Blake Ellis Peterson
Curriculum Vitae

Department of Mathematics Education
Brigham Young University
Provo, Utah 84602
(801) 422-7784 (office)
email: peterson@mathed.byu.edu

EDUCATION

Ph.D., Washington State University, May 1993
Dissertation topic: *Integer Polyhedra*
Advisor: James H. Jordan

M.S., Washington State University, May 1990
Project topic: *Integer Polygons*
Advisor: James H. Jordan

B. A., Utah State University, June 1986
Major: Secondary Education
Emphasis: Mathematics, Computer Science
Magna Cum Laude, 3.91 GPA

AREAS OF EXPERTISE

Identifying and productively using high-leverage instances of student thinking during instruction, mathematical teacher education and student teaching in Japan, and lesson study with preservice teachers. Number Theory and its application to Geometry.

PROFESSIONAL EXPERIENCE

Professor of Mathematics Education
Brigham Young University, 2007-present

Associate Professor of Mathematics Education
Brigham Young University, 2000-2007

Assistant Professor of Mathematics
Brigham Young University, 1996-2000

Assistant Professor of Mathematics
Oregon State University, 1993-1996

Teaching Assistant
Washington State University College of Education, 1992-1993

Mathematics Teacher
Project SMART, Washington State University, summer 1989

Teaching Assistant
Washington State University Department of Mathematics, 1988-1992

Secondary Mathematics Teacher
Chino High School, Chino, CA 1986-1988

AWARDS

Benjamin Cluff Jr. Excellence in Educator Preparation award, David O McKay School of Education, Brigham Young University, March 2019

Excellence in Teaching in Mathematics Teacher Education, Association of Mathematics Teacher Educators, February, 2015

Richard Roskelley Teaching and Learning Faculty Fellowship, Brigham Young University, August 2014

College Teaching Award, College of Physical and Mathematical Sciences, Brigham Young University, January 2000

TA Excellence in Instruction Award, Graduate and Professional Student Association of Washington State University, Spring 1991

Outstanding Student Award, College of Education, Utah State University, 1986

Member of Phi Kappa Phi honor society

PUBLICATIONS (all are peer reviewed)

Stockero, S. L., Leatham, K. R., & Peterson, B. E. (2026) Ways researchers can use teacher noticing to inform the conceptualization of a complex teaching practice *ZDM Mathematics Education 58*(1-2) 33-42 doi.org/10.1007/s11858-025-01720-0

Leatham, K. R., Peterson, B. E., & Stockero, S. L. (2025). A methodology for decomposing a complex teaching practice. In R. M. Zbiek, X. Yao, A. McCloskey, & F. Arbaugh (Eds.), *Proceedings of the 47th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 470-479). Pennsylvania State University.

Payne, O. & Peterson, B. E. (2025). Making In-The-Moment Decisions About Using Student Thinking *School Science and Mathematics Education* doi.org/10.1111/ssm.18412

Leatham, K., Williams, S., & Peterson, B. (In Press). Research Expectation Details in Expectations Documents: The Case of Mathematics Education. *Investigations in Mathematics Learning*

Stockero, S. L., Van Zoest, L. R., Leatham, K. R., & Peterson, B. E. (2025) Noticing in the midst of building on a critical event. *Journal of Mathematics Teacher Education 28*(5) 1017-1032 doi.org/10.1007/s10857-024-09675-x

Leatham, K. R., Stockero, S. L., & Peterson, B. E. (2024). Researchers learning from teacher noticing: The case of Mr. Thompson. In K. W. Kosko, J. Caniglia, S. Courtney, M. Zolfaghari, & G. A. Morris (Eds.), *Proceedings of the 46th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1859-1864). Kent State University.

Peterson, B., Williams, S., & Leatham, K. (2024). Perceived Research Expectations for Mathematics Education Faculty in US Institutions of Higher Education. *Investigations in Mathematics Learning, 16*(4) 320-335. https://doi.org/10.1080/19477503.2024.2366734

Leatham, K. R., Peterson, B. E., Freeburn, B., Graff, S. W., Van Zoest, L. R., Stockero, S. L., & Kamlue, N. (2023). Using Public Records to Scaffold Joint Sense Making. *Mathematics Teacher: Learning and Teaching PK-12*, *116*(11), 856-864.

Peterson, B. E., Williams, S. R., Leatham, K. R. (2023) Research Expectations for Mathematics Education Faculty in US Institutions of Higher Education. In Lamberg, T., & Moss, D. (Eds.), *Proceedings of the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 1). University of Nevada, Reno.

Van Zoest, L. R., Stockero, S. L., Peterson, B. E., & Leatham, K. R. (2023). (Counter) Productive Practices for Using Student Thinking. *Mathematics Teacher: Learning and Teaching PK-12*, *116*(4), 244-251.

Peterson, B. E., Corey, D. L., Lewis, B. M., & Bukarau, J. (2023). Reflections on High-Quality Math Instruction. *Mathematics Teacher: Learning and Teaching PK-12*, *116*(2), 149-155. (This was a reprint of the 2013 paper titled "Intellectual Engagement and Other Principles of Mathematics Instruction")

Stockero, S. L., Peterson, B. E., Leatham, K. R., Van Zoest, L. R. (2022). Conducting a whole class discussion about an instance of student mathematical thinking. In A. E. Lischka, E. B. Dyer, R. S. Jones, J. N. Lovett, J Strayer, & S. Drown (Eds.), *Proceedings of the 44th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1860-1868). PME-NA.

Freeburn, B., Leatham, K. R., Graff, S., Kamlue, N., Stockero, S. L., Peterson, B. E., Van Zoest, L. R. (2022). Using public records to support the productive use of student mathematical thinking. In A. E. Lischka, E. B. Dyer, R. S. Jones, J. N. Lovett, J Strayer, & S. Drown (Eds.), *Proceedings of the 44th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1756-1764). PME-NA.

Leatham, K. R., Van Zoest, L. R., Peterson, B. E., & Stockero, S. L. (2022). A Decomposition of the Teaching Practice of Building. *Proceedings of the National Council of Teachers of Mathematics Research Conference*.

Peterson, B. E., Stockero, S. L., Leatham, K. R., & Van Zoest, L. R. (2022). Tackling Tangential Student Contributions. *Mathematics Teacher: Learning and Teaching PK-12*, *115*(9), 618-624.

Peterson, B. E.(2022). Area of a Changing Triangle: Piecing it Together. *Mathematics Teacher: Learning and Teaching PK-12* 115(3) 211-218

Stockero, S. L., Van Zoest, L. R., Freeburn, B., Peterson, B. E., & Leatham, K. R. (2022). Teachers' responses to instances of student mathematical thinking with varied potential to support student learning. Mathematics Education Research Journal, 34(1), 165-187. https://doi.org/10.1007/s13394-020-00334-x

Leatham, K. R., Van Zoest, L. R., Freeburn, B., Peterson, B. E., & Stockero, S. L. (2021). Establishing student mathematical thinking as an object of class discussion. In D. Olanoff, K. Johnson, & S. Spitzer (Eds.), *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1392-1400). PME-NA.

Peterson, B. E. (2021). Linear and Quadratic Change: A Problem from Japan. *Mathematics Teacher: Learning and Teaching PK-12*, *114*(9), 712-720. (This was a reprint of the 2006 article of the same name.)

Van Zoest, L. R., Peterson, B. E., Rougée, A. O. T., Stockero, S. L., Leatham, K. R., & Freeburn, B. (2021). Conceptualizing important facets of teacher responses to student mathematical thinking. *International Journal of Mathematical Education in Science and Technology.* https://doi.org/10.1080/0020739X.2021.1895341

Van Zoest, L. R., Stockero, S. L., Leatham, K. R., Peterson, B. E., & Ruk, J. M. (2020). Articulating the Student Mathematics in Student Contributions. In Sacristán, A.I., Cortés-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.). (2020). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico* (pp. 2105-2109). Cinvestav / AMIUTEM / PME-NA. https:/doi.org/10.51272/pmena.42.2020

Stockero, S. L., Leatham, K. R., Ochieng, M. A., Van Zoest, L. R., & Peterson, B. E. (2020). Teachers' orientations toward using student mathematical thinking as a resource during whole-class discussion. *Journal of Mathematics Teacher Education*, 23(3), 237-267.

Peterson, B. E., Leatham, K. R., Merrill, L. M., Van Zoest, L. R., & Stockero, S. L. (2020). Clarifiable Ambiguity in Classroom Mathematics Discourse. *Investigations in Mathematics Learning*, 1-10.

Stockero, S. L., Peterson, B. E., Ochieng, M. A., Ruk, J. M., Van Zoest, L. R., & Leatham, K. R. (2019). Teachers' initial responses to high-leverage instances of student mathematical thinking. In M. Graven, H. Venkat, A. Essien, & P. Vale (Eds.),

Proceedings of the 43rd conference of the International Group for the Psychology of Mathematics Education (Vol. 3, pp. 335-342). Pretoria, South Africa: PME.

Ochieng, M. A., Ruk, J. M., Leatham, K. R., Peterson, B. E., Stockero, S. L., & Van Zoest, L. R. (2019). The complexity of interpreting student thinking and inferring its potential to foster learning. In M. Graven, H. Venkat, A. Essien, & P. Vale (Eds.), *Proceedings of the 43rd conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 161-168). Pretoria, South Africa: PME.

Peterson, B. E., Teuscher, D., Ricks, T. E., (2019). Lesson Study in a Mathematics Methods Course: Overcoming Cultural Barriers. In Huang, R., Takahashi, A., da Ponte, J. P. (Eds.), *Theory and Practice of Lesson Study in Mathematics: An International Perspective* (pp. 549-575). Springer, Cham.

Stockero, S. L., Freeburn, B., Van Zoest, L. R., Peterson, B. E., & Leatham, K. R. (2018). Teachers' responses to instances of student mathematical thinking with varied potential to support student learning. In T. E. Hodges, G. J. Roy, & A. M. Tyminski (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1076-1083). Greenville, SC: University of South Carolina & Clemson University.

Van Zoest, L. R., Leatham, K. R., Arslan, O., Ochieng, M. A., Ruk, J. M., Peterson, B. E., & Stockero, S. L. (2018). A characterization of student mathematical thinking that emerges during whole-class instruction: An exploratory study. In T. E. Hodges, G. J. Roy, & A. M. Tyminski (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1126-1129). Greenville, SC: University of South Carolina & Clemson University.

Peterson, B. E., & Leatham, K. R. (2018). The Structure of Student Teaching Can Change the Focus to Students' Mathematical Thinking. In *Educating Prospective Secondary Mathematics Teachers* (pp. 9-26). Springer, Cham.

Stockero, S. L., Van Zoest, L. R., Peterson, B. E., Leatham, K. R., & Rougée, A. O. T. (2017). Teachers' responses to a common set of high potential instances of student mathematical thinking. In E. Galindo, & J. Newton (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1178-1185). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Peterson, B. E., Van Zoest, L. R., Rougée, A. O. T., Freeburn, B., Stockero, S. L. & Leatham, K. R. (2017). Beyond the "Move": A Scheme for Coding Teachers' Responses to Student Mathematical Thinking. In Kaur, B., Ho, W. K., Toh, T. L. & Choy, B. H. (Eds). *Proceedings of the 41st Conference of the International Group for the Psychology of Mathematics Education*, Vol. 4, (pp. 17-24). Singapore: PME

Stockero, S. L., Leatham, K. R., Van Zoest, L. R., & Peterson, B. E. (2017). Noticing distinctions among and within instances of student mathematical thinking. In E. Schack,

J. Wilhelm, & M. H. Fisher (Eds.), *Teacher noticing: A hidden skill of teaching*. Cham, Switzerland: Springer International.

Teuscher, D., Leatham, K. R., Peterson, B. E. (2017). The influence of focused video analysis on prospective secondary mathematics teachers' noticing of student mathematical thinking. In E. Schack, J. Wilhelm, & M. H. Fisher (Eds.), *Teacher noticing: A hidden skill of teaching*. Cham, Switzerland: Springer International.

Peterson, B. E., & Viramontes, R. (2017). Key Questions to Guide Teachers in Supporting Productive Struggle in Learning Mathematics. In D. A. Spangler & J. J. Wanko (Eds), *Enhancing Classroom Practice: with Research behind Principle to Actions*. Reston, Va: National Council of Teachers of Mathematics.

Corey, D. L., Leatham, K. R., & Peterson, B. E. (2017). The Instructional Quality of Mathematics Student Teachers in the United States and Japan: The Possible Impact of the Structure of Student Teaching. In *What Matters? Research Trends in International Comparative Studies in Mathematics Education* (pp. 215-236). Springer International Publishing.

Van Zoest, L. R., Stockero, S. L., Leatham, K. R., Peterson, B. E., Atanga, N. A., & Ochieng, M. A. (2017). Attributes of Instances of Student Mathematical Thinking that Are Worth Building on in Whole-Class Discussion. *Mathematical Thinking and Learning*, *19*(1), 33-54.

Leatham, K. R., Peterson, B. E., Merrill, L., Van Zoest, L. R., & Stockero, S. L. (2016). Imprecision in classroom mathematics discourse. In M. B. Wood, E. E. Turner, M. Civil, & J. A. Eli (Eds.), *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1236-1243). Tucson, AZ: University of Arizona.

Van Zoest, L. R., Peterson, B. E., Leatham, K. R., Stockero, S. L. (2016). Conceptualizing the teaching practice of building on student mathematical thinking. In M. B. Wood, E. E. Turner, M. Civil, & J. A. Eli (Eds.), *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1281-1288). Tucson, AZ: University of Arizona.

Van Zoest, L. R., Stockero, S. L., Leatham, K. R., & Peterson, B. E. (2016). Theorizing the mathematical point of building on student mathematical thinking. In C. Csíkos, A. Rausch, & J. Szitányi (Eds.), *Proceedings of the 40th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 323–330). Szeged, Hungary: PME.

Van Zoest, L. R., Stockero, S. L., Atanga, N. A., Leatham, K. R., Peterson, B. E. & Ochieng, M. A. (2015). Attributes of student mathematical thinking that is worth building on in whole class discussion. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1086-1093). East Lansing, MI: Michigan State University.

Stockero, S. L., Van Zoest, L. R., Rougee, A., Fraser, E. H., Leatham, K. R. & Peterson, B. E. (2015). Uncovering teachers' goals, orientations, and resources related to the practice of using student thinking. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1146-1149). East Lansing, MI: Michigan State University.

Leatham, K. R., Peterson, B. E., Stockero, S. L., & Van Zoest, L. R. (2015). Conceptualizing Mathematically Significant Pedagogical Opportunities to Build on Student Thinking. *Journal for Research in Mathematics Education* 46(1), 88-124

Stockero, S. L., Peterson, B. E., Leatham, K. R., & Van Zoest, L. R. (2014). The "MOST" Productive Student Mathematical Thinking. *Mathematics Teacher* 106(4) 308-312

Leatham, K. R., Van Zoest, L. R., Stockero, S. L., & Peterson, B. E. (2014). Teachers' Perceptions of Productive Use of Student Mathematical Thinking. In Liljedahl, P., Nicol, C., Oesterle, S., & Allan, D. (Eds). *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 4, (pp. 73-80). Vancouver, BC, Canada: PME

Leatham, K. R. & Peterson, B. E. (2013). Talking about Pedagogy, Students and Mathematics. In Martinez, M. & Castro Superfine, A (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 629-636). Chicago, IL: University of Illinois at Chicago.

Johnson, K. R., Steele, M. D., Herbel-Eisenmann, B. A., Leatham, K. R., Peterson, B. E., Stockero, S. L., Van Zoest, L. R. Almeida, I., & Merrill, L. (2013). Classroom Mathematics Discourse: Broadening Perspectives by Integrating Tools for Analysis. In Martinez, M. & Castro Superfine, A (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1340-1348). Chicago, IL: University of Illinois at Chicago.

Van Zoest, L. R., Leatham, K. R., Peterson, B. E. & Stockero, S. L. (2013). Conceptualizing Mathematically Significant Pedagogical Openings to Build on Student Thinking. In Lindmeier, A. M. & Heinze, A. (Eds). *Proceedings of the 37th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 4, (pp. 345-352). Kiel, Germany: PME

Peterson, Blake E., Corey, Doug, Lewis, Ben M., & Bukarau, Jared (2013). Intellectual Engagement and Other Principles of Mathematics Instruction. *Mathematics Teacher* 106(6), 446-450

Peterson, Blake E. (2012) Linear and Quadratic Change: A Problem from Japan. In S. Kasten, J. Newton (Eds.), *Reasoning and Sense-Making Activities for High School Mathematics: Selections from Mathematics Teacher* (pp. 179-185). Reston, VA: National

Council of Teachers of Mathematics. [This paper was previously published in the Mathematics Teacher in 2006]

Leatham, K. R., Peterson, B. E., Stockero, S. L., & Van Zoest, L. R. (2011). Mathematically important pedagogical opportunities. In L. R. Wiest, T. Lamberg (Eds.), *Proceedings of the 33rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 838-845). Reno, NV: University of Nevada, Reno.

Peterson, B. E. (2010) Mathematics student teaching in Japan: Where's the management. In G. Anthony & B. Grevhold (Eds.), *Teachers of mathematics: Recruitment and retention, professional development and identity* (pp. 135-144). Kristiansand, Norway: Writings from Swedish Society for Research in Mathematics Education No. 8

Leatham, K. R., & Peterson, B. E. (2010). Purposefully designing student teaching to focus on students' mathematical thinking. In J. Luebeck & J. W. Lott (Eds.), *Mathematics teaching: Putting research into practice at all levels* (pp. 225-239). San Diego, CA: Association of Mathematics Teacher Educators.

Leatham, K. R., Stockero, S., Van Zoest, L., & Peterson, B. E. (2010). Investigating mathematically important pedagogical opportunities. In Brosnan, P., Erchick, D. B., & Flevares, L. (Eds.) *Proceedings of the 32nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, The Ohio State University.

Corey, Doug, Peterson, Blake E., Lewis, Ben M., & Bukarau, Jared (2010) Are there any places that students use their head? Principles of high-quality Japanese mathematics instruction. *Journal for Research in Mathematics Education* 41(5), 434-478

Leatham, Keith R. & Peterson, Blake E (2010) Secondary Mathematics Teachers' Perceptions of the Purpose of Student Teaching. *Journal of Mathematics Teacher Education 12(2)*, 99-119

Peterson, Blake E., & Leatham, Keith R. (2009). Learning to use students' mathematical thinking. In L. Knott (Ed.), *The role of mathematics discourse in producing leaders of discourse* (pp. 99-128). Charlotte, NC: Information Age Publishing.

Plummer, Julie S. & Peterson, Blake E. (2009) A Preservice Secondary Teacher's Moves to Protect her View of Herself as a Mathematics Expert. *School Science and Mathematics*, 109(5), 247-257

Peterson, Blake E. and Williams, Steven R. (2008) Mentoring Styles in Mathematics: Two Contrasting Cases. *Journal of Mathematics Teacher Education*, *11(6)*, 459-478.

Peterson, Blake E. (2008) A Look at Japanese Junior High School Mathematics Textbooks. In Usiskin, Z., & Willmore, E. (Eds) *Mathematics Curriculum in Pacific Rim Countries – China, Japan, Korea, and Singapore: Proceedings of a Conference* (pp. 209-231), Charlotte, NC: Information Age Publishing

Leatham, Keith R. and Peterson, Blake E. (2007) Using Students' Mathematical Thinking to Orchestrate A Class Discussion. In Lamberg, T., & Wiest, L. R. (Eds.). *Proceedings of the 29th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Stateline (Lake Tahoe), NV: University of Nevada, Reno.*

Peterson, Blake E. (2006) Counting Dots and Measuring Area: Rich Problems from Japan. *Mathematics Teaching in the Middle School, 12(4)*, 214-219

Peterson, Blake E. (2006) Linear and Quadratic Change: A Problem from Japan. *Mathematics Teacher*, 100(3), 206-212

Leatham, Keith R. and Peterson, Blake E. (2005) Research on Teaching and Learning Mathematics with Technology: Where do we go from here? In Lloyd, G. M., Wilson, M., Wilkins, J. L. M., & Behm, S. L. (Eds.) *Proceedings of the 27th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. CD. Blacksburg: Virginia Tech, School of Education.

Peterson, Blake E., Williams, Steven R., and Durrant, Vari (2005) Factors that Affect Mathematical Discussion Among Secondary Student Teachers and Their Cooperating Teachers. *New England Mathematics Journal Focus Issue: Teacher Mentoring and Learning to Teach Mathematics*, 37(2), pp. 41-49.

Peterson, Blake E. (2005) Student Teaching in Japan: The Lesson. *Journal of Mathematics Teacher Education*, 8(1), 61-74.

Knuth, Eric J. and Peterson Blake E. (2003) Fostering Mathematical Curiosity: Highlighting the Mathematics. *Mathematics Teacher, 96(8)*, 574-579.

Peterson, Blake E. and Williams, Steven R. (2001) Mentoring Styles in Mathematics: Two Contrasting Cases. In R. Speiser, C. Maher, & C. Walter (Eds.) *Proceedings of the twenty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Vol. 2, (pp. 885-895). Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education.

Peterson, Blake E. (2000) From Tessellations to Polyhedra: BIG Polyhedra *Mathematics Teaching in the Middle Scho*ol, 5(6), 348-357.

Peterson, Blake E. and Jordan, James H. (1999) Integer Antiprisms and Integer Octahedron *Mathematics Magazine, 72(4*), 277-286.

Peterson, Blake E. and Williams, Steven R. (1998) Mentoring Beginning Teachers. *Mathematics Teacher, 91(8)*, 730-734.

Peterson, Blake E., Averbeck, Patrick, and Baker, Lynanna (1998) Sine Curves and Spaghetti. *Mathematics Teac*her, 91(7), 564-567.

Peterson, Blake E. (1997) A New Angle on Stars. *Mathematics Teacher,90(8),* 634-639.

Peterson, Blake E. and Jordan, James H. (1997) Integer Geometry: Some Examples and Constructions. *The Mathematical Gazette, 81(490),* 18-28.

Peterson, Blake E. and Jordan, James H. (1996) The Rational Heart of Integer Fibonacci Pentagons. In G. E. Bergum, A. N. Philippou, and A. F. Horadam (Eds.) *Applications of Fibonacci Numbers*, Vol. 6. (pp. 381-388) Kluwer Academic Publisher, Dordrecht, The Netherlands.

Peterson, Blake E. and Jordan, James H. (1995) Integer Polyhedra Equivalent to Perfect Boxes. *The American Mathematical Monthly, 102(1),* 41-45

Peterson, Blake E. and Jordan, James H. (1993) Almost Regular Integer Fibonacci Pentagons. *Rocky Mountain Mathematics Journal, 23(1)*, 243-247.

BOOKS AND CURRICULUM

Corey, D., Peterson, B., Ninomiya, H. Soma, K. & Kunimune, S. (in press) *What makes a Good Mathematics Lesson: The Theory*, Emerald Publishing

Corey, D., Peterson, B., Ninomiya, H. Soma, K. & Kunimune, S. (in press) *What makes a Good Mathematics Lesson: The Lessons*, Emerald Publishing

Musser, Gary L., Peterson, Blake E., and Burger, William F. (2014). *Mathematics for Elementary Teachers: A Contemporary Approach 10th Edition*, New York: John Wiley & Sons Inc.

Musser, Gary L., Burger, William F., and Peterson, Blake E. (2011). *Mathematics for Elementary Teachers: A Contemporary Approach 9th Edition*, New York: John Wiley & Sons Inc.

Musser, Gary L., Burger, William F., and Peterson, Blake E. (2008). *Mathematics for Elementary Teachers: A Contemporary Approach 8th Edition*, New York: John Wiley & Sons Inc.

Musser, Gary L., Burger, William F., and Peterson, Blake E. (2006). *Mathematics for Elementary Teachers: A Contemporary Approach 7th Edition*, New York: John Wiley & Sons Inc.

Musser, Gary L., Burger, William F., and Peterson, Blake E. (2003). *Mathematics for Elementary Teachers: A Contemporary Approach 6th Edition*, New York: John Wiley & Sons Inc.

Musser, Gary L., Burger, William F., and Peterson, Blake E. (2000). *Mathematics for Elementary Teachers: A Contemporary Approach 5th Edition*, New York: John Wiley & Sons Inc.

Peterson, Blake E. (1998). *Survey of Geometry* (Math 362) Independent Study Course materials

ENCYCLOPEDIA ARTICLES

Articles appearing in *The World Book Encyclopedia*, Chicago: World Book Inc.

2004 - Hexagon
2005 - Geometry
2005 - Bolyai, Janos (World Book online only)
2007 - Archimedean Solid; Area; Cone (geometry); Gauss, Carl Friedrich; Lobachevsky, Nikolai; Octagon; Octahedron; Polyhedron; Riemann, Georg Friedrich Bernhard; Triangle (geometry)

RESEARCH GRANTS AND FELLOWSHIPS (funded)

Collaborative Research: Learning to Build on MOSTs, National Science Foundation Discovery Research K-12 (#2405224), w/ Keith Leatham (Co-PI) $1,357,846 , October 2024 – September 2028

Collaborative Research: Investigating Productive Use of High-Leverage Student Mathematical Thinking, National Science Foundation Discovery Research K-12, w/ Keith Leatham (Co-PI) $599,476.00, June 2017 – May 2021

Collaborative Research: Leveraging MOSTs: Developing a Theory of Productive Use of Student Mathematical Thinking, National Science Foundation Discovery Research K-12, w/ Keith Leatham (Co-PI) $1,111,645, October 2012-September 2016

The Nature of the Mathematics Education Courses for Secondary Preservice Teachers in Japan, Submitted to David M. Kennedy Center for International Studies, $2000, 2012

The role of the Japanese hanseikai in developing the reflective practices of mathematics student teachers in a Japanese junior high school, David M. Kennedy Center for International Studies, $2,500, 2005

The role of the Japanese hanseikai in developing the reflective practices of mathematics student teachers in a Japanese junior high school, David M. Kennedy Center for International Studies, $2,500, 2004

Japan Society for the Promotion of Science short term (2 month) fellowship at Ehime University in Matsuyama, Japan, $10,000, August 21-October 18, 2003

Mathematical Dialogue between Secondary Mathematics Student Teachers and Cooperating Teachers in Japan and Comparison to the U. S., David M. Kennedy Center for International Studies, $3,500, 2003

Mathematical Dialogue between Secondary Mathematics Student Teachers and Cooperating Teachers in Japan and Comparison to the U. S., David M. Kennedy Center for International Studies, $2,000, 2002

RESEARCH GRANTS AND FELLOWSHIPS (submitted)

Collaborative Research: Learning to Build on MOSTs, Submitted to NSF DRK-12, October 2020, 2021, 2022: Co-Principle Investigator

Collaborative Research: Building on MOSTs: Contributing to a Theory of Productive Use of Student Mathematical Thinking, Submitted to NSF DRK-12, December, 2015: Co-Principle Investigator

Collaborative Research: Leveraging Mathematically Important Pedagogical Opportunities to Enhance Mathematics Teacher Learning and Practice, Submitted to NSF DRK-12, January, 2011: Co-Principle Investigator.

Building a Professional Development Model for Comprehensive Mathematics Instruction (CMI), Submitted to NSF Teacher Professional Continuum Program, September, 2004: Co-Principle Investigator

From Preservice to Mentor Mathematics Teacher: Creating a Culture of Collegiality, Preproposal submitted to NSF Teacher Professional Continuum Program, May 2003: Principle Investigator

INVITED TALKS

Restructuring Student Teaching to Focus on Students' Mathematical Thinking. Invited talk at the International Congress of Mathematics Education. Hamburg, Germany, July 24-31, 2016 (Co-Presenter: Keith Leatham)

Why and How to Let Students Struggle: Thoughts from Research. Invited talk at NCTM annual conference. San Francisco, April 13-16, 2016.

Intellectually Engaging Problems: The Heart of Good Lesson. Invited talk at NCTM annual conference. Boston, MA, April 13-18, 2015.

Seeing Through Your Students' Eyes. Invited talk at AMTE as the Excellence in Teaching in Mathematics Teacher Education award recipient. AMTE annual conference, Orlando Florida. February 13, 2015.

Math and Science Education in Japan. Invited talk for Kennesaw State University's Year of Japan. Kennesaw, Georgia. April 17, 2014. (Co-Presentor: Catherine Lewis, Tad Watanabe)

Japanese Junior High School Mathematics Curriculum. Invited talk at the CSMC International Mathematics Curriculum Conference, University of Chicago, November 11-13, 2005

Patterns and Tables and Graphs, Oh My! Japanese Style. Invited Keynote Address at the Utah Council of Teachers of Mathematics annual conference, Jordan High School, Sandy, Utah, October 8, 2004

Mentoring Mathematics Teachers: Ways to Develop Rich Mathematical Dialogue, Invited speaker at Mankato State University Inservice Teacher Mentoring Workshop, Mankato Minnesota, February 27, 2001

PRESENTATIONS

Seeing Through your Students' Eyes. Colloquium at Purdue Fort Wayne. Fort Wayne, Indiana. May 1, 2025

Productively Using Teachable Moments. Colloquium at Purdue Fort Wayne. Fort Wayne, Indiana. May 1, 2025

Productively Using Teachable Moments Colloquium at Bowling Green State University. Bowling Green, Ohio. March, 2024

Using a Public Record to Anchor Joint Sense Making of Mathematics
Presentation at the annual meeting of the National Council of Teachers of Mathematics, Chicago, IL. September, 2024 (Presenter: Leatham, K. R., Co-authors: Freeburn, B., Graff, S., Peterson, B. E., & Van Zoest, L. R.)

Tackling Tangential Student Contributions
Presentation at the annual meeting of the National Council of Teachers of Mathematics, Chicago, IL. September, 2024 (Presenter: Peterson, B. E., Co-authors: Leatham, K. R., Stockero, S. L., & Van Zoest, L. R.)

Wait, What Are We Talking About?
Presentation at the annual meeting of the National Council of Teachers of Mathematics, Chicago, IL. September, 2024 (Presenter: Stockero, S. L., Co-authors: Leatham, K. R., Peterson, B. E., & Van Zoest, L. R.)

(Counter)Productive Practices for Using Student Thinking
Presentation at the annual meeting of the National Council of Teachers of Mathematics, Chicago, IL. September 2024 (Presenter: Van Zoest, L. R., Co-authors: Leatham, K. R., Peterson, B. E., & Stockero, S. L)

Using Rehearsal Debriefs with Experienced Teachers to Negotiate an Understanding of an Ambitious Teaching Practice. Presentation at the 27th Annual Conference of the Association of Mathematics Teacher Educators, New Orleans, LA. February 2023 (Co-Presenters: Stockero, S. L., Leatham, K. R., & Van Zoest, L. R.)

Viewing Classroom Mathematics Discourse through Two Complementary Lenses.
Presentation at the 27th Annual Conference of the Association of Mathematics Teacher Educators, New Orleans, LA. February 2023 (Co-Presenters: Leatham, K. R., Conner, A. M., Singletary, L., Van Zoest, L. R., Foster, J. K., Stockero, S. L., Park, H., Zhuang, Y.)

A decomposition of the teaching practice of building. Presentation at the 2022 NCTM Research Conference, Los Angeles, CA. September, 2022 (Co-Presenter: Leatham, K. R.)

Using public records to support class discussion. Presentation at the 26th Annual Conference of the Association of Mathematics Teacher Educators, Henderson, NV. February 2022 (Co-Presenters: Leatham, K. R., Stockero, S. L., & Van Zoest, L. R.)

Using a Public Record to Anchor Whole-Class Mathematical Discussions. Presentation at the 25th Annual Conference of the Association of Mathematics Teacher Educators, Held Virtually. February, 2021 (Co-Presenters: Van Zoest, L. R., Madis, C. E., Leatham, K. R., & Stockero, S. L.)

Establishing Student Mathematical Thinking as an Object of Class Discussion. Presentation at the 25th Annual Conference of the Association of Mathematics Teacher Educators, Held Virtually. February, 2021 (Co-Presenters: Stockero, S. L., Van Zoest, L. R., & Leatham, K. R.)

Learning a teaching practice through representations, decompositions, and approximations. Presentation at the 24th Annual Conference of the Association of Mathematics Teacher Educators, Phoenix, AZ. February, 2020 (Co-Presenters: Madis, C., Ruk, J., Van Zoest, L. R., Stockero, S. & Leatham, K.)

Understanding and developing skills needed to build on student mathematical thinking. Presentation at the 24th Annual Conference of the Association of Mathematics Teacher Educators, Phoenix, AZ. February, 2020 (Co-Presenters: Leatham, K. R., Stockero, S. L., & Van Zoest, L. R.,)

Building: a way to productively use high-leverage student mathematical thinking. Presentation at the Regional Conference of the National Council of Teachers of Mathematics, Salt Lake City, UT. October, 2019 (Co-Presenter: Leatham K. R.; Co-Author: Stockero, S. L. & Van Zoest, L. R.)

Learning to Listen to What Students Say and Not Just What You Want to Hear. Presentation at the Regional Conference of the National Council of Teachers of Mathematics, Salt Lake City, UT. October, 2019

To Pursue or Not to Pursue: Making Decisions about Student Mathematical Thinking. Presentation at the 97th Annual Meeting of the National Council of Teachers of Mathematics, San Diego CA. April, 2019 (Co-Presenter: Leatham, K. R.)

Examining which student thinking is considered in responsive teaching. Presentation at the 23rd Annual Meeting of the Association of Mathematics Teachers Educators, Orlando, FL. February, 2019. (Co-Presenters: Stockero, S. L., Leatham, K. R., & Van Zoest, L. R.)

Teachers' responses to instances of student mathematical thinking with varied potential to support student learning. Presentation at the 40th Annual Meeting of the North American Chapter of the International Group of the Psychology of Mathematics Education, Greenville, SC. November, 2018 (Co-Presenters: Stockero, S. L., Freeburn, B., Van Zoest, L. R., & Leatham, K. R.)

Collaborative Research: Building on MOSTs: Investigating Productive Use of High-Leverage Student Mathematical Thinking. Discovery Research PreK-12 PI Meeting. Washington D. C. June 6-8, 2018. (Co-Presenters: Leatham, K. R., Stockero, S. L., &Van Zoest, L. R.)

Analyzing teachers' responses to student mathematical contributions during whole-class interactions: Goals, grain sizes, and coding schemes. Symposium presented at the annual meeting of the American Educational Research Association, New York, NY. April, 2018 (Co-Presenters: Van Zoest, L. R., Bishop, J. P., Hardison, H., Przybyla-Kuchek, J., Stockero, S. L., Leatham, K. R., Freeburn, B., & Kazemi, E.)

Teachers' orientations around using student mathematical thinking as a resource during whole-class discussion. Presentation at the 22nd Annual Meeting of the Association of Mathematics Teachers Educators, Houston, TX. February, 2018 (Co-Presenters: Leatham, K. R., Stockero, S. L., Ochieng, M. A., & Van Zoest, L. R.)

Teachers' responses to a common set of high potential instances of student mathematical thinking. Presentation at the 39th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Indianapolis, IN. October, 2017 (Co-Presenters: Stockero, S. L., Van Zoest, L. R., Leatham, K. R., & Rougée, A. O. T.)

Beyond the "Move": A Scheme for Coding Teachers' Responses to Student Mathematical Thinking. Presentation at the 41st Conference of the International Group for the Psychology of Mathematics Education, Singapore. July, 2017 (Co-Presenters: Van Zoest, L. R., Rougée, A. O. T., Freeburn, B., Stockero, S. L. & Leatham, K. R.)

Barriers to building on student thinking. Presentation at the 21st Annual Meeting of the Association of Mathematics Teachers Educators, Orlando, FL. February, 2017 (Co Presenters: Stockero, S. L., Van Zoest, L. R., & Leatham, K. R.)

Beyond the move: A coding scheme for teacher responses to instances of student mathematical thinking. Poster presented at the 21st Annual Meeting of the Association of Mathematics Teachers Educators, Orlando, FL. February, 2017 (Co-Presenters: Rougée, A. O. T., Van Zoest, L. R., Freeburn, B., Stockero, S. L., Leatham, K. R., & Gunn, R. M.)

Imprecision in classroom mathematics discourse. The 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ: University of Arizona. Nov 3-6, 2016 (Co-Presenters: Leatham, K. R., Merrill, L., Van Zoest, L. R., & Stockero, S. L.)

Conceptualizing the teaching practice of building on student mathematical thinking. The 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Tucson, AZ: University of Arizona. Nov 3-6, 2016 (Co-Presenters: Van Zoest, L. R., Leatham, K. R., Stockero, S. L.)

How We Can "Attend to Precision" in Classroom Mathematics Discussions. The 2016 Annual conference of the National Council of Teachers of Mathematics Research

Conference. San Francisco, CA April 11-13, 2016 (Co-Presenters: Leatham, K. R. & Merrill, L.)

Conceptualizing Teacher Discourse Moves Using Different Focal Lengths. The 2016 Annual conference of the National Council of Teachers of Mathematics Research Conference. San Francisco, CA April 11-13, 2016 (Co-Presenters: Van Zoest, L. R., Stockero, S. L., Leatham, K. R., Conner, A., Singletary, L. M., Chapin, S.H. & O'Connor, C.)

Productive Use of Student Mathematical Thinking is More than a Single Move. Association of Mathematics Teacher Educators 20th Annual Conference, Irvine, CA January 28-30, 2016 (Co-Presenters: Laura R. Van Zoest, Shari L. Stockero, Keith R. Leatham)

Influence of Focused Video Analysis on Pre-service Secondary Mathematics Teachers' Noticing of Student Mathematical Thinking. Association of Mathematics Teacher Educators 20th Annual Conference, Irvine, CA January 28-30, 2016 (Co-Presenters: Dawn Teuscher, Keith R. Leatham, Allyson Doercher)

Seeing Through Your Students' Eyes. Colloquium at Utah State University, Logan, Utah. November 30, 2015.

Uncovering teachers' goals, orientations, and resources related to the practice of using student thinking. The 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, East Lansing, MI: Michigan State University. November 5-7, 2015 (Co-Presenters: Stockero, S. L., Van Zoest, L. R., Rougee, A., Fraser, E. H., & Leatham, K. R.)

Attributes of student mathematical thinking that is worth building on in whole class discussion. The 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, East Lansing, MI: Michigan State University. November 5-7, 2015 (Co-Presenters: Van Zoest, L. R., Stockero, S. L., Atanga, N. A., Leatham, K. R. & Ochieng, M. A.)

Toward a Theory of Productive Use of Student Mathematical Thinking. The 2015 Annual conference of the National Council of Teachers of Mathematics Research Conference. Boston, MA. April 13-18, 2015 (Co-Presenters: Van Zoest, L. R., Stockero, S. L., Leatham, K. R., Atanga, N., Merrill, L. & Ochieng M.)

Defining and Developing Teaching Practices Related to Responding to Students' Mathematical Thinking. Symposium at the 19th annual meeting of the Association of Mathematics Teachers Educators, Orlando, FL. February 12-14, 2015 (Co- Presenters: Webel, C., DeLeeuw, W., Empson, S., Jacobs, V., Land, T., Leatham, K., Stockero, S.L., Van Zoest, L.R., & Conner, K.)

Teachers' Perceptions of Productive Use of Student Mathematical Thinking, The 38th Conference of the International Group for the Psychology of Mathematics Education.

Vancouver BC, Canada, July 15 – 20, 2014 (Co-Presenter: Keith R. Leatham, Laura R. Van Zoest, Shari L. Stockero)

Making the MOST of Student Mathematical Thinking, Research Conference of the Annual Meeting of the National Council of Teachers of Mathematics. New Orleans, Louisiana. April 6-8, 2014 (Co-presenters: Keith R. Leatham, Shari L. Stockero, Laura R. Van Zoest)

Talking about Pedagogy, Students and Mathematics, The 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL, November 14-17, 2013 (Co-Presenter: Keith R. Leatham)

Classroom Mathematics Discourse: Broadening Perspectives by Integrating Tools for Analysis – Working Group, The 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL, November 14-17, 2013 (Co-Presenter: Kate R. Johnson, Michael D. Steele, Beth A. Herbel-Eisenmann Keith R. Leatham, Shari L. Stockero, Laura R. Van Zoest, Isai Almeida, Lindsay Merrill)

Conceptualizing Mathematically Significant Pedagogical Openings to Build on Student Thinking, The 37th Conference of the International Group for the Psychology of Mathematics Education. Kiel, Germany, July 28 – August 2, 2013 (Co-Presenter: Shari L. Stockero)

A Framework for Recognizing Teachable Moments in Mathematics Classrooms, Association of Mathematics Teacher Educators 17th Annual Conference, Orlando, FL January 24-26, 2013 (Co-Presenters: Keith R. Leatham, Shari L. Stockero, Laura R. Van Zoest)

Principles of High Quality Instruction, New Mexico State University Lesson Study Project, Las Cruces, New Mexico, April 19, 2012

Goals and Concepts, New Mexico State University Lesson Study Project, Las Cruces, New Mexico, April 18, 2012

Mathematically Important Pedagogical Opportunities (MIPO), Psychology of Mathematics Education-North America conference, Reno, Nevada, October 20-23, 2011 (Co-Presenters: Shari L. Stockero, Laura R. Van Zoest, Keith R. Leatham)

Lesson Study and More, Two-day workshop for New Mexico State University Lesson Study Project, Las Cruces, New Mexico, July 29-30, 2011

Thinking on the Brink, Association of Mathematics Teacher Educators 15th Annual Conference, Irvine, California January 27-29, 2011 (Co-presenter: Travis Lemon)

Students' Mathematical Thinking: The "Struggles" Student Teachers Notice and the Thinking they find "Interesting", Association of Mathematics Teacher Educators 15th

Annual Conference, Irvine, California January 27-29, 2011 (Co-presenter: Keith R. Leatham)

Investigating Mathematically Important Pedagogical Opportunities, Working group at Psychology of Mathematics Education-North America conference, Columbus, Ohio, October 28-31, 2010 (Co-Presenters: Shari L. Stockero, Laura R. Van Zoest, Keith R. Leatham)

Orchestrating Class Discussions: What is the Goal? Park City Mathematics Institute – Secondary School Teacher Program, Park City, Utah, July, 15, 2010

Overcoming Cultural Barriers in Lesson Study, New Mexico State University Lesson Study Project, Las Cruces, New Mexico, May 7, 2010

Considerations in Crafting Good Questions, New Mexico State University Lesson Study Project, Las Cruces, New Mexico, February 26, 2010

Anticipating Student Thinking, New Mexico State University Lesson Study Project, Las Cruces, New Mexico, February 26, 2010

Rich Problems from Japan: Connections, Representations, and Problem Solving, Utah State University Colloquium, Logan, Utah, December, 2009

Effectively Using Student Mathematical Thinking, Park City Mathematics Institute – Secondary School Teacher Program, Park City, Utah, July, 13, 2009

The Role of Questioning in Japanese Teaching, Park City Mathematics Institute – Secondary School Teacher Program, Park City, Utah, July, 6, 2009

Restructuring Field Experiences to Focus on Students' Mathematical Thinking, Research Presession of the Annual Meeting of the National Council of Teachers of Mathematics, Salt Lake City, Utah, April 7-9, 2008 (Co-presenters: Keith R. Leatham, Anderson Norton, Patricia Wilson, Enrique Galindo)

Learning to Focus on Students' Mathematical Thinking: Highlights from Three Teacher Preparation Projects. 2008 American Education Research Association Annual meeting, New York, New York, March 24-28, 2008 (Co Presenters: Enrique Galindo, Keith R. Leatham, Patricia S. Wilson; Discussants: Frank K. Lester, Diana V. Lambdin)

Lesson Study in Preservice Secondary Mathematics Teacher Preparation: Alternative Models of Student Teaching. Association of Mathematics Teacher Educators 12th Annual Conference, Tulsa, Oklahoma, January 24-26, 2008 (Co-presenters: Keith R. Leatham, Lew Romagnano, Brooke Evans, Don Gilmore, Akihiko Takahashi)

Using Students' Mathematical Thinking to Orchestrate a Class Discussion. Research Report at PMENA Stateline (Lake Tahoe), NV: University of Nevada, Reno, October 2007. (Co-presenter: Keith R. Leatham)

Writing for NCTM Journals. Research Presession of the Annual Meeting National Council of Teachers of Mathematics, Atlanta, March 21, 2007

Writing for NCTM Journals. Utah Council of Teachers of Mathematics Annual Conference, Cottonwood High School, Salt Lake City, Utah, October 21, 2006.

Rich Problems from Japan: Connections, Representations, and Problem Solving. Annual Meeting of the National Council of Teachers of Mathematics, St. Louis, Missouri, April 26-29, 2006.

What is the Purpose of Student Teaching in Mathematics. Association of Mathematics Teacher Educators 10th Annual Conference, Tampa, Florida, January 26-28, 2006 (Co-presenter: Keith R. Leatham)

Research on Teaching and Learning Mathematics with Technology, Discussion Group at PMENA, Virginia Tech, October, 2005 (Co-discussion leader: Keith R. Leatham)

Student Teaching in Japan: Where's the Management?, International Congress of Mathematics Education, Copenhagen, Denmark, July, 2004 (A refereed 8 page paper was published on the ICME website in conjunction with this presentation.)

Quinn's Quadrilaterals, Annual Meeting of the National Council of Teachers of Mathematics, Philadelphia, April 21-24, 2004.

Preservice lesson study: Rich dialogue, challenged beliefs and reflective thinking, Research Presession of the Annual Meeting of the National Council of Teachers of Mathematics, Philadelphia, April 19-21, 2004 (Co-presenters: Julie Stafford-Plummer, Thomas Ricks; Discussant: Brad Glass)

Student Teaching in Japan: Where's the Management? Utah Association of Mathematics Teacher Educators Annual Conference, Salt Lake City, February 28, 2004.

Mentoring Styles in Mathematics: Two Contrasting Cases, Colloquium, Ehime University, Matsuyama, Japan, October 7, 2003 (given in Japanese)

Treating Lessons as Experiments: A Model for Improving Teaching and Teacher Education, Research Presession of the Annual Meeting National Council of Teachers of Mathematics, San Antonio, April 7-9, 2003 (Discussant for Presentation given by James Hiebert, Anne Morris, Brad Glass, Diana Wearne, Laurie Goggins, Stephen Hwang)

Student Teaching in Japan: The Lesson, Utah Council of Teachers of Mathematics Annual Conference, Cottonwood High School, Salt Lake City, Utah, November 2, 2002

Mentoring Styles in Mathematics: Two Contrasting Cases, Colloquium, Tokyo Gakugei University, Tokyo, Japan, June 5, 2002 (given in Japanese)

Spotlights on Technology: Using Technology in a Mathematics for Elementary Teachers Course, Wisconsin Mathematics Council, 2002 Green Lake Conference, Green Lake, WI, May 3 2002

A Course in Using Technology to Teach Mathematics: What Should it Look Like? Association of Mathematics Teacher Educators 6th Annual Conference, San Antonio, TX January 25, 2002 (Co-presenters: Keith Leatham, Skip Wilson)

Mentoring Styles in Mathematics: Two Contrasting Cases, PMENA, Snowbird, Utah, October 19, 2001

Mentoring Mathematics Teachers: How Can Everyone Benefit? Utah Council of Teachers of Mathematics Annual Conference, Brighton High School, Sandy, Utah, October 13, 2001

From Tessellations to Polyhedra: BIG Tessellations, Utah Council of Teachers of Mathematics Annual Conference, Brighton High School, Sandy, Utah, October 13, 2001

Knowing and Teaching Elementary Mathematics: A Review of Liping Ma's book, Minnesota Mathematics Association for Two Year Colleges (MinnMATYC), Duluth, Minnesota, April 28, 2001

Integer Geometry: What is it?, California Council of Teachers of Mathematics – Southern Section, Palm Springs, California, November 4, 2000

Understanding the Structure and Uses of the Text "Mathematics for Elementary Teachers: A Contemporary Approach", Southeastern Louisiana University, Hammond Louisiana, September 8, 2000

A Look at Theoretical vs. Empirical Probabilities using Spreadsheets, Utah Council of Teachers of Mathematics Annual Conference, Woods Cross High School, Woods Cross, September, 2000

Mentor Teachers, Student Teachers, and Mathematics, National Council of Teachers of Mathematics Annual Conference Research Presession, Chicago, IL, April 12, 2000

From Tessellations to Polyhedra, Utah Council of Teachers of Mathematics Reach-Out, St. George, Utah, January 22, 2000

Knowing and Teaching Elementary Mathematics: A Review of Liping Ma's book, Utah Council of Teachers of Mathematics Reach-Out, St. George, Utah, January 22, 2000

Integrating Technology in the Mathematics Classrooms, University of Montana Colloquium, May 7, 1998

A New Angle on Stars, Annual Meeting of the National Council of Teachers of Mathematics, Washington D. C. , April 1-5, 1998

From Tessellations to Polyhedra, Western Regional Conference of the National Council of Teachers of Mathematics, Denver, February 19, 20 1998

The HP38G Across the Curriculum, The 10th Annual International conference on Technology in Collegiate Mathematics, Chicago, November 6-8, 1997

A Look at Theoretical vs. Empirical Probabilities using Spreadsheets, Northwest Mathematics Conference, Whistler, British Columbia, October 23-25, 1997

HP38G Workshop, San Diego, July 29-August 2, 1996

Integer Geometry, Annual Meeting of the National Council of Teachers of Mathematics, San Diego, April 23-27, 1996

Technology as a tool: Modeling for preservice teachers, 102nd Annual AMS-MAA conference, Orlando, January 1996

Using Geometer's Sketchpad in Classes for Preservice Teachers, PROMPT, Arcata, July, 1995

Integrating Technology: We Talk the Talk but do We Walk the Walk, Brigham Young University Colloquium, March, 1995

Integer Geometry, What is it?, NCTM Western Regional conference, Boise, October, 1994

Are We Teaching with the Correct Models and Modeling with the Correct Teaching, Brigham Young University Colloquium, August, 1994

Integer Antiprisms and Integer Octahedron, 100th Annual AMS-MAA conference, Cincinnati, January 1994.

Models in Integer Geometry Workshop, Northwest Mathematics Conference, Portland, October 1993.

Integer Polyhedra and the Perfect Box, 99th Annual AMS-MAA conference, San Antonio, January 1993.

Integer Polygons, Northwest MAA Conference, Portland State University, June 1990.

CONSULTING

New Mexico Lesson Study Project – Spring, 2010, 2011, 2012

PCMI July, 2008, 2009

Lesson Study Workshop: Price, Utah

TEACHING

Courses Taught

Graduate:
Problem Solving, Modern Approaches to Euclidean Geometry, Seminar in Mathematics Education, Research in Mathematics Education, Computers and Mathematics, Graphics Calculators in Pre-calculus Mathematics, Mid-Level Math, Advanced Problem Solving, Teaching and Learning Probability and Statistics

Undergraduate:
Mathematics for Elementary Teachers, Critical Review of School Mathematics, Task Design and Assessment of Student Understanding, Teaching Mathematics with Technology, Methods of Teaching Secondary Mathematics, Calculus, Linear Algebra, Problem Solving for Elementary and Secondary Teachers, Euclidean and Non-Euclidean Geometry, Transformational Geometry in the Complex Plane, BYU Foundations of Student Success

SERVICE

Mathematics Education Department Committees
Awards Committee, 2021 – present
Program Marketing, 2020 - present
Department Rank and Status Committee, 2013; Chair 2021 – 2025
Department Chair, June 2014 - 2020
Associate Chair, July 2004 - 2011
Learning Outcomes Committee 2007 – 2010
Undergraduate Program Committee, 2004-2008
Faculty Mentor: Keith Leatham, Scott Hendrickson, Dawn Teuscher
Graduate Course Development Committee, 2004
Graduate Coordinator, 2000-2002
Graduate Committee, 2025 – Present
TA Training Seminar for Math and Math Ed Fall 2000 - 2002, 2004, 2005, 2009 - 2013

University Committees
SEPAC Executive Committee 2019 - 2020
Initial Programs Committee 2014-2019
College Promotion and Tenure committee 2003-2004, 2007-2009, 2010-2011, 2012-2013
CITES Mathematics Professional Development Committee 2004 – 2005
Operation Exploration (2002)
Secondary Education Renewal and Restructuring committee (1998-2001), Steering committee (2000-2001)
College TA Training Seminar (1999-2002)

Mathematics Departmental Committees
Calculus Committee, 1997-1998, 2011
Calculus Text Selection Committee, 2011
Teaching Associates Program Coordinator, Winter 2000

Graduate Committee, 1998-2000
State Accreditation for Mathematics Education Major Site Team Leader, 1997-1998
Mathematics Education Committee 1996-1997
Mathematics for Elementary Teachers Course Coordinator 1996-2000
Curriculum Committee 1996-2000
MLC tutor, 1993-1996
Undergraduate advisor, 1993-1996
TA Training Seminar, Fall 1993, 1994, 1995, 1999

Mathematics Education Community

CUPM (Task Force for Finding Useful Recommendations for the Teacher Education Landscape) 2021 - present
AMTE Research Committee 2017 - 2020
USOE Mathematics Advisory Panel on the adoption of the Common Core, 2010 - 2011
Treasurer of Utah Association of Mathematics Teacher Educators, 2004 - present
Chair of Mathematics Teacher Editorial Panel, 2008-2009
Mathematics Teacher Editorial Panel, 2006 – 2009, 2010-2011
University of Wisconsin Math Ed Program Review Committee, April, 2007
Chair of Utah State Math Core Review Subcommittee, 2006
Promotion Files Reviewed
    Full Professor (2020, 2017, 2015, 2005)
    Associate Professor (2014, 2011, 2011, 2005)
Association of Mathematics Teacher Educators Nominations Committee, 2005
School Science and Mathematics Associate Editor, 1996-2006
President of Utah Association of Mathematics Teacher Educators, 2001-2002, 2003-2004, 2011-2012
Utah Council of Teachers of Mathematics Board member (two-year at large), 2001-2003
Advanced Placement (AP) Calculus Reader, 1997, 1998, 1999, 2001, 2003, 2004
Founded Utah Association of Mathematics Teacher Educators, March 16, 2001
Florida FCAT Teacher Workshop Development Committee, 2000
Utah Council of Teachers of Mathematics Board member (post high school representative), 1999-2000
Utah State Department of Education Site Team for the program approval of Westminster College, November 1996
State of Utah Mathematics Teacher Certification Requirements advisory committee, 1996-1997
Hewlett Packard 38G workshop materials advisor, 1996
College Board's Equity 2000 Mathematics Assessment Committee member, Fall 1995-1996
State Universities representative for Oregon Mathematics Education Council (OMEC), 1995-1996
Curriculum Developer for Project CONNECT, 1995
State coordinator for the American Junior High School Mathematics Examination, 1993-1996
Mathematics coordinator for the 1994, 1995 and 1996 SMILE summer physics camp
Mathematics department representative for the academic year SMILE activities, 1993-1996

ORGANIZATIONAL MEMBERSHIPS

National Council of Teachers of Mathematics (NCTM)
Association of Mathematics Teacher Educators (AMTE)
Utah Association of Mathematics Teacher Educators (UAMTE)
Psychology of Mathematics Education-North America (PMENA)

PERSONAL

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