Curriculum Vitae

Robert M. Capraro

rcapraro@tamu.edu

ORCID # 0000-0001-8868-4432

ResearcherID: B-5974-2014

**EDUCATIONAL EXPERIENCE**

University of Southern Mississippi Ph. D., 2000

Hattiesburg, Mississippi

University of Miami Ed. S., 1993

Coral Gables, Florida

University of Miami M. S. 1991

Coral Gables, Florida

Saint Thomas University B. S. Ed., 1987

Opa-Locka, Florida

**PROFESSIONAL EXPERIENCE**

**Sept. 2010 – Present** Professor Mathematics Education, Texas A&M University

**December 2007-2008** Assistant Department Head, Research Mentoring. Teaching Learning and Culture

**September 2007 – 2010** Associate Professor Mathematics Education. Texas A&M University

**August 2006- Present** Co-Director Aggie STEM, Texas A&M University

**August 2000 – 2007** Assistant Professor Mathematics Education. Texas A&M University

**Sept. 1999-2000** Graduate Teaching Assistant. University of Southern Mississippi

**1994-1997** Adjunct Professor, Florida International University

# Research Interests

My research interests are best described as the practical application of helping students, teachers, and researchers make better sense of the issues related to mathematical learning and encouraging dialog about quantitative methods. I am interested in the representational models that help middle grades students make sense of mathematics and how these representations, verbal, kinesthetic, written, or abstract function to facilitate broader and deeper mathematical understandings as students’ progress to increasingly more abstract mathematical ideas.

# Advanced Training and Preparation

2014 ***Research Synthesis and Meta-Analysis*,** American Educational Research Association, Philadelphia, PA. Workshop presented by Terri Piggot, Joshua Polanin, Ryan Williams.

2013      ***Introduction to MKT Training*,** American Educational Research Association, San Francisco, CA. Workshop presented by Heather Hill and Geoffrey Phelps.

2013 **Quality Matters Training**- Online Course Development and Delivery. College Station, TX. Workshop presented by Ms. Rene Mercer.

2012 Propensity Score Matching using R. American Educational Research Association, Vancouver, CA. Workshop presented by Drs. Haiyan Bai, Wei Pan, and Ning Rui.

2010          ***Multilevel SEM.*** College of Education-TAMU, Workshoppresented byDr. Ehri Ryu Boston College

2007 ***Mixed Methods Data Analysis.*** Southwest Educational Research Association presented by Anthony Onwuegbuzi and John Slate.

2006 ***Qualitative Data Collection and Data Analysis***. Texas A&M University presented by Yvonna Lincoln.

2006 ***Experimental and*** ***Quasi-Experimental Design Workshop***. Northwestern University, co-Sponsored by Spencer Foundation and Department of Education presented by Thomas D. Cook and William Shadish.

2006 ***Hierarchical Linear Modeling for Applied Research***. Southwest Educational Research Association presented by Tasha Beretvas and Kyle Roberts.

2006 ***Mixed Methods Research Designs and Analysis***. Southwest Educational Research Association presented by Anthony Onwuegbuzie and John Slate.

2005 ***Introduction to******Hierarchical Linear Modeling***. Southwest Educational Research Association presented by Tasha Beretvas and Kyle Roberts.

2005 ***Factor Analytic Designs in Educational Research***. Southwest Educational Research Association presented by Bruce Thompson.

2004 ***Using S-PLUS: Basic Statistics to Simulations.*** American Educational Research Association presented byRandall E. Schumacker and J. Kyle Roberts.

2004 **Structural Equation Modeling Faculty Collaborative**. Texas A&M University presented by Victor Willson

2000-2002 **Faculty Statistics Refresher**. Texas A&M University presented by Bruce Thompson

# PUBLICATIONS

## Peer Reviewed Journal Publications Scopus = SJR and Thompson’s =JIF.

1. Tech or teach which -nology matters most for mathematics learning.
2. \*Rosli, R., Goldsby, D., Onwuegbuzie, A. J., Capraro, M. M., **Capraro, R. M.,** & Gonzalez, E. G. Y. (2020). Elementary preservice teachers’ knowledge, perceptions, and attitudes towards fractions: A mixed-analysis. *Journal on Mathematics Education, 11*(1), 59-76. [http://doi.org/10.22342/jme.11.1.9482.59-76](https://urldefense.proofpoint.com/v2/url?u=http-3A__doi.org_10.22342_jme.11.1.9482.59-2D76&d=DwMFaQ&c=u6LDEWzohnDQ01ySGnxMzg&r=cgXitTCgdaQcbl2FjpQ7pQIkcMjSbi-b3EmSrQVq02U&m=KbnxYKSFr6XZ1MbKpG4-4xOe6_uTav-xYADM57PhB4k&s=IACF39Kll59hipm_n0IwYMz6tENkufRxwxbASdPv0yE&e=).
3. \*Younes, R. G., **Capraro, R. M.,** Capraro, M. M., Rosli, R., Lee, Y., Bicer, A., Vela, K., & Caldwell, C. (2020, In Press). Increasing retention and performance for high school women in mathematics and sciences: STEM project based learning.
4. **Capraro, R. M.,** Capraro, M. M., Barroso, L., Vela, K., Bicer, A., & Caldwell, C. (2020). Summation of all integers = Confusion: Vocabulary development in mathematics learning
5. Lee, Y., **Capraro, R. M.,** & Bicer, A. (2019) Gender difference on spatial visualization by college students’ major types as STEM and non-STEM: A meta-analysis. *International Journal of Mathematical Education in Science and Technology*, *50*, 1241-1255. DOI: [10.1080/0020739X.2019.1640398](https://doi.org/10.1080/0020739X.2019.1640398) (SJR=.371 SCOPUS)
6. \*Ortiz, N., Capraro, M. M., & **Capraro, R. M.** (2019). Does it really matter?: Exploring cultural relevance within a majority White classroom. *Journal of Negro Education*, *87*(4), 404-419. DOI: 10.7709/jnegroeducation.87.4.0404 (.196 impact factor SCOPUS.com)
7. Bicer, A., & **Capraro R. M.** (2019). Mathematics achievement in the secondary high school context of STEM and non‐STEM schools. *School Science and Mathematics*, *119*, 61–71. [https://doi.org/10.1111/ssm.12321](https://urldefense.proofpoint.com/v2/url?u=https-3A__doi.org_10.1111_ssm.12321&d=DwMGaQ&c=ODFT-G5SujMiGrKuoJJjVg&r=h3zG0XkXjH7FB9NOsxRIRosY6Pw9CLDCZSLrVy8Sja8&m=sHRX0Zv08tj20CwvKn6O0gGjM8PW_BJ5lq0_8HWW6gY&s=jlKgego-_uJ8HbaT10rJj5R0d3SXv_dkncN-UxtcgYw&e=)
8. Lyakhova, S., **Capraro, R. M.,** & Capraro, M. M. (2019). Designing a curriculum based on four purposes: Let mathematics speak for itself. *Journal of Curriculum Studies, 51,* 513-529. (.834 impact factor SCOPUS.com) DOI 10.1080/00220272.2019.1594389
9. Sahin, A., Willson, V., & **Capraro, R. M.** (2018). Charter school achievements in Texas: Public versus charter schools. *International Journal of Educational Reform*, *27*(1), 46-62.
10. Lee, Y., Capraro, R. M., & Bicer, A. (2019). Affective mathematics engagement: A comparison of STEM PBL versus non-STEM PBL instruction. *Canadian Journal of Science, Mathematics and Technology Education,* *19*(3), 270-289. (.264 impact factor SCOPUS.com)
11. Lee, Y., Bicer, A., Kwon, H., & Capraro, R. M. (2019). Pre-service teachers’ preparedness for problem posing: Pedagogical content knowledge and subject matter knowledge. *Electronic International Journal of Education, Arts, and Science (EIJEAS)*, *4*(10).
12. Maldonado, S. I., Mosqueda, E., **Capraro, R. M.,** & Capraro, M. M. (2018). Language minority students’ mathematics achievement in urban schools: Coursework, ethnicity, and English-language proficiency. *Perspectives on Urban Education, 15*(1),
 [urbanedjournal.gse.upenn.edu/archive/volume-15-issue-1-summer-2018](https://urldefense.proofpoint.com/v2/url?u=http-3A__urbanedjournal.gse.upenn.edu_archive_volume-2D15-2Dissue-2D1-2Dsummer-2D2018&d=DwMFaQ&c=ODFT-G5SujMiGrKuoJJjVg&r=Vo7zFR3XCkmpyWlwXHk6mVd1Pqu9x4RasKyDJWurwJA&m=DmuM2pw0N94YWVa8PdVe0_HDiNBl_3z608uMo_EMG8M&s=RKyDHpjgdOlDH6taEelZoW3RR-ifkEUs9NWFlnARdgs&e=)
13. Lee, Y., Capraro, M. M., & **Capraro, R. M.,** & Bicer, A. *(*2018*).*A meta-analysis: Improvement of algebraic reasoning through metacognitive training*. International Education Studies, 11*(10), 42-49. DOI:10.5539/ies.v11N10P42
14. *Young, J., Capraro, M. M.,****Capraro, R. M.,*** *& Cason, M. (2018).* Every student can’t succeed if every voice is not heard: Equity perspectives from STEM educators. *Teachers College Record, 120*(13)*,* [*http://www.tcrecord.org/library*](http://www.tcrecord.org/library)*ID Number: 22350, Date Accessed: 9/10/2018 6:21:14 PM* (.953 impact factor SCOPUS.com)
15. Kopparla, M., Bicer, A., Vela, K., Lee, Y., Bevan, D., Kwon, H., Caldwell, C., Capraro, M. M., & **Capraro, R. M.** (2018). The effects of problem-posing intervention strategies on elementary students' problem solving.  *Educational Studies*. 709-725. DOI: 10.1080/03055698.2018.1509785. (.581 impact factor Thompson’s)
16. Sahin, A., Willson, V., & **Capraro, R. M.** (2018). Comparisons of Students’ Mathematics and Reading Achievement in Texas: Public versus Charter Schools. *Journal of Research in Science, Mathematics and Technology Education*, *1*(1), 2-28 DOI [10.31756/jrsmte.111](https://doi.org/10.31756/jrsmte.111)
17. \*Lee, Y., **Capraro, R. M.,** & Capraro, M. M. (2018). Mathematics teachers’ subject matter knowledge and pedagogical content knowledge in problem posing. *International Electronic Journal of Mathematics Education*. *13*(2), 75-90. (.153 impact factor SCOPUS.com)
18. Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2017). Hispanic students' mathematics achievement in the context of their high school types as STEM and non-STEM schools.*International Journal of Mathematical Education in Science and Technology (TMES).*DOI: 10.1080/0020739X.2017.1410735. (.428 impact factor SCOPUS.com)
19. Young, J. L., Young, J. R., & **Capraro, R. M.** (2018 (online date 2017). Gazing past the gaps: A growth-based assessment of the mathematics achievement of Black girls. *The Urban Review, 50(1), 156-176*. DOI 10.1007/s11256-017-0434-9 (.740 impact factor SCOPUS.com)
20. \*Bevan, D., Vela, K. N., Burlbaw, L. M., & **Capraro, R. M.** (2017). Roaring Twenties: What did it take to be a Math Teacher. *Electronic International Journal of Education, Arts, and Science*, *3*(6), 109-139.
21. Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2017). Integrated STEM assessment model. *International Journal of Education in Mathematics, Science and Technology, 13*(7), 3959-39685. DOI: 10.12973/eurasia.2017.00766a
22. \*Craft, A. M., & Capraro, R. M. (2017).Science, technology, engineering, and mathematics project-based learning: Merging rigor and relevance to increase student engagement.*Electronic International Journal of Education, Arts, and Science, 3*(6).
23. Bicer, A., & Capraro, R. M., (2017). Longitudinal effects of technology integration and teacher professional development on students’ mathematics achievement. *Eurasia Journal of Mathematics, Science and Technology Education, 13*(3), 815-833. *(.903 impact factor Thompsons)* DOI: 10.12973/eurasia.2017.00645a
24. Nite, S. B., Capraro, M. M., Bicer, A., & **Capraro, R. M.** (2017). Explicating the characteristics of STEM teaching and learning: A meta-synthesis. *Journal of STEM Teacher Education, 52*(1), 31-53.
25. **\*Capraro, R. M.,** Barroso, L. R., Nite, S., Rice, D., Lincoln, Y. S., Young, J., & Young, J. (2017). Developing a useful and integrative STEM disciplinary language. *International Journal of Education in Mathematics, Science and Technology, 6*(1), 1-11. DOI: 10.18404/ijemst.31232 (.428 impact factor SCOPUS.com)
26. \*Barroso, L. R., Bicer, A., Capraro, M. M., **Capraro, R. M.,** Foran, A., Grant, M. L., Lincoln, Y. S., Nite, S. B., Oner, A. T., & Rice, D. (ABC order) (2017). Run! Spot. Run! - Vocabulary development and the evolution of STEM disciplinary language for secondary teachers. *Zentralblatt für Didaktik der Mathematik (ZDM – The International Journal on Mathematics Education), 48*(2), 187-201. 10.1007/s11858-016-0826-4 (.707 impact factor SCOPUS.com)
27. \*Godwin, A. J., Capraro, M. M., Rupley, W. H., & **Capraro, R. M.** (2017). Metasynthesis of Factors Contributing to Children’s Communication Development: Influence on Reading and Mathematics. *Child Development Research,* 1-10. <https://doi.org/10.1155/2017/4506098> (.144 SJR SCOPUS.com)
28. Hill, K. K., Bicer, A., & **Capraro, R. M.** (2017). Effect of teachers’ professional development from MathForwardTM on students’ math achievement. *International Journal of Research in Education and Science,* *3(1), 67-74.*
29. Kopparla, M., & Capraro, R. M. (2016). *The brilliance of Black children in mathematics beyond the numbers and toward new discourses. Teachers College Record,* http://www.tcrecord.org/Content.asp?ContentId=20051
30. Öner, A. T., Nite, S. B., Capraro, R. M., & Capraro, M. M. (2016). From STEM to STEAM: Students’ beliefs about the use of their creativity. *The STEAM Journal, 2*(2), Article 6. DOI: 10.5642/steam.20160202.06
31. \*Öner, A. T., & **Capraro, R. M.** (2016). Is STEM academy designation synonymous with higher student achievement? *Egitim ve Bilim-Education and Science, 41*(185), 1-17. doi: 10.15390/EB.2016.3397*.*(.254 impact factor – Thompson’s)
32. \*Öner, A. T., & Capraro, M. M., & **Capraro, R. M.** (2016). The effect of T-STEM designation on charter schools: Longitudinal examination. *Sakarya University Journal of Education, 6*(2),80-96. doi:10.19126/suje.17778
33. \*Han, S., **Capraro, R. M.,** Capraro, M. M. (2016). How science, technology, engineering, and mathematics project based learning affects high-need students in the U.S. *Learning and Individual Differences, 51*, 157-166.(1.631 impact factor Thompsons)
34. \*Han, S., Rosli, R.,Capraro, M. M., & **Capraro, R. M.** (2016). The effect of science, technology, engineering and mathematics (STEM) project based learning (PBL) on students’ achievement in four mathematics topics. *Journal of Turkish Science Education, 13*, 3-29*. doi: 10.12973/tused.10168a* (.202 impact factor SCOPUS.com)
35. \*Erdogan, N., Navruz, B., Younes, R., & **Capraro, R. M.** (2016). Viewing how STEM PBL influences student’s science learning through the implementation lens: Latent growth modeling. *Eurasia Journal of Mathematics, Science and Technology Education*, 12(8), 2139-2154. DOI:10.12973/Eurasia.2016.1294a (1.016 impact factor Thompsons)
36. **\*Capraro, R. M.,** Capraro, M. M., Morgan, J., Scheurich, J., Jones, M., Huggins, K., Corlu, S. M., Han, S. Y., & Younes, R. (2016). Impact of sustained professional development in STEM on outcome measures in a diverse urban district. *The* *Journal of Educational Research*, *109*(2), 181-196. http://dx.doi.org/10.1080/00220671.2014.936997 (1.218 Impact Factor - Thompsons)
37. **Capraro, R. M.,** Capraro, M. M., Barroso, L. R., & Morgan, J. R. (2016). Through biodiversity and multiplicative principles Turkish students transform the culture of STEM education. *International Journal of Education in Mathematics, Science and Technology, 4*(1), 1-8.
38. \*Godwin, A., Rupley, W., **Capraro, R. M**., & Capraro, M. M. (2016). Reading and mathematics bound together: Creating a home environment for preschool learning. *Journal of Education and Learning, 5*(1), 44-59. doi: <http://dx.doi.org/10.5539/jel.v5n1p44>
39. \*Sahin, A., Oren, M., Willson, V., Hubert, T., & **Capraro, R. M.** (2015). Longitudinal analysis of T-STEM academies: How do Texas inclusive STEM academies (T-STEM) perform in mathematics, science, and reading? *International Online Journal of Educational Sciences*, *7*(4), 1-10. Retrieved from http://www.iojes.net//userfiles/Article/IOJES\_1692.pdf
40. \*Öner, A.T., Navruz, B., & **Capraro, R.M.** (2015). Developing a macroscopic lens ınto middle school reform: Psychometric properties of the AMLE SIA. *International Journal of Contemporary Educational Research, 2*(2), 89-103.
41. \*Bicer, A., Boedeker, P., **Capraro, R. M.,** & Capraro, M. M. (2015). The effects of STEM PBL on students' mathematical and scientific vocabulary knowledge. *International Journal of Contemporary Educational Research, 2*(2), 69-75.
42. \*Helfeldt, J., Capraro, M. M., **Capraro, R. M.,** & Scott, C. (2015). Full-time teaching internships: A public school-university partnership designed to increase teacher retention in urban area schools. *Journal of Education and Human Development*. *4*(2(1)), 1-15. DOI: 10.15640/10.15640/jehd.v4n2\_1a1
43. \*Navruz, B., **Capraro, R. M.,** Bicer, A., & Capraro, M. M. (2015). A review of higher-order factor analysis interpretation strategies. *Journal of Measurement and Evaluation in Education and Psychology*, *6*(1), 72-94.
44. \*Bicer, A., Navruz, B**., Capraro, R. M.,** Capraro, M. M., Oner, T. A., & Boedeker, P. (2015). STEM schools vs. non-STEM schools: Comparing students' mathematics growth rate on high-stakes test performance. *International Journal on New Trends in Education and Their Implications, 6*(1), 138-150.
45. \*Corlu, M. S., **Capraro, R. M.,** & Çorlu, M. A. (2015). Investigating the mental readiness of pre-service teachers for integrated teaching.*International Online Journal of Educational Sciences, 7*(1), 17-28.
46. \*Cetin, S. C., Corlu, M. S., Capraro, M. M., & **Capraro, R. M.** (2015). A longitudinal study of the relationship between mathematics and science: The case of Texas. *International Journal of Contemporary Educational Research, 2*(1), 13-21.
47. Booth, E. A., Capraro, M. M., **Capraro, R. M.,** Chaudhuri, N., Dyer, J., & Marchbanks, M. P. (2015). Innovative developmental education programs: A Texas model. *Journal of Developmental Education, 36,* 2-10, 18.
48. \*Han, S., Yalvac, B., Capraro, M. M., & **Capraro, R. M.** (2015). In-service teachers’ implementation and understanding of STEM project based learning. *EURASIA Journal of Mathematics, Science and Technology Education*, *11*(1), 63-76. (1.016impact factor Thompsons)
49. \*Rosli, R.,Capraro, M. M., & **Capraro, R. M.** (2014).The effects of problem posing on student mathematical learning: A meta-analysis. *International Education Studies, 7*(13),227-241. (.131 impact factor SCOPUS.com)
50. \*Öner, A. T., Navruz, B., Bicer, A., Peterson, C. A., **Capraro, R. M**., & Capraro, M. M. (2014). T-STEM academies’ academic performance examination by education service centers: A longitudinal study. *Turkish Journal of Education, 3*(4), 40-51.
51. \*Navruz, B., Erdogan, N., Bicer, A., **Capraro, R. M.**, & Capraro, M. M. (2014). Would a STEM school ‘by any other name smell as sweet’? *International Journal of Contemporary Educational Research*, *1*(2), 67-75.
52. \*Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2014). Pre-service teachers’ linear and quadratic inequalities understandings. *International Journal for Mathematics Teaching and Learning*. Retrieved from <http://www.cimt.plymouth.ac.uk/journal/>
53. \*Bicer, A., Capraro, M. M., & **Capraro, R. M.** (2014). Integrating writing into mathematics classroom as one communication factor. *The Online Journal of New Horizons in Education, 4*(2), 58-67.
54. \*Bicer, A., \*Navruz, B., **Capraro, R. M.**, & Capraro, M. M. (2014). STEM schools vs. non-STEM schools: Comparing students’ mathematics state based test performance. *International Journal of Global Education, 3*(3), 8-18.
55. \*Corlu, M. S., **Capraro, R. M**., & Capraro, M. M. (2014). Introducing STEM education: Implications for educating our teachers in an age of innovation. *Egitim ve Bilim-Education and Science, 39*(171), 74-85*.* (.254 impact factor – Thompson’s)
56. \*Han, S. Y., **Capraro, R. M.**, & Capraro, M. M. (2014). How science, technology, engineering, and mathematics (STEM) project based learning (PBL) affects high, middle, and low achievers differently: The impact of student factors on achievement. *International Journal of Science and Mathematics Education*, 1-25.(1.104 Impact Factor- SCOPUS)
57. \*Capraro, M. M., **Capraro, R. M.**, & Jones, M. (2014). Numeracy and algebra: A path to full participation in community and society? *Reading Psychology, 35*(5), 422-436. (.389 impact factor – SCOPUS)
58. **Capraro R. M.,** & Han, S. (2014). STEM: The education frontier to meet 21st century challenges. *Middle Grades Research Journal, 9(3)*, XV-XVIII*.*
59. Rosli, R., Han, S., **Capraro, R. M.**, & Capraro, M. M. (2013). Exploring preservice teachers’ computational and representational knowledge of content and teaching fractions. *Journal of the Korean Society of Mathematical Education Series D: Research in Mathematical Education*, 17(4), 221-241.
60. \*Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2013). The Journey of a middle school student: Explorations of mathematics private tutoring in school life. *Sakarya University Journal of Education*, *3(3),* 123-136.
61. Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2013). Integrating writing into mathematics classroom to increase students’ problem solving skills. *International Online Journal of Educational Science, 5*(2), 361-369.
62. Erdogan, N., Corlu, M. S., & **Capraro, R. M.** (2013). Defining innovation literacy: Do robotics programs help students develop innovation literacy skills? *International Online Journal of Educational Sciences, 5*(1), 1-9.
63. \*Bicer, A., Capraro, M. M., & **Capraro, R. M.** (2013). The effects of parent’s SES and education level on students’ mathematics achievement: Examining the mediation effects of parental expectations and parental communication. *The Online journal of New Horizons in Education, 3*(4), 89-97.
64. Sahin, A., \*Erdogan, N., Morgan, J., Capraro, M. M., & **Capraro, R. M.** (2012). The effects of high school course taking and SAT scores on college major selection. *Sakarya University Journal of Education*, *2*(3), 96-109.
65. \***Capraro, R. M.,** Capraro, M. M., Younes, R., Han, S. Y., & Garner, K.  (2012*).* Changes in equality problem types across four decades in four second and sixth grade textbook series. *Journal of Mathematics Education, 5*, 166-189.
66. Ding, M., Li. X., Capraro, M. M., & **Capraro, R. M.** (2012). Supporting meaningful initial learning of the associative property: Cross-cultural differences in textbook presentations. *International Journal for Studies in Mathematics Education/ Jornal Internacional de Estudos em Educação Matemática, 5,* 114-130.
67. \*Stearns, L. M., Morgan, J., Capraro, M. M., & **Capraro, R. M.** (2012). The development of a teacher observation instrument for PBL classroom instruction. *Journal of STEM Education: Innovations and Research*, *13*(3), 25-34.
68. \*\*Matteson, S., 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.
69. Capraro, M. M., **Capraro, R. M.,** & Cifarelli, V. (2012). Open-ended problem solving tasks for pre-service middle-grades teachers that elicit mathematical reasoning.  *International Journal of University Teaching and Faculty Development, 2*(2), 99-120.
70. \*\*Adiguzel, T., **Capraro, R. M.,** & Willson, V. L. (2011). An examination of teacher acceptance of handheld computers. *International Journal of Special Education, 26*(3), 12-27.
71. Rupley, W. H., **Capraro, R. M.,** & Capraro, M. M. (2011). Theorizing an integration of reading and mathematics: Solving mathematical word problems in the elementary grades. *Mind, Brain, and Education: Learning Landscapes, 5,* 227-250.
72. **Capraro, R. M.,** Roe, M. F., Caskey, M. M., Strahan, D., Bishop, P.A., Weiss, C. C., & Swanson, K. W. (2011). Research summary: Assessment. Retrieved from http://www.nmsa.org/Research/ResearchSummaries/
73. \*\*Muzheve, M. T., & **Capraro, R. M.** (2011). An exploration of the role natural language and idiosyncratic representations in teaching how to convert among fractions, decimals, and percents. *Journal of Mathematical Behavior*, *31*(1),1-14. doi:10.1016/j.jmathb.2011.08.002. (.776 Impact Factor - SCOPUS).
74. \*Han, S. Y., Rosli, R., **Capraro R. M.,** & Capraro, M. M.(2011). The textbook analysis on probability: The case of Korea, Malaysia, and U. S. textbooks. *Journal of the Korean Society of Mathematics Education Series D: Research in Mathematical Education, 15(2),* 127-140*.*
75. **Capraro, R. M.**, Capraro, M. M., & Rupley, W. H. (2011).  Reading-enhanced word problem solving (REPS): A theoretical model. *European Journal of Psychology of Education*, *27*(1), 91-114. DOI: 10.1007/s10212-011-0068-3 (1.008 impact factor Thompsons)
76. \***Capraro, R. M.**, Capraro, M. M., Yetkiner, Z. E., Corlu, M. S., Özel, S., Ye, S., & Kim, H. G. (2011). An international perspective on students’ understanding of the equal sign. *Mediterranean Journal for Research in Mathematics Education: An International Journal, 10*, 187-213.
77. \*Corlu, M. S., **Capraro, R. M.**, & Corlu, M. A. (2011). Developing algorithmic computations with the help of science: A Turkish middle and high grades study. *Turkish Online Journal of Educational Technology, 10*(2), 72-81. (.956 impact factor - Thompsons)
78. \*Zientek, L. R., Carter, T. A., Taylor, J. M., **Capraro, R. M.** (2011). Preparing prospective teachers: An examination of attitudes toward statistics. *The Journal of Mathematical Sciences and Mathematics Education, 5*, 25-38.
79. \*\*Piccolo, D., **Capraro, R. M.**, & Capraro, M. M. (2011). Student teachers’ general and content-specific pedagogical development within a mathematics milieu. *Middle Grades Research Journal,* *5*(4), 169-183.
80. **Capraro, R. M.**, Capraro, M. M., & Rupley, W. H. (2010). Semantics and syntax: A theoretical model for how students may build mathematical mis-understandings. *Journal of Mathematics Education, 3*(2),58-66*.*
81. \*Capraro, M. M., **Capraro, R. M.**, Carter, T. A., & Harbaugh, A. (2010). Questioning, curiosity, and representing: What makes a difference mathematically? *Research in Middle Level Education Online*, *34*(4), 1-19.
82. \*Corlu, M. S., Burlbaw, L. M., **Capraro, R. M.**, Corlu, M. A., & Han, S. (2010).  The Ottoman Palace School Enderun and the man with multiple talents, Matrakçı Nasuh. *Journal of the Korea Society of Mathematical Education Series D: Research in Mathematical Education. 14*(1), 19-31.
83. \***Capraro, R. M.**, Capraro, M. M., Yetkiner, Z. E., Özel, S., Kim, H. G., & Küçük, A. R. (2010). An international comparison of the equal sign: An update.  *Psychological Reports, 106*(1), 49-53*.* (.560 impact factor- Thompsons)
84. \*Capraro, M. M., **Capraro, R. M.**, Yetkiner, Z. E., Rangel-Chavez, A. F., & Lewis, C. W. (2010). Examining Hispanic-students mathematics performance on high-stakes tests: An examination of one urban school district in Colorado*. The Urban Review, 42*(3), 193-209. (.292 Impact Factor - SCOPUS)
85. \*\*Piccolo, D., Capraro, M. M., & **Capraro, R. M.** (2010). Mentoring urban interns: Amalgamation of experiences in the formation of mathematics teachers. *The Teacher Educator, 45*(1), 37-53.
86. Capraro, M. M., **Capraro, R. M.**, & Helfeldt, J. (2010). Do differing types of field experiences make a difference in teacher candidates perceived level of competence*?* *Teacher Education Quarterly*, *37*(1)*,* 131-154.
87. \***Capraro, R. M.,** Burlbaw, L. M., & Zientek, L. R. (2009). Content and pedagogical knowledge in Colorado teachers‚ mathematics exams at the turn of the 20th century. *Curriculum History.* 158-174.
88. \*Young, J. R., Woods, M., Yetkiner, Z. E., Lewis, C. W., & **Capraro, R. M.** (2009). An examination of mathematics achievement and growth in a midwestern urban school district: Implications for teachers and administrators*. Journal of Urban Mathematics Education, 2*(2), 46-65*.* (The correct authorship order for this article is reflected here and not what is in print)
89. **Capraro, R. M.**, & Capraro, M. M. (2009). Quantitative reporting practices in middle-grades research journals: Lessons to learn. *Middle Grades Research Journal,* *4*, 1-10.
90. Denton, J. J., Davis, T. J., **Capraro, R. M.**, Smith, B. L., Beason, L., Graham, D., & Strader, R. A. (2009). Examination of applicant profiles for admission into and completion of an online secondary teacher certification program. *Educational Technology & Society, 12*(1), 214-229. (1.018 Impact Factor - Thompsons)
91. Helfeldt, J., **Capraro, R. M.**, Capraro, M. M. Foster, E., & Carter, N. (2009). An urban schools -university partnership that prepares and retains quality teachers for "high need" schools. *The Teacher Educator, 44,* 1-20.
92. \*Piccolo, D. L., Carter, T. A., Harbaugh, A. P., Capraro, M. M., & **Capraro, R. M.** (2008). Quality of instruction: Examining discourse in middle school mathematics instruction. *Journal of Advanced Academics, 19*, 376-410.
93. \*Zientek, L. R., Capraro, M. M., & **Capraro, R. M.** (2008). Reporting practices in quantitative teacher education research: One look at the evidence cited in the AERA panel report. *Educational Researcher, 37*, 208-216. (3.049 Impact Factor - Thompsons)
94. \*Özel, S., Yetkiner, Z. E., & **Capraro, R. M.** (2008). Technology in K-12 mathematics classrooms. *School Science and Mathematics, 108*, 80-85.
95. \*Li, X., Ding, M., Capraro, M. M., & **Capraro, R. M.** (2008). Sources of differences in children's understandings of mathematical equality: Comparative analysis of teacher guides and student texts in China and the United States. *Cognition and Instruction*, *26*, 195-217. (2.000 Impact Factor -Thompsons)
96. **Capraro, R. M.,** & Thompson, B. (2008). The educational researcher defined: What will future researchers be trained to do? *The* *Journal of Educational Research*, *101*, 247-253. (1.218 Impact Factor - Thompsons)
97. \*Yetkiner, Z. E., Anderoglu, H. Y., & **Capraro, R. M.** (2008). *Research summary: Project-based learning in mathematics*. Retrieved January 2, 2008, from <http://www.nmsa.org/Research/ResearchSummaries/ProjectBasedLearninginMath/tabid/1570/Default.aspx>
98. \***Capraro, R. M.**, Capraro, M. M., Ding, M., & Li, X. (2007). Thirty years of research: Current interpretations of the equal sign. *Psychological Reports*, *101*, 784-786. (.560 Impact Factor - Thompsons)
99. **Capraro, R. M.**, & Capraro, M. M. (2007). Pedagogy and curriculum: Antithetical constructs or a nexus in mathematics education? *Journal of* *Curriculum & Pedagogy, 4*(1), 34-39.
100. \*Capraro, M. M., Ding, M., Matteson, S., **Capraro, R. M.**, & Li, X. (2007). Representational implications for understanding equivalence. *School Science and Mathematics, 107*, 86-88.
101. Kulm, G., **Capraro, R. M.**, & Capraro, M. M. (2007). Teaching and learning middle grades mathematics with understanding. *Middle Grades Research Journal*, *2,* 23-48.
102. Beal, G., Sulentic, M. M., & **Capraro, R. M.** (2006). How do literacy experiences affect the teaching propensities of elementary pre-service teachers? *Reading Psychology, 27*, 235-255. (.389 impact factor SCOPUS)
103. **Capraro, R. M.**, & Capraro, M. M. (2006). Are you really going to read us a story? Learning geometry through children’s mathematics literature. *Reading Psychology, 27*, 21-36. (.389 impact factor SCOPUS)
104. \*\*Carter, T. A., & **Capraro, R. M.** (2005). Stochastic misconceptions of pre-service teachers. *Academic Exchange Quarterly, 9*(3), 105-111.
105. \*Zientek, L. R., Kadhi, T., & **Capraro, R. M.** (2005). Analysis of the literature on alternative certification programs. *Academic Exchange Quarterly, 9(3)*, 121-125.
106. **Capraro, R. M.**, Capraro, M. M., Parker, D., Kulm, G., & Raulerson, T. (2005). The mathematics content knowledge role in developing preservice teachers’ pedagogical content knowledge. *Journal of Research in Childhood Education, 20*, 102-118. (.246 Impact Factor - SCOPUS)
107. Capraro, M. M., Kulm, G., & **Capraro, R. M.** (2005). Middle grades: Misconceptions in statistical thinking. *School Science and Mathematics Journal, 105*, 165-174.
108. Henson, R., Capraro, R. M., & Capraro, M. M. (2004). Reporting practice and use of exploratory factor analysis in educational research journals. *Research in the Schools, 11*(2), 61-72.
109. \*Naiser, E. A., Wright, W. E., & **Capraro, R. M.** (2004). Teaching fractions: Strategies used for teaching fractions to middle grades students*. Journal of Research in Childhood Education, 18*, 193-198. (.246 Impact Factor - SCOPUS)
110. **Capraro, R. M.** (2004). Statistical significance, effect size reporting, and confidence intervals: Best reporting strategies. *Journal for Research in Mathematics Education, 35*, 57-62. (2.019 Impact Factor – SCOPUS)
111. Capraro, M. M., & **Capraro, R. M.** (2003). Exploring the APA 5th Edition Publication Manual’s impact on the analytic preferences of journal editorial board members. *Educational and Psychological Measurement, 63*, 554-565. (1.167 Impact Factor - Thompsons)
112. **Capraro, R. M.,** & Capraro, M. M. (2002). Treatments of effect sizes and statistical significance tests in textbooks. *Educational and Psychological Measurement, 62*, 771-782. (1.167 Impact Factor- Thompsons)
113. **Capraro, R. M.,** & Capraro, M. M. (2002). Myers-Briggs Type Indicator score reliability across studies: A meta-analytic reliability generalization study. *Educational and Psychological Measurement, 62*, 590-602. (1.167 Impact Factor- Thompsons)
114. Capraro, M. M., **Capraro, R. M.,** & Henson, R. K. (2001). Measurement error of scores on the mathematics anxiety rating scale across studies. *Educational and Psychological Measurement, 61*, 373-386. (1.167 Impact Factor- Thompsons)
115. Capraro, M. M., & **Capraro, R. M.** (2001). Bigger is not better: Seeking parsimony in canonical correlation analysis via variable deletion strategies. *Multiple Linear Regression Viewpoints, 27*, 24-33.
116. **Capraro, R. M.,** & Capraro, M. M. (2001). Commonality analysis: Understanding variance contributions to overall canonical correlation effects of attitude toward mathematics on geometry achievement. *Multiple Linear Regression Viewpoints, 27*, 16-23.
117. \*David, H. L., & **Capraro, R. M.** (2001). Strategies for teaching in heterogeneous environments while building a classroom community. *Education, 122*, 80-86.

***\* indicates a publication with a student under my direction***

***\*\* indicates a publication from a student’s dissertation***

***Cumulative Social Science Citation Index = Impact Factor 15.490, (July, 2011)***

***Impact Factors for journals as of 2014***

## Peer Reviewed Conference Proceedings

1. Lee, Y., Bicer, A., Kwon, H., Rugh, M., **Capraro, R. M.,** Capraro, M. M., & Barroso, L. R. (2019). Post-secondary ready: Does the STEM curriculum matter? In Proceedings of the 49th Annual IEEE Frontiers in Education Conference (FIE). IEEE, Piscataway, NJ.
2. Rugh, M. S., Williams, A., Lee, Y., & **Capraro, R. M.** (2019). *Comparing STEM schools on algebra performance*. In Proceedings of the 49th Annual IEEE Frontiers in Education Conference (FIE). IEEE, Piscataway, NJ.
3. \*Fidai, A., Jarvis, C., Benzor, M., Verma, S., Capraro, M. M., & **Capraro, R. M.** (2019, October). *Motivating future engineers: Building situation sensing Mars Rover with elementary school students*. Proceedings in the 49th Frontiers in Education Conference (FIE), Cincinnati, U.S.A.
4. \*Fidai, A., \*Kwon, H., Buettner, G., Capraro, R. M., **Capraro M. M.,** Verma, S., Jarvis, C. & Benzor, M. (2019, October). *Internet of Things (IoT) instructional devices in STEM classrooms: Past, present and future directions.*Proceedings in the 49th Frontiers in Education Conference (FIE), Cincinnati, U.S.A.
5. \*Bicer, A., Lee, Y., Capraro, R. M., **Capraro, M. M.,** Barroso, L. R., & \*Rugh, M. S. (2019, October).  *Examining the effects of STEM PBL on students' divergent thinking attitudes related to creative problem solving*.Proceedings in the 49th Frontiers in Education Conference (FIE), Cincinnati, U.S.A.
6. Lee, Y., Bicer, A., Kwon, H., Rugh, M. S., Capraro, R. M., **Capraro, M. M.,** & Barroso, L. R. (2019, October). Post-secondary ready: Does the STEM curriculum matter. *Proceedings in the 49th Frontiers in Education Conference* (FIE), Cincinnati, U.S.A.
7. Vela, K. N., Caldwell, C., Capraro, R. M., & **Capraro, M. M.** (2019, October). *The nexus of confidence, STEM, and engineering projects.* Paper presented at the 49th Frontiers in Education Conference (FIE), Cincinnati, U.S.A
8. Vela, K. N., Bevan, D., Caldwell, C., Capraro, R. M., **Capraro, M. M.,** & Lee, Y. (2019). STEM project-based learning activities: Opportunities to engage in creative mathematical thinking? In M. Nolte (Ed.), *Including the Highly Gifted and Creative Students – Current Ideas and Future Directions. International Conference on Mathematical Creativity and Giftedness*(pp. 215-221).
9. Lee, Y., Capraro, R. M., **Capraro, M. M.,** Vela, K. N., Bevan, D., Caldwell, C. (2019). Students' conceptions of mathematical creative thinking and critical thinking in STEM PBL activities. In M. Nolte (Ed.), *Including the Highly Gifted and Creative Students – Current Ideas and Future Directions. International Conference on Mathematical Creativity and Giftedness*(pp. 197-201).
10. **Capraro, M. M**., Vela, K. N., Caldwell, C., Bevan, D., Lee, Y., & Capraro, R. M. (2019). Mathematizing creative STEM PBL activities. In M. Nolte (Ed.), *Including the Highly Gifted and Creative Students – Current Ideas and Future Directions. International Conference on Mathematical Creativity and Giftedness*(pp. 336-339).
11. \*Beyette, D., Rugh, M. M. S., Lin, J., Wang, M. X., Wang, M. Z., Liu, J. C., & **Capraro, R. M.** (2019). DIME: A dynamic interactive mathematical expression tool for STEM education. In *126th Annual Conference and Exposition ASEE. Paper ID* (Vol. 25558)
12. \*Fidai, A.,Barroso, L. R., Capraro, M. M., & Capraro, R. M**.**(2018, October). Can building an electric bicycle build an engineering identity? In *Proceedings of the 48th Annual IEEE Frontiers in Education Conference (FIE)* (pp. 1-5). Piscataway, NJ. IEEE. (IF = .159, SJR=.220)
13. \*Vela, K. N., Bicer, A., Capraro, R. M., Barroso, L. R., & Caldwell, C. (2018, October). *What matters to my future: STEM int-her-est and expectations.* Proceedings of the 48th Annual IEEE Frontiers in Education Conference (FIE). IEEEE, Piscatawy, NJ. (IF = .159). DOI: when available. (IF = .159, SJR=.220)
14. \*Rugh, M. S., Calabrese, J. E., Madson, M. A., Capraro, R. M., Barroso, L. R., Capraro, M. M., Bicer, A. (2018, October). STEM language can be the stem of the problem. In Proceedings of the 48th Annual IEEE Frontiers in Education Conference (FIE) (pp. 1-8). Piscataway, NJ. IEEE. (IF = .159, SJR=.220)
15. \*Lee, Y., Bicer, A., Capraro, R. M., Capraro, M. M., Barroso, L. R., Kwon, H., & Rugh, M. (2018, October). *Comparing Mathematics and Science Achievement of Students from Schools with PLTW versus Schools without PLTW*. Proceedings of the 48th Annual IEEE Frontiers in Education Conference (FIE). IEEE, Piscataway, NJ. (IF = .159, SJR=.220)
16. Capraro, M. M., Capraro, R. M., & De Miranda, M. (2017, March). *The hidden supports of high school engineering and technology science fair winners.* Paper presented and published at the seventy-ninth conference of the International Technology and Engineering Educators Association, Dallas, TX. Retrieved from <https://www.iteea.org/39488.aspx>
17. Bicer, A., Nite, S. B., Capraro, R. M., Barroso, L. R., Capraro, M. M., & Lee, Y. (2017, October). Moving from STEM to STEAM: The effects of informal STEM learning on students. In *Proceedings of the 47th Annual IEEE Frontiers in Education Conference (FIE)* (pp. 1-6). Piscataway NJ. IEEE(.159 impact factor SCOPUS.com) [10.1109/FIE.2017.8190545](https://doi.org/10.1109/FIE.2017.8190545)
18. Nite, S. B., Capraro, R. M., Bicer, A., & Morgan, J. (2017, October). Studying mathematics in high school and college: Summer bridge program student beliefs. *Proceedings of the Annual* *IEEE Frontiers in Education Conference: The Crossroads of Engineering and Business*. Indianapolis, IN. (.159 impact factor SCOPUS.com) [10.1109/FIE.2017.8190488](https://doi.org/10.1109/FIE.2017.8190488)
19. Nite, S. B., Allen, G. D., Capraro, R. M., Bicer, A., & Morgan, J. (2016, December). Supporting engineering education through calculus success. In S. T. Smith, Y. Y. Lim, A. Bahadori, N. Lake, R. V. Padilla, A. Rose, & K. Doust. *Proceedings of the 27th Annual Conference of the Australasian Association for Engineering Education*. Australasian Association for Engineering Education Conference: The Changing Role of the Engineering Educator for Developing the future Engineer. Coffs Harbour, Australia: Southern Cross University, Lismore, NSW 2480, Australia.
20. Bicer, A., Nite, S. B., Capraro, R. M., Barroso, L. R., Capraro, M. M., & Froyd, J. (2016, October). Informal STEM camp influences on engineering confidence. *Proceedings of the* *46th Annual Frontiers in Education Conference (FIE)*. Erie, PA.
21. Nite, S. B., Allen, G. D., Morgan, J., & Bicer, A., & **Capraro, R. M.** (2016, June). Engineering calculus bridge program success: Comparing program variation results. *Proceedings of the 123rd American Society for Engineering Education Annual Conference and Exposition*. New Orleans, LA.
22. **Capraro, R. M.,** Barroso, L. R., Capraro, M. M., Nite, S. B., & Brooks, C. (2016). Impact for female students of an integrated STEM PBL summer curriculum on content knowledge mastery and post-secondary matriculation.  *Proceedings of the* *46th Annual Frontiers in Education Conference (FIE)*. Erie, PA.
23. Barroso, L. R., Nite, S. B., Morgan, J. R., Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2016). *Using the Engineering Design Process as the Structure for Project-Based Learning: An Informal STEM Activity on Bridge-Building*.  Proceedings of the 6th IEEE Integrated STEM Education Conference (ISEC '16), Princeton University.
24. Nite, S. B., Morgan, J., Allen, G. D., **Capraro, R. M.,** & Capraro, M. M. (2015, December). Effective technology for a calculus bridge program: Bringing education home. In A. Oo, A. Patel, T. Hilditch, & S. Chandran. *Proceedings of the 26th Annual Conference of the Australasian Association for Engineering Education*.  Australasian Association for Engineering Education Conference: Blended Design and Project Based Learning: A future for Engineering Education, Geelong, Australia: School of Engineering, Deakin University, Victoria, Australia.
25. Nite, S. B., Allen, G. D., Pilant, M., **Capraro, R. M.,** Capraro, M. M., & Morgan, J. (2015, October). A bridge to engineering: A personalized precalculus (bridge) program. In *Proceedings of the Frontiers in Education 2015: Launching a New Vision in Engineering Education* (pp. 2053-2058). El Paso, TX: IEEE.
26. \*Boedeker, P., **Capraro, R. M.,** Capraro, M. M., & Nite, S. (2015, October). Women in STEM: The impact of STEM PBL implementation on performance, attrition, and course choice of women. In *Proceedings of the Frontiers in Education 2015: Launching a New Vision in Engineering Education* (pp. 952-959). El Paso, TX: IEEE.
27. \*Bicer, A., Boedeker, P., Kopparla, M., **Capraro, R. M.,** & Capraro, M. M., (2015, October). Comparing students’ mathematics achievement by their school types: Inclusive STEM schools that implemented PLTW Curriculum with inclusive STEM schools that did not implement PLTW. In *Proceedings of the Frontiers in Education 2015: Launching a New Vision in Engineering Education* (pp. 1363-1367). El Paso, TX: IEEE.
28. \*Boedeker, P., Bicer, A., **Capraro, R. M.,** Capraro, M. M., Morgan, J., & Barroso, L. (2015, October). STEM summer camp-follow up study: Effects on students' SAT scores and postsecondary matriculation. In *Proceedings of the Frontiers in Education 2015: Launching a New Vision in Engineering Education* (pp. 1875-1882). El Paso, TX: IEEE.
29. \*Capraro, M.M., LeBlanc, J., Stuessy, C., & **Capraro R. M.** (2015, October). Identifying researchable topics for an EdD record of study. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2015* (pp. 1363-1367). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
30. \*Capraro, M.M., Nite, S., Kopparla, M., **Capraro, R. M.,** Morgan, J. & Barroso, L. (2015, June). Appropriate technology in STEM education: Using a rubric to assess iPad apps. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2015* (pp. 1584-1590). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
31. Slough, S., Sampson, P., **Capraro, R.**, & Capraro, M. M. (2015, June). Making thinking visible in mathematics though technology. In *Proceedings of World Conference on Educational Media and Technology 2015* (pp. 1024-1029). Association for the Advancement of Computing in Education (AACE). Montreal, Quebec, Canada.
32. Morgan, J., **Capraro, R. M.,** Capraro, M. M., & Nite, S. B. (2015, June). Increasing the STEM pipeline: Impact of a multi-faceted STEM organization. In QScience Proceedings. *World Congress on Engineering Education 2014*, 23. <http://dx.doi.org/10.5339/qproc.2015.wcee2014.23>. DOI:10.5339/qproc.2015.wcee2014.23
33. Morgan, J., Nite, S. B., Allen, G. D., Capraro, M. M., **Capraro, R. M.,** & Pilant, M. (2015, April). Improving engineering calculus success through a summer program. In C. A. Shoniregun & G. A. Akmayeva. *IICE-2015 Proceedings*. Ireland International Conference on Education, Dublin, Ireland: Infonomics Society.
34. Nite, S. B., Allen, G. D., Morgan, J., **Capraro, R. M.,** & Capraro, M. M. (2014, December). Improving success in engineering calculus: Design of a bridge program. In A. Bainbridge-Smith, Z. Qi, & G. Gupta. *Proceedings of the 25th Annual Conference of the Australasian Association for Engineering Education*. Paper presented at 2014 Australasian Association for Engineering Education Conference: Engineering the Knowledge Economy: Collaboration, Engagement and Employability, Wellington, New Zealand. New Zealand: School of Engineering and Advanced Technology, Massey University.
35. Capraro, M. M., **Capraro, R. M.,** Nite, S., Morgan, J. R., & Peterson, C. A. (2014, November). Does inclusion of the arts in STEM project-based learning increase motivation for learning for urban students in informal settings? *Proceedings of the 1st Biennial International Conference on Urban Education*, Montego Bay, Jamaica.
36. Capraro, M. M., **Capraro, R. M.,** Morgan, J. R., Nite, S., & Peterson, C. A. (2014, October). Science, Technology, Engineering and Mathematics (STEM) Education: A Longitudinal Examination of Secondary School Intervention. *Proceedings of the 2014 Frontiers in Education conference*, Madrid, Spain. (Full paper abstract number 1569906323).
37. Nite, S., Capraro, M. M., Morgan, J. R., Peterson, C. A., & **Capraro, R. M.** (2014, October). Pathways to Engineering: Mathematics as a Mediator of Engineering Success. *Proceedings of the 2014 Frontiers in Education conference*, Madrid, Spain. (Full paper abstract number 1569906331).
38. Erdogan, N., Oner, A. T., Sahin, A., Capraro, M. M., & **Capraro, R. M.** (2014, March). An exploratory study: How do extracurricular robotics activities change students' attitudes toward science? *Proceedings of the annual conference of National Association for Research in Science Teaching*, Pittsburgh, PA.
39. Morgan, J, Capraro, R. M., & Capraro, M. M. (2012, August). Science, technology, engineering and mathematics (STEM) education: Methods to improve PSAT scores using a STEM focus. *Proceedings of the* *International Conference on Engineering Education (ICEE-2012)*, Turku, Finland.
40. **\***Capraro, M. M., Capraro, R. M., Rosli, R., Han, S. Y., Harbaugh, A., & Moch, P. L.  (2011, August). Teacher educator strategies for improving preservice teachers’ knowledge of fractions. In J. Novotna & H. Moraova (Eds.), *Proceedings of the International Symposium on Elementary Mathematics Teaching* (pp. 88-95)*.* Prague, Czech Republic: Charles University Press.
41. Cetin, S. C., Corlu, M. S., Capraro, M. M., & Capraro, R. M. (2011, July). A latent growth model: Longitudinal investigation of student achievement in mathematics and science. In B. Ubuz (Ed.), *Proceedings of the thirty-fifth Conference of the International Group for the Psychology of Mathematics Education*, 1, 440. Ankara, Turkey: Can Tekin Press.
42. \*Capraro, M. M., Capraro, R. M., Stearns, L., & Morgan, J. (2011, January). *A teacher observation instrument: Looking at PBL classroom instruction*. *Proceedings of the* Hawaii International Conference on Education, Honolulu, HI.
43. Maher, C. A., Capraro, M. M., Capraro, R. M., Capraro, R. M., & Landis, J. (2011, January). *Tasks that elicit mathematical reasoning in students*. *Proceedings of* the Hawaii International Conference on Education, Honolulu, HI.
44. Capraro, M. M., Capraro, R. M., Harbaugh, A., Cifarelli, V., Pugalee, D., & Lamm, M. (2009, August). *Developing proportional reasoning across ideas of equality. Proceedings of the International Symposium Elementary Mathematics Teaching*. Charles University: Prague, Czech Republic.
45. \*Yetkiner, Z. E., Capraro, R. M., Zientek, L., & Thompson, B. (2008). Examining quantitative reports in mathematics education: The benefits of meta-analytic thinking for all quantitative analyses. *Proceedings of the 11th meeting of the International Congress on Mathematical Education*. Monterrey, Mexico.
46. \*Capraro, M. M., Rangel, A., & Capraro, R. M. (2008). Effective preparation for teaching of algebra at the primary level. *Proceedings of the 11th meeting of the International Congress on Mathematical Education*. Monterrey, Mexico.
47. \*Özel, S., Capraro, R. M., & Yetkiner, Z. E. (2008). A technology intervention using multiple representations on mathematics. *Proceedings of the 11th meeting of the International Congress on Mathematical Education*. Monterrey, Mexico.
48. \*Capraro, M. M., Capraro, R. M., & Cifarelli, V. V. (2007). What are students thinking as they solve open-ended mathematics problems? In D. K. Pugalee, A. Rogerson, & A. Schnick (Eds.), *Proceedings of the ninth international conference of Mathematics Education in a Global Community*. (pp. 124-128). Charlotte: The University of North Carolina.
49. \*Capraro, R. M., Kulm, G., Hammer, M., & Capraro, M. M. (2002). The origin and persistence of misconceptions in statistical thinking. In D. S. Mewborn, P. Sztajn, D. Y. White, H. G. Wiegel, R. L. Bryant, & K. Nooney (Eds.), *Proceedings of the twenty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, 3, 1339-1340. Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education.

## Books & Book Chapters

1. Capraro, R. M., Bicer, A., Lee, Y., & Vela, K. (2019). Putting the quantitative pieces together to maximize the possibilities for a successful project. In *Designing, Conducting, and Publishing Quality Research in Mathematics Education* (pp. 97-110). New York, NY: Springer.
2. Bevan, D., Capraro, R. M., Madson, M, A. & Irby, B. (Eds.), *Coaching and mentoring: A handbook for leadership success.*Aggie STEM and the Education Leadership Research Center: College Station, TX.
3. Capraro, R. M. (2019). How to mentor and coach the leadership team (pp. 91-110). In D. Bevan, R. M. Capraro, M, A. Madson, & B. Irby (Eds.), *Coaching and mentoring: A handbook for leadership success.* Aggie STEM and the Education Leadership Research Center: College Station, TX.
4. Capraro, R. M. (2018). Catalyzing fundamental STEM paradigms in the accountability millennium. In M. Shelly and S. Ahmet Kiray *Research Highlights in STEM Education, (*103-115). Istanbul, TR: International Society for Research in Education and Science.
5. Bicer, A., Nite, S. B., Capraro, R., M., & Capraro, M., M. (2016). Assessment techniques in mathematics: A literature review. In R. V. Nata (Ed), *Progress in Education*, Volume 39 (270-288). Haulage, New York: Nova Science Publishers.
6. Capraro, M. M., Whitfield, J. G., Etchells, M. J., & Capraro, R. M. (Eds.). (2016).  *A companion to interdisciplinary STEM project-based learning: For teachers by teachers* (2nd edition). Rotterdam, The Netherlands: Sense.
7. Capraro, R. M., & Navruz, B. (2015). Time series in educational research. In G. Ritzer (Ed.), *Blackwell* *encyclopedia of sociology* (2nd Edition). Malden, MA: Blackwell.
8. Rosli, R., Capraro, M. M., Goldsby, D., Gonzalez y Gonzalez, E., Onwuegbuzie, A. J., & Capraro, R. M. (2015). Middle grade preservice teachers’ mathematical problem solving and problem posing (pp. 333-354). In F. M. Singer, N. Ellerton, & J. Cai (Eds.). *Mathematical problem posing: From research to effective practice.*  New York, NY: Springer.
9. Capraro, R. M. (2014). Mathematics assessment for special needs students. In C. R. Reynolds, K. J. Vannest, & E. Fletcher-Janzen (Eds.), *Encyclopedia of special education: A reference for the education of children, adolescents, and adults with disabilities and other exceptional individuals* (4th ed., pp. 1625). Hoboken, NJ: John Wiley and Sons.
10. Capraro, R. M., Capraro, M. M., & Morgan, J. (Eds.) (2013). *Project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach* (2nd Edition, pp. 1-214). Rotterdam, The Netherlands: Sense.
11. Capraro, R. M., & Slough, S. (2013). Why PBL?  Why STEM? Why now? An introduction to STEM. Project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach. In R. M. Capraro, M. M. Capraro, & J. Morgan (Eds.) *Project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach* (2nd Edition, pp. 1-6). Rotterdam, The Netherlands: Sense.
12. Capraro, R. M., & Corlu, M. S. (2013). Changing views on assessment for STEM project-based learning. In R. M. Capraro, M. M. Capraro, & J. Morgan (Eds.) *Project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach* (2nd Edition, pp. 109-118). Rotterdam, The Netherlands: Sense.
13. Muzhave, M., Capraro, M. M., & Capraro, R. M. (2013).  The private sector, building STEM partnerships, and moving models forward. In M. M. Capraro, R. M. Capraro, & C. W. Lewis (Eds.). *Improving urban schools: Equity and access in k-16 STEM education for all students* (pp. xx-xx). Charlotte, NC: Information Age.
14. Capraro, M. M., Capraro, R. M., & Lewis, C. (Eds.) (2013). *Improving urban schools: Equity and access in K-16 STEM education for all students*. New York, NY: Information Age.
15. Capraro, R. M., & Capraro, M. M. (2010). Quantitative reporting practices in middle-grades research journals: Lessons to learn. In D. Hough (Ed.), *Research supporting middle grades practice* (pp. 79-89). Charlotte, NC: Information Age. (Best Paper- Reproduced as a chapter in edited volume).
16. \*Capraro, R. M., & Yetkiner, Z. E. (2010). P-value. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1143-1148). Thousand Oaks, CA: Sage.
17. Capraro, R. M., Capraro, M. M., Morgan, J., & Scheurich, J. (Eds.). (2010). *A companion to interdisciplinary STEM project based learning: For teachers by teachers*. Rotterdam, The Netherlands: Sense.
18. Woods, C. J., & Capraro, R. M. (2010). Conrad foods: Packaging “R” us. In R. Capraro, M. Capraro, J. Morgan, & J. Scheurich (Eds.), *A companion to interdisciplinary STEM project based learning: For teachers by teachers* (pp. 79-86)*.* Rotterdam, The Netherlands: Sense.
19. Malmros, C., & Capraro, R. M. (2010). Settling the west faster and safer. In R. Capraro, M. Capraro, J. Morgan, & J. Scheurich (Eds.), *A companion to interdisciplinary STEM project based learning: For teachers by teachers* (pp. 79-86)*.* Rotterdam, The Netherlands: Sense.
20. Caskey, M. M., Andrews, P. G., Bishop, P. A., Capraro, R. M., Roe, M., & Weiss, C. (2010). *Research and resources in support of This We Believe* (2nd ed.). Westerville, OH: National Middle School Association.
21. \*Özel, S., Yetkiner, Z. E., Capraro R. M., & Küpçü, A. R. (2009). Young adolescent education in Turkey. In S. B. Mertens, V. Anfara, & K. Roney (Eds.), *An international look at educating young adolescents* (pp. 1-23). Charlotte, NC: Information Age.
22. \*Capraro, R. M., & Yetkiner, Z. E. (2008). New views on assessment in STEM PBL. In R. M. Capraro & S. W. Slough (Eds.), *Project based learning: An integrated science technology engineering and mathematics (STEM) approach* (pp. 171-186)*.* Rotterdam, The Netherlands: Sense.
23. Capraro, R. M., & Slough, S. (2008). Why PBL? Why STEM? Why now? An introduction to project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach. In R. M. Capraro & S. W. Slough (Eds.), *Project based learning: An integrated science technology engineering and mathematics (STEM) approach* (pp. 1-6)*.* Rotterdam, The Netherlands: Sense.
24. \*Yetkiner, Z. E., & Capraro, R. M. (2008). Factors influencing the implementation of STEM PBL. In R. M. Capraro & S. W. Slough (Eds.), *Project based learning: An integrated science technology engineering and mathematics (STEM) approach* (pp. 79-90)*.* Rotterdam, The Netherlands: Sense.
25. Capraro, R. M., & Slough, S. W. (Eds.). (2008). *Project based learning: An integrated science technology engineering and mathematics (STEM) approach.* Rotterdam, The Netherlands: Sense.
26. \*Capraro, R. M., & Yetkiner, Z. E. (2008). Teachers’ role in developing representational fluency in middle grades. In G. Kulm (Ed.), *Teacher knowledge and practice in middle grades mathematics* (pp. 273-286). Rotterdam, The Netherlands: Sense.
27. Kulm, G., & Capraro, R. M. (2008). Textbook use and student learning of number and algebra ideas in middle grades. In G. Kulm (Ed.), *Teacher knowledge and practice in middle grades mathematics* (pp. 255-272). Rotterdam, The Netherlands: Sense.
28. Capraro, R. M. (2006). Time series in educational research. In G. Ritzer (Ed.), *Blackwell* *encyclopedia of sociology*. Malden, MA: Blackwell.
29. Capraro, R. M. (2006). Significance level. In N. J. Salkind (Ed.), *Encyclopedia of measurement and statistics* (pp. 889-892). Thousand Oaks, CA: Sage.

## Non-Peer Reviewed Publications

1. Capraro, R. M., Capraro, M. M., & Calabrese, J. E. (2019). Special Editorial Team Introduction: The Foundation of STEM is Mathematics Education. *Journal of Mathematics Education*, *12*(1), 1-5.
2. Bicer, A., Barroso, L. R., Capraro, M. M., & Capraro, R. M. (2017). *Aggie STEM*

*through the decade*. Texas A&M University, College Station, TX: Aggie STEM.

1. Capraro, R. M., Capraro, M. M., Nite, S., & Morgan, J. (2014, May/June). *STEM PBL: A workforce-enhancing model*. *Texas CEO Magazine*, 16-17.
2. Capraro, M. M., Capraro, R. M., Scheurich, J., Morgan, J. R., & Stearns, L. (2011). *Supporting teachers’ implementation of STEM project-based learning: An observation instrument, 1*(1) 1-4[White paper]. Retrieved from Texas A & M University Aggie STEM Center website: http://nt-stem.tamu.edu/[WhitePapers.ph](http://aggiestem.tamu.edu/WhitePapers.php)
3. Capraro, R. M., Scheurich, J., Capraro, M. M., Morgan, J. R., & Stearns, L. (2011).   *STEM project-based learning professional development effects on student achievement in an urban district, 1*(2) 1-4[White paper]. Retrieved from Texas A & M University Aggie STEM Center website: http://nt-stem.tamu.edu/[WhitePapers.ph](http://aggiestem.tamu.edu/WhitePapers.php)
4. Stearns, L., Capraro, M. M., Capraro, R. M., Scheurich, J., & Morgan, J. R. (2011*). Access for all: Equity in advanced classes, 1*(3) 1-4[White paper]. Retrieved from Texas A & M University Aggie STEM Center website: http://nt-stem.tamu.edu//[WhitePapers.ph](http://aggiestem.tamu.edu/WhitePapers.php)
5. Scheurich, J., Capraro, R. M., Capraro, M. M., Morgan, J. R., & Stearns, L. (2011).   *Reflections of high school teachers on implementing professional learning communities and project-based learning* *1*(4) 1-4 [White paper]. Retrieved from Texas A & M University Aggie STEM Center website: http://nt-stem.tamu.edu/[WhitePapers.ph](http://aggiestem.tamu.edu/WhitePapers.php)
6. Capraro, R. M., Capraro, M. M., Rupley, W. H., & Slough, S. W. (2010). The confluence of reading and mathematics strategies to enhance mathematical cognition. *Policy Brief.*
7. Capraro, R. M. (2009). Quantitative methods in middle grades research: Developing a reporting framework. *Middle Grades Research Journal, 4*, i.
8. Denton, J. J., Davis, T. J., Capraro, R. M., Smith, B. L., Beason, L., Graham, D., & Strader, R. A. (2007). *Examination of applicant profiles for admission into and completion of an online secondary teacher certification program*. (ERIC Document Reproduction Service No. ED465799)
9. Capraro, R. M. (2006). (Decoding + chunking + comprehension) Reading Aloud = mathematical fluency. *Reading Psychology, 27*, 91-93. (.389 impact factor SCOPUS)
10. \*Capraro, R. M., Capraro, M. M., Dighans, K., & Hammer, M. (2002). *A revision protocol design: Item revision and impact analysis report*. Texas A&M University, Teaching Learning and Culture.
11. Capraro, R. M., & Capraro M. M. (1998). *Teacher talk*. In Middle School Math Courses 1 & 3, Chicago, Il: Scott Foresman-Addison Wesley.
12. Capraro, R. M., & Johnson, B. (1997*). Content strand mathematics – Probability and statistics*. Miami, FL: Miami-Dade County Public Schools.
13. Capraro, R. M., & Johnson, B. (1996). *Content strand mathematics - Geometry*. Miami, Fl: Miami-Dade County Public Schools.
14. Capraro, R. M., & Johnson, B. (1995). *Content strand mathematics - Pre-Algebra*. Miami, FL: Miami-Dade County Public Schools.

## Student Publications Under My Direction-

## Publications by my doctoral students, for whom I mentored, provided critical reviews, and editing but did not write any portion of the manuscript. This section also includes publications from their dissertations.

\*\*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.

\*\***Zientek, L. R.** (2007). Preparing high quality teachers: Novice teachers' sense of self-efficacy, commitment to teaching, and preparedness to teach. *American Educational Research Journal, 44*, 959-1001.

\*\***Zientek, L. R.** (2006). The essentials of effective alternative teacher education programs: A response. *Connections, 15*(3), 9-10,14*.*

**Matteson, S.** (2006). Mathematical literacy and standardized mathematical assessments. *Reading Psychology, 27*, 205-233.

**Matteson, S.** (2005). At-risk students and their performance on graphing assessments. *Electronic* *Journal of Student Research, 5.* Retrieved January 5, 2005, from [*http://dept.lamar.edu/lustudentjnl/EDITION%20II%20ARTICLES/At-risk%20students%20and%20Their%20Performance%20on%20Graphing%20Assessments.pdfhttp://dept.lamar.edu/lustudentjnl/current%20edition.htm*](http://dept.lamar.edu/lustudentjnl/EDITION%20II%20ARTICLES/At-risk%20students%20and%20Their%20Performance%20on%20Graphing%20Assessments.pdfhttp%3A//dept.lamar.edu/lustudentjnl/current%20edition.htm)

Herbrich, A. A., & Parr, R. (2004, October 22). My, what critical thinking skills you have!: A party approach to college student engagement. *Innovation Abstracts, 26*, (24). The University of Texas at Austin National Institute for Staff and Organizational Development (NISOD), Department of Educational Administration, College of Education. Retrieved on October 28 from http://www.dc-uoit.ca/pd/Inovation%20Abstracts/innovation\_abstracts\_October\_22\_2004.htm

**Martin, S.**, & **Sebesta, L**. (2004). Fractions: Building a foundation with concrete manipulatives. *Illinois Schools Journal, 83*(2), 2-21.

**Butler, L.** (2002). Motivation in the middle. *Illinois Mathematics Teacher, 53,* 13-18.

***\*\* indicates a publication from a student’s dissertation***

# Submitted

Kwok, M., Vela, K. N., Rugh, M. S., Lincoln, Y. S., Capraro, R. M., & Capraro, M. M. (2019). *STEM* *Words and their multiple meanings: The intricacies of asking a clarifying question.* Manuscript submitted for publication. Submitted revised manuscript on 10/27/19 to *Communication Education* (manuscript ID is RCED-19-Jul-0004.R1).

Bicer, A., Perihan, C., Capraro, R. M., Capraro, M. M., & Lee, Y. (Submitted). The Impact of Writing Practices on Students' Mathematical Attainment. Paper submitted to *Mathematical Thinking and Learning*.

\*Rosli, R., Goldsby, D., Onwuegbuzie, A. J., Capraro, M. M., & **Capraro, R. M.** (2019). Utilizing multiple tasks in assessing elementary preservice teachers’ knowledge, perceptions and attitudes towards fractions.

Capraro, M. M., Barroso, L., & Capraro, R. M., *Stem learning is the STEM of the problem (submitted for publication).*

Rosli, R., Han, S. Y., Capraro, R. M., & Capraro, M. M. (2012). Exploring preservice teachers' knowledge of content and teaching fractions. Manuscript submitted for publication. Manuscript submitted for publication to *Australian Journal of Teacher Education*

Davis, T. J., Capraro, M. M., & Capraro, R. M. (2012). What happens when academically en(r)gaged parents meet standards-based mathematics curriculum: Perceived barriers and challenges. *The School Community Journal.*

Davis, T. J., Capraro, M. M., & Capraro, R. M. (2012). CORE-plus mathematics and quality of implementation: Effects on SAT and ACT scores. *TBD*

***In Progress***

Capraro, M. M., & Capraro, R. M. (2019). Do field experiences make a difference in preservice teachers’ perceived level of competence? Manuscript in preparation.

Capraro, R. M., Capraro, M. M., & Helfeldt, J. (2019). Contrasting views on the principal’s role for establishing a mentoring program. (Working on for submission to *Education Administration Quarterly*).

Capraro, R, M., Willson, V., Capraro, M. M., & Wilson, L. (2019). *Effects of curriculum variation on structure in middle school mathematics.*

#### PRESENTATIONS

## National/International

1. “USING PROBLEM POSING DURING INSTRUCTION ON DECIMALS” has been accepted by ICME-14. For detailed information please log in to the system and check.
Thank you for your contribution to ICME-14.
2. (2020, April). P“her”ceptions of Females’ Mathematics and Science Abilities in Single-gender vs Co-educational STEM Classes,” Paperpresented at the American Educational Research Association (AERA) annual meeting, San Francisco, CA.
3. (2020, April). The Effect of STEM PBL on Students’ Self-Regulation and Motivation,” at the 2020 AERA Annual Meeting. Paperpresented at the American Educational Research Association (AERA) annual meeting, San Francisco, CA.
4. Effects of Motivation on Students’ Affective Mathematics Engagement
5. Fidai, A., & Capraro, R. M. (2020, April). *A call to action for researchers and organizational stakeholders: Malleable district factors impacting mathematics achievement.* Paperpresented at the American Educational Research Association (AERA) annual meeting, San Francisco, CA.
6. Williams, A. M., Bevan, D., Calabrese, J. E., Rugh, M. S., & Capraro, R. M. (2020, April). *Geometry manipulatives can increase achievement for all types of learners.*Paperpresented at the American Educational Research Association (AERA) annual meeting, San Francisco, CA.
7. \*Capraro, M. M., Vela, K. N., Caldwell, C., Bevan, D., Lee, Y., & Capraro, R. M. (2019, August). *Mathematizing creative STEM PBL activities*. Workshop for the 11th International Conference on Mathematical Creativity and Giftedness, Hamburg, Germany.
8. \*Fidai, A., Jarvis, C., Benzor, M., Verma, S., Capraro, M. M.  & Capraro R. M. (2019). Motivating future engineers: Building situation sensing Mars Rover with elementary school students. *Paper submitted for presentation and proceedings to 49th Frontiers in Education Conference (FIE), Cincinnati, Ohio, 16-19 October.*
9. \*Vela, K. N., Bevan, D., Caldwell, C., Capraro, R. M., Capraro, M. M., & Lee, Y. (2019, August). *STEM project-based learning activities: Opportunities to engage in creative mathematical thinking?*. Paper presented at the 11th International Conference on Mathematical Creativity and Giftedness. Hamburg, Germany.
10. Lee, Y., Capraro, R. M., Capraro, M. M., Vela, K. N., Bevan, D., Caldwell, C. (2019, August). *Students' conceptions of mathematical creative thinking and critical thinking in STEM PBL activities*. Paper presented at the 11th International Conference on Mathematical Creativity and Giftedness. Hamburg, Germany.
11. \*Capraro, M. M., **Capraro, R. M.,** Rosli, R., Kopparla, M., Kwon, H., Vela, K., Bevan, D., & Lee, Y. (2019, April). *Benefits of posing activities with elementary students and preservice teachers.* Paper presented at the annual meeting of the American Educational Research Association, Toronto, ON, Canada.
12. \*Lee, Y., **Capraro, R. M.,** Bicer, A., Capraro, M. M. (2019, April). *The impact of STEM PBL students' affective mathematics engagement.*Paper presented at the annual meeting of the American Educational Research Association, Toronto, ON, Canada.
13. \*Lee, Y., **Capraro, R. M.,** Bicer, A., Capraro, M. M. (2019, April). *Gender difference on spatial visualization (STEM vs. non-STEM)*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, ON, Canada.
14. \*Bicer, A., Kitchen, R., Lee, Y., Aydin, H., & **Capraro, R. M.** (2019, April). *Institutional characteristics influencing underrepresented students' STEM preparation in inclusive STEM high schools*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, ON, Canada.
15. \*Vela, K. N., Bevan, D., Caldwell, C., **Capraro, R. M.,** & Capraro, M. M. (2019, April). *Empowering girls, one STEM camp at a time.*Poster session presented at the National Council of Teachers of Mathematics Research Conference, San Diego, California.
16. Rugh, M. S., Wang, X., Lin, J., Barroso, L. R., Capraro, M. M., & **Capraro, R. M.** (2019, April). *Computer generated dynamic graphic organizer's effect on learning outcomes*. Paper presented at the NCTM Research Conference, San Diego, CA.
17. \*Capraro, M. M., **Capraro, R. M.,** Bicer, A., Lee, Y., & Kopparla, M. (2018, November). *Problem posing in elementary classrooms*. Paper presented at the 3rd Biennial International Conference on Urban Education, Nassau, Bahamas.
18. \*Bicer, A., Lee, Y., Capraro, R. M., Capraro, M. M, & Perihan, C. (2018, October). *Informal STEM learning & student interest in STEM fields*. Paper presented at the annual meeting of the School Science and Mathematics Association Conference, Little Rock, AR.
19. \*Lee, Y., Kwon, H., Bicer, A., Capraro, R. M., Capraro, M. M., (2018, October). *Mathematics teacher knowledge (SMK, KCT, and KCS) in problem posing* Paper presented at the annual meeting of the School Science and Mathematics Association Conference, Little Rock, AR.
20. \*Lee, Y., Bicer, A., Capraro, R. M., Capraro, M. M., Barroso, L. R., Kwon, H., & Rugh, M. (2018, October). *Comparing Mathematics and Science Achievement of Students from Schools with PLTW versus Schools without PLTW.*Paper presented at the annual meeting of the Frontiers in Education Conference (FIE). San Jose, CA.
21. \*Bicer, A., Lee, Y., Capraro, R. M., Capraro, M. M., Barroso, L. R., Vela, K.,& Bevan, D. (October, 2018). *Cracking the code: The effects of using microcontrollers to code on students' interest in computer and electrical engineering*. Paper presented to the annual meeting of the Frontiers in Education Conference (FIE). San Jose, CA.
22. \*Bicer, A., Capraro, R. M., Capraro, M. M., & Lee, Y. (2018, April). *College students reflect back on their inclusive STEM high school*. Paper presentation at the annual meeting of the American Educational Research Association, New York, NY.
23. Lyakhova, S., Neate, A., Capraro, M. M., & Capraro, R. M. (2018, April). *Mathematics outreach: Fun or rigorous, systematic or fragmented?* Paper presented at the British Congress of Mathematics Education, Warwick, UK.
24. \*Bicer, A., Capraro, R. M., Capraro, M. M., & Lee, R. (2018, April). *A-meta analysis: Writing in mathematics classrooms*. Paper presented at theNCTM Research Conference, Washington, D.C.
25. \*Bicer, A., Perihan, C., Capraro, R. M., Capraro, M. M., & Lee, Y. (2018, April). *The impact of writing practices on students’ mathematical attainment*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
26. Viruru, R., Capraro, M. M., Hill-Jackson, V., Matthews, S., Neshyba, M., Capraro, R. M. (2017, June). *Developmental pathways to the record of study*. Paper presented at the Carnegie Project on the Educational Doctorate, Pittsburg, PA.
27. Bicer, A., Capraro, R. M., Capraro, M. M., & Nite, S. B. (April, 2017). *Improving educational opportunities for underrepresented students: The educational impact of T-STEM academies*. Paper presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
28. Nite, S. B., Allen, G. D., Bicer, A., & Capraro, R. M. (2017, April). *Strengthening precalculus skills in a summer program for engineering students*. Paper presented at the annual meeting of the American Educational Research Association conference. San Antonio, Texas.
29. \*Bicer, A., Ozfidan, B., Capraro, M. M., Capraro, R. M., & Nite, S. B. (2017, April). *A meta-analysis: The effects of writing interventions on students' mathematics success*. Paper presented at annual meeting of the American Educational Research Association (AERA), San Antonio, TX.
30. Capraro, R. M., Capraro, M. M., Erdogan, N., Corlu, S., Adiguzel, T., & Oner, A. T. (2017, April). *Developing scientific language through Interactive STEM.*Paper presented at the annual meeting of National Association for Research in Science Teaching (NARST), San Antonio, TX.
31. Capraro, M. M., Capraro, R. M., Bicer, A., Erdogan, N. & Oner, A. T. (2017, April). *Teacher of an integrated STEM language.*Paper presented at the annual meeting of National Association for Research in Science Teaching (NARST), San Antonio, TX.
32. Wood, M. B., Spencer, J., Weber, K., & Capraro, R. M. (2017, April). *Publishing JRME-Worthy Studies that Honor Equity*. Paper presented at the annual meeting of the national Council of Teachers of Mathematics Research Conference, San Antonio, TX.
33. Capraro, M. M., Capraro, R. M., & DeMiranda, M. (2017, March). *The hidden supports of high school engineering and technology science fair winners*. Paper presented at the International Technology and Engineering Educators Association, Dallas, TX.
34. Nite, S. B., Allen, G. D., Bicer, A., & Capraro, R. M. (2017, April). *Precalculus program for prospective engineering students*. Paper presented at the Annual meeting of the National Council of Teachers of Mathematics Research Conference. San Antonio, TX.
35. Bicer, A., Nite, S. B., Reeves, L., Capraro, R. M., & Morgan, J. R. (2017, April). *Mathematics teacher collaboration with online technology integration*. Paper presented at the Annual meeting of the National Council of Teachers of Mathematics Research Conference. San Antonio, TX.
36. Nite, S. B., Allen, G. D., Bicer, A., & Capraro, R. M. (2017, April). *Precalculus program for prospective engineering students*. Paper presented at the Annual meeting of the National Council of Teachers of Mathematics Research Conference. San Antonio, Texas.
37. Capraro, M. M., & Capraro, R. M. (2016, November). *Dynamic problem posing through reciprocal problem solving*. Paper presented the at the 2nd Biennial International conference on Urban Education, San Juan, PR**.**
38. Nite, S. B., Allen, G. D., Morgan, J., Bicer, A., & Capraro, R. M. (2016, June). Engineering calculus bridge program success: Comparing variation results. In *Proceedings of the American Society for Engineering Education*, Paper Presented at ASEE's 123rd National Conference and Exposition. New Orleans, LA: American Society for Engineering Education, Washington DC.
39. Öner, A. T., Nite, S., Capraro, M. M., Capraro, R. M., & Barroso, L. (2016, May). *Examination of students’ creativity in a STEM camp: Exploring STEAM.* Paper presented at the International Conference on Education in Mathematics, Science and Technology (ICEMST), Bodrum, Turkey.
40. Nite, S. B., **Capraro, R. M.,** Bicer, A., & Morgan, J. (2016, December). Supporting engineering education through calculus success. Paper presented at the *27th Australasian Association for Engineering Education Conference*. Coffs Harbour, Australia.
41. Erdogan, N., Navruz, B., Younes, R., & Capraro, R. M. (2016). Viewing how STEM project-based learning influences students’ science achievement through the implementation lens: A latent growth Model. Paper presented at the annual meeting of National Association for Research in Science Teaching (NARST), Baltimore, MD.
42. \*Bicer, A., **Capraro, R. M.,** & Capraro, M. M. (2016, April). *STEM schools vs. non-STEM schools: Comparing Hispanic students’ mathematics growth rate on high-stakes test performance*. Paper presented at the annual conference of the American Educational Research Association (AERA), Washington, D.C.
43. \*Bicer, A., Kopparla, M., **Capraro, R. M.,** & Capraro, M. M. (2016, April). *Longitudinal effects of technology integration and teacher professional development on students’ mathematics achievement*. Paper presented at the annual conference of the American Educational Research Association (AERA), Washington, D.C.
44. \*Howard, T., **Capraro, R. M.,** Capraro, M. M., \*Ortiz, N. A., & Emdin, C.(2016, April). *The apparent proliferation of “separate but equal” in STEM environments*. Paper presented at the annual conference of the *American Educational Research Association Annual Meeting*. Washington, DC.
45. \*Erdogan, N., Öner, A. T., **Capraro, R. M.,** & Capraro, M. M. (2016, April). *Examination of students’ attitudes towards STEM and interest in STEM careers: A STEM camp example*. Paper presented at the annual meeting of National Association for Research in Science Teaching (NARST), Baltimore, MD.
46. \*Capraro, M. M., \*Leblanc, J., **Capraro, R. M**., & Stuessy, C. (2015, October*). Identifying researchable topics for an EdD record of study.* Paper presented at the *World Conference on E-Learning*, Kona, HI.
47. \*Capraro, M. M., Nite, S. B., **Capraro, R. M.**, Morgan, J., Barroso, L., & Kopparla, M. (2015, October). *Appropriate technology in STEM education: Using a rubric to assess iPad apps*. Paper presented at the E-Learn 2015: World Conference on E-Learning. Kona, Hawaii.
48. Nite, S. B., Morgan, J., Allen, G. D., **Capraro, R. M.,** & Capraro, M. M. (2015). Effective technology for a calculus bridge program: Bringing education home. Paper presented at the *Australasian Association for Engineering Education Conference 2015*. Geelong, Australia.
49. \*Nite, S. B., Morgan, J., Allen, G. D., **Capraro, R. M.,** Capraro, M. M., & Pilant, M. (2015, October). *A bridge to engineering: A personalized precalculus (bridge) program*. Paper presented at the annual meeting of the Frontiers in Education (FIE), El Paso, TX.
50. \*Boedeker, P., Bicer, A., **Capraro, R. M.,** Capraro, M. M., Morgan, J., & Barroso, L. (2015, October). *STEM summer camp follow up–study: Correlations between PSAT, SAT, and matriculation.* Paper presented at the annual meeting of Frontiers in Education (FIE), El Paso, TX.
51. \*Boedeker, P., **Capraro, R. M.**, Capraro, M. M., & Nite, S. (2015, October). *Women in STEM: The impact of STEM PBL implementation on performance, attrition, and course choice of women.* Paper presented at the annual meeting of Frontiers in Education (FIE), El Paso, TX.
52. \*Bicer, A., Boedeker, P., Kopparla, M., **Capraro, R.  M.,** & Capraro, M. M. (October, 2015). *Comparing inclusive STEM schools that implemented PLTW curriculum with inclusive STEM schools that did not Implement PLTW*. Paper presented at the annual meeting of Frontiers in Education (FIE), El Paso, TX.
53. **\***Erdogan, N.,Oner, A. T., **Capraro, R. M.,** & Capraro, M. M. (2015, April). *Effects of input and process factors on academic achievement in Texas public high schools.* Paper presented at the International Conference on Education in Mathematics, Science and Technology (ICEMST), Antalya, Turkey.
54. Morgan, J., Nite, S. B., Allen, G. D., **Capraro, M. M**., Capraro, R. M., & Pilant, M. (2015, April). *Improving engineering calculus success through a summer program*. Paper presented at the Ireland International Conference on Education, Dublin, Ireland.
55. Nite, S. B., Allen, G. D., Morgan, J., Capraro, R. M., & **Capraro, M. M**. (2014, December). *Improving success in engineering calculus: Design of a bridge program.* Paper presented at theAustralian Association for Engineering Education Conference. Wellington, New Zealand.
56. Morgan, J., Capraro, R. M., **Capraro, M. M.,** & Nite, S. B. (2014, November) *Increasing the STEM pipeline: Impact of a multi-faceted STEM organization. Paper presented at the Engineering Leaders Conference on Engineering Education*. Doha, Qatar.
57. **Capraro, M. M.,** Capraro, R. M., Nite, S., Morgan, J. R., & Peterson, C. A. (2014, November). *Does inclusion of the arts in STEM project-based learning increase motivation for learning for urban students in informal settings?* Paper presented at the International Conference on Urban Education, Montego Bay, Jamaica.
58. **Capraro, M. M**., Capraro, R. M., Morgan, J. R., Nite, S., & Peterson, C. A. (2014, October). *Science, Technology, Engineering and Mathematics (STEM) Education: A longitudinal examination of secondary school intervention*. Paper presented at the 2014 Frontiers in Education conference, Madrid, Spain. (Full paper abstract number 1569906323).
59. Nite, S., **Capraro, M. M.,** Morgan, J. R., Peterson, C. A., & Capraro, R. M. (2014, October). *Pathways to engineering: Mathematics as a mediator of engineering success.* Paper presented at the 2014 Frontiers in Education conference, Madrid, Spain. (Full paper abstract number 1569906331).
60. Han, S. Y., Capraro, R. M., & **Capraro, M. M.** (2014, April). *The effect of science, technology, engineering, and mathematics project based learning on Hispanic and at-risk students’ mathematics achievement.* Paper presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
61. \*Erdogan, N., Oner, A. T., Sahin, A., Capraro, M. M., & Capraro, R. M. (2014, April). *Effects of input and process factors on academic achievement in Texas public high schools*. Paper presented at the annual meeting of American Educational Research Association (AERA), Philadelphia, PA.
62. Sahin, A., Willson, V., Jones, A., Oren, M.,  & Capraro, R. M. (2014, April). *Three-year longitudinal comparison of student academic performance in STEM and non-STEM schools in Texas: Does the model work*? Paper presented at the annual meeting of American Educational Research Association (AERA), Philadelphia, PA.
63. Capraro, M. M., Capraro, R. M., Nite, S., Morgan, J. R., & Peterson, C. A. (2014, November). *Does inclusion of the arts in STEM project-based learning increase motivation for learning for urban students in informal settings?* Paper presented at the International Conference on Urban Education, Montego Bay, Jamaica
64. \*Sahin, A., Willson, V., Top, N., & Capraro, R. M. (2014, April). *Charter school system: How does student achievement compare*? Paper presented at the annual meeting of American Educational Research Association (AERA), Philadelphia, Pennsylvania.
65. \*Erdogan, N., Oner, A. T., Sahin, A., Capraro, M. M., & Capraro, R. M. (2014, March). *An exploratory study: How do extracurricular robotics activities change students' attitudes toward science?* Paper presented at the annual conference of National Association for Research in Science Teaching (NARST), Pittsburgh, PA.
66. \*Navruz, B., Bicer, A., Capraro, R. M., & Capraro, M. M. (2014, November). Examining students’ algebra, geometry, and statistics objective scores in both STEM and non-STEM schools. Paper presented at the Annual meeting of the School Science and Mathematics Association. Jacksonville, FL.
67. \*Bicer, A., Navruz, B., Capraro, R. M., & Capraro, M. M. (2014, November). A longitudinal Study: Comparing STEM schools to non-STEM schools in terms of high school students’ mathematics achievement. Paper presented at the Annual meeting of the School Science and Mathematics Association. Jacksonville, FL.
68. \*Rosli, R., Sunyoung,H., Capraro, R. M., & Capraro, M. M. (2013, November).  *Exploring preservice teachers’ computational and representational knowledge of content and teaching fractions.* Paper presented at the International Conference on Mathematics Education Seoul Nat’l Univ., Seoul, Korea.
69. \*Capraro, M. M., Capraro, R. M., Morgan, J., Sahin, A., & Erdogan, N. (2013, April). *Long-term effects of science focused summer camp on SAT scores*. Paper presented at the annual conference of National Association for Research in Science Teaching (**NARST**), Rio Grande, Puerto Rico.
70. \*Sahin, A., Akgun, O. E.,Erdogan, N**.,** Oren, M., Capraro, R. M., & Capraro, M. M. (2013, April). *Exploring benefits of an international science olympiad: STEM career interests*. Paper presented at the annual conference of National Association for Research in Science Teaching (**NARST**), Rio Grande, Puerto Rico.
71. Jones, M., Oner, A.T., & Capraro, R. M.  (2013, April).*Validation and revision of a Middle School Improvement Assessment*. Paper presented at the annual meeting of American Educational Research Association (AERA), San Francisco, CA.
72. Sahin, A., Willson, V., & Capraro, R. M. (2013). *Can charter schools be silver bullets to the American educational system?* Paper presented at the annual meeting of the American Educational Research Association (AERA). San Francisco, CA.
73. Erdogan, N., Oner, A. T., Sahin, A., Capraro, M. M., Capraro, R. M. What factors affect STEM schools’ math and science performance? Paper presented at the annual meeting of the American Educational Research Association (AERA). San Francisco, CA.
74. Capraro, M. M., Capraro, R. M., Erdogan, N., Sahin, A., Jones, T., & Oner, A. T. (2013, November). Engaging STEM students through project-based activities. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), San Antonio, TX.
75. Navruz, B., Erdogan, N., Bicer, A., & Capraro, R. M. (2013, November). A Longitudinal Study: Does STEM education really help students achieve on math? Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), San Antonio, TX.
76. Sahin, A., Akgun, O. E., Erdogan, N., Cavlazoglu, B., Cetin, C. S., Capraro, R. M., & Capraro, M. M. (2012, November). *Effects of STEM-Related activities on high school students’ motivation, learning strategy use, and self-regulation*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Birmingham, AL.
77. Capraro, M. M., Capraro, R. M., Booth, E., Chaudhuri, N., & Dyer, J. (2012, November). *Developmental education: Which factors support success*.Paper presented at the annual convention of School Science and Mathematics Association (SSMA), Birmingham, AL.
78. Capraro, R. M., Capraro, M. M., Booth, E., Chaudhuri, N., & Dyer, J. (2012, November). *The bridging high school and college: Evaluating post secondary developmental education programs*.Paper presented at the annual convention of School Science and Mathematics Association (SSMA), Birmingham, AL
79. Sahin, A., Akgun, O. E., Erdogan, N., Cavlazoglu, B., Cetin, C. S., Capraro, R. M., & Capraro, M. M. (2012, November). *The students on the stage: Results of a new model to engage students in a successful afterschool STEM program*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Birmingham, AL.
80. Sahin, A.,Oner, A., & Capraro, R. M. (2012, November). *Examining the effects of the Texas statewide STEM initiative: Did T-STEM academies achieve important results?* Paper presented at the annual convention of School Science and Mathematics Association (SSMA), Birmingham, AL.
81. Akgun, O. A.,Sahin, A.,& Capraro, R. M. (2012, November). *Investigating relationships of motivational and self-regulated learning and technological pedagogical content knowledge components of pre-service mathematics teachers.* Paper presented at the annual convention of School Science and Mathematics Association (SSMA), Birmingham, AL.
82. Sahin, A.,Eskicumali, A., Jones, M., Capraro, R. M., & Capraro, M. M. (2012, November). *The relationship between a multi-schools charter system’s school culture and respective school’s state test achievements on mathematic and science.* Paper presented at the annual convention of School Science and Mathematics Association (**SSMA**), Birmingham, AL.
83. Rosli, R., Han, S., Capraro, R. M., & Capraro, M. M. (2012, July*). Elementary preservice teachers pedagogical content knowledge of place value: A mixed analysis*. Paper presented at the 12th International Congress on Mathematical Education, Seoul, Korea.
84. Godwin, A. J., Capraro, M. M., Capraro, R. M., & Rupley, W. H. (2012,

November). *(Reading + Math) + Interactive Shared Readings = Something*

*Sweet.* Paper presented at the Association of Literacy Educators and Researchers, Grand Rapids, MI.

1. Godwin, A. J., Capraro, M. M., Capraro, R. M., & Rupley, W. H. (2012, December). *Conceptualizing: Reading and math getting to know each other.* Paper presented at the Annual Conference of the American Reading Forum, Sanibel Island, FL.
2. Morgan, J, Capraro, R. M., & Capraro, M. M. (2012, August). *Science,*

*technology, engineering and mathematics (STEM) education: Methods to*

*improve PSAT scores using a STEM focus*. Best Paper Award

International Conference on Engineering Education (ICEE-2012), Turku,

Finland.

1. Han, S. Y., Capraro, R. M., & Capraro, M. M. (2012, July). *The effect of science, technology, engineering and mathematics (STEM) project based learning (PBL) on students’ achievement.* Paper presented at the 12th International Congress on Mathematical Education, Seoul, Korea.
2. Han, S. Y., Yalvac, B., Capraro, M. M., & Capraro, R. M. (2012, July). *In-service teachers’ implementation of and understanding from project-based learning (PBL) in science, technology, engineering, and mathematics (STEM) Fields*. Paper presented at the 12th International Congress on Mathematical Education, Seoul, Korea.
3. Corlu, M. S., Erdogan, N., & Capraro, R. M. (2012, April). *Developing mathematics and science literacy through robotics systems*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics (NCTM) Research Pre-session, Philadelphia, PA.
4. Capraro, R. M., & Capraro, M. M. (2012, April). *Understanding the need for algebra teaching in K-7.* In symposium with Spielhagen, F., Aguirre, J., Bolling, M., Fennell, S., Maxwell-West, M., Moses, R., Ready or not: The promise of 8th grade algebra*.* Symposium presented at annual meeting of the National Council of Teachers of Mathematics Research Presession, Philadelphia, PA.
5. Sahin, A., & Capraro, R. M. (2012, April). *Teachers’ awareness and acquisition of questioning* *skills.* Paper presented at the annual meeting of the American Education Research Association, Vancouver, Canada.
6. Younes, R. G., & Capraro, R. M. (2011, November). *The impact of STEM PBL on women’s scores, retention, and course choice*. Paper presented at the annual meeting of the School Science and Mathematics Association, Colorado Springs, CO.
7. Cetin, S. C., Corlu, M. S., Capraro, M. M., & Capraro, R. M. (2011, November). *A correlational study: Mathematics and science scores of underrepresented students in state achievement tests.* Paper presented at the annual School Science and Mathematics Association (SSMA), Convention, Colorado Springs. CO.
8. Capraro, M. M., Capraro, R. M., & Oner, A. T. (2011, November). *Observations of STEM PBL teachers and their student scores.* Paper presented at the annual meeting of the School Science and Mathematics Association, Colorado Springs, CO.
9. Heyen, K., Hollowell, E., Kever, E., Mullins, D., Murphy, K., Taylor, D., Wayne, S., Easterling, J., Nite, S., Capraro, M. M., & Capraro, R. M. (2011, August). *Problem posing around the Czech Republic.* Poster presentation at *the International Symposium on Elementary Mathematics Teaching.*Charles University: Prague, Czech Republic.
10. Capraro, R. M., Scheurich, J., Morgan, J., Avery, R., Yakman, G., Corlu, M. S., Capraro, M. M., Han, S., Younes, R., & Huggins, K. (2011, April). *Building STEM centers for excellence in educational innovation.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
11. Scheurich, J., Morgan, J., Huggins, K., Capraro, M. M., Avery, R., & Capraro, R. M. (2011, April). *Facilitating urban high school improvement in mathematics and science through a university STEM center-district-business collaboration.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
12. Oztelli, D., Corlu, M. S., & Capraro, R. M. (2011, April). *A Comparison Study of Mathematics and Science Tutors and School Teachers in Turkey by Using International Comparison Studies.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
13. Capraro, R. M., & Avery, R. (2011, April). *The “Wicked Problems” of Urban Schools and a Science, Technology, Engineering, and Mathematics (STEM) University-School District-Business Partnership.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
14. Corlu, M. S., Capraro, R. M., & Capraro, M. M. (2011, April). *Turkish student teachers’ attitudes towards mathematics and science integration*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Indianapolis, IN.
15. Rosli, R., Han, S. Y., Capraro, M. M., & Capraro, R. M. (2011, April). *An analysis of preservice teachers’ pedagogical content knowledge of fractions*.  Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Indianapolis, IN.
16. Capraro, M. M., Capraro, R. M., Stearns, L., & Morgan, J. (2011, January). *A teacher observation instrument: Looking at PBL classroom instruction*. Paper presented at the Hawaii International Conference on Education, Honolulu, HI.
17. Capraro, R. M., Capraro, M. M., Younes, R., & Han, S. Y. (2010, November). *A longitudinal look at the equal sign through the lens of textbook authors*. Paper presented at the annual meeting of the School Science and Mathematics Association, Fort Meyers, FL.
18. Capraro, R. M., Capraro, M. M., Corlu, S. M., Younes, R., Han, S. Y., & Morgan, J. (2010, November). *The impact of sustained professional development in STEM project based learning on district outcome measures*. Paper presented at the annual meeting of the School Science and Mathematics Association, Fort Meyers, FL.
19. Scheurich, J., Capraro, M. M., Capraro, R. M., Morgan, J. R., Avery, R., & Huggins, K. (2010, October) Conversation: *A university STEM center facilitates urban high school academic improvement in math and science.* Paper presented at the annual meeting University Council of Educational Administration, New Orleans, LA.
20. Capraro, R. M. (2010, June). *Converging reading and teaching strategies to increase elementary mathematical understanding*. Presented at the 13th international conference on Mathematics Education in China (ICME), Hangzhou Normal University, China.
21. Schorr, R., Epstein, Y., Warner, L., Capraro, R. M., Capraro, M. M., & Goldin, G. (2010, April). *Measuring engagement structures in middle grades urban mathematics classrooms.* Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.
22. Piccolo, D., Capraro, M. M., & Capraro, R. M. (2010, April). *Student teachers, general and specific pedagogical development within a mathematics milleau*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.
23. Corlu, M. S., Capraro, R. M., Burlbaw, L., & Han, S. (2010, February). *The Ottoman palace school and the man with multiple talents, matrakçı nasuh*. Proceedings of the 15th International Seminar of Mathematics Education on Talented Children and Creativity Development, 19-20 February, S. Korea.
24. Capraro, R. M. (2009, November). *The case for international understanding of middle school education*. In symposium M. Caskey, Spotlight on research. At the 36th annual conference of the National Middle School Association. Indianapolis, IN.
25. Capraro, R. M. (2009, November). *Research and understanding of middle schoolers understanding of the equal sign*. In symposium M. Caskey, Research and resources in support of this we believe: Tools for practitioners. At the 36th annual conference of the National Middle School Association. Indianapolis, IN.
26. Capraro, M. M., & Capraro, R. M. (2009, October). STEM project-based learning: An interactive motivational strategy for briding content across classes. Poster presented at the annual meeting of the School Science and Mathematics Association. Reno, NV.
27. Scheurich, J., Capraro, R. M., Morgan, J., & Capraro, M. M. (2009, October). *The STEM center at Texas A&M university: What can we do for you*? Paper presented at the annual meeting of the Texas Association of School Administrators and Texas Association of School Boards. Houston, TX.
28. Capraro, R. M. (2009, April). *Mathematics education research at the high school and collegiate level*. Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
29. Capraro, R. M. (2009, April). *Students’ cognition and instructional opportunities in mathematics*. Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
30. Capraro, R. M., Burlbaw, L. M., & Zientek, L. R. (2009, April). *Content and pedagogical knowledge in Colorado: Teachers’ mathematics exams at the turn of the 20th century*. Paper presented at the 32nd meeting of Society for the Study of Curriculum History. San Diego, CA.
31. Capraro, R. M., & Capraro, M. M. (2009, April). *An international perspective on sixth graders’ interpretation of the equal sign*. Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
32. Piccolo, D., Capraro, R. M., & Willson, V. (2009, April). *Expanding the theory of PCK and CKTM for elementary and middle preservice teachers*. Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
33. Piccolo, D., Capraro, M. M., & Capraro, R. M. (2009, April). *Mentoring urban interns: Amalgamation of experiences in the formation of mathematics teachers.* Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
34. Capraro, R. M., & Capraro, M. M. (2009, March). *NTSTEM (North Texas science, technology, engineering, and mathematics center)*. Paper presented at the US Department of Education’s Mathematics and Science Partnerships (MSP) Program. Chicago.
35. Capraro, R. M. (2008, October). *Pathways to publication: NMSA research advisory board*. Symposium presented at the 35th annual meeting of the National Middle School Association. Denver, CO.
36. Capraro, R. M. (2008, October). *Project-based learning in middle grades mathematics.* As part of a symposium *Spotlight on Research Session* presented at the 35th annual conference of the National Middle School Association. Denver, CO.
37. Caskey, M., Andrews, G., Bishop, P., Capraro, R. M., Daniel, L., Muir, M., & Valentine, J. (2008, October). *Research and resources in support of this we believe: Assessment that promotes learning.* Paper presented at the 35th annual conference of the National Middle School Association. Denver, CO.
38. Zientek, L., Capraro, M. M., & Capraro, R. M., (2008, April). *Teacher education: A historical investigation of reporting practices*. In symposium with B. Thompson, T. Onwuegbuzie, J. Slate, & K. Fries. Symposium conducted at the annual meeting of the American Educational Research Association. New York.
39. \*Parker, D., Donahue, M., Stillisano, J., Capraro, M. M., Goldsby, D., Yetkiner, Z. E., & Capraro, R. M. (2007, November). *Communication and representations.* Paperpresented at the National Council of Teachers of Mathematics regional conference. Houston, TX.
40. Capraro, R. M. (2007, November). School science and mathematics. Session in R. M. Capraro (Chair). *What research says about teaching every student math*. With C. Seeley, Symposium presented at the annual meeting of the National Middle School Association. Houston, TX.
41. Capraro, R. M. (2007, November). Project-based learning. Session in M. Caskey (Chair). *Spotlight on research*. With G. Andrews, P. Bishop, L. Daniel, M. Muir, & E. Pate, Symposium presented at the annual meeting of the National Middle School Association. Houston, TX.
42. Caskey, M., Andrews, G., Bishop, P., Capraro, R. M., Daniel, L., Muir, M., & Pate, E. (2007, November). *Research and resources in support of “This we believe”.* Paper presented at the annual meeting of the National Middle School Association. Houston, TX.
43. Capraro, R. M., Capraro, M. M., Zientek, L. R., Carter, T., & Taylor, J. (2007, November). *Prospective teachers’ attitudes and understandings of statistical concepts*. Paper presented at the annual meeting of the School Science and Mathematics Association. Indianapolis, IN.
44. Matteson, S., Capraro, R. M., Capraro, M. M., & Lincoln, Y. (2007, November). *Developing a framework for middle school students’ problem solving justification schemes.* Paper presented at the annual meeting of the School Science and Mathematics Association. Indianapolis, IN.
45. Capraro, M. M., Capraro, R. M., & Cifarelli, V. (2007, September). *What are students thinking as they solve problems?* Paper presented at the annual meeting of the International Conference for Mathematics Education in a Global Community. Charlotte, NC.
46. Capraro, R. M. (2007, April). Contrasting views on the principal’s role for establishing a mentoring program. In E. Foster (Chair). *Impact of mentor training on perceptions of competence and pre-service/inservice mentors and administrators.* Symposium conducted at the annual meeting of the American Educational Research Association. Chicago, IL.
47. \*Capraro, R. M. (2007, March). Comparing ideas of equivalence cross-culturally. Session in S. Matteson (Chair). *≥ to 30 years of research on the equals sign*. In symposium with C. Lubinski. A. Otto (Illinois State University), E. Knuth (University of Wisconsin-Madison), Symposium presentated at the research presession of the 85th annual meeting of the National Council of Teachers of Mathematics. Atlanta, GA.
48. \*Ding, M., Li, X., Capraro, M. M., & Capraro, R. M. (2007, March). *Do elementary children still interpret the “=” sign as an operator*? Presented at the research presession of the 85th annual meeting of the National Council of Teachers of Mathematics. Atlanta, GA.
49. \*Capraro, M. M., Cifarelli, V., Capraro, R. M., Zientek, L. (2006, October). *What are students really thinking as they solve two types of problems?* Paper presented at the annual meeting of the School Science and Mathematics Association. Missoula, MT.
50. \*Capraro, R. M., Capraro, M. M., Harbaugh, A., Carter, T. A., & Piccolo, D. (2006, April). *Rich mathematics classroom conversations: What are middle-school teachers and students actually saying*? Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
51. Capraro, R. M., & Capraro, M. M. (2006, April). *Underlying structures of mathematical representation: A theoretical perspective*. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
52. \*Zientek, L., Capraro, R. M., & Capraro, M. M. (2006, April). *Research findings and issues for alternative certification routes and influences of recent federal legislation*. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.
53. \*Capraro, R. M., Capraro, M. M., Harbaugh, A., Carter, T. A., & Piccolo, D. (2006, April). *Meaningful discourse in middle-school: Linking research to practice.* Paper presented at the research presession of the 84th annual meeting of the National Council of Teachers of Mathematics. St. Louis, MO.
54. Capraro, M. M., Willson, V., Capraro, R. M., & Kulm, G. (2006, April). *Professional development by curriculum differences on student achievement*. Paper presented at the research presession of the 84th annual meeting of the National Council of Teachers of Mathematics. St. Louis, MO.
55. \*Capraro, R. M., Littlefield-Cook, J., Carter, T., Capraro, M. M., Matteson, S., & Lager, C. (2006, February). *Mathematical fluency*. Paper presented at the annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.
56. Capraro, M. M., & Capraro, R. M, (2006, January). Examining middle school teachers’ knowledge of number and algebra. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Tampa, Fl.
57. \*Capraro, M. M., Capraro, R. M., & Piccolo, D. (2005, November). *What makes Tigger a tiger? (and not a leopard)*. Paper presented at the annual meeting of School Science and Mathematics Association. Fort Worth, TX.
58. \*Capraro, R. M., Capraro, M. M., Naiser, E. A., English, S., Carter, T., Harbaugh, A., & Romero, C. T. (2005, April). *Using middle grades student achievement data to support theoretical teacher quality measures.* Paper presented at the presession of the 83rd annual meeting of the National Council of Teachers of Mathematics Research. Anaheim, CA.
59. \*Kulm, G., Capraro, R. M., Capraro, M. M., Carter, T., Li, X., Sahin, A., Zientek, L., English, S., & Jones, C. (2005, April). *How do students in the middle grades represent data?* Paper presented at the 83rd annual meeting of the National Council of Teachers of Mathematics Research. Anaheim, CA.
60. \*Capraro, M. M., Capraro, R. M., & Zientek, L. (2005). *Longitudinal influences of conceptual mathematics on teacher classroom enactments.* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Dallas, TX.
61. \*Carter, T. A., Zientek, L. R., & Capraro, R. M. (2005). *Teaching statistical concepts: Are future teachers prepared*. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Dallas, TX.
62. \*Carter, T. A., Zientek, L. R., & Capraro, R. M. (2005). *Preservice teachers’ understanding of probability and statistics*. Paper presented at the annual meeting of the Research Council for Mathematics Learning. Little Rock, AR.
63. Capraro, R. M., Willson, V., Capraro, M. M., & Wilson, L. (2004, April). *Effects of curriculum variation on structure in middle school mathematics*. Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
64. Capraro, M. M., Capraro, R. M., DeBoer, G., Kulm, G., Manon, J., Morris K., Roseman, J. E., Willson, V., & Wilson, L. (2004, April). *Research issues in the improvement of mathematics teaching and learning through professional development.* Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.
65. Manon, J., Capraro, R. M., & Kulm, G. (2004, April). *Underlying structures of mathematical representation: A theoretical perspective*. Paper presented at the American Educational Research Association Conference. San Diego, CA.
66. Capraro, R. M., Kulm, G. (2004, April). *Relationships between textbook use and student learning of number and algebra ideas in middle grades*. Paper presented at the National Council of Teachers of Mathematics Conference. Philadelphia, PA.
67. \*Capraro, R. M., Kulm, G., Willson, V., Capraro, M. M., Taylor, J. Sebesta, L., Sun, Y., Harbaugh, A., & (2004, April). *Representational models for the teaching and learning of mathematics*. Paper presented at the research presession of the 82nd annual meeting of the National Council of Teachers of Mathematics. Philadelphia, PA.
68. Capraro, R. M., & Capraro, M. M. (2004, February). *Looking at representations through the eyes of middle grades students and their teachers*. Paper presented at the annual meeting of the Research Council on Mathematics Learning. Oklahoma City, OK.
69. Capraro, M. M., & Capraro, R. M. (2003, April). *Exploring the impact of the new APA 5th Edition Publication Manual on the preferences of journal board members*. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL.
70. Capraro, R. M., & Capraro, M. M. (2003, April*). Revising mathematics assessment items for alignment to curriculum standards*. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL.
71. \*Patterson, J. M., Capraro, R. M., Kemp, G. P., Standish, H., & Sun, Y., (2003, April). *The divergent child: Fraction concepts from their perspective.* Paper presented at the 81st annual meeting of the National Council of Teachers of Mathematics. San Antonio, TX.
72. Capraro, R. M. (2003). Finding similarities: Mathematics curriculum comparisons of Taiwan and the United States. Paper presented at the annual meeting of the Research Council on Mathematics Learning. Tempe, AZ.
73. Capraro, R. M., & Capraro, M. M. (2003, January). *Alternative certification: Measuring the impact on post-baccalaureate future mathematics teachers*. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Atlanta, GA.
74. \*Zientek, L. R., Kadhi, T., & Capraro, R. M. (2003, January). *Community college’s expanding role in teacher preparation*. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Atlanta, GA.
75. Capraro, M. M., Kulm, G., & Capraro, R. M. (2002, October). *Middle grades misconceptions in statistical thinking*. Paper presented at the annual meeting of School Science and Mathematics Association. Rochester, NY.
76. \*Capraro, R. M., Kulm, G., Hammer, M., & Capraro, M. M. (2002, October). *The origin and persistence of misconceptions in statistical thinking*. Paper presented at the annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Athens, GA.
77. Capraro, R. M., Kulm, G., & Capraro, M. M. (2002, April). *Investigating the complexity of middle grade students’ understanding of mathematical constructs.* Paper presented at the annual meeting of the American Educational Research Association. New Orleans, LA. (ERIC Document Reproduction Service No. ED 465799)
78. Kulm, G., Capraro, R. M., Capraro, M. M., & Hastings, E. (2002, April). *Increasing student achievement: Building on ideas and promoting thinking about mathematics.* Paper presented at the research presession of the 80th annual meeting of the National Council of Teachers of Mathematics. Las Vegas, NV.
79. Capraro, R. M., Capraro, M. M., & An, S. (2002, April). *Multicultural math fun - learning with magic squares: Incidentally learning number sense, algebra, & analytical reasoning.* Paper presented at the 80th annual meeting of the National Council of Teachers of Mathematics. Las Vegas, NV.
80. Capraro, R. M., Capraro, M. M., & Kulm, G. (2002, April). *Measuring one factor for preservice teachers’ propensity toward teaching elementary/middle school mathematics: Pedagogical content knowledge*. Paper presented at the 29th annual meeting of Research Council on Mathematics Learning, Memphis, TN.
81. Capraro, R. M., Capraro, M. M., Parker, D., Kulm, G., & Raulerson, T. (2002, February). *Conventional wisdom is wrong: Anyone cannot teach and teachers are not born*. Paper presented at the 54th annual meeting of the American Association of Colleges for Teacher Education. New York, NY. (ERIC Document Reproduction Service No. ED 463259)
82. Kulm, G., Capraro, R. M., & Capraro, M. M., Burghardt, R., & Ford, K. (2001, April). *Teaching and learning mathematics with understanding in an era of accountability and high-stakes testing*. Paper presented at the research presession of the 79th annual meeting of the National Council of Teachers of Mathematics. Orlando, FL.
83. Capraro, R. M., & Capraro, M. M. (1998, April). *Caution! 2-d and 3-d geometric construction underway*. Presentation at the 76th annual meeting of the National Council of Teachers of Mathematics. Washington, DC.

## Multi-State Regional

Edmunds, M., Calabrese, J. E. & Capraro, R. (2020, February). *The impact of gender in mathematics achievement in competitive STEM camps.*Paper accepted for presentation at the annual meeting of the Southwest Educational Research Association (SERA), Arlington, TX.

Rugh, M. S., Capraro, R. M., & Capraro, M. M. (2019, February). *Factors that influence deductive reasoning.* Paper presented at the annual meeting of the Southwest Educational Research Association (SERA) conference. San Antonio, TX.

\*Vela, K. N., Bicer, A., Lohmann, E. S., Rodriguez, S., Astorga, R., Fidai, A., & Capraro, R. M. (2018). *The STEAM behind STEM*. Annual Meeting of the Southwest Educational Research Association (SERA) regional conference. New Orleans, LA.

\*Bevan, D., Burlbaw, L., Capraro, R. M., Hinojosa, E., Turner, R. K., & Vela, K. (2018). *Greater than the sum of its parts: Co-constructing undergraduate research opportunities*. Annual Meeting of the Southwest Educational Research Association (SERA) regional conference. New Orleans, LA.

\*Bevan, D., Bhatia, R., Capraro, R. M., Calabrese, J., Craft, A., Fidai, A., & Vela, K. (2018). *Molding mathematics teachers: Theories behind mathematics education***.** Annual Meeting of the Southwest Educational Research Association (SERA) regional conference. New Orleans, LA.

\*Bicer, A., Perihan, C., Nite, S. B., **Capraro, R. M.**, Currens, K. A., Suarez, M. I., & Lee, Y.(2017, February).*The effects of cognitive behavioral therapy on students’ mathematics anxiety***.** Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA.

\*Nite, S. B., Bicer, A., Salazar, K., Lee, Y., Barroso, L. R., & **Capraro, R. M.** (2017, February). *The effect of STEM project-based learning on mathematics teacher instruction*. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA.

\*Bicer, A., Kopparla, M., **Capraro, R. M.,** & Capraro, M. M. (2016, February). *Longitudinal effects of technology integration and teacher professional development on students’ mathematics achievement*. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA.

\*Oner, A. T., **Capraro, R. M.,** & Capraro, M. M. (2016, February). *The effectiveness of the duration of the summer camp: Students’ STEM attitude*. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA.

\*Oner, A. T., Nite, S., Capraro, M. M., & **Capraro, R. M**. (2015, February). *The effect of 3D design on students' belief about “A” of STEAM*.Paper presented at the annual meeting of Southwest Educational Research Association, San Antonio, TX.

\*Bicer, A., Boedeker, P. J., Foran, A. L., Hill, K., Lopez, N., **Capraro, R. M**., & Capraro, M. M. (2015, February). *Examining the effects of STEM PBL on students’ mathematical and scientific vocabulary knowledge*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

\*Navruz, B., Bicer, A., Capraro, M. M., **Capraro, R. M**. (2015, February). *Should students enroll as freshmen in STEM high schools?* Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

\*Bicer, Al, Navruz, B., **Capraro, R. M.,** & Capraro, M. M. (2015, February). *STEM schools vs. non-STEM schools: Examining Hispanic students’ mathematics achievement*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

\*Oner, A. T., Navruz, B., Bicer, A., Erdogan, N., Peterson, C., Capraro, R. M., & Capraro, M. M. (2014, February). *A longitudinal examination of T-STEM academies’ academic performance by education service center.* Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Navruz, B., Erdogan, N., Capraro, M. M., & Capraro, R. M. (2014, February). *Examination of STEM students vs. non-STEM students’ mathematics and reading achievement: A longitudinal study*. Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Navruz, B., Erdogan, N., Sahin, A., Capraro, R. M., & Capraro, M. M. (2014, February). *How do students do on math test when their schools turn into STEM?* Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Han, S., Yalvac, B., Capraro, M. M., & Capraro, R. M. (2014, February). *In-service teachers’ implementation and understanding of project based learning in science, technology, engineering, and mathematics fields: A mixed analysis*. Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Godwin, A. J., & Capraro, R. M. (2014, February). *Exploring reading and mathematics integration in preschool aged children.* Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Bicer, A. Navruz, B., Perihan, C., Capraro, M.M., & Capraro, R. M. (2014, February). *Higher-Order Confirmatory Factor Analysis*. Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Bicer, A. Capraro, M.M., & Capraro, R. M. (2014, February). Distribution Free vs. Non-distribution Free Factor Analysis Methods. Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Peterson, C. A, Oner, A. T., Nite, S., Bicer, A., Capraro, R. M., Capraro, M. M., Morgan, J. R., & Sahin, A. (2013, September). *Aggie-STEM: Improving Student Outcomes with Professional Development that Incorporates STEM-Based Project-Based Learning and Professional Learning Communities.* Paper presented at the regional meeting of the MSP Program, Washington D.C.

\*Younes, R. G., Jones, M. M., Erdogan, N., Navruz, B., & Capraro, R. M. (2013, February). A Longitudinal Study: The impact of STEM PBL on Students’ Science Achievement. . Paper presented at the 36rd annual meeting of the Southwest Educational Research Association. San Antonio, TX**.**

\*Godwin, A. J., & Capraro, R. M. (2013, February). The use of targeted vocabulary development to assist in mathematics register development and geometry achievement. . Paper presented at the 36rd annual meeting of the Southwest Educational Research Association. San Antonio, TX**.**

\*Bicer, A., Gallegos, C., & Capraro, R. M. (2013, February). *Problem solving and the writing process: A case of cognitive complexity*. Paper presented at the 36th annual meeting of the Southwest Educational Research Association. San Antonio, TX**.**

\*Sahin, A., Akgun, O. E., Erdogan, N., Capraro, R. M., Capraro, M. M., & Oner, T. (2013, February). *Effects of a summer camp on students’ motivational factors and learning strategies.* Paper presented at the 36th annual meeting of the Southwest Educational Research Association, San Antonio, TX.

\*Sahin, A., Capraro, M. M., & Capraro, R. M. (2012, February). *STEM clubs and science fair competitions: Effects on post-secondary matriculation.*Paper presented at the annual conference of Southwest Educational Research Association (SERA), New Orleans, LA.

\*Bicer, A.*, Capraro, R. M., & Cetin, S. C.* (2012, February). *Parental Involvement Effects on Students’ Mathematics Achievement.*Paper *presented at the* annual conference of Southwest Educational Research  Association (SERA), New Orleans, LA.

\*Rosli, R., Han, S., Capraro, M. M., & Capraro, R. M. (2011, February). *Preservice teachers' knowledge for teaching fractions*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.

\*Han, S., Rosli, R., & Capraro, R. M. (2011, February). *The textbook analysis on probability: The case of Korea, Malaysia, and U.S. Textbooks*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.

\*Capraro, R. M., Capraro, M. M., Younes, R., & Han, S. Y.(2011, February).*Propensity score matching reveals differences in sustained professional development***.** Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.

\*Capraro, R. M., Capraro, M. M., Younes, R., Han, S. Y., & Garner, K. (2010, February). *A meta-analysis of relational symbols in K-12 textbooks.* Paper presented at the 33rd annual meeting of the Southwest Educational Research Association. New Orleans, LA.

\*Young, J. R., Yetkiner, Z. E, Woods, M., Capraro, R. M., & Lewis, C. W. (2010, February*). An Examination of Mathematics Achievement in an Urban School District.* Presented at the 33rd annual meeting of the Southwest Educational Research Association, New Orleans.

\*Capraro, R. M., Yetkiner, Z. E., Özel, S., Corlu, M. S., Capraro, M. M., & Kim, H. G*.* (2009, February). *International comparison of the equal sign.* Symposium presented at the 32nd annual meeting of the Southwest Educational Research Association. San Antonio, TX.

\*Zientek, L., Yetkiner, Z. E., Capraro, M. M., & Capraro, R. M. (2008, February). *Reporting practice in Teacher Education: The Importance of structure Coefficients*. Paper presented at the 31st annual meeting of the Southwest Educational Research Association. New Orleans, LA.

\*Capraro, R. M., & Yetkiner, Z. E. (2007, November). *Communication and representation*. Paper presented at the regional meeting of the National Council of Teachers of Mathematics. Houston, TX.

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

\*Muzheve, M., & Capraro, R. M. (2007, February). *Do individualized mathematics learning experiences differentially impact home school and public school children*? Paper presented at the 30th annual meeting of the Southwest Educational Research Association. San Antonio, TX.

Capraro, R. M. (2006, February). *Incorporating content literature to improve geometric competence in middle grades*. Paper presented at the 29th annual meeting of the Southwest Educational Research Association. Austin, TX.

\*Capraro, M. M., Piccolo, D., Ross, A., Sahin, A., Louder, H., & Capraro, R. M. (2006, February). *Using middle grades student achievement data to support theoretical teacher quality measures*. Paper presented at the 29th annual meeting of the Southwest Educational Research Association. Austin, TX.

\*Capraro, R. M., Carter, T., Harbaugh, A., & Romero, C. T. (2005, February). *Using middle grades student achievement data to support theoretical teacher quality measures*. Paper presented at the annual meeting of the Southwest Educational Research Association. New Orleans, LA.

\*Baldwin, M., Harbaugh, A., Capraro, R. M., Loving, C., Knight, S., & Thompson, B. (2005, February). *Reviewing manuscripts for publication: A why and how symposium for graduate students*. Paper presented at the annual meeting of the Southwest Educational Research Association. New Orleans, LA.

\*Sun, Y., & Capraro, R. M. (2005, February). *A cross-cultural comparison of variation in mathematical representation in China and the United States*. Paper presented at the 28th annual meeting of the Southwest Educational Research Association. New Orleans, LA.

\*Zientek, L. R., Carter, T. A., Taylor, J. M., & Capraro, R. M. (2005, February). *Future teachers’ understanding of statistical concepts*. Paper presented at the 28th annual meeting of the Southwest Educational Research Association. New Orleans, LA.

Capraro, M. M., & Capraro, R. M. (2005, February). *Persistence of conceptual mathematics teaching*. Paper presented at the 28th annual meeting of the Southwest Educational Research Association. New Orleans, LA.

\*Zientek, L. R., & Capraro, R. M. (2005, February). *Pre-service teachers’ attitudes towards statistics*. Paper presented at the annual meeting of the Southwest Educational Research Association. New Orleans, LA.

Capraro, R. M. (2004, February). *Identifying the factors influencing alternative certification teacher retention*. Paper presented at the annual meeting of the Southwest Educational Research Association. Dallas, TX.

Capraro, R. M. (2003, February). *Confirmatory factor analysis of the theoretical constructs of concepts of number*. Paper presented at the annual meeting of the Southwest Educational Research Association. San Antonio, TX.

Capraro, R. M. (2003, February). *Using PDA to predict post graduation employment locations and ExCET passing conditions of new teachers*. Paper presented at the 26th annual meeting of the Southwest Educational Research Association. San Antonio, TX.

\*Capraro, R. M., & Graham, J. M. (2002, February). *A tutorial on how reliability is estimated within structural equation modeling*. Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX. (ERIC Document Reproduction Service No. ED 462442)

Henson, R., Capraro, R. M., & Capraro, M. M. (2001, November). *Reporting practice and use of exploratory factor analysis in educational research journals*. Paper presented at the annual meeting of the Mid-South Educational Research Association. Little Rock, AK. (ERIC Document Reproduction Service No. ED 466780)

Capraro, R. M. (2001, November*). A review of van Hiele constructs and a parsimonious model for geometric thought*. Paper presented at the annual meeting of the Mid-South Educational Research Association. Little Rock, AK.

Capraro, R. M. (2001, February). *Exploring the influences of geometric spatial visualization, gender, and ethnicity on the acquisition of geometry content knowledge.* Paper presented at the annual meeting Southwest Educational Research Association. New Orleans, LA. (ERIC Document Reproduction Service No. ED451057)

Capraro, M. M., Capraro, R. M., & Henson, R. (2001, February). *Measurement error of scores on the mathematics anxiety rating scale across studies.* Paper presented at the annual meeting Mid-South Educational Research Association. Bowling Green, KY. (ERIC Document Reproduction Service No. ED452207)

Scott, J., Martin, N., Capraro, M. M., & Capraro, R. (2001, February). *When the dissertation is finished . . . getting a job in higher education.* Panel Discussion atthe annual meeting of the Southwest Educational Research Association. New Orleans, LA.

Capraro, R. M. (2000, November). *Commonality and the common man: Understanding variance contributions to overall canonical correlation effects.* Paper presented at the annual meeting of the Mid-South Educational Research Association. Bowling Green, KY. (ERIC Document Reproduction Service No. ED449232)

Capraro, M., Capraro, R. M., & Wiggins, B. (2000, February). *An investigation of the effects of gender, socioeconomic status, race, and grades, on standardized test scores.* Paper presented at the annual meeting of the Southwest Educational Research Association. Dallas, TX. (ERIC Document Reproduction Service No. ED444867)

Capraro, R. M., & Capraro, M. M. (1995, April). *Elementary algebra, my dear*. Presentation at the 73rd annual meeting of the National Council of Teachers of Mathematics. Boston, MA.

## State

Capraro, M. M.,**Capraro, R. M.,** Bevan, D., & Rugh, M. (2019, February). *STEM Leadership* *Mentorship and Coaching.* Presented at the STEM4Innovatiton Conference, College Station, TX

Nite, S. B. & Capraro, R. M. (2015, September). *Exploring Transformations of Functions*. Investigations in Secondary Mathematics and Science - Algebra, Texas A&M University, College Station, TX.

Capraro, R. M. (2015, July). *Observing a STEM PBL class: What to notice*. Investigations in Secondary Mathematics and Science - Algebra, Texas A&M University, College Station, TX.

Capraro, R. M. & Franks, R. (2015, July). *Setting up, maintaining, and trouble-shooting a 3-D printer.* Investigations in Secondary Mathematics and Science - Algebra, Texas A&M University, College Station, TX.

Sahin, A., Oner, A. T., Capraro, R. M. (2013, January). *T-STEM versus Public Schools*. Paper presented at the annual meeting of Texas STEM Conference, San Antonio, TX.

Stearns, L., Mogan, J., Capraro, R. M., & Capraro, M. M. (2012, January). *Aggie STEM center*. STEM Best Practices Conference. Galveston, TX.

Stillisano, J., Capraro, M. M., Goldsby, D., Parker, D., Yetkiner, E., & Capraro, R. M. (2007, October.). *Math TEKS connections.* Paper presented at the Charles A. Dana center's annual mathematics and science higher education conference. Austin, TX.

Capraro, M. M., Goldsby, D., Yetkiner, Z. E., Piccolo, D., Ozel, S., Wright, K., Indiogne, E., & Capraro, R. M., (2007, May). *Overview of the K-4 modules.* Presented at the Texas A&M Mathematics TEKS connection conference. College Station, TX.

Capraro, R. M., Capraro, M. M., & Lamb, C. E. (2001, November). *Digital video: Watch me do what I say!* Paper presented at Fall Teacher Education Conference of the Consortium of State Organizations for Texas Teacher Education. Corpus Christi, TX. (ERIC Document Reproduction Service No. ED459697)

Capraro, R. M., & Capraro, M. M. (2000, July). *Creating a theme: Dinosaurs across reading, mathematics, science, and technology*. Workshop presented at the 60th annual Mississippi Reading Conference. Hattiesburg, MS.

Capraro, R. M., & Capraro, M. M. (1999, July). *Using technology to teach reading and make connections to science, social studies and mathematics*. Workshop presented at the 59th annual Mississippi Reading Conference. Hattiesburg, MS.

Capraro, R. M., & Capraro, M. M. (1998, July). *Meaningfully integrating reading and algebra concepts*. Workshop presented at the 58th annual Mississippi Reading Conference. Hattiesburg, MS.

Capraro, M. M., & Capraro, R. M. (1998, October). *Technologically teaching algebra to elementary students*. Presentation at the annual meeting of the Florida Council of Teachers of Mathematics. Orlando, FL.

Capraro, R. M., & Capraro, M. M. (1997, October). *2-d, 3-d, and all that’s geometry*. Presentation at the annual meeting of the Florida Council of Teachers of Mathematics. Fort Lauderdale, FL.

Capraro, R. M., & Capraro, M. M. (1996, October). *Algebra concepts for teachers*. Presentation at the annual meeting of the Florida Council of Teachers of Mathematics. Fort Myers, FL.

Capraro, M. M., & Capraro, R. M. (1995, October). *Algebra, my dear*. Presentation at the annual meeting of the Florida Council of Teachers of Mathematics. Palm Beach Gardens, FL.

## Local

Capraro, R. M. (2017). STEMulating *Instructional and assessment strategies: Co-constructing solutions in K-12 settings*. Presentation at the Texas A&M Undergraduate Research Expo, College Station, TX.

\*\*Capraro, M. M., Kopparla, M., Vela, K., **Rice, D.,** Bevan, D., Bicer, A., Capraro, R. M., **Caldwell, C**., Kwon, J., Lee, R., & Martin, R. (2017, April). *Problem posing & solving*. Brown bag presentation at Texas A&M University, College Station, TX.

\*\***Martin, A.**, **Monterrosa, T.**, **Steiner, A.**, Capraro, R. M., Capraro, M. M., Morgan, J., Barroso, L., & Boedeker, P. J. (2015, March). *Fostering unconditional opportunities: Female persistence in STEM education in secondary education response.* Poster presented at the Climate Matters Conference, College Station, TX.

\*\*Capraro, M. M., Capraro, R. M., Morgan, J., **Campos, I., Martin, A., & Cain, B.** (2014, March). *Equity and access in K-12 STEM education for all*. Presented at the CEHD Conference: A Dialogue on Climate, Inclusion, and Respect, College Station, TX.

Capraro, R. M., Capraro, M. M., Peterson, C. A., Nite, S. (2013, August). *Building teaching competence in STEM teaching and learning.* Professional development delivered at Harmony School of Innovation, Waco, TX.

Nite, S., Peterson, C. A., Capraro, M. M., Capraro, R. M., (2013, August). *Building teaching competence in STEM teaching and learning.* Professional development delivered at Rapoport Academy, Waco, TX.

Capraro, R. M., Willson, V., & Capraro, M. M. (2005, February). *Effects of curriculum variation on structure in middle school mathematics*. Paper presented at the Texas A&M College of Education and Human Development Research Symposium. College Station, TX.

Capraro, M. M., Pryor, C. P., Capraro, R. M., & Pryor, B. (2004, May). *How do teaching artifacts provide useful insightful information about preservice teachers?* Paper presented at the second annual Regents’ Initiative for Excellence in Education Collaborative Research Conference. Texas A&M University, College Station, TX.

Capraro, M. M., & Capraro, R. M. (1998, March). *Preparing teachers to teach the sunshine state standards in geometry*. Presentation at the Sheridan Vocational School. Broward County Public Schools, Sheridan, FL.

Capraro, R. M., & Capraro, M. M. (1995, January).*Geometry concepts for teachers*. Presentation at the annual meeting of the Dade County Council of Teachers of Mathematics. Miami, FL.

Capraro, R. M., & Capraro, M. M. (1994, January). *Standards based instruction and the competency based curriculum (CBC)*. Presentation at the annual meeting of the Dade County Council of Teachers of Mathematics. Miami, FL.

Capraro, M. M., & Capraro, R. M. (1989, February). *The model school*. Slide presentation - Newark, NJ. Miami-Dade County public schools. Miami-Dade, FL.

#  Invited Presentations

1. Capraro, R. M. (2019, Nov.). *Testing things that fly: Accuracy and distance*. Henderson Elementary, Bryan ISD: Bryan, TX.
2. Capraro, M. M., & Capraro, R. M. (2019, Nov.). *Integrating the language of STEM into elementary classroom practice*. Cannon Elementary, Grapevine ISD: Grapevine, TX.
3. Capraro, R. M., & Capraro, M. M. (2019, Nov). *Aerospace: Mission in design and construction*. Roland Reynolds Elementary, Franklin ISD: Franklin, TX.
4. Capraro, M.M., & Capraro, R. M., (2019, Oct.). Inventing and building knowledge through engineering design. Oakwood Intermediate, College Station ISD: College Station, TX.
5. Capraro, M. M., & Capraro, R. M. (2017, Oct.). *Outreach – facilitating a research, teaching, and service agenda.* Invited address. Swansea University: Swansea, Wales
6. Wood, M., Spencer, J., Weber, K. & Capraro, R. M. (2017, April). Publishing JRME-worthy studies that honor equity. Paper presented at the Annual meeting of the *National Council of Teachers of Mathematics Research Conference*. San Antonio, TX.
7. Capraro, R. M., & Capraro, M. M. (2016, Dec.). The nexus of ethics and STM. Invited address STEM Ethics Summit, Doha, Qatar.
8. Capraro, R. M., (2016, June). *Integrated science, technology, engineering, and mathematics for elementary student success*. Turn Around Schools. Texas A&M University, College Station, Texas.
9. Capraro, R. M. (2016, May). *Catalyzing fundamental STEM paradigms and practices. The nexus of ethical responsibility for co-constructors*. International Conference on Education in Mathematics, Science and Technology (ICEMST), Bodrum, Turkey.
10. Capraro, R. M. Corlu, M. S., Capraro, M. M., Adiguzel, T., & Lavicza, Z. (2016, May). *Panel Discussion: Exploring STEM initiatives and the evolving condition*. International Conference on Education in Mathematics, Science and Technology (ICEMST), Bodrum, Turkey.
11. Capraro, R. M. (2016, May). *Teaching for learning in the accountability millennium and the transitional migration: STEM education*. Commencement speech Bahçeşehir Üniversitesi, Istanbul, Turkey.
12. Capraro, M. M., & Capraro, R. M., (2015, Oct.). STEM Night – Fallbrook Academy – Houston, TX.
13. Capraro, R. M. (2015, May). K-12 education and post secondary opportunities in STEM education. Navarro Elementary School, Bryan, TX.
14. Capraro, M. M., & Capraro, R. M., (2015, May). Inspiring others to be leaders, creating and reaching YOUR goals. Presentation to LeadCon, Palestine, TX.
15. Capraro, R. M. (2015, February). *Learning dynamics of STEM teaching and learning*. Presented at Fallbrook Public Schools. Houston, TX.
16. Capraro, R. M., & Nite, S. B. (2015, February). *Toothpick and catapult STEM activities for secondary students*. Presented at the Bellville ISD Science Night, Bellville, TX.
17. Nite, S. B., Capraro, M. M., Capraro, R. M., Bicer, A., Navruz, B. Metoyer, S., et al. (October, 2014). *Effective STEM teaching and learning: A meta synthesis and meta analysis.*Presented at the STEM Colloquium, Austin, TX.
18. Capraro, M. M., & Capraro, R. M. (2013, May). *Setting educational expectations and experiences*. Commencement Address, Bryan, TX. Navarro Elementary.
19. Capraro, M. M., & Capraro, R. M. (2013, April). *Lessons learned from the development and trials with STEM PBL*. Invited address. Rutgers, The State University of NJ, New Brunswick, NJ.
20. Capraro R. M. (2013, March). *Educational vitality through STEM PBL.* Keynote address. Bahcesehir University, Istanbul, TR.
21. Capraro, R. M. (2012, December). *The importance of STEM learning and project based approaches*. Keynote address. Harmony School of Science, Bryan, TX.
22. Weller-Swanson, K., Caskey, M., Bishop, P., Capraro, R. M., Roe, M., Strahan, D., & Weiss, C. (2012, November). *Pathways to publications: AMLE research advisory committee Session.* Paper presented at the 39th annual conference of the Association of Middle Level Education. Portland, OR.
23. Capraro, R. M. (2012, October). *Reflecting on dialog: The peace alternative.* Closing remarks, Institute of Interfaith Dialog: Friendship Dinner. Pebble Creek Country Club, College Station, TX.
24. Capraro, R. M. (2012, June). *Exploring geometry with toothpicks and gumdrops*. Invited presentation at Making Awesome Things Happen, Austin Community College. Austin, TX.
25. Capraro, R. M., & Capraro, M. M. (2012, June). MATH: Putting the “awesome” back in. Invited Keynote at Making Awesome Things Happen, Austin Community College. Austin, TX.
26. Capraro, M. M., Capraro, R. M., & Morgan, J. (2012, April). *Examining educational effectiveness and teacher preparation to teach STEM*. Invited presentation at Texas State University: College and Career Readiness Initiative. Round Rock, TX.
27. Capraro, M. M., & Capraro, R. M. (2012, January). *Examining educational effectiveness and teacher preparation to teach STEM*. Invited presentation at Harmony Public Schools to the Area Superintendents and principals. Houston, TX.
28. Capraro, R. M. (2011, November). *Highlighting the Successes of AGGIE STEM within Harmony Public Schools*. Invited presentation at the Innovation in STEM education conference, Harmony Public Schools and Cosmos Foundation, Houston, TX.
29. Weller-Swanson, K., Caskey, M., Bishop, P., Capraro, R. M., Roe, M., Strahan, D., & Weiss, C. (2011, November). *Pathways to publications: AMLE research advisory committee Session.* Paper presented at the 38th annual conference of the National Middle School Association/Associate of Middle Level Education. Louisville, KY.
30. Capraro, M. M., & Capraro, R. M. (2011, October). Developing a STEM program using PBL. Invited address at Energize for STEM, Houston, TX.
31. Mertens, S., Caskey, M., Strahan, D., Roe, M., Weiss, S. J., Bishop, P., Capraro, R. M., & Weller Swanson, K. (2011, November). *Research and resources in support of this we believe: Connecting research and practice.* Paper presented at the 38th annual conference of the National Middle School Association/Associate of Middle Level Education. Louisville, KY.
32. Bishop, P., Caskey, M., Roe, M., Strahan, D., Weiss, C., Capraro, R. M., & Weller Swanson, K. (2011, November). *Spotlight on research: AMLE research advisory committee session.* Paper presented at the 38th annual conference of the National Middle School Association/Associate of Middle Level Education. Louisville, KY.
33. Capraro, M. M., & Capraro, R. M. (2011, October). *Aligning mathematics content with CATE Coursework.* Presented at A. J. Moore Academy for the Texas High School Project academies. Dallas, TX. Waco, TX.
34. Capraro, R. M., & Capraro, M. M. (2011, October). *Estimating validity during the instrument design phase.* Presented at the seminar series of the The State of Texas Education Research Center. Station, TX. College Station, TX.
35. Capraro, R. M., Capraro, M. M., & Maxwell, J. (2011, June). *Beginning STEM PBL: An Introductory hands-on workshop with N-spire*. Harmony Public School, Houston, TX.
36. Capraro, R. M. (2011, May). *Mathematics expert review testimony*. Invited testimony to the Texas Board of Education. Austin, TX.
37. Capraro, R. M. (2011, March). *Propensity score matching: Its uses, its value, and its misuses.* Invited presentation at the Symposium on Problems of Social Policy Research Texas A&M University, Education Leadership Research Center, College Station, TX.
38. Capraro, R. M. (2011, January). *Building STEM centers of excellence*. Invited presentation University of Florida, Gainesville, FL.
39. Capraro, R. M., & Capraro, M. M. (2010, October). *Mathematics teacher education and it effect on classroom practice.* Invited presentation Texas A&M University: Department of Mathematics, College Station, TX.
40. Capraro, R. M., & Capraro, M. M. (2010, October). *STEM initiatives and policy: Undoing the ties that bind.* Invited presentation Texas State University, San Marcos, TX.
41. Capraro, R. M., & Capraro, M. M. (2010, September). *Building a meaningful research agenda in STEM fields.* Invited presentation Texas A&M University: Graduate Student Association, College Station, TX.
42. Capraro, R. M. (2010, April). *Collaborating across borders: Bridging the divide*. Teaching Learning and Culture Graduate Student Association Spring Lecture Series, Texas A&M University, College Station.
43. Capraro, R. M., Capraro, M. M., & Morgan, J. (2010, September). *Building communities of learners: STEM project-based learning.* Invited presentation at the Collaborative Mathematics and Science Summit, San Antonio, TX.
44. Capraro, R. M., Capraro, M. M., & Scheurich, J. (2010, February). Aggie STEM center and STEM project-based learning and companion books. Invited presentation during T-STEM Best Practices Conference, Lubbock, TX.
45. Capraro, M. M., Capraro, R. M., & Corlu, S. (2009, November). *STEM project-based learning in urban classrooms.* Invited presentation during Science Education Seminar Series, Texas A & M University, College Station.
46. Capraro, R. M. (2009, October). *Building a STEM project based learning environment in urban high schools.* Nolan Estes Educational Plaza – Dallas Independent School District. Dallas, Texas.
47. Capraro, R. M. (2009, November). *Pathways to publication*. Symposium presented at the 37th annual conference of the National Middle School Association. Indianapolis, IN.
48. Capraro, M. M., Capraro, R. M., Harbaugh, A., Cifarelli, V., Pugalee, D., & Lamm, M. (2009, August). *Developing proportional reasoning across ideas of equality*. Invited address International Symposia Elementary Mathematics Teaching, Charles University, Prague, CZ.
49. Capraro, R. M. (2009, July). *Mathematics education research: A new era not a new paradigm.* Invited address atBoğaziçi University. Istanbul, TR.
50. Capraro, R. M. (2009, June). *Mathematical understanding: The nexus representational models and language.* Invited address at Università Degli Studi di Siena, IT.
51. Capraro, R. M., & Odell, M. (2009, January). *What can Texas STEM centers do for your district*? Invited address presented at the Texas Association of School Administrators, Mid-Winter Conference. Austin, TX.
52. Capraro, R. M., & Capraro, M. M. (2009, January). *Engineering PBL in the secondary classroom: Pollution, dilution, and acceptability.* Invited presentation at the T-STEM best practice conference. South Padre Island, TX.
53. Capraro, R. M., (2008, November). Successful grant writing experiences. Invited presentation at the Fall 2008 Faculty Development Series. College Station, TX.
54. Capraro, R. M., (2008, November). *Keynote: STEM education in the K-12 setting*. Invited presentation at the second annual Harmony Science Fair. Bryan, TX.
55. Capraro, R. M. (2008, October). *Dr. Math and project based learning.* Invited presentation at the *The T-STEM teacher conference*. Austin, TX.
56. Capraro, M. M., & Capraro, R. M. (2008, September). *Recommended reporting practices in teacher education.* Invited presentation at the Educational Research Center Seminar. College Station, TX**.**
57. Capraro, R. M. (2008, August). *Trainer of trainers’ workshop.* Invited presentation at the STEM teacher master teacher workshop. College Station, TX.
58. Capraro, R. M. (2008, July). *PBL: Incorporating research-based best practices in the urban classroom.* Invited presentation at the Waco master teacher conference. College Station, TX.
59. Morgan, J., Capraro, R. M., & Capraro, M. M. (2008, June). *Stage storage PBL,* Invited presentation at the STEM Summer Institute. Dallas, TX.
60. Capraro, R. M. (2008, June). P*roject based learning-Stage storage device.* Invited presentation at the 2008 Summer teacher institute. College Station, TX.
61. Capraro, R. M. (2008, June). P*roject based learning-dilution and water quality.* Invited presentation atthe 2008 Summer Teacher Institute. College Station, TX.
62. Capraro, R. M., Maxwell, G., & Capraro, M. M. (2008, January). *The mission of the NTSTEM center.* Invited presentation at the STEM Leaders Centers Meeting. El Paso, TX
63. Capraro, R. M. (2008, January). *Dr. Math and project based learning.* Invited presentation at the 2008 STEM Teacher Conference. College Station, TX.
64. Capraro, R. M. (2007, November). School science and mathematics. Session in R. M. Capraro (Chair). *Pathways to publication*. With M. Caskey, G. Andrews, P. Bishop, L. Daniel, M. Muir, & E. Pate), Symposium presented at the annual meeting of the National Middle School Association. Houston, TX.
65. Capraro, R. M. (2007, February). *Uniquely situated to make a difference*. Invited address at the Brazos Valley Cooperative Teacher Education Center. Bryan, TX.
66. Capraro, R. M., & Capraro, M. M. (2005, February). *Roll, flip, and slide into geometry*. Invited address at the annual meeting of the Texas Mathematical Association of Two-Year Colleges. Austin, TX.
67. Capraro, R. M., & Capraro, M. M. (2002, February). *TAAS: Analyzing the accountability instrument in the light of geometry misconceptions.* Paper presented at the annual Conference on the Teaching of Secondary Mathematics. Huntsville, TX.
68. Capraro, R. M., & Capraro, M. M. (February, 2001). *Displaying data for visual analysis*. Paper presented at the annual Conference on the Teaching of Secondary Mathematics. Huntsville, TX.
69. deVarona, F., & Capraro, R. (1998, February). *Understanding Hispanic-American contributions to the United States*. Presentation at U.S. Naval Research Facility, Arlington, VA.
70. deVarona, F., & Capraro, R. (1998, December*). Cultural awareness: The Hispanic contribution*. Presentation at George Mason University - Hispanic Heritage Committee. Washington, DC.
71. deVarona, F., & Capraro, R. (1998, December). *Culturally competent: Mexican-American traditions. Are we all Hispanics?* Presentation at the Bureau of Labor and Statistics. Washington, DC.

# STUDENT Presentations (date order)

Student presentations under my direction indicate that I assisted in writing the proposals, guiding the research, revision of the paper, and preparation of the presentation. Since 2007, I have changed my modus operandi and now collaborate with students on all projects.

Brooks, ‘C. (2016, March). From Aggie STEM camp to Texas A&M University. Presented at *Student Research Week*, Texas A&M University, College Station, Texas.

 Rice, D. (2016, March). Spatial drawing task: A study in communication. Poster presentation for *Student Research Week*, Texas A&M University, College Station, Texas.

Nite, S. B., Brooks, 'C., Rice, D., & Bicer, A. (2016, February). Diversity matters in informal STEM experiences. Poster presented at *Climate Matters Conference: A Dialogue on Climate, Inclusion and Respect*. College Station, Tx

Wright, K. B. (2007, February). *Effects of a standards-based approach on early grades preservice teachers’ mathematics knowledge for teaching place value and fraction concepts.* Paper presented at the 30th annual meeting of the Southwest Educational Research Association. San Antonio, TX.

Yetkiner, E. (2007, February). *Meta-analysis of mathematics cognitive development through hierarchical technological representations*. Paper presented at the 30th annual meeting of the Southwest Educational Research Association. San Antonio, TX.

Bowden, K. N. (2007, January). *Designing and implementing a curriculum to efficiently improve minority learning*. Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX.

Matus, O. (2007, January). *Understanding the theoretical concept for algebra: A case in middle grades*. Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX.

Meredith, K. D. B. (2007, January). *The effects of implementing a problem solving strategy in a middle school classroom*. Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX. ***College Level Paper Award***.

Muzheve, M. T.  (2007, January). *Do individualized mathematics learning experiences differentially impact home school and public school children*? Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX.

Wright, K. B. (2007, January). *An analysis of teacher knowledge of fraction concepts in middle grades classrooms*. Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX.

Yetkiner, Z. E. (2007, January). *The impact of technology on mathematics achievement and attitudes*. Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX.

Young, J. R. (2007, January). *Does teacher dress matter*? Paper presented at the 11th annual meeting of the Educational Research Exchange. College Station, TX.

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

Ding, M., & Li, X. (2006, February). *Using teaching time effectively in mathematics classrooms*. Paper presented at the 29th annual meeting of the Southwest Educational Research Association. Austin, TX.

Romero, C. (2005, April). *Who killed Bob Krusty? A dynamic calculus problem-solving event.* Paper to be presented at the 83rd annual meeting of the National Council of Teachers of Mathematics Research. Anaheim, CA.

Ross, A. (2005, February). *Investigating the effects of teaching strategies on middle school students’ understanding of equations*. Paper presented at the 28th annual meeting of the Southwest Educational Research Association. New Orleans, LA.

Gilbert, M. C. (2005, February). *Teacher representational choices effect student mathematical understandings.* Paper presented at the 10th annual meeting of the Educational Research Exchange. College Station, TX.

Romero, C. (2004, October). *Cognitive assessment of solutions to a D.P.S.E*. Paper presented and the annual meeting of School Science and Mathematics Association. Atlanta, GA.

Romero, C. (2003, February). *Student understanding of derivative*. Paper presented at the 26th annual meeting of the Southwest Educational Research Association. San Antonio, TX.

Fannin, D. (2003, February). *The use of manipulatives to increase understanding in high school geometry*. *.* Paper presented at the 8th annual meeting of the Educational Research Exchange. College Station, TX.

Lauzon, K. (2003, February). *Student attitude toward CAS in second semester engineering calculus*. Paper presented at the annual meeting of the Educational Research Exchange. College Station, TX.

Parr, R. (2003, February). *Comparing preparedness for quizzes, actual quiz score, and perceptions about mathematics*. Paper presented at the annual meeting of the Educational Research Exchange. College Station, TX.

Quesenberry, K. (2003, February). *Learning materials disseminated by the professor and their effectiveness on student learni*ng. Paper presented at the annual meeting of the Educational Research Exchange. College Station, TX.

Rodriguez, F. (2003, February). *MAPLE in second semester engineering calculus*. Paper presented at the annual meeting of the Educational Research Exchange. College Station, TX.

Sun, Y. (2003, February).*Comparing the teaching of fractions based on reform and traditional curricula in middle school mathematics*. Paper presented at the annual meeting of the Educational Research Exchange. College Station, TX.

Taylor, J. M. (2003, February). *The opportunities universities have to impact our nation through embracing the remediation of our incoming freshman*. Paper presented at the annual meeting of the Educational Research Exchange. College Station, TX.

Zientek, L. R. (2003, February). *Community colleges and alternative certification routes*. College Station, TX.

Beser, S. (2002, February). *Integrating technology into mathematics: An internet approach*. Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX.

Butler, L. (2002, February). *Identifying motivational strategies: What we learn*. Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX.

Hammer, M. (2002, February). *The complexities of teacher-student and student-student interaction in the mathematics classroom.* Paper presented at the Educational Research Exchange. College Station, TX.

Lewis, L. K. (2002, February). *Using the MBTI as a predictor of mathematics success at a traditionally Black university*. Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX.

Perez, A. I. (2002, February). *The role of mathematics anxiety, gender, and review on mathematics test performance for community college students.* Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX.

Romero, C. (2002, February). *Pedagogical effectiveness of non-traditional educators*. Paper presented at the annual Educational Research Exchange. College Station, TX.

Ruiz, E. C. (2002, February). *Student motivation: A controversial issue.* Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX.

Sun, Y. (2002, February). *Using technology as a tool to reduce math anxiety*. Paper presented at the annual meeting Southwest Educational Research Association. Austin, TX.

Foran, A., Bicer, A., Boedeker, P., Hill, T. & Kopparla, M. (2015, January). *Implementing STEM project-based learning in an inquiry-based classroom*. Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.

Boedeker, P., Bicer, A., Foran, A., Hill, K., & Kopparla, M. (2015, January). *Are you ready for the challenge? Teaching integrated STEM in grades 3-5. A model home and its thermostat.* Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.

Bicer, A., Foran, A., Boedeker, P., Hill, K., & Kopparla, M. (2015, January). *Interdisciplinary STEM project based learning for meaningful understanding.* Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.

Hill, K., *STEM in geometry*. Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.

Kopparla, M. (2015, January). *Preparedness of secondary school students for university level mathematics*. Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.

Lopez, R., Nite, S. B., & Hill, K., (2015, January). *Facilitating inquiry-based learning from theory to practice*. Presented at The 8th Annual Texas STEM Conference: Pathways to Student Success in STEM, Austin, TX.

Hill, K., Foran, A., & Kopparla, M. (2015, February). *What is in the teacher’s closet?* Presented at the Conference on the Teaching of Mathematics 6-12, Huntsville, TX.

Kopparla, M., Hill, T., & Foran, A. (2015, February). *Change in mathematics teaching styles from secondary school to university level.* Presented at the Conference on the Teaching of Mathematics 6-12, Huntsville, TX.

Nite, S. B. (2015, February). *Using sine curves to locate oil pockets for drilling*. Presented at the Conference on the Teaching of Mathematics 6-12, Huntsville, TX.

Reeves, L. (2015, February). *Integrating taxicab geometry into the traditional geometry curriculum*. Presented at the Conference on the Teaching of Mathematics 6-12, Huntsville, TX.

Lopez, R. (2015, February). *Correctly understanding and interpreting ANOVA interaction effects.* Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Kopparla, M. (2015, February). *A review of “corrected” versus “uncorrected” effect sizes*. Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Hill, K. (2015, February). *Common misconceptions about whether restricted range always attenuates r*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Boedeker, P. J. (2015, February). *Evaluating the Van Hiele levels of pre-service mathematics teachers*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Hill, K. (2015, February). *Attitudes toward geometry proof writing.* Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Boedeker, P. J. (2015, February). *Cat’s eye confidence intervals (CECIs) and regular CIs: Some neat but underutilized CIs*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Foran, A. L. (2015, February). *A clear explanation of fixed-, random-, and mixed-effects ANOVA models*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Kopparla, M. (2015, February). *How cognitive off-loading using dynamic geometry tools supports mathematics learning*. Paper presented at the Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Foran, A. L., Bicer, A., & Boedeker, P. J. (2015, February). *Pre-service teachers’ perception of mathematics*. Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Navruz, B., Bicer, A., & Ritter, N. L. (2015, February). *Reliability generalization of the survey of attitudes toward statistics (SATS)*. Southwest Educational Research Association 38th Annual Meeting, San Antonio, TX.

Kopparla, M. (2016, February). *Exploratory and confirmatory factor rotation strategies*. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA

Boedeker, P. (2016, February). *Bootstrap and outliers: A simulation study*. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA

Drey, L. (2016, February). Changes in student affect towards math and science during STEM summer camp. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA

Foran, A. L. (2016, February). Generalizability theory: Introduction, computation, and decision-making. Paper presented at the annual meeting of Southwest Educational Research Association, New Orleans, LA

# Editing and Mentoring Workshops Delivered

2005-2008- Prestigious Mentor/Scholar Award.

2006 Editors' Mentoring Roundtable Session For Early-Career Scholars, American Educational Research Association Annual Meeting.

 Mentees: Matthew Quirk, Eduardo Mosqueda, Sham'ah Md-Yunus, Cristal Jones, Frances Spielhagen, Yan Ping Xin, Naomi Kent

2005 Editors' Mentoring Roundtable Session For Early-Career Scholars, American Educational Research Association Annual Meeting.

 Mentee: Elaine Chan Student Experiences of a Culturally-Sensitive Curriculum', Published in the Journal of Curriculum Studies.

# HONORS, Awards and recognitions

2018 Editor Journal of Urban Mathematics Education

2018 **TLAC Outreach Award $1000**

2018 **Inspiring Programs Award from INSIGHT Into Diversity magazine**

2017 MATH Light Award, Making Awesome Things Happen LLC. Austin Texas

2016 Outstanding Commitment to Excellence and Innovation in Distance Learning by an Organization (4-Year Higher Education) Texas Distance Learning Association

2016 Association of Former Students –College Outreach Nominee

2016 Award for Excellence in eLearning, Global LearnTech Congress

2012 International Conference on Engineering Education Best Paper Award

2010-11 NCES Algebra 9th Grade Study NSF Evaluation Panel Washington DC

2008 Nominee for the Presidential Award of Excellence for Faculty Service to International Students Texas A&M University

2007 Joann Treat Research Award Winner for the College of Education and Human Development Texas A&M University

2007 Educational Testing Service- Visiting Scholar, Princeton NJ

2006-07 President- Southwest Educational Research Association

2006-09 Research Advisory Committee- National Middle School Association

2004-05 Elected Member at Large- Conference Committee Research Council for Mathematics Learning

1. CTE-Montague Scholar Texas A&M University

2001 Appointed to the Regents’ Initiative for Excellence in Education’s Academy for Educator Development; Regents’ Fellow

#### GRADUATE/UNDERGRADUATE STUDENT AWARDS AND RECOGNITIONS

2019 Katherine Vela, *College of Education and Human Development Strategic Research Award, $34,895*

2019 Aamir Fidai, AERA, Shark Tank, Division C Equity and Inclusion and Graduate Student Invitation to Present at the Annual Meeting.

2019 Katherine Vela, *Division K,* Graduate Student Board Member

2019 Katherine Vela, Three Minute Thesis Finalist

2019 Michael Rugh, Southwest Educational Research Association Graduate Student University Representative.

2019 McKennah Edmunds Jim and Betty Sitton Award

2019 Katherine Vela, Southwest Educational Research Association Graduate Student Board Member

2018 **Yujin Lee**, *College of Education and Human Development Strategic Research Award, $34,000*

2018 **Cassidy Caldwell,** Nominated Undergraduate Research Ambassador, Texas A&M University, College Station, TX.

2017 **Cassidy Caldwell, Nominated AERA Undergraduate Research Fellow,** American Educational Research Association, Washington, DC.

2017 **Joni Bailey**, Honor Graduate, Teaching Learning and Culture, Texas A&M University, College Station, TX.

2017 **Devyn Rice,** *Student Research Week*. Second Place. Texas A&M University, College Station, TX.

2017 **Kitty Rutherford**, *The Rankin Award.* North Carolina Council of Teacher of Mathematic Outstanding Service in Mathematics to North Carolina.

2017 **Kitty Rutherford**, *The Order of the Long Leaf Pine*, State of N. Carolina Award for Mathematics Achievement

2015 **Ayse Tugba Oner** TLAC PhD Honor Student Award

2015 Student Research Week Award **Ayse Tugba Oner** 2nd place

2015 CEHD *College of Education and Human Development Strategic Research Award* to **Ali Bicer** $34,000

2014 Diversity Scholarship Award **Ali Bicer**

2012 Distinguished Graduate Student Award College of Education and Human Development. **Sandra Nite**.

2012 Barbara Bush Fellow at TCALL for 2012-2013- **Amber Godwin** $25,000

2010 Student Research Week Session Winner and Second Place overall in CEHD – **Sandra Nite**

2010 Student Research Week Second Place undergraduate overall in CEHD – **Kayla Garner**

2008 Loeb Prize for Teaching Excellence in Mathematics and Science – **Emilie Grimi-**Naiser **$10K**

2008 U.S. Senator Phil Gramm Doctoral Fellowship Award-Winner **Diana L. Piccolo** **$5K**

2007 College of Education and Human Development Nominee for the Philanthropic Educational Organization Scholar Award – **Danielle Kotara**

2007 L. T. Fellows Nominee for International Studies Award - **Melanie Nicole Wood**s

2007 Dissertation of the Year Award – **Linda R. Zientek**

2007 Inaugural College of Education and Human Development, 2007 Outstanding Alumni Early Career Award honoree **Emilie Grimi-Naiser**

2007 Southwest Educational Research Association Best Paper Award- **Meixia Ding & Xiaobao Li**

2007 College Level Research Award – Educational Research Exchange **Krystal Meredith**

2006 College Level Research Award – Educational Research Exchange Shirley Matteson

2004 Department Level Research Award- Educational Research Exchange Shirley Matteson

2005 Fulbright Scholar, Japan, Emilie Grimi-Naiser

#### VISITING SCHOLARS SPONSORED

2007-2008 Hae Gyu Kim Jeju University South Korea

2011-2012 Ozcan Erkan Akgun Sakarya University, Turkey

2012 Nesrin Ozsoy Adnan Menderes University, Turkey

2013 Zeynep Gecu Middle East Technical University, Turkey

2013 Sabhia Yeni Middle East Technical University, Turkey

2016 Arif Comek, Marmara University, Turkey Unable to travel Due to Coup Attempt

2016 Yavuz Erdogan, Marmara University, Turkey Unable to travel Due to Coup Attempt

#### EDITING, JOURNAL, & GRANT Reviewing

2018-2022 Editor *Journal for Urban Mathematics Education*

2014 Editorial Panel *Journal for Research in Mathematics Education* 2014 through April 30, 2017

School Science and Mathematics Associate Editor

 Middle Grades Research Journal Associate Editor

 Reviewer Journal of Mathematical Behavior

 Asia Pacific Educational Review Reviewer

2013 School Science and Mathematics Associate Editor

 Middle Grades Research Journal Associate Editor

2012 Journal for Research in Mathematics Education

 Research in Mathematics Education

 Research in Middle Level Education

 Middle Grades Research Journal

 American Education Research Journal

 Journal of STEM Education

2011 Panel Reviewer National Science Foundation

 Panel Reviewer Institute for Educational Science

 External Reviewer Social Science and Humanities Research Council of Canada

 Journal of Research on Middle Level Education

 Middle Grades Research Journal

 Journal for Research in Mathematics Education

 Editorial Board Middle Grades Research Journal

 Editorial Board Research in Middle Level Education

 Associate Editor School Science and Mathematics

 Journal Reviewer Journal of Mathematical Behavior

 Journal Reviewer Journal of Educational Psychology

 Journal Reviewer American Educational Research Association

 Journal Reviewer Educational Researcher

2010 External Reviewer University of California, SANTA CRUZ – Tenure and Promotion

External Reviewer - City University of New York (CUNY). The Collaborative Incentive Research Grant (CIRG) panel from the office of the Vice-Chancellor for Research.

External Reviewer – Social Sciences and Humanities Research Council of Canada Grant Proposal Reviews

 External Reviewer - Jackson State University's Center for University Scholars Junior Faculty Grant Awards

 *Journal of Mathematical Behavior*

 *Research in Middle Level Education*

 *Educational Researcher*

 *American Educational Research Journal*

2009- Present Review- *Journal of Experimental Child Psychology; Journal of Mathematical Behavior*

2008- Present Reviewer*- Educational and Psychological Measurement*

2007- Present Reviewer- *Journal of Experimental Education*

2007-2012 **Editorial Board** *Research in Middle Level Education- Online*

2006-2017 **Editorial Board** *Middle Grades Research Journal*

2006-2014 **Associate Editor** *School Science and Mathematics*

2005-2006 **Guest Editor** *Reading Psychology*

*2005-Present Reviewer Journal for Research in Childhood Education*

2003-Present Reviewer *Journal for Research in Mathematics Education*

2004-2007 **Associate Editor** American Educational Research Journal

2004-Present Reviewer AERA Annual Meeting Divisions C & K, Middle Level Education Research, Research in Mathematics Education

2003-Present Reviewer RCML Annual Meeting

2002-Present Reviewer AERA Annual Meeting SIGs Bootstrapping, Research in Mathematics Education, Middle Level Education Research, RME, Division C & K

2003-Present Reviewer SERA Annual Meeting

2003-2005 Reviewer Focus on Learning Problems in Mathematics

2002-2004 Reviewer PME-NA 2002 Annual Meetings: Athens, GA and Hawaii

2002-Present Guest Reviewer Psychological Reports: Perceptual and Motor Skills

2001-2003 Reviewer for AACTE Annual Meeting: LA, Atlanta

2001-2002 Reviewer for Louisiana Association of Teachers of Mathematics

2001 Reviewer for MSERA 2001 Annual Meeting: Little Rock

2000-Present Referee for Teaching Children Mathematics.

2000-2007 Referee for School Science and Mathematics Journal

1998 Multicultural Reviewer for Middle School Math, Course 1 & 3, Scott Foresman Addison Wesley: Chicago, IL.

1998 Reviewed Citibank Grants for teachers and teacher educators. Citibank Foundation. Miami, Florida

# GRANTS

###  Submitted or unfunded

2019 ***Governor’s Science and Technology STEM Champions****.*CoPIs with Capraro, M. M., & Barroso, L. The Texas Workforce Commission (Dept. of Labor). Submitted for $100,000, 3/20 - 8/20**.**

2019 **Engaging Children and Families Working on Oceanic Challenges in Informal Learning Spaces for Advancing STEM: Project OLAS.** Co-PI with Drs. Lara, Irby, MM. Capraro. National Science Foundation 2,919,157.00

2019 **Discipline-based Data Science Education: Affective Computing for Built Environment**. Co-Pi with Dr. Changbum. 7/20-6/23, National Science Foundation, $422,369

2019 **The Urban Mathematics Teacher Leadership Conference (UMTLC).** PI with Dr. Young, Young, Capraro, and Lewis. 6/20-10/21, National Science Foundation, $300,000

2019 **O**ptimizing **R**ural **C**oastal High-Need Students’ **A**chievement Via Project ORCA In-Class/ After-School Marine Problem-Solving, Robotics Engineering Competition (*Project ORCA*). National Science Foundation, Co-Pi with Drs. Lara and Irby, 10/2019 – 9/24, $3,999,491.00 (Federal)

2019 **Translating University STEM Initiatives for K-12 Classroom Implementation: Tyler ISD Educational Consultants**. PI with Drs. Barroso, MM, Capraro, and Grad student Yujin Lee. Submitted to Tyler ISD, Tyler, TX, 8/19-721, $200,000

2019 **Project CRISP: Computer Science and Computational Thinking Realized via Informal STEM Programs in High Needs Schools.** Co-Pi with Drs. Lara and Irby, **$3,999,491.00 (Federal)** Submitted to National Science Foundation.5/19 2,446,465.00

2018 **Exploratory, Interactive Pre-calculus Game for Latino Students**. Co PI, with Drs. Andre Thomas and Hadeel Ramadan. Submitted to National Science Foundation 9/19-8-21, $399,929

2018 **Building Instructional Capacity, Leadership, and Student Performance for Academic Content Areas in Economically Challenged Rural Schools: ACERS**. Co PI with Dr. Rafael Lara, Submitted to Institutes of Education Sciences (IES). $10,000,000

2018 **Building Out Opportunities in STEM for Teachers: Impacting Instructional Capacity for Diverse Learners in High-Needs Schools.** Co-Investigator, Submitted to Department of Education. 8/19-9/22, $17,978,494.00.

2018 **Camp Code.** Co-Pi with MM Capraro, Submitted to Texas Workforce Commission. 8/19-7-20 $100,000.

2017 **E*ngaging Pre-service Teachers with STEM PBL in Education Courses***. PI with Capraro, M. M., Bicer, A., & Barroso, L. Submitted to National Science Foundation (NSF), 7/18 – 5/20, $385,135.

2017 ***Advancing Girls in STEM.*** Co-Pi with Capraro, M. M., Barroso, L., and Vela, K. Submitted to High Tech High Heels, 5/18-8/18, $28,000

2017 ***Aggie Undergraduate STEM Education Research (AUSER)***. PI with Capraro, MM, and Barroso, L. Submitted to NSF DUE, 6/1/18- 5/31/21 $332,733.

2017 ***TOP PROPOSAL On Developing Interactive Learning Experience for Pre-Calculus.*** Co- PI with A. Tomas.Tier One Program, Texas A&M University $199640

2016 ***The Aggie STEM Action Research for Mathematics and Science (ARMS).*** Co-Pi with Capraro, M.M., Barroso, L., Nite. S. B., & Bicer, A. Submitted to Spencer Foundation, 5/17-8/17, $50,000

2016 ***Aggie Academy for Governor’s Science and Technology STEM Champions****. Co-*Pi: with Capraro, M. M., Barroso, L., Nite, S. B., & Bicer, A. Submitted to The Texas Workforce Commission (Dept. of Labor) 3/17 - 8/17, $100,000.

2016 ***Collaborative Research: Community Based STEM Pathways to Higher Education.*** Co-Pi with Barroso, L., Nite, S., Capraro, M.M., and Bicer, A***.*** Submitted to National Science Foundation, 9/17-8/21. $2,258,684.00

2016 ***Preservice Mathematics Teacher training with Byte.*** Co-Pi with Capraro, M.M., Barroso, L., Nite. S. B., & Bicer, A. Google Inc. 8/16-3/17, 299,751.

2016 ***Exploring Marine Robotics: Mar-Robotics. Internal Evaluator with*** *Capraro, M.M., and PIs Irby, B., Song, D., Tong, F., Lara, R.,*Submitted to the National Science Foundation 5/17-6/19. $300,000

2016 ***STEM After School for Under Represented Teens (STEM ASURT)***. Co-PI with Nite, S. B., Barroso, L. R., & Capraro, M. M. Grant Pre-proposal submitted to U.S. Department of Education Investment in Innovation (i3). 1/1/2017 - 12/31/2021, $2,493,031.

2016 ***Developing Math Literate Citizens with 21st Century Skills (DMLC2S)***. CoPI with M. M. Capraro. Submitted to Texas Workforce Commission. $500,000, 7/16-12/17.

2016      ***Braitmayer Aggie STEM Teacher Boot Camp****.* CoPI with S. B. Nite. Letter of Intent submitted to Braitmayer Foundation, $35,000. 8/1/2017-7/31/2018.

2016 ***Successful Bridge Program Characteristics***. Co-PI with S. B. Nite. Submitted to Spencer Foundation Small Research Grant, $44, 344. 8/1/2016-10/31/2017.

2015 ***Utilizing Teaching Lab Video Clips in Teacher Professional Development for STEM Project-Based Learning***. Co-Pi with S. Nite, L. R. Barroso, & M. M. Capraro. Submitted to National Science Foundation, $422,511. 9/1/2016 – 8/31/2019.

2015 ***Translational Application of STEM Research for Transformational Secondary Teaching (TASR)***. PI with M. Capraro, P. K. Imbrie, S. Nite, T. Hammond, W. Rupley, & L. R. Barroso. Submitted to the National Science Foundation. 2,867,152.00 12/15

2015 ***Pioneering Research for Informal STEM Models (PRISM)***. Co-PI, with M.M. Capraro, L. Barroso, & S. B. Nite. Submitted to National Science Foundation, $143,974. 4/1/2016-3/31/2017.

2015 ***The National Informal STEM Learning Resource Center @ Aggie STEM (NISLRC@Aggie STEM).*** R. M. Capraro PI, with CoPi L. Barroso, E. McTigue, S. Nite, M. M. Capraro, Z. Eslami, & L. Q. Dixon. Submitted to National Science Foundation. $5,000,000. 3/16 – 2/21.

2015 *Examining Secondary Mathematical Achievement and Cognitive Engagement Structures*. Submitted to National Science Foundation. Co-PI with Capraro, R. M. (PI), Barroso, L., & Capraro, M. M., $500,000. Submitted to NSF for Funding period 4/01/2016-3/31/2019.

2015 ***University Consortium for Promoting and Re-Invigorating STEM Education (UC-PRiSE)****.* PI: R. M Capraro, Role: CoPI with L. Barroso, M. M. Capraro, S. Nite, F. Bernat, & F. Nave. Submitted to the National Science Foundation for $2,873,504, 10/16-8/21 Resubmit.

2015 ***Supporting Mathematics in STEM Education (SMSE)***. Submitted to Texas Higher Education Coordinating Board. CoPI with Nite, S. B., Allen, G. D., Barroso, L., & Capraro, M. M., $747,482. Funding period 2/01/2016-4/30/2017.

2015 ***STEM After School for Under Represented Teens*** *(STEM ASURT)*. Submitted to U. S. Department of Education. PI Nite, S. B. with Co-PI's Barroso, L., Capraro, R. M., & Capraro, M. M., $2,573,489. Funding period 1/01/2016-12/31/2020.

*2015* ***iSucceed***. Submitted as subaward for Grand Prairie ISD grant submitted to U. S. Department of Education. PI Nite, S. B. with Co-PI's Barroso, L., Capraro, R. M., & Capraro, M. M., $707,392. Funding period 1/01/2016-12/31/2018.

2014 **VMC- Professional Development**. Co-PI with MM Capraro. Submitted National Science Foundation $956,293

2014 ***Integrating Computing with STEM for the 21st Century.*** Submitted to National Science Foundation. PI with Sandra Nite, James Morgan, Mary Margaret Capraro. $5,287,204.

2014 ***EXP: Thinking and Learning in Technology Ecologies.*** Submitted to National Science Foundation. CO-Pi with Francis Quek, Richard Furuta, Frank Shipman, and Stephan Cafey. $549,985

2014 ***STEM Teaching and Learning Center: Education, Mathematics and Technology in Basic Education****.* Submitted to CAPES (internal TAMU –exploratory) with L. Barroso, J. Morgan, & MM. Capraro on 1/14 for $50,000*.*

2014 ***Investigation the Video Mosaic Online Model for Teacher Professional Development*.** Submitted to National Science Foundation with Carolyn Mahr, Marjory Palius, & MM Capraro. 7/15-6/19 $964,808.

2013 *Disentangling the Role of Reading in Solving Math Word Problems Using Project LISTEN* Co-Pi with Capraro, M.M., and Rupley, W. **Submitted Institute of educational Sciences Submitted $1,599,546**

2013 *TAMUS Consortium for STEM Teaching and Learning*. TX-MSP. Submitted **Co-PI with Mary Margaret Capraro, Jim Morgan, G. Don Allan, Tim Scott, Sandra Nite, and Cherylann Peterson et al. $10,000,000. Submitted Texas Education Agency.**

#  Funded (Total Funded ~$31,589,701.00 Since 2000)

2018Bridging Today's 6-12 Classrooms To Tomorrow's Greatest Discoveries- TAMU STEM. PI with Drs. Luciana Barroso and Christopher Thompson. **Funded by TAMU University Triad Program $35,000** (6/18-7/19).

2018**Enfranchising under-represented students and parents in Family STEM Nights***.* M.M. Capraro(PI), Luciana Barroso (CoPI), Robert M. Capraro (CoPI), & Christine Stanley (CoPI). **Funded by CEHD Triad Program, $10,000** (10/18-5/20).

2018**Up, Up, and Away: Expanding and Enriching CEHD Global Education Experiences.**CoPI with   Robert “Jay” Woodward (Clinical Assoc. Professor, EPSY); Co-I’s:  Mary Margaret Capraro (TLAC), Robert Capraro (TLAC), Edie Cassell (TLAC), Carly Gilson (EPSY), Helen Muyia (EAHR), Dawn Parker (TLAC), Krystal Simmons (EPSY), and Julie Singleton (TLAC) **Funded by CEHD Catapult Grant $30,000.**1/18- 5/19.

2017 **Aerospace Engineering: Designing and Building Machines That Fly**. Co-PI with Barroso, L., Capraro, M. M., de Miranda, M., & Bicer, A., National Competitive Award. *American Society for Engineering Education*.

2017 ***Experiencing STEM Through the Eyes of Women STEM Professionals.*** Co-Pi with Capraro, M.M., Barroso, L., Nite. S. B., & Bicer, A. High Tech High Heels, 5/17-8/17, $21,000 **Funded for $14,000**

2016 **Lite*racy-Infused Science Using Technology Innovation Opportunity (LISTO), a 5-Year Longitudinal Validation Project***. Co-PI with Lara, R., Irby, B., Capraro, M.M., Tong, F., and Jones, R. Institute of Education Sciences, 8/17-7/21 $12,000,000

2016 ***Snook ISD Follow-up Study and Intervention,*** Co-PI with L. Burlbaw, M.M. Capraro, et al. Catapult Grant. Internal. Submitted $37,931.

2016 ***Mentoring Pathways to Higher Education in STEM (MPHES)****.* PI – Mary M. Capraro, CoPIs – Luciana Barosso, Tarcia Hubert, & Robert M. Capraro. Awarded Department of Teaching, Learning and Culture, Texas A&M University, College Station, TX, Awarded 1/17 – 9/17 $34,040.

2016 ***Supporting Mathematics in STEM Education (SMSE)*.** R. M. Capraro (Co-Pi) with S. B. Nite PI, Allen, G. D., Barroso, L. R. & Capraro, M. M. Texas Higher Education Coordinating Board, Awarded $283,327. 2/01/2016-4/30/2017.

2015 ***Exploration of Snook ISD as a CEHD Lab School***. Co-Pi with L.M. Burlbaw, M. M. Capraro, and 16 others. Submitted to the College Catapult Grant Competition. $11,911. 12/16

2015*State Farm Empowering Underrepresented Students to Enter STEM Fields.* State Farm. Bloomington, IL. PI with M. M. Capraro, A. Bicer, S. Nite, and L. Barroso. **Funded $40,000**, awarded August 2015-August 2016.

2015 *Investigations in Secondary Mathematics and Science* (continuation). CO-PI with Nite, S. B., Allen, G. D., Morgan, J., and Capraro, M. M. Texas Higher Education Coordinating Board, **Funded $333,000**, 2/2015-4/30/16.

2015 *Aggie STEM Summer Camp*. PI with Nite, S. B., Barroso, L. B., and Capraro, M. M. State Contract. **Funded $253,000**. 5/15-4/16.

2015 *Fallbrook ISD Professional Development*. Co-PI with Capraro, M. M. Barroso, L. B., and Nite, S. B. ISD Contract. **Funded 30,000**. 9/15-8/16

2014 Investigations in Secondary Mathematics and Science. Role: CoPI with S. Nite, R. M. Capraro, L. Burlbaw, C. Peterson, L. Walters, M. Green, & D. Allen. Texas Higher Education Coordinating Board. **Funded for $256,000**, 2/14-4/15.

2014 Math and Science Partnership. *Aggie- Science, Technology, Engineering and Mathematics* *Center*. Co-PI with Drs. M. M. Capraro, and Morgan, Funded **$576,985** 7/14-8/15.

2013 *STEM Collaborative For Teacher Professional Learning.* Texas Higher Education Coordinating Board, PI with MM Capraro, Waxman, Morgan, Stillisano, and Scott. **Funded $769,422** 6/13-8/15

2013 *Developmental Ed Dem Program*. Texas Higher Education Coordinating Board.**Funded 49,996.** Pi RM Capraro, with MM Capraro & N. Chaudhuri. 1/13-3/15

2013 *Research Development and Data Dissemination at Harmony Public Schools*. Harmony Public Schools. PI with Sahin, A. **Funded $42,000. 8/13-7/14**

2013 Math and Science Partnership. *Aggie- Science, Technology, Engineering and Mathematics* *Center*. Co-PI with Drs. M. M. Capraro, and Morgan, Funded **$621,191** 7/13-8/14.

2013 *Snook ISD - Stem Training*. PI, with MM Capraro, Snook ISD, **Funded $12,000**, 3/1/13 – 8/30/13

2013 *THECB-Developmental Education*. Funded. CO-Pi withMary Margaret Capraro. Texas Higher Education Coordinating Board, **Funded 9,999. 1/13-3/15**

2013 STEM Training at Akins HS **PI** withJ. Morgan and MM Capraro. Austin ISD Funded **$10,000. 1/13-12/13**

2013 *Evaluation of the Accelerate Texas, the Adult Basic Education Innovation Grant Program*. Funded Co-Pi. Texas Higher Education Coordinating Board, **Funded $250,000. 9/13-10/15**

2013 *Akins High School Professional Development.* **PI w**ith J. Morgan and MM Capraro Austin ISD Funded. **$3,201 5/1/13 – 5/30/13**

2012 *Developmental Education Demonstration Project Evaluation 2012-2015* **: Co-Pi** with Jim Dyer, M. M. Capraro**.** Texas Higher Education Coordinating Board**, Awarded $949,998,  11/1/12 – 3/15/15**

2012 STEM *MS Online Degree Program Planning Grant*. Co-PI with Carol Stuessy**, College of Education and Human Development. Awarded $10,000**

2012 *Aggie STEM Summer Camp*. Co-PI with M. M. Capraro, & J. Morgan. **Energized for STEM Academy, Inc. Awarded $110,000**

2012 *Akins High School One-Day STEM Experience on A&M Campus.* Austin ISD Funded. **$3,201 5/1/12 – 5/30/12**

2011 Math and Science Partnership. *Aggie- Science, Technology, Engineering and Mathematics* *Center*. PI with Drs. M. M. Capraro, and J. R. Morgan, Awarded **$800,000 8/1/11- 7/31/13**

2011 *Comprehensive Review of P-16 College Readiness and Success Initiatives.* 2011-2012: Co-PI with Jim Dyer and M.M. Capraro Texas Higher Education Coordinating Board. Awarded August 11, 2011- **$199,193, 9/1/11-8/31/12**

2011 *Aggie STEM Summer Camp*. Co-PIwith M. M. Capraro, J. Morgan, & J. Scheurich**. Energized for STEM Academy, Inc. Awarded $135,000**

2011 *Developmental Education Demonstration Project Evaluation 2011-2012* **: Co-Pi** with Jim Dyer, M. M. Capraro.Awarded April, 2011 to Texas Higher Education Coordinating Board**, Awarded $399,998,  6/10/11 – 10/31/12**

2011 *Fostering TAMU Pre‐Service Teachers’ Awareness of STEM College and Career Readiness Standards*. Co-PI with MM. Capraro and James Morgan. Texas Higher Education Coordinating Board - College and Career Readiness Initiative: Faculty Collaborative in Mathematics (CCRIFCM) **Awarded $ 10,000 5/1/2011-4/30/2012**

2010 Math and Science Partnership. *Aggie- Science, Technology, Engineering and Mathematics* *Center*. Co-PI with Drs. M. M. Capraro, Morgan, and Scheurich **Awarded $ 500,000**

2010 Energized for STEM Academy Inc. *Aggie STEM Summer Camp*. **PI Awarded $103,000 State Funding.**

2009 International Research Travel Assistance Grant. *Algebraic Equivalence in Italy & Turkey: Building Bridges Through Research to Improve Early Algebraic Teaching and Learning in the U.S.* **PI Awarded $1,700 Local Funded**

2008 Texas Education Agency, *M-STAR,* **Awarded $900,000 State Funded** 2008-2010

2007 *Researched-based Inquiry in Elementary Teacher Preparation Quality Enhancement*. **Co-PI** with Dr. Goldsby **Awarded $10,000 State Funded**

2007 *New Traditions*. **Co-PI** with Drs. Lewis and Carpenter, Davis, Collins, Quiroz **Awarded $349,000:** 2007-2010

2006 Texas Education Agency. *Texas- Science, Technology, Engineering and Mathematics Center. Supplemental grant*. **Co-PI** with Drs. Scheurich and Slough **Awarded $200,000** 2006-2010

2006 Texas Education Agency. *North Texas- Science, Technology, Engineering and Mathematics* *Center*. Co-PI with Drs. Scheurich and Slough **Awarded $ 1,000,000**

2005 College of Education and Human Development. *Research Methodologies Training Workshop for Professional Development*. PI Local Funding. **Awarded $1,000**

2004 Regent’s Initiative Collaborative Grant. *Longitudinal Influences of Conceptual Mathematics on Teacher Classroom Enactments?* Local Funding. Application. With CoPI with Dr. Mary M. Capraro. Local Funding. **Awarded  $18,600**

2003 Regents’ Initiative Collaborative Grant. *Identifying the Factors Influencing Alternative Certification Teacher Retention.* Local Funding. **Awarded** **$10,000.00.**

2003 Regents’ Initiative Collaborative Grant CoPI with Ms. Linda Zientek, Ms. Robyn Bassett, Drs. Lynn Burlbaw and Mary Margaret Capraro. Local Funding. **Awarded $11,000**

2002 Regents’ Initiative Collaborative Grant. *Alternative Certification: Measuring Influence and Impact on Teacher Preparation.* Local Funding. Collaboration with CoPIs Ms. Linda Zientek, Ms. Becky Darcy, Drs. Nancy Allen, Lynn Burlbaw, and Mary Margaret Capraro. Local Funding. PI **Awarded** **$11,000**

2002 Regents’ Initiative Fellowship Grant. *Systemic Integration of Technology in the Preservice Teacher Education Program*. Submitted in coordination and cooperation Co-PI with Drs. Nancy Allen and Mary Margaret Capraro. Local Funding. PI **Awarded $10,000**

2001 *Item Analysis and Revision Protocol Development: A Case Study.* Washington, DC:AAAS, PI National Funding Subcontract. **Awarded $19,343.**

2001 International Travel Grant. (College of Education-IPECC). *Investigating Cultural Phenomena Related to Mathematics Achievement and Reform Textbook Selections in the Bahamas: A Contrast of an American Study*. PI **Awarded $500.00**

2001 Regent’s Initiative Grant. *Effective Teacher Preparation: Comparison of Professional Development School Interns, Integrated Methods' School Interns and Year-long Inquiry Project Interns and their Effect on Student Success in Public School.* ***Awarded $40,000.00.***

2000 Professional Enhancement Grant. College of Education. Local Funding. Awarded $700.00

2000 Woman’s History Month Grant. Endowment U. of Southern Mississippi. **Awarded $750.00**

1998 Title VI Region Grant - Teachers Teaching Teachers. State Funded. PI Awarded **$60,000**.

1997 Title VI grant in cooperation with Florida International University for Teacher Training. State of Florida. PI **Awarded $10,000**

1994 Retrofit for Technology Grant. State of Florida. PI **Awarded $263,000.**

1994 Eisenhower II Mathematics Cooperative Planning Grant, District funding. PI **Awarded $1,200**.

1993 Tomorrow’s Technology Today! Apple Education Foundation. PI **Awarded $120,000**.

1993 Eisenhower II Math Grant awarded. District Funding. PI **Awarded $1,200**,

1993Technology Incentive Grant awarded, State of Florida. PI **Awarded $90,000**

# SERVICE

**2019 National or International Service to the Profession**

 External Reviewer The University of Mississippi

 Reviewer Journal for Research in Mathematics Education

 Editor Journal of Urban Mathematics Education

 National Science Foundation Review Panel

 National Council of Teachers of Mathematics Research Conference Paper Reviewer

 American Educational Research Association Conference Reviewer

 Frontiers in Education Conference Proceedings Reviewer

 TEAM Competition for Middle Schools Host and Co-organizer

### University

Center for Integration of Research, Teaching and Learning Committee

 Community of Scholars Office of Graduate Studies

 Engineering Education Faculty

Engineering Education Faculty Outreach Task Force: Michael Johnson (head), Daniel Alge, Robert M. Capraro, Mary Margaret Capraro, Dale Cope, Brandis Keller, Luciana Barroso, Malini Natarajarathinam

Engineering Education Research Task Force: Dale Cope (head), Tracy Hammond (co-head), Robert M. Capraro, Mary Margaret Capraro, Luciana Barroso, Kristi Shryock, Brandis Keller

Three Minute Thesis Competition Judge

Mi Casa/Su Casa

### College

College 50th Anniversary Committee

 Global Experiences Committee

 College Faculty Mentor STAR Program Dr. Noemi Mendoza Diaz

### Department

STEM On-line Certificate Faculty Supervisor

Chair Tenure and Promotion Committee

Graduate Faculty Committee for Master of Science

New Graduate Student Orientation -2014-19

EdD Steering Committee

Faculty Mentoring Chair

Chair Faculty Evaluation Committee

Search Committee for Aggie STEM Editor

Coach for Drs. Yalvac and Kwok

Mentor for Dr. Kuo

### Community

Caring Canines St. Joseph Hospital

**2018 National or International Service to the Profession**

 Reviewer *Eurasia Journal of Mathematics, Science, and Technology Education*

 Reviewer *Journal for Research in Mathematics Education*

 Reviewer *Journal of Mathematical Behavior*

 External Reviewer University of So. Carolina Beaufort

 Reviewer *American Educational Research Journal*

Conference Reviewer *American Educational Research Association, Frontiers in Education, School Science and Mathematics, Southwest Educational Research Association, National Council of Teachers of Mathematics*

 Reviewer National Science Foundation

### University

Center for Integration of Research, Teaching and Learning Committee

Mi Casa es Su Casa Graduate Student Host

International Student Association Faculty Host

 Organizer STEM 4 Innovation Conference

 Community of Scholars OGS Host

 Member of the Academic Civil Rights Investigation Committee (ACRIC)

 Three Minute Thesis Competition Judge

 Hour of Code Co-Organizer

### College

College 50th Anniversary Committee

College Tenure and Promotion Committee (College) 2-years

College Principle Investigators Committee (3-year term)

 College Committee Promoting the Welfare of Faculty of Color

 Global Experiences Committee

 College Faculty Mentor STAR Program

### Department

STEM On-line Certificate Faculty Supervisor

Master of Science Degree Faculty Coordinator

Chair Tenure and Promotion Committee

Co-Chair Mentoring and Coaching Policy Committee

Graduate Faculty Committee

 Chair A-1 Revision Committee

 Co-Host TEAMS Competition

### Community

Aggie STEM @ the Museum – Girls STEM day – Mayborn Museum, Waco, TX

ChiliFest Volunteer

Caring Canines St. Joseph Hospital

Lector St. Teresa’s Catholic Church

Aggieland Pets with a Purpose

**2016** **National or International Service to the Profession**

Journal for Research in Mathematics Education Editorial Board

Reviewer Texas Education Agency

Reviewer National Science Foundation

Reviewer Institute of Education Sciences

Reviewer Frontiers in Education

Reviewer National Council Teachers of Mathematics

External Reviewer University of Toledo

Reviewer American Educational Research Association

**University**

Mi Casa es Su Casa Graduate Student Host

International Student Association Faculty Host

University 3-Minute Thesis Judge

Diversity Fellowship Competition Reviewer

University TSOC Committee

Inter-College Committee on Undergraduate Teaching College of Science and

University Three-Minute Thesis Competition (Organizing Committee)

TAMU World of STEM Opportunities Organizing Committee STEM for Innovation

Hour of Code -Committee

**College**

College 50th Anniversary Committee

College Wide Doctoral Advising Load Committee

College Catapult Grant Reviewer

College Tenure and Promotion Committee (College) 2-years

RMS Certificate Working Group

Council of Principle Investigators Committee (3-year term)

College Search Committee ABBA

College Representative to AAU Undergraduate STEM Education Initiative

EAHR Search Committee

 **Department**

A1- Document Review Committee

Post Tenure Review Document Development Committee

Science Education Search Committee

 **Community**

Root Cause Analysis Snook ISD

Provide Online Professional Development for Continuing Education Credit for Teachers Across Texas through Aggie STEM

 Judge for the Texas State Science and Engineering Fair

F1 in Schools World Championships Judge, Austin Texas

**2015** Hour of Code -CommitteeCollege Doctoral Program Committee
University TSOC CommitteeUniversity Three-Minute Thesis Committee

College Principle Investigators Committee (3 year term)
College of Education and Human Development Center Review Committee
Search Committee for EAHRCommunity of Scholars Table Host for Office of Graduate and Professional Studies

Three-Minute Thesis Competition (Organizing Committee)

Advanced Research Methods Certificate Revision Committee (College)

 Texas Science and Engineering Fair Judge, San Antonio, Texas

 External Reviewer Old Dominion University

 External Reviewer University of Tennessee

 Faculty Connect | Grad Camp 2015 Discussant (University)
College Search Committee ABBA (Hired Mary Seifert)

 Department A-1 Revision Committee

 Developed STEM Masters Program

**2014** External Reviewer University of Missouri, Columbia

Editorial Board Member Journal for Research in Mathematics Education 3-year term

External Reviewer Texas A&M Kingsville, Kingsville

 Faculty Development Leave Committee

 Journal Reviewer Journal for Research in Mathematics Education

Journal of Mathematical Behavior

Judging Information for 3 Min. Thesis Comp

Faculty Development Leave Committee

Capraro, Capraro, Thompson, Research Conference

EdD Steering Committee

EdD Applicant Screening Committee

Hosted the Climate Committee's Progressive Dinner at my home

**2013** External Reviewer Baylor University, Waco

External Reviewer U. Texas Brownsville, TXExternal Reviewer Mount St. Mary College, NY

External Reviewer Arizona State University, AZ

External Reviewer University of Massachusetts, Amherst

TLAC EdD Steering Committee

TLAC Evaluation Committee

TLAC Graduate Committee

Co-Chair STEM Best Practice Conference (San Antonio)

Reviewer Journal of Educational Psychology

Reviewer Journal of Mathematical Behavior

 Reviewer Journal for Research in Mathematics Education

 Reviewer American Educational Research Journal

Advisory Board Member Harmony Public Schools

Reviewer Journal of African American Studies

Chair Cyber-Learning Search Committee

Chair Call for Editorial Services

Reviewer Research in Middle Level Education On-line

Co-Chair Celebration of STEM Education Week

Co-Chair STEM Summer BootCamp for Teachers

Conference Paper Reviewer SSMA, AERA, NCTM

NSF Grant Proposal Reviewer

SSMA Policy Committee

Reviewer Journal of Developmental Education

External Reviewer Northern Illinois University

Reader Navarro Elementary Parents Back to School Nite

Graduation Speaker Navarro Elementary

**2012** Advisory Board Member Harmony Public Schools

External Reviewer University of North Carolina Charlotte

 External Reviewer Illinois State University

Reviewer Journal of Educational Psychology

 Reviewer Journal for Research in Mathematics Education

 Reviewer American Educational Research Journal

 TLAC Evaluation Committee

TLAC Graduate Committee

Innovation in STEM Education Conference, Advisory Board Member

 Co-Chair STEM Best Practice Conference (San Antonio)

 Research Advisory Board Member Final Year

 TLAC EdD Steering Committee

 Conference paper reviewer, AERA, NCTM, SSMA

**2011** Innovations in STEM Education Conference, Advisory Board MemberNational Middle School Research Advisory Board
Council Member of the Middle Level Education Research Special Interest Group of the American Educational Research Association

College Committee on Post Tenure Review- Develop a College Policy

 College Committee on Identification of a Cyber Learning Specialist

 Texas Partners in P-16 Mathematics (TPiPM)

 Reviewer Educational Administration Quarterly

 Texas Education Agency Mathematics Expert Reviewer

 Graduate Committee

 Capraro, Capraro, Gonzalez, & Thompson Educational Research Conference

 Mathematics Program Reviewer – Sitka Public Schools

 External Reviewer – T&P University of North Texas

 Evaluation Committee (revised A1)

**2010 Invited Workshop -** Editor’s Roundtable Meeting – Sam Houston State UniversityExternal Member for Cathleen Rossman Rutgers Graduate School of EducationBrown-Rudder and Gates-Mueller Outstanding Student Award Selection Committee
Catalyst Grant Review Committee Chair

Reviewer for Standard Research Grants program of the Social Sciences and Humanities Research Council of Canada (SSHRC)

Council of Principal Investigators CEHD Chair
Capraro, Capraro, Gonzalez, & Thompson Educational Research Conference

iSWEEEP Judge and conference planning committee
Institute of Education Sciences – Mathematics and Science Review Panel

National Science Foundation- REESE Review Panel

Science Fair Judge Harmony Bryan

**2009** University Committee on Illegal Discrimination

Capraro, Capraro, Gonzalez, & Thompson Educational Research Conference

iSWEEEP Judge and conference planning committee

**2008-2009** University Committee on Illegal Discrimination

University Level AFS Awards Committee

Teaching, Learning and Culture Assistant department head for research

2008 CEHD Outstanding Alumni Selection Committee

University Search Advisory Committee for CIS Director & Deputy CIO (on-going)

iSWEEEP Judge 5/1-5/4/08 and conference committee one year planning

Harmony Schools Science Fair Judge

Chair – Council of Principle Investigators

Deans Council - Member

**2007-2008** College of Education and Human Development Council of Principal Investigators (8/31/07-8/31/10)

College of Education and Human Development Research Methods Certificate Committee

 University Search Advisory Committee for CIS Director & Deputy CIO

 Teaching Learning and Culture Evaluation Document Committee

**2006-2007** President Elect/Program Chair-*Southwest Educational Research Association*

National Middle School-Research Advisory Board Conf. Proposal Reviewer.

Department Research Core Committee

 Appointed to the *Research Advisory Board* to the *National Middle School Association*(2007-2010).

 Undergraduate Curriculum Committee **(**2007-2010)

 College Level Technology Work Group

**2005-2006** Search Committee Science Education

 College Task Force on Graduate Studies Report

 Middle Grades Research Journal *Editorial Board*

 Associate Editor School Science and Mathematics (2006-2009)

* 1. SERA Newsletter Editor (2005-2007)
	Committee Member Hispanic Research Issues SIG Award for Research in Elementary, Secondary or Postsecondary Education 2005
	Editorship Proposal of SSMJ to TAMU with Gerald Kulm Awarded
	RCML Conference Committee (2004-2007)

SSMA Policy Committee (2005-2007)

Consolidated the TLAC Graduate Faculty List

College Task Force On Graduate Studies

Search Committee Mathematics Education

Search Committee Science Education

* 1. AERJ Associate Editor (2003-2007)

Revised Mathematics Education Courses

Department Evaluation Committee

**2002-2003** Proposal to bring AERJ editorship to TAMU with Bruce Thompson.

Student Evaluation Committee (member)

 Strategic Planning Committee (member)

 Department Head Search Committee (member)

 Mathematics Education Benchmarking Report

 Strategic Planning Committee

 Will Ferrell Scholarship Fund Committee (member)

 Educational Research Exchange (Faculty Representative)

 TLAC Student ERE Research Award (Chair)

 Outstanding Support Staff Committee (member)

 Technology Committee (member)

 Student Services Committee (member)

**2001-2002**

 Outstanding Support Staff Award Committee (member)

 Appointed GCR of Talal M. Alkharobi (Computer Engineering)

 Student Research Week In-field Judge

 Educational Research Exchange Awards Committee (member)

 Educational Research Exchange Outstanding Student Paper Committee (member)

 College Committee on Graduate Student Recruitment (member)

 Faculty Search Committee for tenure track and clinical faculty positions (member)

**2000-2001**

 Faculty Evaluation Committee

 Student Research Week Out-of-Field Judge

 Field based school involvement

 Mathematics Coordinator (Field based programs)

 Team Leader (Field based programs)

 Elementary Programs Committee

 Technology Committee

Developing a Summer Masters Program in Mathematics Education with Dr. P. Larke and Gerald Kulm

# Curricular Revisions

EDCI 628 Analyzing and Reporting Field Based Research (Update for On-line EdD)

EDCI 628 Analyzing and Reporting Field Based Research (Update for On-line)

EDCI 627- Teaching and Learning Data Analysis and Unct. Cpts. (Update for Ed.D online.)

EDCI 627- Teaching and Learning Data Analysis and Unct. Cpts. (Revision for Ed.D online.)

EDCI 622- Theories of Teaching and Learning Mathematics

EDCI 621- Teaching and Learning Space, Dimension, and Measurement Concepts

EDCI 689- Mathematics Research in Application

EDCI 489- Special Topic- Middle Grades Mathematics Problem Solving

EDCI 689- Theories of Teaching and Learning in Mathematics

EDCI 624- Assessing Cognitive Structures Related to Learning & Teaching Mathematics

EDCI 625- Teaching and Learning Mathematics with Special Learners

EDCI 689- Analyzing and Reporting Field-based Research

EDCI 690- Theory of C&I Research

EDCI 627- Teaching and Learning Data Analysis and Uncertainty Concepts

EDCI 623- Teaching and Learning Patterns and Change

###### **Courses Taught**

**2019**

*EDCI 628*

*MASC 450 (co-Taught with Mr. Aamir Fidai)*

**2018**

EDCI 621

2 course buyouts

**2017**

2 course buyouts

EDCI 689

EDCI 622

**2016**

EDCI 627

EDCI 628

EDCI 689

1 course buyout

**2015**

3 Course Buyouts

EDCI 627

**2014**

2 Course Buyouts

EDCI 627 PhD

EDCI 621 PhD

**2013**

EDCI 627 EdD Spring

3 Course Buyouts

**2012**

2 Course Buyouts (Spring)

EDCI 627 Fall

EDCI 628 Fall

MASC 450 Fall

**2011**

EDCI 623 (Fall) Teaching and Learning Pattern and Change Concepts

EDCI 628 (Fall) Analyzing and Reporting Field-Based Research

EDCI 489 (Summer) Problem Solving in STEM Teaching and Learning (Study Abroad Prague CZ)

EDCI 689 (Summer) Research in STEM Education (Study Abroad Prague CZ)

EDCI 628 (Spring) Analyzing and Reporting Field-Based Research

**2010**

EDCI 689 (Spring) STEM Teaching and Learning

EDCI 627 (Spring) Teaching and Learning Patterns and Change Concepts

EDCI 627 (Fall-online EdD) Teaching and Learning Patterns and Change Concepts

EDCI 689-601 (Fall) Disciplinary Knowledge and Research in Curriculum and Instruction

**2009**

Sabbatical (Spring)

**2008**

EDCI 623 (Fall) Teaching and Learning Pattern and Change Concepts

EDCI 628 (Fall) Analyzing and Reporting Field-Based Research

**2007-2008**

EDCI 628 (Fall) Analyzing and Reporting Field-Based Research

EDCI 627 (Spring) Teaching and Learning Data Analysis and Uncertainty Concepts

Assistant Department Head December - August

EDCI 625 (Summer) Teaching and Learning Mathematics with Special Learners

**2006-2007**

EDCI 628 (Fall) Analyzing and Reporting Field-Based Research

EDCI 627 (TTVN and Local) (Spring) Teaching and Learning Data Analysis and Uncertainty Concepts

**2005-2006**

MASC 450 (Fall) Integrated Mathematics

EDCI 628 (Fall) Analyzing and Reporting Field-Based Research

TEFB 407 (Fall) Teaching Field Based Secondary Mathematics Methods

EDCI 685 (Spring) Special Topics

EDCI 627 (Spring) Teaching and Learning Data Analysis and Uncertainty Concepts

Course Release (Spring)

EDCI 624 (May Mester) Assessing Cognitive Structures Related to Learning and Teaching Mathematics

EDCI 625 (Summer I) Teaching and Learning Mathematics with Special Learners

**2004-2005**

EDCI 689 (Fall)

Course Release from Previous Summer (Fall)

EDCI 450 (Fall) Integrated Mathematics

EDCI 450 (Fall) Integrated Mathematics

EDCI 690 (Spring) Theory of Curriculum and Instruction Research

EDCI 621 (Spring) Teaching and Learning Space, Dimension, and Measurement Concepts

EDCI 407 (Spring) Teaching Field Based Secondary Mathematics Methods

**2003-2004**

Course Release from Previous Summer (Fall)

Course Buyout (Fall)

EDCI 690 (Spring) Theory of Curriculum and Instruction Research

Course Buyout (Spring)

EDCI 624 (May-Mester) Assessing Cognitive Structures Related to Learning and Teaching Mathematics

EDCI 625 (Summer I) Teaching and Learning Mathematics with Special Learners

EDCI 627 (689) (Summer I) overload Teaching and Learning Data Analysis and Uncertainty Concepts

**2002-2003**

EDCI 622 (Fall) Theories of Learning and Teaching Mathematics

EDCI 689 (Spring) Mathematical Thinking and Learning- New Constructs

EDCI 624 (Summer I) Assessing Cognitive Structures Related to Learning and Teaching Mathematics

EDCI 625 (Summer II) overload Teaching and Learning Mathematics with Special Learners

**2001-2002**

EDCI 622 (Fall) Theories of Learning and Teaching Mathematics

EDCI 689 (Spring) 5.0

EDCI 489 (Spring) overload 3.80

EDCI 621 (Summer I) Teaching and Learning Space, Dimension, and Measurement Concepts

EDCI 685 (Summer II)

EDCI 485 (Summer II)

**2000-2001**

TEFB 412 (Fall & Spring) Teaching Field Based Elementary Math Methods

TEFB 413 (Fall & Spring) Teaching Field Based Elementary Science Methods

EDCI 619 (Summer I) Teaching and Learning Number and Quantity

**Overall**

Undergraduate 3.87; 4.02; 3.66; 3.80

Graduate 4.87; 4.92; 4.89; 5.0

**Instructor is well prepared for class**

Undergraduate 4.0 4.24; 4.40

Graduate 5.0; 5.0; 5.0

CONSULTING

*2001-2002 Item Analysis and Revision Protocol Development: A Case Study.* Washington, DC: American Association for the Advancement of Science.

*2001 Content Analysis.* Washington, DC: American Association for the Advancement of Science

2001 *Reliability Study for Content Analysis*. Washington, DC: Association for the Advancement of Science.

LICENSURE State of Florida

PROFESSIONAL AFFILIATIONS

 National Middle School Association (NMSA)

Texas Council of Teachers of Mathematics (TCTM)

Kappa Delta Pi (Honor Society)

 National Council of Teacher of Mathematics (NCTM)

 American Educational Research Association (AERA)

 Middle Level Education Research (MLER)

 Hispanic Research Issues SIG

 Mid-South Educational Research Association (MSERA)

 National Middle School Association (NMSA)

 School Science and Mathematics Association (SSMA)

 Southwest Educational Research Association (SERA)

 Dade County Council of Teachers of Mathematics (DCCTM)

 Phi Kappa Phi (Honor Society)

 Research Council for Mathematics Learning (RCML)

 Association for Mathematics Teacher Educators (AMTE)

 Psychology of Mathematics Educators-North America (PME-NA)

###### **Graduate Committees**

 Doctoral

* 1. Katherine Vela (Chair PhD)
	2. Aamir Fidai(Chair PhD)
	3. Michael Rugh (Chair PhD)
	4. Hyunkyung Kwon (Chair PhD)
	5. Danielle Bevan (Member PhD)
	6. Ajai Cribs (Temporary Advisor PhD)
	7. Allison Burney (Co-Chair) EdD
	8. Jonathan David (Co-Chair) EdD
	9. Javelo Jones (Co-Chair) EdD
	10. Catherine Hill (Member) EdD

 Masters

1. Donald J. Beyette – (Member) MS in CPSC
2. Cameron Tynes (Member) VISO

##  Graduated

***PhD/EdD***

* 1. Yujin (Rachel) Li (Chair) PhD (Graduated 2019)
	2. Jonathan David (Co-Chair) EdD (Graduated 2019)
	3. Sandra Higareda (**Co-Chair**) EdD (Graduated 2018)
	4. Imelda Chapa **(Co-Chair** Ed.D) (Graduated 2018)
	5. Rosalinda Garcia (**Chair)** Ed.D (Graduated 2018)
	6. Cristela Garcia (**Co-Chair**) EdD (Graduated 2018)
	7. Kitty Rutherford (**Co-Chair**) EdD (Graduated 2017)
	8. Joni Bailey (**Co-Chair**) EdD (Graduated 2017)
	9. Ali Bicer (**Co-Chair**) PhD (Graduated 2016)
	10. Bertha Trevino (Member) EdD (Graduated 2016)
	11. Steve McKissick (**Co-Chair**) PhD (Graduated 2015)
	12. Mary Springs (**Co-Chair**) EdD (Graduated 2015)
	13. Ayse Tugba Oner (**Co-Chair**) PhD (Graduated 2015)
	14. Antonio Carranza (**Co-Chair**) PhD (Graduated 2015)
	15. Ernie Sherow (**Co-Chair**) PhD (Graduated 2015)
	16. Mahmoud Abunawas (Member) PhD (Graduated 2014)
	17. Susan Rogers (**Co-Chair**) EdD (Graduated 2014)
	18. Johanthan G. Maxwell (Member Graduated 2014)
	19. AnnaPat Alpert (Member)
	20. Roslinda Rosli (Member) Graduated 2014
	21. LaToya Anderson - Austin (**Chair**) PhD Graduated 2013 District Coordinator
	22. Tarcia Hubert (**Chair**) PhD Graduated 2013 Assistant Professor Lone Star
	23. SunYoung Han (**Chair**) PhD Graduated 2013 Assistant Professor Texas Tech University
	24. James Barron (Member) EdD Graduate 2013
	25. Cathleen Rossman (Member – Rutgers University) Graduated 2012
	26. Chris Romero (**Chair**) PhD Graduated December 2012,
	27. Sandra Nite (**Chair**) PhD Graduated August 2012, Texas A&M University
	28. Sencer Corlu (**Chair**) Graduated May 2012 Bilkant University, Ankara Turkey.
	29. Murray Cox (**Co-Chair** Graduated August 2011) Dept Head Southwest Adventist
	University
	30. Jamaal Young (**Chair** Graduate August 2011) Faculty University of North Texas
	31. Cleveland Lane (Member December 2010) Faculty Prairie View A&M
	32. Susan Skidmore (EPSY) (Member) Faculty Sam Houston University
	33. Serkan Ozel (EPSY) (**Co-Chair**-Graduated August, 2009) Faculty Bogazici University
	34. Michael Muzheve (**Chair**- Graduated August, 2008) Faculty- Texas A&M Kingsville
	35. Tufan Adiguzel (Member- Graduated August, 2008)
	36. Diana Piccolo (**Chair**- Graduated May 2008) Faculty U of Missouri
	37. Jimmy Byrd (Member- Graduated May 2008) Faculty University of N. Texas
	38. Shirley Matteson (**Chair** -Graduated August 2007)- Faculty Texas Tech University
	39. Judy Taylor (**Chair**- Graduated December 2006) – Faculty Letourneau University
	40. Elsa Ruiz (**Chair**- Graduated December 2006)- Faculty UTexas- San Antonio
	41. Linda R. Zientek (**Chair** Graduated May 2006)- Faculty Sam Houston State
	42. Armando Perez (**Co-Chair** - Graduated Summer 2005) Faculty Laredo CC
	43. Adam Harbaugh (Member- Graduated Summer 2005) Faculty UNC-Charlotte
	44. Tamara Carter (Member- Graduated Summer 2005) Dept. Chair OK Com Col
	45. Sun Ye PhD (Defense-Member- Graduated Summer 2005) Faculty U W. Virginia
	46. Zhonghe Wu PhD (Member- Graduated Summer 2004) Faculty National University

***MS-Thesis option***

1. Laura Ginn (Co-Chair) MS. August 2016
2. Cristal Gallegos (Co-Chair) May 2015
3. Matthew Seiders (Member Math –Thesis December 2012)
4. Katherine Vela (Member – Graduated December 2011)
5. Nikeitha Brown (Member – Graduated December 2011)
6. Linda Stearns (Co-Chair-Graduated May 2010)
7. Krystal Meredith (Co-Chair- Graduated May 2009)
8. Elizabeth Matthiesen (Chair- Graduated May 2006)
9. April Gilbert (Chair- Graduated May 2006)
10. Heather Louder (Member- Graduated Fall 2005)
11. Emilie Naiser (Chair- Graduated Fall 2004)
12. Stacey English (Co-Chair - Graduated Fall 2003)
13. Lori Butler (Member - Graduated August 2002)
14. Mary Hammer (Member- Graduated August 2002)
15. Semsettin Bezer (Member-Graduated May 2002: Admitted to PhD)

***MEd***

1. Jana Arena, (Co-Chair – MEd)
2. Romero Lopez (Co-Chair) Graduated 2016
3. Junhua Liu (member) Graduated 2014
4. Sevket Ceyhun Cetin (Co-Chair – Med Graduated August 2012)
5. Ali Bicer (Chair – Med Graduated August 2012)
6. Jennifer Easterling (Graduated May 2012)
7. Irem Akcayakaya (CoChair – Graduated May 2012)
8. April Moon (Chair Graduated August 2010)
9. Jamaal Young (Chair- Graduated December 2007)
10. Stephanie Fisseler (Member- Graduated Summer 2007)
11. Nicole Bowden (Co-Chair- Graduated Summer 2007)
12. Hamza Anderoglu (Member- Graduated May 2008)
13. Wendy Wright (Co-Chair- Graduated Summer 2004)
14. Heather Muller (Co-Chair- Graduated Summer 2004)
15. Amber Senter (Co-Chair- Graduated Summer 2004)
16. Laura Sebesta (Member- Graduated Summer 2004)
17. Deborah Fannin (Chair- Graduated Fall 2003)
18. Robyn Bassett (Chair- Graduated Summer 2003)
19. Charlotte Bolling (Member- Graduated Summer 2003)
20. Josh McDonald (Chair- Teaching Certificate only)
21. Zihxia You (Member- Graduated- May 2002)
22. Allison Decker (Co-Chair - Graduated August 2002)
23. Kelly Kelly (Co-Chair - Graduated August 2002)
24. Chris Romero (Chair- Graduated May 2002)

## Undergraduate Students Mentored & Supported

1. Haley David
2. Emilie Naiser
3. Kayla Garner
4. Davion Thornton (2011-2012)
5. Benjamin Bracey (2011-2012)
6. Maria Hernandez (2011-2013)
7. Brittane Cain (2014)
8. April Martin (2014- 2015)
9. Ingrid Campos 2013-2014)
10. Teresa Monterosa (2014-2015)
11. Annie Steiner (2015)
12. ‘Chon Brooks (2014-2016)
13. Devyn Rice (2015-