte, NC: Information Age Publishing.

**Matteson, S. M.**, Fletcher, R. M., Tidwell, T., & Garrett, D. I. (2010). Reflections on shared middle level experiences: A case study. In K. Malu (Ed.) *Voices from the middle: Narrative inquiry by, for, and about the middle level community*, (pp. 193-212). Charlotte, NC: Information Age Publishers (IAP).

Capraro, M. M., English S., Fisseler, S., Grimi, E., Kotara, D., **Matteson, S.**, & Fabiola-Rangel, A. (2008). Looking into middle school mathematics classrooms: Lessons learned from research. In G. Kulm (Ed.), *Teacher knowledge and practice in middle grades mathematics* (pp. 287-309). Rotterdam, The Netherlands: Sense.

\*Doctoral student

### Online Resource

**Matteson, S. M.**, & Wilhelm, J. (in production). *Hanging in the balance, K-6 online anthology of interdisciplinary lessons*. Reston, VA: National Council of Teachers of Mathematics.

### Non-Peer Reviewed Publications

**Matteson, S.** (2003). Patsy's Tasty Pastries, Movie Madness, Shipping Widgets. *TEXTEAMS Institute: Rethinking middle school mathematics: Problem solving across the TEKS: Appendices* – Charles A. Dana Center, The University of Texas at Austin. Austin, TX.

## **MANUSCRIPTS UNDER REVIEW**

\*Ingram, M. C., & **Matteson, S. M.** (under review). Using explanatory data collection methods to study online Air Force Acquisition Courses and personnel participation.

Fortney, B. S., **Matteson, S. M.** Atwood, E. D., & Thompson, R. (under review). Brick Wall Graphic Organizers are to mental models as concept maps are to conceptual understanding.

Sherrod, S. E., & **Matteson, S. M.** (under review). The right triangle relationship: It's complicated.

**Matteson, S. M., & Sherrod, S. E.** (under revision). Designing an observational tool for evaluating the content knowledge of mathematics teachers.

\*Doctoral student

❖ Graduate student, International Institution

## MANUSCRIPTS IN PROGRESS

**Matteson, S. M., Arellano, I., & Sherrod, S. E.** (Manuscript in progress). Administrative perspectives on implementing a mandatory engaged scholarship project.

Sherrod, S. E., **Matteson, S. M., & Arellano, I.** (Manuscript in progress). Engaging doctoral students: Benefits of implementing community-based research projects.

Fortney, B. S., & **Matteson, S. M.** (Manuscript in progress). Developing pre-service mathematics and science teacher identity with the Brick Wall Organizer. (working title)

**Matteson, S. M., & \*Louis, S.** (Manuscript in progress). *Developmental math students' perceptions of secondary teachers' impact.*

**Matteson, S. M., & Martinez, D.** (Manuscript in progress). *Investigating the teaching of thinking skills by colleges of education.*

\*Doctoral student

## PRESENTATIONS

### International

\*Turan, S., & **Matteson, S. M.** (2019, April). *The use of the 5E instructional model in middle school mathematics classrooms: Prevalent or Not?* Paper accepted for the American Educational Research Association, Toronto, Canada.

\*Ingram, M. C., & **Matteson, S. M.** (2019, March). *Increasing engagement in adult learners - A study online course participation.* Proceedings from the 2019 Lilly Conference on Active and Engaged Learning. Anaheim, CA: International Teaching Learning Cooperative.

\*Ingram, M. C., & **Matteson, S. M.** (2019, January). *Using explanatory data collection methods to study online course participation.* Proceedings from the 2019 Lilly Conference on Evidence-based Teaching and Learning. Austin, TX: International Teaching Learning Cooperative.

\*Ingram, M. C., & **Matteson, S. M.** (2019, January). *Using explanatory data collection methods to study online air force acquisition courses and personnel participation.* Proceedings from the 2019 Arts, Humanities, Social Sciences, and Education Conference. Honolulu, HI: Hawaii University International Conferences.

Ryan Pal, P. M., **Matteson, S. M.**, \*Louis, S., Self, J. S., Paton, V. O., & Garcia, H. (2019, April). *Views from all sides: Student success in developmental math.* Proposal submitted to the annual meeting of American Educational Research Association, Toronto, Canada.

**Matteson, S. M., Sherrod, S. E., & \*Cetin, S. C.** (2017, April). *Quick Polls as evidence of technological, pedagogical and content knowledge of middle school mathematics*

- teachers*. Paper presented at the American Educational Research Association (AERA) Conference, San Antonio, TX, USA.
- Han, S., \*Cetin, S. C., & **Matteson, S. M.** (2015, November). *A concurrent embedded mixed methods study of patterns in middle grade mathematics teachers' performance*. Paper presented at the Korean Society of Mathematical Education (KSME) 2015 International Conference on Mathematics Education, Seoul, Korea.
- ❖ Cumhuri, F., Şahin, A., & **Matteson, S.** (2015, September). *Matematik ve Fen Öğretmen Adaylarının Soru Sorma Becerileri ve Bu Becerileri Elde Etme Yolları (Pre-service teachers' questioning skills and ways of obtaining them)*. Symposium presented at the 3<sup>rd</sup> International Instruction Technologies & Teacher Education Symposium (ITTES 2015), Trabzon, Turkey, pp. 1-11.
- Han, S., \*Cetin, S. & **Matteson, S.** (2015, May). *Impact of video-based professional development on teachers' performance in classroom*. Paper presented at the 2015 Joint Conference on Mathematics Education, Konkuk University, Gwangjin-gu, Seoul, Korea.
- \*Cetin, S. C., \*Farmer, P. J., **Matteson, S. M.**, & ^Yi, M. (2015, April). *Exploring alignment between quick polls and lesson objectives and state standards*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- \*Cetin, S. C., Sherrod, S. E., & **Matteson, S. M.** (2015, April). Content deficits and pedagogical difficulties of US middle school mathematics teachers: A study of lesson analysis. In J. Wang (Chair), *Content representations and pedagogical moves in Chinese and U.S. mathematics classrooms: Lesson video analyses at elementary, middle, and high school levels*. Symposium conducted at the American Educational Research Association (AERA) Conference, Chicago, IL, USA.
- Valle, F., Almager, I., & **Matteson, S.** (2015, January). *Distributing leadership in urban secondary schools: Meeting student mathematical needs through a Trans-Distributed-Mindset Framework*. Paper presented at the 13<sup>th</sup> Annual Hawaii International Conference of Education, Honolulu, HI.
- \*Cetin, S. C., & **Matteson, S. M.** (2014, July). *Interactive formative assessment and quick polls: Exploring mathematics teachers' practices*. Paper presented at the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education, 6, 294. Vancouver, Canada: PME.
- Matteson, S. M.**, & \*Cetin, S. C. (2014, July). *Investigating the difficulties of middle school mathematics teachers with lesson structure*. Paper presented at the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education, 6, 361. Vancouver, Canada: PME.
- Almager, I. L., **Matteson, S. M.**, & Valle, F. (2014, June-July). In T. S. Foulger (Facilitator) *Promising innovations in teacher education*. Technological playground at the annual meeting of the International Society of Technology in Education (ISTE), Atlanta, GA.
- Almager, I. L., **Matteson, S. M.**, & Valle, F. (2014, June-July). In T. S. Foulger (Facilitator) *Disruptive innovations: What does it take to shake things up?* Interactive lecture

presented at the annual meeting of the International Society of Technology in Education (ISTE), Atlanta, GA.

- #She, X., **Matteson, S. M.**, Siwatu, K. O., & Wilhelm, J. (2012, April). *Exploring the effectiveness of interventions designed to deepen preservice teachers' conceptual understanding of algebra concepts*. Poster presented at the annual meeting of the American Educational Researchers Association, Vancouver, British Columbia, Canada.
- Wilhelm, J., **Matteson, S.**, & \*She, X. (2010, October). *Assessing how pre-service teachers understand balance through clinical interviews and a virtual tool*. Paper presented at the 32<sup>nd</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Columbus, OH.
- Matteson, S. M.** (2008, March). *Representation triggers and their influence in problem solving*. Poster session for the annual meeting of the American Educational Researchers Association, New York, NY.

### National

- \*Ingram, M. C., & **Matteson, S. M.** (2019, February). *Using explanatory data collection methods to study online course participation*. Proceedings from the 2019 Conference on Higher Education Pedagogy. Blacksburg, VA: Virginia Tech.
- \*Turan, S., & **Matteson, S. M.** (2019, April). *The detailed analysis of the middle grade math teachers lesson practice*. Poster presented at the annual meeting of National Council of Teachers of Mathematics 2019 Research Conference, San Diego, CA.
- Matteson, S. M.**, Sherrod, S. E., & Arellano, I. (2018, October). *Administrative perspectives on implementing a mandatory engaged scholarship project*. Paper presented at the Engagement Scholarship Consortium, Minneapolis, MN.
- Sherrod, S. E., **Matteson, S. M.**, & Arellano, I. (2018, October). *Engaging doctoral students: benefits of implementing community-based research projects*. Paper presented at the Engagement Scholarship Consortium, Minneapolis, MN.
- Fortney, B. S., & **Matteson, S. M.** (2018, October). *Use of a brick wall graphic organizer (BWO) in STEM education*. Workshop presented at the annual meeting of School Science and Mathematics Association (SSMA), Little Rock, AR.
- Matteson, S. M.**, & Louis, S. (2018, October). *Developmental math students' perceptions of secondary teachers' impact*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Little Rock, AR.
- Fortney, B. S., & **Matteson, S. M.** (2017, November). *Developing science pre-service teachers' beliefs and understandings through the brick wall graphic organizer*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Lexington, KY.
- Ryan, P. M, Paton, V. O., & **Matteson, S. M.** (2017, September). *Creating collaborative researchers: Partnership-based research in the classroom*. Roundtable presentation at

the Engagement Scholarship Consortium, Birmingham, AL.

Fortney, B. S., & **Matteson, S. M.** (2016, October). *Assessment of an active learning framework in a science content lecture course*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Phoenix, AZ.

**Matteson, S. M.**, & Sherrod, S. E. (2016, October). *A critical analysis of a math model of the Pythagorean Theorem*. Paper presented in the Middle Level Education Research Roundtable, annual meeting of the Association for Middle Level Education, Austin, TX.

**Matteson, S. M.**, Kackley, L., \*Yang, Z., & \*Yaqobi, S. (2016, October). *Development of a culture of thinking in middle level classrooms: A case study*. Paper presented in the Middle Level Education Research Roundtable, annual meeting of the Association for Middle Level Education, Austin, TX.

Fortney, B. S., & **Matteson, S. M.** (2015, October). *Navigating preservice teacher developing conceptions of torque: Intersections between mathematics and science*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Oklahoma City, OK.

\*Cetin, S. C., & **Matteson, S. M.** (2015, October). *Patterns of mathematics teachers' instructional performance: A concurrent embedded mixed methods study*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Oklahoma City, OK.

**Matteson, S. M.**, Kackley, L., \*Woodall, E., & Draper, S. (2015, March). *STEM strategies that Work!* Session presented at the TAP National Conference, Los Angeles, CA.

Kackley, L., **Matteson, S. M.**, \*Woodall, E., & Draper, S. (2015, March). *Deepening content: STEM strategies through the special education lens*. Session presented at the TAP National Conference, Los Angeles, CA.

Almager, I. L., & **Matteson, S. M.** (2014, November). *Facilitating the transition from master classroom teacher to effective instructional coach: A case study*. Roundtable session presented at the annual meeting of the Association for Middle Level Education, Nashville, TN.

**Matteson, S. M.**, & Almager, I. L. (2014, November). *Critical elements of lesson structure and pacing: A case study*. Roundtable session presented at the annual meeting of the Association for Middle Level Education, Nashville, TN.

**Matteson, S. M.**, Almager, I. L., & Valle, F. (2014, June). *Reforming teacher support and development using 21<sup>st</sup> Century tools*. Presentation at the annual meeting of i3 grantees, Washington, DC.

\*Cetin, S. C., Bulut, M., & **Matteson, S. M.** (2013, November). *Quick polls: Their relationship to teacher's academic feedback, questioning skills, and assessment*. Roundtable session presented at the annual meeting of Association for Middle Level Education (AMLE), Minneapolis, MN.

**Matteson, S. M.**, & Patrick, P. G. (2013, November). *Middle level mathematics/science teacher candidates' mental representations of mathematics and science classrooms*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), San Antonio, TX.

- Patrick, P. G., & **Matteson, S. M.** (2013, November). *A literature review of Science and Children and Science Scope*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), San Antonio, TX.
- \*Cetin, S. C., Bulut, M., & **Matteson, S. M.** (2013, November). *What middle school mathematics teachers do with the results of quick polls*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), San Antonio, TX.
- Matteson, S. M.**, & Patrick, P. (2012, November). *Using drawings to uncover pre-service teachers' mental representations of mathematics and science floor plans*. Paper presented at the annual meeting of the Association for Middle Level Education, Portland, OR.
- Matteson, S. M.** (2012, November). *Addressing the needs of middle level "Ghost Children."* Roundtable session presented at the annual meeting of the Association for Middle Level Education, Portland, OR.
- Matteson, S. M.**, & Ganesh, B. S. (2011, November). *Employing reflective practice to improve a middle level mathematics methods course*. Poster presented at the annual meeting of the Association for Middle Level Education, Louisville, KY.
- Ganesh, B., S., & **Matteson, S. M.** (2011, November). *The ABCs of integrating mathematics and science content in middle level classrooms: Activities, benefits, and challenges*. Roundtable session presented at the annual meeting of the Association for Middle Level Education, Louisville, KY.
- Zientek, L. R., **Matteson, S. M.**, Mittag, K. C., & Taylor, S. (2010, November). *Evaluating the impact of virtual manipulatives on teacher quality*. Paper presented at the annual meeting of School Science and Mathematics Association, Ft. Myers, FL.
- Matteson, S. M.** (2009, October). *Middle level pre-service teachers: An inquiry lesson using balance scales*. Paper presented at the annual meeting of School Science and Mathematics Association, Reno, NV.
- Matteson, S. M.**, Capraro, M. M., Lincoln, Y. S., & Capraro, R. M. (2007, November). *Justification schemes in middle school problem solving*. Paper presented at the annual meeting of School Science and Mathematics Association, Indianapolis, IN.
- Matteson, S. M.** (2007, March). Textbooks' influence on the development of the concept of equality. Symposium with **S. Matteson** (Chair). *≥ to 30 years of research on the equals sign*. With C. Lubinski, A. Otto (Illinois State University), E. Knuth (University of Wisconsin-Madison), R.M. Capraro, and M. M. Capraro. Symposium presented at the Research Pre-session of the 85<sup>th</sup> annual meeting of the National Council of Teachers of Mathematics. Atlanta, GA.
- Matteson, S. M.** (2006, February). *Mathematical literacy and standardized mathematical assessments*. Session in R. Capraro (Chair) With Littlefield-Cook, J., Carter, T., Capraro, M.M., & Lager, C. Paper presented at the annual meeting of the Research Conference of Mathematical Leaders, Las Vegas, NV.

#From doctoral dissertation

\* Doctoral student

❖ Graduate student, International Institution

## Regional

- Mull, M., Renbarger, R., **Matteson, S.**, Morgan, G., & Nimon, K., (2019, February). *Teaching research methods: Innovation of the pedagogy of quantitative and qualitative courses*. Workshop presented at the 42nd annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- Matteson, S. M.**, & Martinez, D. (2019, February). *Investigating the teaching of thinking skills by colleges of education*. Paper presented at the 42nd annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- Matteson, S. M.**, & #Warren, S. (2019, February). *The advantages of creating a crosswalk in reviewing literature*. Workshop presented at the 42nd annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- Matteson, S. M.** (2018, February). *Processing and analyzing qualitative data*. Workshop presented at the 41st annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Matteson, S. M.**, & Sherrod, S. E. (2017, February). *Data issues in qualitative studies*. Workshop presented at the 40th annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- \*Yi, M., & **Matteson, S. M.** (2017, February). *Exploring types and quality of real-world connections: A case study of middle school math teachers*. Paper presented at the 40th annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- Hart, R., & **Matteson, S. M.** (2017, February). *Modification of the "Three Heads Are Better Than One" strategy*. Paper presented at the 40th annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- \*Yang, Z., \*Yaqobi, S., & **Matteson, S. M.** (2017, February). *Developing a culture of thinking for culturally and linguistically diverse students*. Paper presented at the 40th annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- Matteson, S. M.**, \*Yang, Z., \*Yaqobi, S., & Kackley, L. (2016, February). *Evidence of thinking strategies that work*. Paper presented at the 39th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Kackley, L., \*Yaqobi, S., \*Yang, Z., & **Matteson, S. M.** (2016, February). *The Starbursting thinking strategy: Perspectives from the field*. Paper presented at the 39th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Sherrod, S., & **Matteson, S. M.** (2016, February). *Developing an observation tool for assessing mathematics teachers' content knowledge demonstrated in instruction*. Paper presented at the 39th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Almager, I. L., **Matteson, S. M.**, & Valle, F. (2014, February). *Improving grades 6-9 math coaches' leadership skills through the use of effective feedback to improve teachers' classroom instruction*. Paper presented at the 37th annual meeting of the Southwest Educational Research Association, New Orleans, LA.

- Valle, F., Almager, I. L., & **Matteson, S. M.** (2014, February). *Disbursing leadership in secondary schools: Meeting student achievement needs through distributed leadership*. Paper presented at the 37th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Matteson, S. M.**, Almager, I. L., \*Cetin, S. C., \*Ayyadhury, S., & Valle, F. (2014, February). *Using evidence from rubrics and videos to create professional development sessions for grades 6-9 mathematics teachers*. Paper presented at the 37th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Matteson, S. M.**, & Patrick, P. (2013, February). *Investigating the mental representations of floor plans held by pre-service middle level educators*. Paper presented at the 36th annual meeting of the Southwest Educational Researchers Association, San Antonio, TX.
- \*Zhang, Y., & **Matteson, S. M.** (2012, February). *The use of feedback and follow-up questions in mathematics classrooms from Japan, Hong Kong, Australia, Czech Republic, and the United States*. Paper presented at the 35th annual meeting of Southwest Education Research Association, New Orleans, LA.
- \*Zhang, Y., Burley, H., & **Matteson, S. M.** (2012, February). *A meta-analysis of the effects of higher cognitive questions on student achievement*. Paper presented at the 35th annual meeting of Southwest Education Research Association, New Orleans, LA.
- Taylor, J., Zientek, L.R., & **Matteson, S. M.** (2012, February). *Improving achievement in trigonometry: The role of fraction operations*. Paper presented at the 35th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Patrick, P., & **Matteson, S. M.** (2012, February). *Cross-curricular integration in Science & Children and Science Scope over the last 20 years*. Paper presented at the 35th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Matteson, S. M.**, Zientek, L.R., Özel, S., & Yetkiner, E. (2012, February). *Next steps in improving professional development for mathematics teachers*. Paper presented at the 35th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Matteson, S. M.** (2012, February). *Middle level ghost children: Implications for educators*. Paper presented at the 35th annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- #Ganesh, B., & **Matteson, S. M.** (2011, February). *Inservice middle school science and mathematics teachers' perceptions of integration of science and mathematics*. Paper presented at the 34th annual meeting of the Southwest Educational Researchers Association, San Antonio, TX.
- \*Zhang, Y., & **Matteson, S. M.** (2011, February). *How does peer-debriefing affect pre-service teachers' questioning strategies?* Paper presented at the 34th annual meeting of the Southwest Educational Researchers Association, San Antonio, TX.
- \*Ganesh, B., & **Matteson, S. M.** (2010, February). *The benefits of reteaching lessons in preservice methods classes*. Paper presented at the 33rd annual meeting of the Southwest Educational Research Association, New Orleans, LA.



**Matteson, S. M.** (2009, February). *Representational influences on student success with Nth term problems*. Paper presented at the 32nd annual meeting of the Southwest Educational Research Association, San Antonio, TX.

**Matteson, S. M., & Lincoln, Y. S.** (2008, February). *Using multiple interviewers in qualitative research studies*. Paper presented at the 31st annual meeting of the Southwest Educational Research Association, New Orleans, LA.

**Matteson, S. M.** (2007, February). *Representational implications for middle grades equivalence*. Session in M.M. Capraro (Chair), with R. M. Capraro, & M. Ding. Paper presented at the 30th annual meeting of the Southwest Educational Research Association, San Antonio, TX.

**Matteson, S. M.** (2006, February). *Mathematical literacy and representations used on standardized mathematical assessment*. Paper presented at the 29th annual meeting of the Southwest Educational Research Association, Austin, TX.

\*Doctoral student

#From doctoral dissertation

### State

Fortney, B. S., & **Matteson, S. M.** (2018, May). *Use of a brick wall graphic organizer*. Proposal submitted to the 2018 UTeach Institute, Austin, TX.

Watson, C. R., Gilchrest, M. J., Morris, C. N., Paton, V. O., Ryan P. M., Self, J. S., Villarreal, D., & **Matteson, S. M.** (2017, August). *Developmental math in the STEM degree pathways: Perspectives from developmental math students attending rural community colleges*. Paper presented at the 8<sup>th</sup> Annual Texas Higher Education, Austin, TX.

**Matteson, S. M., & Hart, R.** (2017, July). *Three heads are better than one*. Sessions presented at the annual meeting of the Conference for the Advancement of Mathematics Teaching, Fort Worth, TX.

**Matteson, S. M., & Almager, I.** (2014, July). *Reflective practices: Relationship to student achievement*. Session presented at the annual meeting of the Conference for the Advancement of Mathematics Teaching, Dallas, TX.

Almager, I., & **Matteson, S. M.** (2014, July). *Help I'm a math coach: Now what do I do?* Session presented at the annual meeting of the Conference for the Advancement of Mathematics Teaching, Dallas, TX.

**Matteson, S. M.** (2012, July). *Writing and presenting to colleagues: A "how to" on sharing great ideas*. Session presented at the annual meeting of the Conference for the Advancement of Mathematics Teaching, Houston, TX.

**Matteson, S. M.** (2011, July). *The journey to becoming an NBCT*. Session presented at the annual meeting of the Conference for the Advancement of Mathematics Teaching, Grapevine, TX.

- Matteson, S. M.** (2010, July). *Rejuvenating one's career: The journey to becoming a National Board Certified Teacher*. Session presented at the Conference for the Advancement of Mathematics Teaching, San Antonio, TX.
- Matteson, S. M., & Ortiz, R.** (2009, July). *Do your students understand the language of math?* Session presented at the Conference for the Advancement of Mathematics Teaching, Houston, TX.
- Ortiz, R., & Matteson, S. M.** (2009, July). *Making algebra accessible to elementary students*. Session presented at the Conference for the Advancement of Mathematics Teaching, Houston, TX.
- Watson, P., & Matteson, S.** (2008, October). *Capitalizing on change – New middle level teachers for new middle level schools*. Invited presentation for the Middle School Educator Preparation Association SIG, Fall 2008 conference of the Consortium of State Organizations for Texas Teacher Education, Austin, TX.
- Matteson, S. M.** (2007, June). *Those dreaded Nth term problems*. Session presented at the Conference for the Advancement of Mathematics Teaching, San Antonio, TX.
- Matteson, S. M.** (2006, July). *The role mathematical representations play in mathematical understanding*. Session presented at the Conference for the Advancement of Mathematics Teaching, Houston, TX.

### Local

- Matteson, S. M.** (2018, June). *A review of writing sessions; Determining your research topic; Methodological issues; Qualitative studies: Data analysis review – Audit trail & code book; Writing up findings/results*. Sessions presented at the Writing Retreat 1&2, College of Education, Texas Tech University, Lubbock, TX.
- Matteson, S. M.** (2016, December). *The elephant in the room: Qualitative data analysis*. Roundtable session presented at the Qualitative Research Conference, Texas Tech University, Lubbock, TX.
- Sherrod, S. E., & Matteson, S. M.** (2016, December). *Investigations of middle school geometry lessons*. Paper presented at the Qualitative Research Conference, Texas Tech University, Lubbock, TX.
- Matteson, S. M., & Farmer, P. J.** (2016, December). *Calculators: Appropriate vs. essential*. Paper presented at the Qualitative Research Conference, Texas Tech University, Lubbock, TX.
- \***Cetin, S. C., & Matteson, S. M.** (2015, March). *The pedagogical difficulties of mathematics teachers with quick poll technology: An intrinsic case study*. Poster presented at the annual research forum of the College of Education, Texas Tech University, Lubbock, TX.
- Matteson, S. M.** (2015, February). *SEED certificate recruitment – leadership, literacy, STEM*. Frenship ISD (Westwind Elementary), Lubbock, TX.
- Matteson, S. M., & Smith, L. K.** (2015, January). *SEED certificate recruitment – leadership, literacy, STEM*. Frenship ISD (Willow Bend Elementary), Lubbock, TX.

- Matteson, S. M., & Smith, L. K.** (2015, January). *SEED certificate recruitment – leadership, literacy, STEM*. Slaton ISD (Cathelene Thomas Elementary, Lamesa Junior High, Lamesa High School), Slaton, TX.
- Matteson, S. M.** (2014, August). *Lamesa Mathematics Teachers: TAP overview training*. Lamesa ISD, Lamesa, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2014, May). *Lamesa ISD RE:FLECT pre/post conference training*. Lamesa ISD, Lamesa, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2014, April). *Lamesa ISD RE:FLECT lesson structure and pacing*. Lamesa ISD, Lamesa, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2014, March). *Lamesa ISD RE:FLECT coaching*. Lamesa ISD, Lamesa, TX.
- Matteson, S., & Valle, F.** (2014, February). *Lubbock ISD RE:FLECT tableau training* (Central Office, Middle and High School Principals and Assistant Principals, Mathematics Coaches). Lubbock ISD, Lubbock, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2014, February). *Lamesa ISD RE:FLECT leadership and coaching – part 1*. Lamesa ISD, Lamesa, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2014, January). *Lamesa ISD and TTU college of education i3 grant partnership* (Central Office, Middle and High School Principals, Mathematics and Science Coaches). Lamesa ISD, Lamesa, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2014, January). *Lubbock ISD RE:FLECT lesson structure and pacing*. Lubbock ISD, Lubbock, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2013, October). *Lamesa ISD RE:FLECT overview* (Central Office). Lamesa ISD, Lamesa, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2013, October). *Lubbock ISD RE:FLECT leadership training on how to conduct a leadership meeting*. Lubbock ISD, Lubbock, TX.
- Humphreys, K. D., Almager, I., **Matteson, S., & Valle, F.** (2013, October). *Lubbock ISD shat is instructional coaching -- math coaches training*. Lubbock ISD, Lubbock, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2013, September). *Lubbock ISD how to conduct a pre/post Conference -- math coaches training*. Lubbock ISD, Lubbock, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2013, August). *Lubbock ISD RE:FLECT leadership training (POP cycle)*. Lubbock ISD, Lubbock, TX.
- Almager, I., **Matteson, S., & Valle, F.** (2013, July). *Lamesa ISD i3 RE:FLECT introduction*. Lamesa ISD, Lamesa, TX.
- Almager, I., Valle, F., & **Matteson, S.** (2013, June). *LISD principal training*. Lubbock ISD, Lubbock, TX.
- Valle, F., **Matteson, S., & Almager, I.** (2013, June). What is all the TAP buzz about? Lubbock ISD Leadership Conference, Lubbock, TX.
- Almager, I., Valle, F., & **Matteson, S.** (2013, February). *LISD math administrators RE:FLECT i3 training update*. Math Principals Training, Lubbock ISD, Lubbock, TX.

- Almager, I., Valle, F., & **Matteson, S.** (2013, January). *Post conferences*. Math Coaches Training, Lubbock ISD, Lubbock, TX.
- +Sampley, B., Midobuche, E., & **Matteson, S. M.** (2012, June). *Math equity for middle school English Language Learners*. Lubbock Independent School District Leadership Conference, Lubbock, TX.
- ^Davis, D., ^Wagner, S., & ^Wagner, J., **Matteson, S. M.** (2011, June). *The ABCs of integrating mathematics and science content in middle level classrooms: Activities, benefits, and challenges*. Lubbock Independent School District Leadership Conference, Lubbock, TX.
- Matteson, S. M.** (2010, June). *Reflective teacher leadership*. Lubbock Independent School District Leadership Conference, Lubbock, TX.
- Matteson, S. M.** (2009, November). *Networking at professional conferences*. Invited presentation for the Education Graduate Student Organization, at Texas Tech University, Lubbock, TX.
- Matteson, S. M.** (2008, December). *Establishing a research agenda and the importance of networking*. Invited presentation for the Education Graduate Student Organization, at Texas Tech University, Lubbock, TX.
- Matteson, S. M.** (2006, January). *Number line representation errors on standardized assessments*. Poster session presented at the annual meeting of the Educational Research Exchange, College Station, TX. (*Recipient of the Mathematics Education Research Award and the College of Education Qualitative Award*)
- Matteson, S. M.** (2005, January). *Student achievement and the TEXTEAMS problem solving grid*. Paper presented at the annual meeting of the Educational Research Exchange, College Station, TX.

#From doctoral dissertation

^Masters student

+Undergraduate student

## **PROFESSIONAL ORGANIZATION MEMBERSHIP**

- American Educational Research Association (AERA)
  - Learning and Instruction SIG
  - Teaching and Teacher Education SIG
  - Middle-Level Education Research SIG
  - Research in Mathematics Education SIG
- Association for Middle Level Education (AMLE)
- National Council of Teachers of Mathematics (NCTM)
- School Science and Mathematics Association (SSMA)
- Southwest Educational Research Association (SERA)
- Kappa Delta Pi (Honor Society)
- Texas Classroom Teachers Association (TCTA)
- Texas Council of Teachers of Mathematics (TCTM)
- Texas Middle School Association (TMSA)

## PROFESSIONAL DEVELOPMENT WORKSHOPS

- March 2008      *Classroom Procedures* – Killeen Independent School District
- July 2007      *Fostering an Academic Mindset in the Talented and Gifted Middle Grades Student* – Killeen Independent School District
- June 2006      *Middle School Teaming* – Texas A&M
- April 2006      *Texas Essential Knowledge and Skills (TEKS) Alignment* – Texas A&M
- Oct. 2003 &  
Jan. 2004      *Using Manipulatives to Teach Middle Grades Number Concepts* – Killeen Independent School District
- Sept. 2003      *Rethinking Middle School Mathematics: Problem Solving Across the TEKS* – Killeen Independent School District

### Technology Focused

- Oct. 2011      *Creating a Welcome Video for Your Online Course* (Panel Presenter) – Texas Tech University’s Teaching, Learning, and Technology Center (TLPDC)
- April 2003      *Using “ViaVoice” in the Middle School Classroom* – Killeen Independent School District
- June 1999      *Integration of Science and Math - Incorporation of Technology* – Killeen Independent School District

## ADDITIONAL PROFESSIONAL STUDIES

- Advancing Teaching & Learning Conference with Keynote, Dr. Sandra McGuire* – TLPDC, March 2016
- Qualitative Conference at TTU with Keynote, Dr. Yvonna Lincoln* – TLPDC, December 2016
- Making Your Word Documents Accessible* – TLPDC, July 2016
- Accessible Power Points* – TLPDC, July 2016
- Cayuse IRB Training* – TLPDC, December 2015
- Blackboard 9.1 Tests and Assignments Training* – TLPDC, August 2013
- Blackboard 9.1 Basic Training* – TLPDC, August 2013
- Webinar: How Recent Copyright Course Cases Affect Distance Education* – TLPDC, April 2013
- Analyzing Student Work* – ASCD/Lubbock ISD – April 2013
- TAP Leadership Training* – TTU College of Education/NIET – October 2012
- TAP Cluster (PLC) Training* – TTU College of Education/NIET – May 2012
- Intro to Qualtrics Survey Software* – TLPDC, January 2012
- TAP Rubric Training* – TTU College of Education/NIET – December 2011

*Quality Matters* – TLPDC (formerly the TLTC), August 2011

*Fundamentals of Submitting Research Grants for Federal Funding* – SERA 2011, Deborah C. Simmons & Peggy McCardle

*Step-by-Step Guide to Conducting and Writing Rigorous Comprehensive, and Insightful Literature Reviews: A Mixed-Methods Approach* – SERA 2009, Anthony J. Onwegbuzie, Kathleen M. T. Collins, Nancy L. Leech, Amy B. Dellinger, & Qun G. Jiao

*Qualitative Research* – SERA 2008, Yvonna S. Lincoln

*Discrete Mathematics* – Texas State University 2003-2004

*Foundations of Geometry, Statistics, and Probability* – University of Texas 2003-2004

*Mathematics and Technology* – Texas A&M University 2003-2004

## **COLLEGE OF EDUCATION SERVICE**

College of Education *Ad Hoc Committee – Faculty Governance*, Spring 2018-present

College of Education *Master's Committee – Curriculum and Instruction Department*, Spring 2018-present

College of Education *PHD Committee – Curriculum and Instruction Department*, Spring 2018-present

College of Education *Faculty Organizer – College of Education Writing Retreats 1&2*, June 2018

College of Education *Graduate Advisor – Curriculum and Instruction Department*, Spring 2018-present

College of Education *CS/TE Masters of Education Committee*, 2016-2017

College of Education *Appointed Committee Developing and Field Testing the Rubric Management System for Faculty and Student Portfolio for Graduate Students*, Summer 2016

College of Education *Ad Hoc Committee of CS/TE – Graduate Student Level Data Management & Dashboard*, Fall 2015

College of Education *Faculty Student Staff Human Resources Committee*, Fall 2015 – Spring 2016

College of Education *STEM Program Chair*, Fall 2013 – Spring 2014

College of Education *Search Committee: STEM Education Faculty (4) – Assistant & Associate/Full Positions*, 2012-2013

College of Education, *Faculty Advisor for the Education Graduate Student Organization (EGSO)*, Fall 2011 – Spring 2014

College of Education *Search Committee: Director of the Office of Program Evaluation and Research Support*, 2011-2012

College of Education *NCATE Committee – Middle Level Program Review*, 2011-2013

College of Education *Research Committee*, 2011-2012

College of Education *Search Committee: Mathematics Education Faculty*, 2009

### **TEXAS TECH SYSTEM AND UNIVERSITY SERVICE**

Texas Tech University, *Research Advisory Council*, Faculty Senate liaison, 2018-2019

Texas Tech University, *Faculty Senate*, senator, 2016-2019, Committee on Committees – subcommittee member, 2016-2018, Elections Committee – chair 2018-2019

Texas Tech System, *Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Program*, Advisory Board Member, 2016

Texas Tech University, *Human Research Protection Program*, member of Cayuse Electronic IRB Submission Implementation Team, 2014-2016

Texas Tech University, *Institution Review Board Protection of Human Subjects Committee*, 2012–2015

Texas Tech University, *Texas Success Initiative (TSI) Developmental Education Program Reform*, 2012–2014

### **COMMUNITY SERVICE**

Lubbock Independent School District, *Strategic Planning Technology & Digital Learning Action Team*, 2016

### **OTHER SERVICE TO THE PROFESSION**

Jul-Sept 2018 External reviewer 2 assistant professors seeking P&T to associate professor.

2017-2019 School Science and Mathematics Association – Finance Committee.

Feb. 2017 Division VI discussant – Southwest Educational Research Association.

2009 – present Technology & media (2018); 2017 Immediate Past President (2016-2017) & Program Consultant; 2016 President (2015-2016); 2015 Program Chair/President Elect (2014-2015); Council Member-at-Large (2009-2014); Co-chair, Teachers & Teacher Education (Division IV, 2007-2009); Conference proposal reviewer (2008-present) – Southwest Educational Research Association; Video Coordinator (2018-present)

2013 – present Editorial and Review Board member for the *Middle Grades Research Journal (MGRJ)*

Aug. 2012 – present Reviewer – *Mediterranean Journal for Research in Mathematics Education (MJRME)*

2009 – present Reviewer – *Mathematical Thinking and Learning, School Science and Mathematics*

July 2016 Guest speaker – CSTE Cohort 3 “The 4Ps: Proposal, presentation, paper, publication” College of Education, Texas Tech University

- July 2015 Guest speaker – EDSP 6302 Program Evaluation in Special Education “IRBs – the What’s, Why’s and When’s” College of Education, Texas Tech University
- July 2015 Guest speaker – CSTE Cohort Course on Designing the Dissertation, “IRBs: Avoiding the Pitfalls” College of Education, Texas Tech University
- May 2015 TEACH Fellow Final Review panel member. Teaching, Learning, Professional Development Center (TLPDC), Texas Tech University.
- Jan. 2014 Guest speaker – New Faculty Mentoring Session, “IRBs: The Role of the PI” College of Education, Texas Tech University
- Jan. 2014 Guest speaker – EDCI 6382 Advanced Field Methods in Constructivist Inquiry, “IRBs – the What’s, Why’s and When’s” College of Education, Texas Tech University
- Aug. 2013 Guest speaker – EDSP 6302 Program Evaluation Course, “IRBs – the What’s, Why’s and When’s” College of Education, Texas Tech University
- July 2013 Guest speaker – EDCI 5380 Action Research, “IRBs – the What’s, Why’s and When’s” College of Education, Texas Tech University
- June 2013 Guest speaker – Higher Education Community College Cohort, “IRBs – the What’s, Why’s and When’s” College of Education, Texas Tech University
- Apr. 2013 Invited presentation – Education Graduate Student Organization (EGSO), “IRBs - the What’s, Why’s and When’s” College of Education. Texas Tech University, Lubbock, TX.
- Apr. 2013 Reviewer – *International Journal of Science and Mathematics Education (IJSME)*
- Feb. 2013 Guest speaker – EDCI 6382 Advanced Field Methods in Constructivist Inquiry, “IRBs – the What’s and Why’s” College of Education, Texas Tech University.
- Oct. 2012 Session Facilitator – Learn↔Reflect Strand: *Reasoning and Proof: Is it true? Convince me!* NCTM Regional Conference and Exposition, Dallas, TX
- July 2012 Guest speaker – EDCI 5380 Action Research, “IRBs – the What’s and Why’s,” College of Education, Texas Tech University
- Nov. 2010 Guest speaker – EPSY 3331 Adolescent Development: Applications for Middle-Level Classrooms – College of Education, Texas Tech University  
Participant – Region 17 ESC Texas Regional Mathematics Collaborative (TRMC-17)
- Oct. 2010 Participant – New Faculty Strategic Planning Retreat, Office of the Vice President for Research, Texas Tech University
- Apr. 2009 AAUW Mother-Daughter Event: College of Education *Revealing Your Inner Teacher*, “Float Your Boat: Being a Math/Science Teacher,” Drs. Shirley Matteson and Rebecca Ortiz
- Oct. 2008 Career Expo Recruitment Event, Office of Resource Development – received Best Overall Exhibit Award



## DOCTORAL STUDENTS

### Dissertation Chair or Co-chair

Shana Hamilton, Curriculum and Instruction, Ph.D.

Marc Nickell, Curriculum and Instruction, Ph.D.

Kendra Nwosu, Curriculum and Instruction, Ph.D.

Pablo Quezada, Curriculum and Instruction, Ph.D. (ABD) (Instructor, Huston-Tillotson University, Austin, TX).

Serife Turan, Curriculum and Instruction, Ph.D. (ABD)

Alecha Sheppard, Curriculum and Instruction, Ph.D. (ABD) (Music Teacher, McWhorter Elementary School, Lubbock, TX).

Melissa Ingram (co-chair), Curriculum and Instruction, Ph.D. (ABD) (Instructor, U.S. Air Force Academy, Colorado Springs, CO).

Rhonda Harmond, Curriculum and Instruction, Ph.D. (ABD) (Biology Teacher, Robinson ISD, Waco, TX).

Laurie Bray Hunter, Curriculum and Instruction, Ph.D. (ABD, projected May 2019). *Female rural school leadership: Leadership perceptions of female principals in rural schools in Texas*. (Principal, Santa Anna High School, Santa Anna, TX).

Sheri Warren, Curriculum and Instruction, Ph.D. (December 2018). *Bringing best practices for special education transition to schools in low population areas*. (Adjunct Instructor, Wayland Baptist University).

Audrey Meador, Curriculum and Instruction, Ph.D. (December 2018). *Environmental variables for STEM degree interest and goal persistence: Examining the experiences of minority students in the rural context*. (Asst. Professor, West Texas A&M University).

Selenda Cumby, Curriculum and Instruction, Ph.D. (August 2018). *Exploring the academic resilience of first generation latina/o teacher candidates of immigrant parents in a non-traditional teacher preparation program through the lens of community cultural wealth*. (Research Associate, Texas Tech University).

Matt Birdwell, Curriculum and Instruction, Ph.D. (August 2018). *A qualitative study of implementation factors of professional learning communities on campus accountability and improvement*. (High School Principal, Ponder, TX)

William Bryan, Curriculum and Instruction, Ph.D. (December 2017). *Using a project-based learning approach to determine and extend students ideas about gardening and interpret group interactions in constructing a semester project within a chemistry course at a rural community college*. (Faculty, Seward County Community College, Liberal, KS)

Maxey Hooks, (co-chair), Curriculum and Instruction, Ph.D. (December 2017). *A case study: Retaining quality teachers with longevity and exploring teachers' perception of their impact on student achievement in a rural setting*. (Teacher, Ford High School, Quinlan, TX)

- Gail Smith, Curriculum and Instruction, Ph.D. (August 2017). *The teacher-curriculum relationship: How teachers interact with district adopted digital science curriculum materials*. (Lubbock ISD Advanced Academics Coordinator K-5, Lubbock, TX).
- Philena J. Farmer, Curriculum and Instruction, Ph.D. (August 2016). *Teacher preparation programs and calculator pedagogy*. (Independent consultant, Lubbock, TX).
- Cari (Robin) Hart, Curriculum and Instruction, Ph.D. (May 2016). *Women in STEM: Identifying and lowering the barriers*. (ELAR Specialist, Region 18 Service Center, Midland, TX)
- Erin Justyna (co-chair), Curriculum and Instruction, Ph.D. (May 2016). *Creativity in higher education curriculum: A qualitative case study of pedagogical processes and practices*. (Associate Director Center for Active Learning and Undergraduate Engagement [CALUE], Texas Tech University, Lubbock, TX)
- Jesse Thomas, Curriculum and Instruction, Ph.D. (December 2015). *Toward a mixed education: Understanding homeschool curriculum and methods*. (Currey Ingram Academy, Brentwood, TN)
- Chrissy J. Cross, Curriculum and Instruction, Ph.D. (May 2014). *Connections between inquiry and art, incorporating art into an inquiry based science curriculum*. (Asst. Professor, Stephen F. Austin University, Nacogdoches, TX)
- Yan Zhang, Curriculum and Instruction, Ph.D. (August 2012). *A meta-analysis of the effects of higher cognitive questions on students' academic achievement: Implications for teacher educators*. (Splendora High School, Splendora, TX)
- Xiaobo She, Curriculum and Instruction, Ph.D. (August 2011). *Exploring the effectiveness of interventions designed to deepen preservice teachers' conceptual understanding of linear function and slope: A mixed methods study*. (Asst. Professor, Governors State University, University Park, IL)
- Bibi S. Ganesh, Curriculum and Instruction, Ph.D. (May 2010). *Middle school teachers' perceptions of integration of science and mathematics instruction as they engage in an integration-focused online course*. (Independent Consultant, Rochester, MN)

### **Dissertation Committee Member**

- Elizabeth Jones, Curriculum and Instruction, Ph.D. (ABD).
- Drew Brandon, Chemistry Education, Ph.D. (December 2017). *Efficacy in upper-division chemistry and motivation factors in flipped classes*. (University of Southern California – Bakersfield, CA)
- CassiDe Street, Agricultural Communications and Education, Ph.D. (December 2015). *Student characteristics, influences, and decision factors in college matriculation*. (Manager – Human Resource Protection Program, Texas Tech University, Lubbock, TX)
- Yvonne Bonnie Bowman, Curriculum and Instruction, Ph.D. (May 2015). *The effects of teacher autonomy and collaboration on teachers engaged in intensive student interventions*. (Principal, Parsons Elementary, Lubbock ISD, Lubbock, TX)

### **Advisor – Doctoral Students**

Milagros Carrasco, Curriculum and Instruction, Ph.D.  
Melissa Richert, Curriculum and Instruction, Ph.D.  
Elizabeth Woodall, Curriculum and Instruction, Ph.D.

## **MASTER'S STUDENTS**

### **Master's Thesis/Writing Project Chair**

- Cathrine Prenot, Curriculum and Instruction, M.Ed. Writing project. (December 2018). *Biology TEKS curricular cartoons.*
- Kindra Chandler, Curriculum and Instruction, M.Ed. (August 2018). *Third graders' responses to different problem types.*
- Meagan Hill, Curriculum and Instruction, M.Ed. (August 2018). *Science literacy and visual thinking: Using content area literacy strategies to improve critical thinking in a secondary science classroom.*
- Fatimah Ahmad, Curriculum and Instruction, M.Ed. (May 2016). *An investigation on eighth grade Kuwaiti students' mathematical abilities on standardized assessment items.*
- Minju Yi, Curriculum and Instruction, M.Ed. (Spring 2015). *A literature review of real-world connections in middle grades education: Benefits and challenges*

### **Master's Thesis/Writing Project Co-Chair**

- Mellanei Gentry, Curriculum and Instruction, M.Ed. Capstone project. (December 2018).
- Ronessa Hollingsworth, Curriculum and Instruction, M.Ed. Capstone project. (December 2018).
- Tedka McDonald, Curriculum and Instruction, M.Ed. Capstone project. (December 2018).
- Sarah Koenig, Curriculum and Instruction, M.Ed. (December 2015). *Using systems theory to evaluate the effectiveness of a new zoo exhibit.*
- Robert Uzick, Curriculum and Instruction, M.Ed. (December 2015). *Family discourse on a nature trail.*

### **Master's Thesis Committee Member**

- Heather Coats, Chemical Education, M.Sci. (May 2016). *A study on the effect of lecture length in the flipped classroom.*

### **Advisor – Master's students**

- Jennifer “Noelle” Dragisic Hall, Curriculum and Instruction, M.Ed. (December 2017)
- Sarah Forehand, Curriculum and Instruction, M.Ed. (Summer 2016)
- Kayla Lizama, Curriculum and Instruction, M.Ed. (Summer 2013)

### **Master's Comprehensive Exam Committee Member:**

Dianne Williams (EDEL: Spring 2009)  
Lisa Harper (EDEL: Summer 2011)  
Maggie Williams (EDEL: Fall 2012)  
Dean Conrad (C&I: Spring 2018)  
Kristie McClain (C&I: Spring 2018)  
Brittany Murphy (C&I: Spring 2019)

Alicia Ostemeyer (EDEL: Spring 2009)  
Aimee Lange (EDEL: Spring 2012)  
Rogerio Garcia (C&I: Summer 2017)  
Terri Crossland (C&I: Spring 2018)  
Laura Quile (C&I: Fall 2018)  
Leila Bailey (C&I: Fall 2019)

**Master's Portfolio Committee:**

Cari (Robin) Hart (MSCI: Summer 2012)  
Taylor Webb Brignon (MSCI: Summer 2012)  
Lea Aripse (MSCI: Summer 2012)  
Donna Freeman (MSCI: Summer 2012)  
Misty Hiner (MSCI: Summer 2012)  
Leah Hudak Fiest (MSCI: Summer 2013)  
LaEtta Akbar-ali (MSCI: Summer 2013)

Christi MacNoll (MSCI: Summer 2012)  
Analisa Perez (MSCI: Summer 2012)  
Jenny Routier (MSCI: Summer 2012)  
Jason Tom (MSCI: Summer 2012)  
Katie Duncan (MSCI: Summer 2013)  
Heather Plaisance (MSCI: Summer 2013)