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*Brigham Young University*  
*College of Physical and Mathematical Sciences*  
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## EDUCATION AND DEGREES

*Doctor of Philosophy*: Curriculum and Instruction - May 2008  
Mathematics Education

University of Missouri-Columbia, Columbia, Missouri

Dissertation Title: *Two paths to advanced placement calculus: An examination of secondary students' mathematical understanding emerging from integrated and single-subject curricula*

*Master's of Science*: Exercise and Sports Science - May 2000

Psychosocial Aspects of Sport

University of Utah, Salt Lake City, Utah

*Bachelor of Arts*: Secondary Education Mathematics - December 1994

Minor: Physical Education/Coaching

Brigham Young University, Provo, Utah

*Coaching Certification*: The National Federation Interscholastic Coaches Education Program - 1994

## ACADEMIC POSITIONS HELD

August 2017 – Present      **Associate Professor of Mathematics Education**, College of Physical and Mathematical Sciences, Brigham Young University, Provo, UT

August 2011 – August 2017      **Assistant Professor of Mathematics Education**, College of Physical and Mathematical Sciences, Brigham Young University, Provo, UT

August 2008 – June 2011      **Assistant Professor of Mathematics Education**, Mary Lou Fulton Teachers College, Arizona State University, Mesa, AZ

2007 – May 2008      **Graduate Teaching Assistant**, Mathematics Department, College of Arts and Sciences, University of Missouri, Columbia, MO

July 2007      **Summer Mathematics Teacher**, John Hopkins Talented Youth Program, Stanford, CA

2004 – August 2007      **Graduate Research Assistant**, Learning, Teaching, and Curriculum Department, College of Education, University of Missouri, Columbia, MO

- 1997 – 2004                      **High School Mathematics Teacher**, Lone Peak High School, Highland, UT
- 1994 – 1997                      **High School Mathematics Teacher**, American Fork High School, American Fork, UT

## RESEARCH

### *Refereed Journals:*

1. **Teuscher, D.**, Palsky, K., & Palfreyman, C. Y. (2018). An “undoing” process can improve students’ conceptual understanding. *Mathematics Teacher*, *111*(5), 374-381.
2. **Teuscher, D.**, Switzer, J. M., & Morwood, T. (2016). Unpacking the practice of probing student thinking. *Mathematics Teacher Educator*, *5*(1), 47-64.
3. Tran, D., Reys, B. J., **Teuscher, D.**, Dingman, S., & Kasmer, L. (2016). Analysis of curriculum standards: An important research area. *Journal for Research in Mathematics Education*, *47*(2), 118-133.
4. **Teuscher, D.**, Moore, K. C., & Carlson, M. P. (2016). Decentering: A construct to analyze and explain teacher actions as they relate to student thinking. *Journal of Mathematics Teacher Education*, *19*(5), 433-456. doi 10.1007/s10857-015-9304-0.
5. **Teuscher, D.**, Hodges-Kuliina, P., & Crooker, C. (2015). Writing to learn mathematics: An update. *The Mathematics Educator* *24*(2), 56-78.
6. **Teuscher, D.**, Tran, D., & Reys, B. (2015). Common Core State Standards in the middle grades: What’s new in the geometry domain and how can teachers support student learning? *School Science and Mathematics* *115*(1), 4-13.
7. Dingman, S., **Teuscher, D.**, Newton, J. & Kasmer, L. (2013). A movement toward national mathematics standards in the United States: The common core standards’ influence on K-8 mathematics curriculum. *Elementary School Journal* *113*(4), 541-564.
8. Reys, B. J., Thomas, A., Tran, D., Dingman, S., Kasmer, L., Newton, J. & **Teuscher, D.** (2013). State-level actions following adoption of *Common Core State Standards for Mathematics*. *Journal of Mathematics Education Leadership* *14*(1), 5-13.
9. **Teuscher, D.** & Reys, R. (2012). Rate of change: AP calculus students’ understandings and misconceptions after completing different curricular paths. *School Science and Mathematics* *112*(6), 359-376.
10. **Teuscher, D.** & Reys, R. (2010). Slope, rate of change, and steepness: Do students understand these concepts? *Mathematics Teacher*, *103*, 7, 519-524.
11. **Teuscher, D.**, Dingman, S. W., Nevels, N. N., & Reys, B. J. (2008). Curriculum standards, course requirements, and mandated assessments for high school mathematics: A status report of state policies. *Journal of Mathematics Education Leadership*, Fall, 50-55.
12. Reys, R., Glasgow, R., **Teuscher, D.**, & Nevels, N. (2007). Doctoral programs in mathematics education in the United States: 2007 status report. *Notices of the American Mathematical Society*, *54*(11), 1283-1293.

13. Chval, K., Friedrichsen, P., & **Teuscher, D.** (2007). Strategies and sources of support for beginning teachers of science and mathematics. *School Science and Mathematics, 107*(5), 169-181.
14. Chval, K., Reys, B. & **Teuscher, D.** (2006). What is the focus and emphasis on calculators in state-level K-8 mathematics curriculum standards documents? *Journal of Mathematics Education Leadership, 9*(1), 3-13.

*Book Chapters:*

1. Arbaugh, F., Wieman, R., Adams, A., **Teuscher, D.** & Van Zoest, L. (2017). Situating learning for secondary mathematics preservice teachers within the context of rehearsals: Challenges and resulting adaptations. In S. Kastberg, A. Tyminski, A. Lischka & W. B. Sanchez (Eds.), *Building Support for Scholarly Practices in Mathematics Methods* (Vol. 3, pp. 133-148). Charlotte, NC: Information Age Publishing.
2. **Teuscher, D.**, Leatham, K. R., & Peterson, B. E. (2017). From a framework to a lens: Learning to notice student mathematical thinking. In E. Schack, M. Fisher, & J. Wilhelm (Eds.), *Teacher Noticing: Bridging and Broadening Perspectives, Contexts, and Frameworks* (pp. 31-48). Cham, Switzerland: Springer, Cham.
3. Switzer, J. M., **Teuscher, D.**, & Seibert, D. (2015). Using teaching videos to develop participation questioning discourse. In E. Ortlieb, L. Shanahan, & M. McVee (Eds.), *Video Research in Disciplinary Literacies* (Vol. 6, pp. 3-20): Emerald Group Publishing Limited.
4. **Teuscher, D.**, Reys, B., Dingman, S., & Thomas, A. (2014). Transitioning to Common Mathematics Standards: Tracing the Movement of Computational Fluency in the K-5 Curriculum. In Karp, K., & A. R. McDuffie (Eds.), *Annual Perspectives in Mathematics Education 2014: Using Research to Improve Instruction*. (pp. 3-12). Reston, Virginia: NCTM.
5. Greenes, C., **Teuscher, D.**, & Regis, T. P. (2010). Preparing teachers for mathematically talented middle-school students. In M. Saul, S. Assouline & L. Sheffield (Eds.), *The peak in the middle: Developing mathematical promise in the middle grades*. (pp. 77-91). Reston, Virginia: NCTM.
6. Reys, R. E., Glasgow, R., **Teuscher, D.**, & Nevels, N. (2008). Doctoral production in mathematics education in the United States: 1960-2005. In R. E. Reys & J. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (Vol. 15, pp. 3-17). Providence, RI: American Mathematical Society.
7. Reys, R. E., Glasgow, R., **Teuscher, D.**, & Nevels, N. (2008). Doctoral programs in mathematics education in the United States: 2007 status report. In R. E. Reys & J. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (Vol. 15, pp. 19-37). Providence, RI: American Mathematical Society.
8. Lappan, G., Newton, J., & **Teuscher, D.** (2008). Accreditation of doctoral programs: A lack of consensus. In R. E. Reys & J. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (Vol. 15, pp. 215-219). Providence, RI: American Mathematical Society.

9. **Teuscher, D.**, Marshall, A. M., Newton, J., & Ulrich, C. (2008). Intellectual communities: Promoting collaboration within and across doctoral programs in mathematics education. In R. E. Reys & J. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (Vol. 15, pp. 233-238). Providence, RI: American Mathematical Society.
10. **Teuscher, D.**, Nevels, N., & Ulrich, C. (2008). Report of a 2007 survey of U.S. doctoral students in mathematics education. In R. E. Reys & J. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (Vol. 15, pp. 39-49). Providence, RI: American Mathematical Society.
11. Reys, B. J., Dingman, S., Olson, T., Sutter, A., **Teuscher, D.**, & Chval, K. (2006). Analysis of number and operation grade-level learning expectations in state standards documents, In B. J. Reys (Ed.), *The Intended Mathematics Curriculum as Represented in State-Level Curriculum Standards: Consensus or Confusion* (pp. 15-57)? Greenwich, CT: Information Age Publishing, Inc.

*Conference Proceedings:*

1. Kasmer, L, **Teuscher, D.**, Dingman, S., Reys, B., & Newton, J. (2012). Transitioning to the Common Core Standards for Mathematics. In Van Zoest, L. R., Lo J-J., & Kratky, J. L. (Eds.), *Proceedings of the Thirty-fourth Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 84-87). Kalamazoo, MI: Western Michigan University.
2. Meylani, R. & **Teuscher, D.** (2011). Calculus readiness: Comparing student outcomes from traditional precalculus and AP calculus AB with a novel precalculus program. In Wiest, L. R. & Lamberg, T. (Eds.), *Proceedings of the Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 778-786). University of Nevada: Reno, Nevada.
3. Meylani, R. & **Teuscher, D.** (2011). Using neural-networks to predict AP-calculus test scores from PCA and ACT mathematics test scores. In Wiest, L. R. & Lamberg, T. (Eds.), *Proceedings of the Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1820-1821). University of Nevada: Reno, Nevada.
4. Meylani, R. & **Teuscher, D.** (2011). Precalculus concept assessment: A predictor of AP calculus AB and BC scores. In Wiest, L. R. & Lamberg, T. (Eds.), *Proceedings of the Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (787-796). University of Nevada: Reno, Nevada.
5. Moore, K. C., **Teuscher, D.** & Carlson, M. P. (2011). Exploring shifts in a teacher's key developmental understandings and pedagogical actions. In Wiest, L. R. & Lamberg, T. (Eds.), *Proceedings of the Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1673-1681). University of Nevada: Reno, Nevada.
6. Marfai, F. S., Moore, K. C. & **Teuscher, D.** (2011). The influence of a teacher's decentering moves on students engaging in reflective thinking. . In Wiest, L. R. & Lamberg, T. (Eds.), *Proceedings of the Thirty-third Annual Conference of the*

- North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 138-146). University of Nevada: Reno, Nevada.
7. Moore, D., Newton, J. & **Teuscher, D.** (2008). Moving Beyond Myths to Foster International Collaboration: International Conference a Step in the Right Direction. In Z. Usiskin & E. Willmore (Eds.), *Mathematics Curriculum in Pacific Rim Countries – China, Japan, Korea, and Singapore* (pp, 337-349). Charlotte, NC: Information Age Publishing, Inc.
  8. Regis, T.P., & **Teuscher, D.** (2006). From standards to learners: How much intended curriculum are students experiencing? In S. Alatorre, J. L. Cortina, M. Sáiz, & A. Méndez (Eds.), *Proceedings of the Twenty-Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 844-845). Universidad Pedagógica Nacional: Mérida, Yucatán, México.

*Newsletters:*

1. Reys, B., Sutter, A. & **Teuscher, D.** (2006). Analyzing state-level mathematics standards: When are students expected to be proficient? *Intersection, Winter*, 1-3, 11.

*Internet Publications:*

1. Reys, B. J., Dingman, S., Nevels, N., & **Teuscher, D.** (2007). High school mathematics: State level curriculum standards and graduation requirements. Retrieved December 3, 2010, from <http://www.mathcurriculumcenter.org/PDFS/HSreport.pdf>
2. Reys, B.J., Dingman, S., Sutter, A., & **Teuscher, D.** (2005). Development of state-level mathematics curriculum documents: Report of a survey. Retrieved December 3, 2010, from <http://www.mathcurriculumcenter.org/resources/ASSMReport.pdf>
3. **Teuscher, D.** (2000). Algebra 1 Math Tutorial, Retrieved December 3, 2010, from <http://www.aplusstudent.com/>

## GRANTS

### Internal Funded

1. **Teuscher, D.** (2012). **Integrating Digital Video Analysis to Develop Reflective Practitioners.** High Impact Teaching Stipend. \$9,000.

### External Funded

1. Olson, T., **Teuscher, D.**, Dingman, S., & Kasmer, L. (2016). *Collaborative Research: Investigating Middle Grades Mathematics Teachers' Curricular Reasoning.* National Science Foundation EHR Core Research, \$383,724.00.
2. **Teuscher, D.** (2014). NCTM Student Affiliate Grant. National Council for Teachers of Mathematics, \$1,500.00.
3. **Teuscher, D.** (2013). *Pathways to Calculus: Dissemination and scaling a professional development model for algebra through precalculus teaching and learning.* National Science Foundation, Undergraduate Research Experiences for Undergraduates supplement, \$23,460.00.

4. Dingman, S., Kasmer, L., Olson, T., & **Teuscher, D.** (2012). *CSMC Research Group Travel Stipend*. Center for the Study of Mathematics Curriculum, \$15,000.00.
5. Carlson, M., Slemmer, G., **Teuscher, D.**, Raskind, W., & Milner, F. A. (2010). *Pathways to Calculus: Dissemination and scaling a professional development model for algebra through precalculus teaching and learning*. National Science Foundation, Math and Science Partnership – Phase II, \$2,099,629.00.
6. Thompson, P., **Teuscher, D.**, Wilson, M. & Carlson, M. (2010). *Project aspire: Defining and assessing mathematical knowledge for teaching secondary mathematics*. National Science Foundation, Math and Science Partnership, \$1,942,463.00.

## Grants in Review

### Grant Proposals Not Funded

1. **Teuscher, D.** (2016). *CAREER: Learning with frameworks: Recognizing and Productively Acting on Student Mathematical Thinking*. National Science Foundation CAREER, \$850,498.00.
2. **Teuscher, D.** (2015). *CAREER: Learning to Identify and Productively Act on Student Mathematical Thinking*. National Science Foundation CAREER, \$806,009.00.
3. **Teuscher, D.**, Dingman, S., Kasmer, L., & Olson, T. (2014). *Collaborative Research: Investigating Middle Grades Mathematics Teachers' Curricular Reasoning and the Connection to Mathematical Knowledge for Teaching*. National Science Foundation Discovery Research K-12, \$446,641.00.
4. Dingman, S., **Teuscher, D.**, Kasmer, L., & Olson, T. (2013). *Collaborative Research: Middle Grades Mathematics Curriculum Analysis: Strengthening Teachers' Curricular Reasoning*. National Science Foundation Discovery Research K-12, \$435,483.00.
5. Reys, B., Kasmer, L., Dingman, S., & **Teuscher, D.**, (2012). *Collaborative Research: Investigating Implementation of the Common Core State Standards for Mathematics (CCSSM)*. National Science Foundation Discovery Research K-12, \$508,190.00.
6. Reys, B., Kasmer, L., Dingman, S., & **Teuscher, D.**, (2012). *Collaborative Research: Investigating the Diffusion and Penetration of the Common Core State Standards for Mathematics Initiative*. National Science Foundation Research and Evaluation on Education in Science and Engineering, \$303,779.00.
7. Kasmer, L., Dingman, S., Newton, J., & **Teuscher, D.**, (2011). *Collaborative Research: A descriptive analysis of the implementation of Common Core State Standards for Mathematics (CCSSM) across the United States*. National Science Foundation, Research and Evaluation on Education in Science and Engineering, \$734,863.00.
8. **Teuscher, D.** (2010). *Sustainable training for teachers: Using studiocode to develop reflective practitioners*. Mary Lou Fulton Teachers College, Arizona State University, \$15,600.00.
9. Thompson, P. **Teuscher, D.**, Oehrtman, M. & Carlson, M. (2010). *Project aspire: Defining and assessing mathematical knowledge for teaching secondary mathematics*. National Science Foundation, Discovery Research K-12, \$3,488,193.00.
10. Kasmer, L., Newton, J., **Teuscher, D.**, Dingman, S. (2009). *Foundational high school mathematics: A curricular synthesis across the United States*. National Science

- Foundation, Research and Evaluation on Education in Science and Engineering, \$953,525.00.
11. Meltzer, D. E., Kurz, T., **Teuscher, D.**, Kinach, B. & Judson, E. (2009). *Science and mathematics apprenticeship through research, teaching, and technology*. National Science Foundation, Discovery Research K-12, \$449,914.00.
  12. **Teuscher, D.**, Kulinna, P. H., & Molina-Walters, M. (2008). *Sustainable training for teachers: Using Studiocode to promote reflective practitioners*. Arizona Regents Reach Out (ARRO) Grants, \$50,000.00.

## PROFESSIONAL PRESENTATIONS

### *International/National Refereed with unpublished papers*

1. **Teuscher, D.**, & Kasmer, L. (2016, July). *Isometries in new U.S. middle grades textbooks: How are isometries and congruence related?* Paper presented at Thirteenth International Congress on Mathematical Education. Hamburg, Germany
2. **Teuscher, D.**, Moore, K. C., & Carlson, M. P. (2013, February). *Implementing Pathways curriculum: What are we learning from in-service and pre-service teachers to inform and modify project resources?* Paper presented at Math and Science Partnership Conference, Washington, D.C.: National Science Foundation
3. Carlson, M. P., Moore, K. C., **Teuscher, D.**, Slemmer, G., Underwood, K., & Tallman, M. (2012). *Affecting and Documenting Shifts in Secondary Precalculus Teachers' Instructional Effectiveness and Students' Learning*. Paper presented at Math and Science (MSP) Learning Network Conference. Washington, D.C.: National Science Foundation.
4. Carlson, M., Slemmer, G., Moore, K. C., **Teuscher, D.**, & Joyner, K. (2011, January). *Key Variables for Establishing and Sustaining Highly Effective Professional Learning Communities*. Paper presented at Math and Science Partnership Learning Network Conference, Washington, D.C.: National Science Foundation.
5. **Teuscher, D.** & Moore, K. C. (2011, January). *Interaction between teacher's questions and student discourse*. Paper presented at Math and Science Partnership Conference, Washington, D.C.: National Science Foundation.
6. Moore, K. C. & **Teuscher, D.** (2011, January). *Using research-based curriculum to support shifts in teachers' key pedagogical understandings*. Paper presented at Math and Science Partnership Conference, Washington, D.C.: National Science Foundation
7. Carlson, M. P., Oehrtman, M. & **Teuscher, D.** (2010, January). *Project pathways*. Paper presented at Math and Science Partnership Conference, Washington, D.C. National Science Foundation.

### *International/National Refereed*

1. Switzer, J. M., & **Teuscher, D.** (2018, February). *How does video analysis influence pre-service teachers' ability to notice student mathematical thinking while teaching?* Twentieth-Second Annual Association of Mathematics Teachers Educators Conference. Houston, Texas.

2. Kasmer, L., Dingman, S., **Teuscher, D.** & Olson, T. (September, 2017). *Investigating Middle School Mathematics Teachers' Curricular Reasoning*. Poster Presentation at the ECR Fundamental Research in STEM: Progress, Issues, & the Future. Alexandria, Virginia.
3. **Teuscher, D.**, & Switzer, J. M. (2017, February). *How does focused video analysis in methods courses impact student teachers' attending to student thinking?* Twentieth-First Annual Association of Mathematics Teachers Educators Conference. Orlando, Florida.
4. Kasmer, L., **Teuscher, D.**, & Dingman, S. (2016, April). *How new textbooks are aligned to CCSSM geometry concepts through transformations*. Forty-Eighth National Council of Teachers of Mathematics Annual Conference. San Francisco, California.
5. **Teuscher, D.**, Leatham, K. R., Peterson, B. E., & Derocher, A. M. (2016, January). *Influence of focused video analysis on preservice secondary mathematics teachers' noticing of student mathematical thinking*. Twentieth Annual Association of Mathematics Teachers Educators Conference. Irvine, California.
6. Switzer, J. M., **Teuscher, D.**, & Palsky, K. (2016, January). *Learning to teach through video analysis: Preservice teachers learning and engaging in participation questioning discourse*. Twentieth Annual Association of Mathematics Teachers Educators Conference. Irvine, California.
7. Olson, T. A., **Teuscher, D.**, Dingman, S. W., Kasmer, L. (2015, April). *Shifting opportunities to teach and learn in Common Core "aligned" textbooks: Implications for depth and equity*. Forty-Seventh National Council of Supervisors of Mathematics Annual Conference. Boston, Massachusetts.
8. Dingman, S., **Teuscher, D.**, & Olson, T. (2015, April). *CCSSM – aligned middle grades textbooks: How do they compare?* National Council of Teachers of Mathematics Research Conference, Boston, Massachusetts.
9. Kasmer, L., **Teuscher, D.**, Dingman, S., & Olson, T. (2015, February). *Transformational geometry in new middle grades textbooks: What do teachers need to know?* Nineteenth Annual Association of Mathematics Teacher Educators Conference. Orlando, Florida.
10. Switzer, J. M. & **Teuscher, D.** (2015, February). *Engaging preservice teachers in probing student thinking through the video-based model seeing, trying, reflecting (STiR)*. Nineteenth Annual Association of Mathematics Teacher Educators Conference. Orlando, Florida.
11. Kasmer, L. A., **Teuscher, D.**, Dingman, S. W., Olson, T. A., & Gadd, K. (2014, February). *Alignment of new middle grades mathematics textbooks: What should teachers (preservice and inservice) understand?* Eighteenth Annual Association of Mathematics Teacher Educators Conference, Irvine, California.
12. Tran, D., Reys, B., & **Teuscher, D.** (2013, April). *Middle-Grades Math Standards, Past and Present: How Different is the CCSSM?* Research Pre-session National Council of Teachers of Mathematics Annual Conference, Denver, Colorado.
13. **Teuscher, D.**, & Switzer, M. (2013, January). *The Iterative Model Seeing, Trying, Reflecting Accelerates Preservice Teachers' Ability to Implement Key Teaching Practices*. Seventeenth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, Florida.



14. Reys, R., **Teuscher, D.**, & Dingman, S. (2013, January). *Landing a Job in Institutions of Higher Education: Advice from Research and Experience*. Seventeenth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, Florida.
15. Newton, J., Dingman, S., **Teuscher, D.**, Kasmer, L., Reys, B., Olson, T., Shih, J. & K. Bieda (2012, April). *Investigations into Common Core State Standards for Mathematics (CCSSM)*. Research Pre-session National Council of Teachers of Mathematics Annual Conference, Philadelphia, Pennsylvania.
16. Teuscher, D., Dingman, S. & Newton, J. (2012, April). *Common Core State Standards for Mathematics and the Shifting Curricular Landscape*. National Council of Teachers of Mathematics Annual Conference, Philadelphia, Pennsylvania.
17. **Teuscher, D.** & Moore, K. C. (2012, February). *Decentering: A lens for examining teacher focus on students' mathematical thinking and teacher questions*. Sixteenth Annual Conference of the Association of Mathematics Teacher Educators, Fort Worth, Texas.
18. Kasmer, L., Dingman, S. & **Teuscher, D.** (2012, February). *The Common Core and mathematics teacher education: What needs to change?* Sixteenth Annual Conference of the Association of Mathematics Teacher Educators, Fort Worth, Texas.
19. Meylani, R. & **Teuscher, D.** (2011, October). *Calculus readiness: Comparing student outcomes from traditional precalculus and AP calculus AB with a novel precalculus program*. Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.
20. Meylani, R. & **Teuscher, D.** (2011, October). *Using neural-networks to predict AP-calculus test scores from PCA and ACT mathematics test scores*. Poster presentation at the Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.
21. Meylani, R. & **Teuscher, D.** (2011, October). *Precalculus concept assessment: A predictor of AP calculus AB and BC scores*. Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.
22. Moore, K. C., **Teuscher, D.** & Carlson, M. P. (2011, October). *Exploring shifts in a teacher's key developmental understandings and pedagogical actions*. Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.
23. Marfai, F. S., Moore, K. C. & **Teuscher, D.** (2011, October). *The influence of a teacher's decentering moves on students engaging in reflective thinking*. Thirty-third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, Nevada.
24. **Teuscher, D.** (2009, April). *AP calculus students' understanding of rate of change: Implications for teachers and curriculum developers*. National Council of Teachers of Mathematics Annual Conference, Washington, D.C.
25. Reys, R. E., Glasgow, R., **Teuscher, D.** & Nevels, N. (2008, April). *Interested in a doctorate in mathematics education? An acute shortage and job opportunities abound*. National Council of Teachers of Mathematics Annual Conference, Salt Lake City, Utah.
26. **Teuscher, D.**, Nevels, N. & Reys, R. E. (2008, January). *Jobs in higher education for doctorates in mathematics education: A summary of job locations and requirements*.

- Eleventh Annual Conference of the Association of Mathematics Teacher Educators, Tulsa, Oklahoma.
27. Regis, T. P. & **Teuscher, D.** (2006, October). *From standards to learners: How much intended curriculum are students experiencing?* Poster Presentation at the North American Chapter of the International Group for the Psychology of Mathematics Education, Mérida, Yucatán, México.
  28. Reys, B. J., Dingman, S., Olson, T., Sutter, A. & **Teuscher, D.** (2006, April). *Examining state-level mathematics curriculum frameworks: What is the national number and operation curriculum in the U.S.?* National Council of Supervisors of Mathematics Annual Conference, St. Louis, Missouri.
  29. Reys, B. J., Lappan, G., Kim, O., Dingman, S., **Teuscher, D.**, Newton, J., Larnell, G. & Kasmer, L. (2006, April). *The U.S. "national" curriculum: Analysis of state mathematics standards.* Research Pre-session of the National Council of Teachers of Mathematics Annual Conference, St. Louis, Missouri.
  30. **Teuscher, D.**, Sutter, A., Reys, B. & Olson, T. (2006, April). *Analysis of state frameworks: Computation of numbers and the role of calculators.* National Council of Teachers of Mathematics Annual Conference, St. Louis, Missouri.
  31. Nivens, R., Olson, T., **Teuscher, D.** & Regis, T. (2006, April). *Applying navigation series activities in your class.* National Council of Teachers of Mathematics Annual Conference, St. Louis, Missouri.
  32. Reys, B., Dingman, S., **Teuscher, D.**, Sutter, A. & Olson, T. (2006, January). *State-level mathematics curriculum standards: Learning expectations related to number & operation.* Tenth Annual Conference of the Association of Mathematics Teacher Educators, Tampa, Florida.
  33. Regis, T. P., **Teuscher, D.**, Olson, T., & Nivens, R. (2006, January). *For doctoral students only: Continuing to grow ... working together to do so.* Tenth Annual Conference of the Association of Mathematics Teacher Educators, Tampa, Florida.
  34. Regis, T. P. & **Teuscher, D.** (2005, December). *Analyzing data in middle school classrooms: Getting our hands dirty with the NCTM's Navigations Series.* Missouri Council of Teachers of Mathematics Annual Meeting, Columbia, Missouri.
  35. Reys, B. J. & **Teuscher, D.** (2005, April). *State curriculum standards documents: Do they represent our national curriculum in mathematics?* Association of State Supervisors of Mathematics Annual Meeting, Anaheim, California.

#### *Regional & Local Refereed*

1. Bastian, J. & **Teuscher, D.** (2018). *Mira, Mira, on the wall – how should I teach geometric transformations?* Utah Council of Mathematics Teachers Annual Conference, Draper, Utah.
2. **Teuscher, D.** (2012, October). *What is a proportional relationship and how is it connected to the equation of a line?* Utah Council of Teachers of Mathematics Annual Meeting, American Fork, Utah.
3. **Teuscher, D.** (2011, November). *Angle measures: What is an angle?* Utah Council of Teachers of Mathematics Annual Meeting, Magna, Utah.
4. **Teuscher, D.**, Dingman, S. & Kasmer, L. (2011, October). *How is the common core different than past state standards?* National Council of Teachers of Mathematics Regional Conference, St. Louis, Missouri.

5. Regis, T. P. & **Teuscher, D.** (2007, October). *From standards to learners: How much intended curriculum are students experiencing?* National Council of Teachers of Mathematics Regional Conference, Kansas City, Missouri.
6. Regis, T. P., Nivens, R., Olson, T. & **Teuscher, D.** (2006, September). *Using Navigations activities with data analysis and probability.* National Council of Teachers of Mathematics Regional Conference, Chicago, Illinois.
7. **Teuscher, D.** & Sutter, A. (2005, December). *Analysis of state frameworks: Computation of numbers and the role of calculators.* Missouri Council of Teachers of Mathematics Annual Meeting, Columbia, Missouri.
8. Chval, K. B., Friedrichsen, P., & **Teuscher, D.** (2005, December). *Study of challenges and support structures for beginning mathematics and science teachers.* Mathematics and Science Teacher Shortage in Missouri: Research and Practice on Supporting Beginning Teachers Annual Meeting, Columbia, Missouri.

*Regional & Local Invited*

1. Slemmer, G. & **D. Teuscher**, (2010, October). *Professional learning communities.* Researching Tomorrows Expectations Today AdvancED Conference, Mesa, Arizona.
2. **Teuscher, D.** (2010, March). *Skittleland: Exploring linear and exponential functions.* 5<sup>th</sup> Annual Education Fair, Arizona State University, Mesa, Arizona.
3. **Teuscher, D.** (2010, March). *Angle measures: What is an angle?* 5<sup>th</sup> Annual Education Fair, Arizona State University, Mesa, Arizona.
4. **Teuscher, D.** (2008, October). *AP calculus students' understanding of rate of change: Implications for teachers.* 4<sup>th</sup> Annual Education Fair, Arizona State University, Mesa, Arizona.
5. **Teuscher, D.** (2008, February). *Students' solution strategies on an open-ended task after completing four years of college preparatory (integrated or single-subject) mathematics.* Poster presentation at Center for Study of Mathematics Curriculum research conference, Phoenix, Arizona.
6. **Teuscher, D.** (2008, February). *Jobs in higher education for mathematics education doctorates (2007-2008 school year).* Poster presentation at Center for Study of Mathematics Curriculum research conference, Phoenix, Arizona.
7. Regis, T. P. & **Teuscher, D.** (2006, April). *From standards to learners: How much intended curriculum are students experiencing?* Science and Mathematics Education Research Colloquium, Columbia, Missouri.
8. Regis, T. P. & **Teuscher, D.** (2006, February). *Mapping curriculum from state grade level expectations to textbook lessons taught.* Poster Presentation at Center for Study of Mathematics Curriculum research conference, Phoenix, Arizona.
9. Chval, K., Reys, B. & **Teuscher, D.** (2006, February). *The role of calculators.* Poster Presentation at Center for Study of Mathematics Curriculum research conference, Phoenix, Arizona.
10. **Teuscher, D.** (2005, September). *State-level mathematics curriculum documents: Do they represent a consensus on a national curriculum?* National Advisory Board Meeting for the Center for the Study of Mathematics Curriculum (CSMC), Chicago, Illinois.

11. Reys, B. J., Dingman, S., Olson, T., Sutter, A., & **Teuscher, D.** (2005, March). *Analysis of State Curriculum Documents*. Mathematics education seminar – University of Missouri, Columbia, Missouri.
12. Dingman, S., Olson, T., Sutter, A., & **Teuscher, D.** (2005, March). *Analysis of state curriculum documents*. College of Education Research Day, Columbia, Missouri.
13. **Teuscher, D.** (2005, March). Computation of multi-digit whole number across grade levels and states. Poster presentation at College of Education Research Day, Columbia, Missouri.
14. **Teuscher, D.** (2005, February). *Whole number computation across grade levels and states*. Poster presentation at Center for Study of Mathematics Curriculum research conference, Phoenix, Arizona.
15. Regis, T. P. & **Teuscher, D.** (2005, February). *Professionalism, who is publishing and where?* Mathematics education seminar – University of Missouri, Columbia, Missouri.
16. **Teuscher, D.** (2001, February). *Creative activities for finding volume*. Gifted and Talented Conference, Grandview Elementary School, Provo, Utah.
17. **Teuscher, D.** (1997, November). *Activities to use with the graphing calculator*. Using the graphing calculator conference, Lone Peak High School, Highland, Utah.

## TEACHING AND INSTRUCTIONAL ACTIVITIES

### *Courses Taught at Brigham Young University*

Undergraduate:

- MATH 110 (3 credits) – College Algebra
- MTHED 277 (3 credits) – Task Design and Assessment
- MTHED 377 (3 credits) – Methods for Secondary Mathematics
- MTHED 378 (1 credit) – Practicum for Secondary Mathematics
- MTHED 476R (12 credits) – Secondary Student Teaching in Mathematics

Graduate:

- MTHED 661 (3 credits) – Algebraic Reasoning
- MTHED 611 (1 credit) – Graduate Seminar

### *Courses Taught at Arizona State University*

Undergraduate:

- MAT 170 (3 credits) – Precalculus
- MTE 180 (3 credits) – Math for Elementary Teachers I
- MTE 181 (3 credits) – Math for Elementary Teachers II
- EDC 345 (3 credits) – Math Methods for Elementary Teachers

Graduate:

- SED 547 (3 credits) – Teaching Math in the Middle Grades
- SED 578 (12 credits) – Secondary Student Teaching
- SED 560 (3 credits) – Teaching Math with Technology
- SED 576 (1 credit) – Field Experience
- EDC 480 (3 credits) – Theory of Math/Science Instruction

TEL 792 (3 credits) – Research Hours

***Courses Taught at University of Missouri***

Undergraduate:

Math 0110 (3 credits) – Intermediate Algebra

TDP 4570 (3 credits) – Introduction to Teaching Mathematics in Middle and Secondary Schools

***Ph.D. Committees***

Judy Sutter (2010), *Inquiry and change: The cases of three mathematics teachers in professional learning communities.*

***Graduate Research Project Supervision***

**Chair**

Kimber Mathis (2017- Present)

Anand Bernard (2014 – 2017)

Krystal Hill (2013 – 2015)

Rebecca Roberts (2012 – 2014)

Trina Ward (2011 – 2014)

**Committee Member**

Chelsea Dickson (2018 – Current)

Tamara Stark (2018 – Current)

Konda Luckau (2017 – 2018)

Kylie Palsky (2017 – 2018)

Percy Canales (2014 – 2016)

Tyler Winiecke (2014 – 2015)

Kevin Watson (2013 – 2015)

Kyle Petersen (2013 – 2015)

Roy Jorgensen (2012 – 2015)

Kailie Dean (2012 – 2014)

Kolby Gadd (2012 – 2014)

Ted Gilbert (2012-2013)

Bryan Bradford (2011 – 2013)

Miriam Amatangelo (2011-2013)

Katie Underwood (2009-2011)

Linda Agoune (2009-2011)

Frank Marfai (2009-2011)

***Course Taught in K-12 Education***

*Lone Peak High School*

Algebra 1, Algebra 2, Algebra 2 Honors, Advanced Placement Calculus AB, Calculus, Geometry, PreCalculus, PreCalculus Honors, Fitness for Life, Weight Training, and Athletic Conditioning

*American Fork High School*

Algebra 1, Algebra 2, Algebra 2 Honors, Geometry, PreCalculus Honors

*John Hopkins Talented Youth Summer Program*

Data and Chance for 5<sup>th</sup> and 6<sup>th</sup> grade students

***Professional Development Instructor***

*TI Interactive Workshop*, Instructor, Utah County

*Trainer for Teachers of the Algebra Navigation Series NCTM*, Instructor, State Office of Education Utah

*In-service for Teachers on the Algebra Navigation Series NCTM*, Instructor, Weber, Richfield, and Provo/Alpine School Districts

***Extra Curricular Activities***

*Lone Peak High School*

Varsity Girls Softball Head Coach

Sophomore Girls Volleyball Head Coach

Girls Assistant Athletic Director

*American Fork High School*

Girls Basketball Assistant Coach

Sophomore Girls Volleyball Coach

**PUBLIC/COMMUNITY SERVICE**

***Workshops for Teachers***

1. **Teuscher, D.** *Exponential and Logarithmic Functions*. Conducted one-day professional development meetings for high school mathematics teachers, Weber State University (June 2018).
2. **Teuscher, D.** *Pathways to Secondary Math II user workshop*. Conducted one 2-day professional development meetings for Secondary Math II teachers, Paradigm High School (August 2013).
3. **Teuscher, D.** *Pathways to Algebra 2 user workshop*. Conducted one 3-day professional development meetings for Algebra 2 teachers, Tempe AZ (June 2013).
4. **Teuscher, D.** *Pathways Professional Development workshops*. Conducted monthly workshops for Nebo School District School Secondary Math II teachers (August 2012 – April 2013).
5. **Teuscher, D.** *Pathways to Secondary Math II user workshop*. Conducted two 3-day professional development meetings for Secondary Math II teachers, Nebo School District (July –August 2012).
6. **Teuscher, D.** *Pathways to Algebra 2 user workshop*. Conducted two 3-day professional development meetings for Algebra 2 teachers, Tempe, AZ (June 2012).
7. **Teuscher, D.** *Precalculus: Pathways to Calculus user workshop*. Presented at New High School Noyce Teachers Professional Development Meeting, Mesa, AZ (2011, June).

8. **Teuscher, D.** *Precalculus: Pathways to Calculus user workshop*. Presented at 2<sup>nd</sup> year High School Noyce Teachers Professional Development Meeting, Tempe, AZ (2011, June).
9. **Teuscher, D.** *Precalculus concept assessment pre-post data*. Presented at the Red Mountain Mathematics Professional Development Meeting, Mesa, AZ (2010, August).
10. **Teuscher, D.** *Using pathways precalculus curriculum*. Presented at High School Noyce Teachers Professional Development Meeting, Tempe, AZ (2010, June).
11. **Teuscher, D.** *Precalculus concept assessment data*. Presented at the Red Mountain Mathematics Professional Development Meeting, Mesa, AZ (2009, November).
12. **Teuscher, D.** *Slope, rate of change and steepness: Are we teaching the same mathematical concepts?* Presented at Red Mountain Professional Development Meeting, Mesa, AZ (2009, July).

## UNIVERSITY/COLLEGE/DEPARTMENT SERVICE

### *University Committees*

1. Member, University Athletic Advisement Council, BYU, (November 2017-current)
2. Member, Committee on Learning Math, Arizona State University, Tempe, AZ (2009-2010)
3. Member, PolyTech Day Committee, Arizona State University, Polytechnic Campus, Mesa, AZ (2008-2009)

### *College/Department Committees*

1. College Teaching and Learning Committee, College of Physical and Mathematical Sciences, (2017 – current)
2. Chair of the Department Learning Outcomes Committee (2016-current)
3. College Curriculum Committee, College of Physical and Mathematical Sciences, (2013 – current)
4. Physical and Mathematical Sciences Dean Search Committee (January 2017-April 2017)
5. Faculty Advisor Mathematics Education Association, (2012-2016)
6. College ORCA Grant Review Committee, College of Physical and Mathematical Sciences, (2013 – 2014)
7. CITES representative, (2012 – 2014)
8. Department Writing Group Organizer (2011-2012)
9. Elected Member, Search Committee Mathematics and Science Education, Mary Lou Fulton Teachers College, (2010-2011)
10. Elected Member, Governance Committee, Mary Lou Fulton Teachers College, Phoenix, AZ (2009 – 2011)
11. Mathematics Coordinator, Teacher Educator for Arizona Mathematics and Science (TEAMS) Program, Tempe, AZ (2010 – 2011)

12. Member, Graduate Secondary MAC Task Force, Mary Lou Fulton, Teachers College, Phoenix, AZ (2010)
13. Member, Academic Specialization Task Force, College of Teacher Education and Leadership, Phoenix, AZ (2009)
14. Member, Field Experience Task Force, College of Teacher Education and Leadership, Phoenix, AZ (2009 – 2011)
15. Member, Redesign of Course Evaluations, School of Educational Innovation and Teacher Preparation, Mesa, AZ (2008 – 2009)

## **PROFESSIONAL SERVICE**

### ***National***

Reviewer for conference proposals presented at the National Council for Teachers of Mathematics Annual Research Pre-session (2012-2014)

Member of the Association of Mathematics Teacher Educators Annual Conference Program committee (2011-2013)

Reviewer for National Science Foundation Discovery Research K-12 Grants (2013)

Reviewer for *Journal of Mathematics Teacher Education* (2015 – Current)

Reviewer for *School Science and Mathematics* (2009 – Current)

Reviewer for *Mathematics Teacher* (2009 – Current)

Reviewer for conference proposals presented at the North American Chapter of the International Group for the Psychology of Mathematics Education (2010)

Reviewer for conference proposals presented at the annual meeting of the Association of Mathematics Teacher Educators (2010)

### ***Regional***

UAMTE President Elect (2016-current)

UAMTE Board Member (2012 – 2014)

## **RECOGNITION AND AWARDS**

*National Scholars Honor Society* 2008

*The National Deans List* 2006-2007

*The Chancellor's List* 2004-2005, 2005-2006, 2006-2007

*Who's Who Among America's Teachers* 1999-2000, 2003-2004, 2004-2005

## **SCHOLARSHIPS AND FELLOWSHIPS**



*Professional Presentation Scholarship 2007*

*Graduate Professional Council Travel Award 2006, 2008*

*Walter Scott Monroe Research Fellowship Fund 2005, 2006*

*University of Missouri Graduate School Travel Scholarship 2005, 2006*

*University of Missouri: MU Mathematics Education Doctoral Fellowship 2008 – 2004*

**PROFESSIONAL MEMBERSHIPS**

National Council of Teachers of Mathematics

National Council of Supervisors of Mathematics

Association of Mathematics Teacher Educators

School Science and Mathematics

North American Chapter of the International Group for the Psychology of Mathematics Education