Amy Jeppsen Tanner

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Areas of Interest

Mathematical Content Preparation of Elementary Teachers, Mathematical Knowledge for Teaching, Curriculum Development and Implementation

Education

PhD, Mathematics Education
University of Michigan – Ann Arbor, MI, 2010

Dissertation: The Role of the Community College Instructor in Choosing and Using Mathematics Curricula for Future Teachers

MA, Mathematics Education
Brigham Young University – Provo, UT, 2005

Thesis: An Examination of the Role of Writing in Mathematics Instruction

BA, Mathematics Education, cum laude
Brigham Young University – Provo, UT, 2002

Teaching, Brigham Young University

MTHED 305 Basic Concepts of Mathematics, Winter 2011 – present (30+ sections)

Concept-oriented exploration of number, measurement, and informal geometry in relation to children's learning.

MTHED 306 Concepts of Mathematics, Fall 2010 – present (30+ sections)

Concept-oriented exploration of rational numbers and proportional reasoning, integers, and probability and data in relation to children's learning.

MTHED 117/177 Critical Review of School Mathematics, Fall 2011 – present (19 sections)

Strengthen understanding of middle-school mathematics; gain awareness as mathematics learners in learning communities; learn how to support collaborative communities as teachers.

MATH 110 College Algebra, Summer 2012, 2018, 2025 (3 sections)

Functions, polynomials, theory of equations, exponential and logarithmic functions, matrices, determinants, systems of linear equations, permutations, combinations, binomial theorem.

MTHED 277 Task Design and Assessment of Student Understanding, Fall 2014 – present (6 sections)

Building tasks that elicit important mathematical ideas. Reflecting on and assessing the success of tasks through questioning and other methods of formative assessment.

MATH/MTHED 300 History of Mathematics, Spring 2016 – present (11 sections)

Historical development of important mathematical ideas and philosophies; implications for mathematics curriculum.

MATH/MTHED 362 Survey of Geometry, Spring 2020 – present (8 sections)

Logical and historical development of Euclidean and non-Euclidean geometry, transformations and symmetry; relationships among axiomatic systems; use of software and other geometric models; proofs and Van Hiele levels.

HONRS 290R The Experience of Wonder, Winter 2023, 2024, 2025 (team taught with Carl Sederholm, Department of Comparative Literature)

Cross-disciplinary exploration of how we experience beauty, wonder, and awe in a variety of settings, and what those experiences suggest about our sense of the world. Course materials drawn from and make connections between mathematics and the history of mathematics, contemporary film, visual arts, etc.

MATH 112 Calculus 1, Fall 2024, Winter 2025 (2 sections)

Differential and integral calculus: limits; continuity; the derivative and applications; extrema; the definite integral; fundamental theorem of calculus; L'Hopital's rule.

Prior Teaching Appointments

Instructor: Functional Math for Elementary Teachers I and II, Introductory Algebra
Washtenaw Community College, 2007 to 2010

Responsibilities: Prepared and led lessons and cooperative learning activities; Prepared and graded assignments and other assessments; Held student consultations.

Teaching Assistant: Mathematics for Elementary School Teachers
University of Michigan, 2008 to 2009

Responsibilities: Held student consultations; Graded assignments and other assessments; Assisted students in class; Prepared and led short lessons.

Instructor: Practicum in Teaching Methods, Secondary Mathematics
University of Michigan, 2006 to 2007

Responsibilities: Matched students with cooperating teachers for pre-student teaching; Observed classroom teaching experiences; Led bi-weekly seminars on mathematics teaching; Collaborated with methods and content area literacy courses.

Instructor: College Algebra, Calculus I, Concepts of Mathematics
Brigham Young University, 2004 to 2005

Responsibilities: Prepared and led lessons and cooperative learning activities; Prepared and graded assignments and other assessments; Held student consultations.

Mathematics Teacher: Algebra 1, Algebra 2, Geometry
Osbourn Park High School, Manassas, VA, 2002 to 2003

Responsibilities: Prepared assessments, lessons, and individual and group learning activities; Served on a committee for writing district-wide mathematics tests.

Research Appointments

Mathematical Knowledge for Teaching Director: Heather Hill
University of Michigan, 2008-2009

Responsibilities: Collaborated on analysis of videos of middle school mathematics teachers and revision of coding scheme for video analysis.

Advancing Adolescent Literacies Director: Elizabeth Moje
University of Michigan, 2007-2008

Responsibilities: Administered and transcribed semi-structured interviews on content-area literacy knowledge and beliefs to prospective teachers; Analyzed interviews of prospective mathematics teachers; Consulted on content-area literacy in mathematics.

Geometry, Reasoning, and Instructional Practices Director: Patricio Herbst
University of Michigan, 2005-2007

Responsibilities: Assisted with focus groups for practicing teachers; Analyzed videos of high school geometry instruction.

Conference Presentations

Siebert, D., Tanner, A ., Luckau, K., & Cannon, T. (2025). *Developing meaning for the equal sign across grades K-12.* Presentation at the Annual Meeting of the Utah Council of Teachers of Mathematics, Provo, UT.

Tanner, A. (2024). *Family Math: Bringing Home the Fun*. Presentation at the Annual Meeting of the Utah Council of Teachers of Mathematics, Provo, UT.

Tanner, A. (2021). *Let's Talk Math! Using homework to create opportunities for meaningful family engagement.* Presentation accepted at the Annual Meeting of the National Council of Teachers of Mathematics, cancelled due to COVID.

Tanner, A., & Christensen, S. (2021). *The power of imagination: Designing for developing conceptual understanding.* Presentation at the Virtual Annual Meeting of the National Council of Teachers of Mathematics.

Ryagoza, M., Lischka, A., Tanner, A., Males, L., Stone, J., Harper, F., Sullivan, P., & Myers, M. (2020). *Humanizing approaches to grading with mathematics preservice teachers: Navigating and pushing beyond systems*. Presentation at the Annual Meeting of the Association of Mathematics Teacher Educators, Phoenix, AZ.

Tanner, A. (2019). *Talking math with kids.* Presentation at the Regional Conference of the National Council of Teachers of Mathematics, Salt Lake City, UT.

Bahr, D., & Tanner, A. (2013). *Integrating content and pedagogy instruction in mathematics teacher preparation*. Presentation at the Annual Meeting of the Association of Mathematics Teacher Educators, Orlando, FL.

Siebert, D., & Jeppsen, A. (2010). *An examination of the role of writing in mathematics instruction*. Paper presented at the 60th Annual Meeting of the National Reading Conference, Forth Worth, TX.

Jeppsen, A. (2008) Opportunities to learn mathematics for teaching at community colleges. Paper presented at the Conference on Research in Undergraduate Mathematics Education. San Diego.

Herbst, P. Hsu, H., Chen, C., González, G., and Jeppsen, A. (2007). *Conceptions of figure in high school geometry instruction*. Poster presented at the annual meeting of the American Educational Research Association, Chicago.

Jeppsen, A. & Sealy, J. (2006). *Mathematics instruction in multilingual classrooms.* Paper presented at the Conference of the Midwest Institute for International and Intercultural Education. Livonia, MI.

Sealy, J. & Jeppsen, A. (2006). *Mathematics instruction in multilingual classrooms.* Paper presented at the Mathematics Education Conference at Eastern Michigan University. Ypsilanti, MI.

Publications

Siebert, D. & Tanner, A. (2026). Growing Problem Solvers: Reading algebraic expressions and equations. *Mathematics Teacher: Learning and Teaching PK-12 119*(1), 70-73.

Tanner, A. & Siebert, D. (2025). Growing Problem Solvers: Family math. *Mathematics Teacher: Learning and Teaching PK-12 118*(10), 793-796.

Siebert, D. & Tanner, A. (2025). Growing Problem Solvers: Meaningful context for negative numbers. *Mathematics Teacher: Learning and Teaching PK-12 118*(8), 632-635.

Tanner, A. & Siebert, D. (2025). Growing Problem Solvers: Sorting activities. *Mathematics Teacher: Learning and Teaching PK-12 117*(6), 386-339.

Siebert, D. & Tanner, A. (2024). Growing Problem Solvers: Multiple meanings and uses of the equal sign. *Mathematics Teacher: Learning and Teaching PK-12 118*(2), 150-153.

Siebert, D. & Tanner, A. (2024). Growing Problem Solvers: Using benchmarks to expand the number system. *Mathematics Teacher: Learning and Teaching PK-12 117*(9), 668-671.

Tanner, A. & Siebert, D. (2024). Growing Problem Solvers: The distributive property. *Mathematics Teacher: Learning and Teaching PK-12 117*(6), 456-460.

Siebert, D. & Tanner, A. (2024). Growing Problem Solvers: Reasoning about samples. *Mathematics Teacher: Learning and Teaching PK-12 117*(2).

Non-Referred Publications

Tanner, A., (2021, April 5). Promoting young children's interest in math. *Development and Research in Early Mathematics Education Blog.*
https://dreme.stanford.edu/news/promoting-young-childrens-interest-in-math/
Invited blog post for Stanford Development and Research in Early Mathematics Education (DREME)

Professional Service: Department, College, and University

College of Physical and Mathematical Sciences Curriculum Committee, 2011 – 2012

Secondary Education Committee Member, 2011 – 2016

Department Equity Committee, 2016 – 2018

Department Vision Statement Committee, 2019 – 2020

Prestigious Scholarships Interview Committee, 2022

Undergraduate Adviser, Department of Mathematics Education, 2011 – 2025

Mentor for Graduate Instructors, Mathematics for Elementary Teachers, 2011 – present

Coordinator, Mathematics for Elementary Teachers, 2010 – present

Professional Service: External

Vice President, Utah Council of Teachers of Mathematics, 2011 – 2013

Reviewer	AERA Annual Meeting, 2007, 2020 Journal for Research in Mathematics Education, 2007 Psychology of Mathematics Education (PME), 2009 Mathematics Teacher Educator, 2012 – present Mathematics Teacher: Learning and Teaching PreK-12, 2019 – present
Co-Editor	Growing Problem Solvers (GPS) Department, *Mathematics Teaching and Learning PK-12 (MTLT)*, August 2023 – present

Membership in Professional Organizations

National Council of Teachers of Mathematics (NCTM)
Utah Council of Teachers of Mathematics (UCTM)
Association of Mathematics Teacher Educators (AMTE)
Mathematical Association of America (MAA)

Awards

College Excellence in Teaching Award, College of Computational, Physical, and Mathematical Sciences (2025

Alcuin Fellowship, Brigham Young University (2022)
3-year fellowship for co-designing and co-teaching a cross-disciplinary Honors Unexpected Connections course with a faculty member in a different discipline. Course to be taught Winter 2023, Winter 2024, and Winter 2025.

Faculty Women's Association Teaching Award, Brigham Young University (2019)

Early Career Excellence in Teaching Award, College of Physical and Mathematical Sciences, Brigham Young University (2017)