

# Keith Rigby Leatham

## Professor of Mathematics Education

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### EDUCATION

- 2002 PhD, Mathematics Education, University of Georgia, Athens, GA  
1998 Masters of Mathematics, Utah State University, Logan, UT  
1992 BS (cum laude), Mathematics Education, Utah State University, Logan, UT  
1989 ASA, Mathematics, Brigham Young University-Idaho, Rexburg, ID

### TEACHING EXPERIENCE

- Professor Department of Mathematics Education, Brigham Young University, Provo, Utah  
2016-present  
Classes taught: Math 112: Calculus I; Rel A 122: The Book of Mormon; MthEd 308: Teaching Mathematics with Technology; MthEd 590: Foundational Issues in Learning Mathematics; MthEd 611R: Graduate Student Seminar; MthEd 608: Technology for Learning and Teaching Mathematics
- Associate Professor Department of Mathematics Education, Brigham Young University, Provo, Utah  
2011-2016  
Classes taught: Math 112: Calculus I; Rel A 122: The Book of Mormon; MthEd 308: Teaching Mathematics with Technology; MthEd 591: Scholarly Inquiry in Mathematics Education; MthEd 608: Technology for Learning and Teaching Mathematics; MthEd 663: Calculus Teaching and Learning
- Assistant Professor Department of Mathematics Education, Brigham Young University, Provo, Utah  
2003-2011  
Classes taught: Math 112: Calculus I; Math 113: Calculus II; MthEd 117: Critical Review of School Mathematics; MthEd 218: Assessment of Student Understanding and Task Design; MthEd 308: Teaching Mathematics with Technology; MthEd 377: Teaching Mathematics and the Classroom; SecEd 378: Practicum in Mathematics Education; ScEd 476R: Secondary Student-Teaching Internship; MthEd 590: Foundational Issues in Learning Mathematics; MthEd 591: Scholarly Inquiry in Mathematics Education; MthEd 608: Technology for Learning and Teaching Mathematics; MthEd 611R: Graduate Student Seminar; MthEd 663: Calculus Teaching and Learning
- Assistant Professor Department of Mathematics and Statistics, Portland State University, Portland, Oregon  
2001-2003  
Classes taught: Math 211: Foundations of Elementary Mathematics Math I; Math 212: Foundations of Elementary Mathematics II; Math 213: Topics in Elementary Mathematics; Math 251: Calculus I; Math 252: Calculus II; Math 488/588: Technology for Mathematics Teachers; Math 691: Curriculum in Mathematics Education; Math 694: Research on the Teaching of Mathematics
- Graduate Assistant Department of Mathematics Education, University of Georgia, Athens, Georgia

- 1997-2001      Classes taught: Emat 4680: Technology in Secondary Mathematics; Emat 5460/7460: Student Teaching in Secondary School Mathematics; Emat 7080: Curriculum in Mathematics Education
- Graduate      Department of Mathematics and Statistics, Utah State University, Logan, Utah  
Assistant
- 1995-1997      Classes taught: Math 105: College Algebra; Sced 460: Student Teaching
- Mathematics    Department of Mathematics, Timpview High School, Provo, Utah  
Teacher
- 1992-1995      Classes taught: Pre-Algebra, Algebra I, Algebra II, Geometry, Trigonometry

### RESEARCH GRANTS

- 2017-present    Building on MOSTs: Investigating Productive Use of High-Leverage Student Mathematical Thinking
- Co-Principal Investigator, National Science Foundation DRK-12 grant (Award No. DRL-1720410, Budget: \$1,243,677), collaborative research project with Blake E. Peterson (Brigham Young University), Laura Van Zoest (Western Michigan University) and Shari Stockero (Michigan Tech).
- 2012-2017      Leveraging MOSTs: Developing a Theory of Productive Use of Student Mathematical Thinking
- Co-Principal Investigator, National Science Foundation DRK-12 grant (Award No. DRL-1220141, Budget: \$1,111,645), collaborative research project with Blake E. Peterson (Brigham Young University), Laura Van Zoest (Western Michigan University) and Shari Stockero (Michigan Tech).

### PUBLICATIONS

#### *Peer-reviewed journal articles*

- Williams, S. R., & Leatham, K. R. (2017). Journal quality in mathematics education. *Journal for Research in Mathematics Education*, 48, 369-396.
- 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, 33-54.
- Leatham, K. R. (2015). Observations on citation practices in mathematics education research. *Journal for Research in Mathematics Education*, 46, 253-269.
- 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, 88-124.
- Stockero, S. L., Peterson, B. E., Leatham, K. R., & Van Zoest, L. R. (2014). The “MOST” productive student mathematical thinking. *Mathematics Teacher*, 108, 308-312.
- Leatham, K. R., & Wienecke, T. (2014). The case of the Case of Benny: Elucidating the influence of a landmark study in mathematics education. *Journal of Mathematical Behavior*, 35, 101-109.

- Lee, H. S., Kersaint, G., Harper, S., Driskell, S., Jones, D., Leatham, K., ... Adu-Gyamfi, K. (2014). Teachers' use of transnumeration in solving statistical tasks with dynamic statistical software. *Statistics Education Research Journal*, 13(1), 25-52.
- Rich, P. J., Bly, N., & Leatham, K. R. (2014). Beyond cognitive increase: Investigating the influence of computer programming on perception and application of mathematical skills. *Journal of Computers in Mathematics and Science Teaching*, 33, 103-128.
- Rich, P. J., Leatham, K. R., & Wright, G. A. (2013). Convergent cognition. *Instructional Science*, 41, 431-453.
- Leatham, K. R. (2012). Problems identifying independent and dependent variables. *School Science and Mathematics*, 112, 349-358.
- Lee, H. S., Kersaint, G., Harper, S., Driskell, S., & Leatham, K. R. (2012). Teachers' statistical problem solving with dynamic technology: Research results across multiple institutions. *Contemporary Issues in Technology and Teacher Education*, 12(3). Retrieved from <http://www.citejournal.org/vol12/iss3/mathematics/article1.cfm>
- Lovin, L., Sanchez, W., Leatham, K. R., Chauvot, J., Kastberg, S. E., & Norton, A. (2012). Examining beliefs and practices of self and others: Pivotal points for change and growth for mathematics teacher educators. *Studying Teacher Education*, 8, 51-68.
- Wright, G. A., Rich, P., & Leatham, K. R. (2012). How programming fits with technology education curriculum. *Technology and Engineering Teacher*, 71(7), 3-9.
- Leatham, K. R., & Hill, D. S. (2010). Exploring our complex math identities. *Mathematics Teaching in the Middle School*, 16, 224-231.
- Leatham, K. R., & Peterson, B. E. (2010). Secondary mathematics cooperating teachers' perceptions of the purpose of student teaching. *Journal of Mathematics Teacher Education*, 13, 99-119.
- Leatham, K. R. (2007). Pre-service secondary mathematics teachers' beliefs about the nature of technology in the classroom. *Canadian Journal of Science, Mathematics and Technology Education*, 7, 183-207.
- Leatham, K. R. (2006). Viewing teachers' beliefs as sensible systems. *Journal of Mathematics Teacher Education*, 9, 91-102.
- Kastberg, S., & Leatham, K. R. (2005). Research on graphing calculators at the secondary level: Implications for mathematics teacher education. *Contemporary Issues in Technology and Teacher Education*, 5(1). Available: <http://www.citejournal.org/vol5/iss1/mathematics/article1.cfm>
- Leatham, K. R., Lawrence, K., & Mewborn, D. S. (2005). Getting started with open-ended assessment. *Teaching Children Mathematics*, 11, 413-419.

***Edited books, peer-reviewed chapters in edited books and monographs***

- Peterson, B. E. & Leatham, K. R. (2018). The structure of student teaching can change the focus to students' mathematical thinking. In M. E. Strutchens, R. Huang, D. Potari, & L. Losano (Eds.), *Educating prospective secondary mathematics teachers: Knowledge, identity, and pedagogical practices* (pp. 9-26). Cham, Switzerland: Springer International.
- 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. O. Schack, M. H. Fisher, & J. A. Wilhelm (Eds.), *Teacher noticing: Bridging and broadening perspectives, contexts, and frameworks* (pp. 467-480). Cham, Switzerland: Springer International.

- Teuscher, D., Leatham, K. R., Peterson, B. E. (2017). From a framework to a lens: Learning to notice student mathematical thinking. In E. O. Schack, M. H. Fisher, & J. A. Wilhelm (Eds.), *Teacher noticing: Bridging and broadening perspectives, contexts, and frameworks* (pp. 31-48). Cham, Switzerland: Springer International.
- Leatham, K. R., & Barton, D. R. (2017). What (research on) technology in the mathematics classroom can and cannot do. In D. A. Spangler, & J. J. Wanko (Eds.). *Enhancing classroom practice with research behind Principles to Actions* (pp. 129-139). 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 J. W. Son, T. Watanabe, & J. J. Lo (Eds.). *What matters? Research trends in international comparative studies in mathematics education* (pp. 215-236). Cham, Switzerland: Springer International.
- Lo, J. J., Leatham, K. R., & Van Zoest, L. R. (Eds.). (2014). *Research trends in mathematics teacher education*. Cham, Switzerland: Springer International.
- Leatham, K. R. (Ed.). (2013). *Vital directions for mathematics education research*. New York, NY: Springer.
- 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. (2009). Learning from a novice mentor's mistakes. In G. Zimmermann, P. Guinee, L. M. Fulmore & E. Murray (Eds.), *Empowering the mentor of the beginning mathematics teacher* (pp. 65-66). Reston, VA: National Council of Teachers of Mathematics. [also appeared in *Empowering the mentor of the preservice mathematics teacher* (pp. 56-57).]
- Peterson, B. E., & Leatham, K. R. (2009). Learning to use students' mathematical thinking to orchestrate a class discussion. In L. Knott (Ed.), *The role of mathematics discourse in producing leaders of discourse* (pp. 99-128). Charlotte, NC: Information Age Publishing.

### **Peer-reviewed proceeding papers**

- Stockero, S. L., Freeburn, B., Van Zoest, L. R., Peterson, B. E., & Leatham, K. R. (in press). Teachers' responses to instances of student mathematical thinking with varied potential to support student learning. To appear in *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*.
- Van Zoest, L. R., Leatham, K. R., Arslan, O., Ochieng, M. A., Ruk, J. M., Peterson, B. E., & Stockero, S. L. (in press). A characterization of student mathematical thinking that emerges during whole-class instruction: An exploratory study. To appear in *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*.
- 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 B. Kaur, W. K. Ho, T. L. Toh, & B. H. Choy, (Eds.), *Proceedings of the 41st conference of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 17-24). Singapore: PME.
- 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. Csikos, 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., Peterson, B. E., Leatham, K. R., & Ochieng, M. A. (2015). Attributes of student mathematical thinking that is worth building on in whole class discussion. In T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez (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 T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez (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., Van Zoest, L. R., Stockero, S. L., & Peterson, B. E. (2014). Teachers’ perceptions of productive use of student mathematical thinking. In P. Liljedahl, S. Oesterle, C. Nicol, & D. Allan (Eds.), *Proceedings of the Joint Meeting of PME38 and PME-NA 36* (Vol. 4, pp. 73-80). Vancouver, Canada: PME.
- Johnson, K. R., Steele, M. D., Herbel-Eisenmann, B. A., Leatham, K. R., Peterson, B. E., Stockero, S. L., ... Merrill, L. (2013). Classroom mathematics discourse: Broadening perspectives by integrating tools for analysis. In M. V. Martinez & A. Castro Superfine (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: University of Illinois at Chicago.
- Leatham, K. R., & Peterson, B. E. (2013). Talking about pedagogy, students and mathematics. In M. V. Martinez & A. Castro Superfine (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: 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 A. M.

- Lindmeier & A. Heinze (Eds.), *Proceedings of the 37th conference of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 345-352). Kiel, Germany: PME.
- 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.
- Lee, H. S., Driskell, S. O., Harper, S. R., Leatham, K. R., Kersaint, G., & Angotti, R. L. (2011). Prospective teachers use of representations in solving statistical tasks with dynamic statistical software. 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. 268-275). Reno, NV: University of Nevada, Reno.
- Leatham, K. R., Stockero, S. L., Van Zoest, L. R., & Peterson, B. E. (2010). Investigating mathematically important pedagogical opportunities. In P. Brosnan, D. B. Erchick, & L. Flevares (Eds.), *Proceedings of the 32nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. VI, pp. 1599-1605). Columbus, OH: The Ohio State University.
- Sanchez, W., Chauvot, J., Kastberg, S. E., Leatham, K. R., Lovin, L., & Norton, A. H. (2010). Navigating belief systems of mathematics teacher educators: Making the private public to inform practice. In L. B. Erickson, J. R. Young, & S. Pinnegar (Eds.), *Proceedings of the Eighth International Conference on Self-Study of Teacher Education Practices. Navigating the Public and Private: Negotiating the Diverse Landscape of Teacher Education* (pp. 245-248). Provo, UT: Brigham Young University.
- Wright, G., Rich, P. & Leatham, K. (2010). Lateral transfer: Using programming to improve student mathematical comprehension and ability. In C. Crawford et al. (Eds.), *Proceedings of the International Conference of the Society for Information Technology and Teacher Education* (pp. 3529-3532). Chesapeake, VA: AACE.
- Wright, G., Rich, P. & Leatham, K. (2009). Convergent cognition: Improving mathematical self-efficacy and understanding by teaching programming. In I. Gibson et al. (Eds.), *Proceedings of the International Conference of the Society for Information Technology and Teacher Education* (pp. 3625-3628). Chesapeake, VA: AACE.
- Wright, G., Rich, P. & Leatham, K. (2009). Teaching programming to junior high and high school students to improve mathematical ability and self-efficacy. In T. Bastiaens et al. (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2009* (pp. 782-788). Chesapeake, VA: AACE.
- Broderick, S. D., & Leatham, K. R. (2009). A comparison of mathematical discourse in online and face-to-face environments: Investigating conjectures. In S. L. Swars, D. W. Stinson, S. Lemons-Smith (Eds.), *Proceedings of the 31st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 5, pp. 1529-1536). Atlanta, GA: Georgia State University.
- Leatham, K. R. (2008). The development of TPACK in “technology, pedagogy and mathematics” courses in the U.S. In K. McFerrin, R. Weber, R. Carlsen & D. A. Willis (Eds.), *Proceedings of the Nineteenth International Conference of the Society for Information Technology and Teacher Education* (pp. 5277-5283). Las Vegas, NV: Association for the Advancement of Computing in Education.

- Chauvot, J., Ice, N., Sanchez, W., Kastberg, S. E., Leatham, K. R., Lovin, L. et al. (2007). A collaborative to study beliefs of mathematics teacher educators. In T. Lamberg, L. R. Wiest (Eds.), *Proceedings of the Twenty-ninth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 241-244). Stateline (Lake Tahoe): University of Nevada, Reno.
- Leatham, K. R., & Peterson, B. (2007). Using students' mathematical thinking to orchestrate a class discussion. In T. Lamberg, L. R. Wiest (Eds.), *Proceedings of the Twenty Seventh Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1079-1082). Stateline (Lake Tahoe): University of Nevada, Reno.
- Leatham, K. R., & Peterson, B. (2005). Discussion group: Research on teaching and learning mathematics with technology. In G. M. Lloyd, M. Wilson, J. L. M. Wilkins, S. L. Behm (Eds.), *Proceedings of the Twenty Seventh Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1-4). Roanoke, VA: Virginia Tech.
- Leatham, K. R. (2004). Viewing teachers' beliefs as sensible systems. *Proceedings of the Twenty Sixth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education.
- Leatham, K. R. (2004). Beliefs about the nature of technology in the classroom. *Proceedings of the Montreal International Symposium: Technology and its Integration in Mathematics Education, TIME-2004*, Montreal, Quebec, Canada.
- Olive, J., & Leatham, K. R. (2000). Using technology as a learning tool is not enough. In M. O. J. Thomas (Ed.), *TIME 2000--An International Conference on Technology in Mathematics Education* (pp. 236-243). Auckland, New Zealand: The University of Auckland and Auckland University of Technology.
- Oppong, N., & Leatham, K. R. (2000). Experiencing a technology-rich mathematics classroom from a distance. In M. L. Fernández (Ed.), *Proceedings of the Twenty Second Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 2, pp. 700). Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education.
- Wilson, P. S., Anderson, D. L., Leatham, K. R., Lovin, L. H., & Sanchez, W. B. (1999). Giving voice to mentor teachers. In F. Hitt & M. Santos (Eds.), *Proceedings of the Twenty First Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 2, pp. 811-817). Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education.

### **Published reports**

- Burrill, G., Allison, J., Breaux, G., Kastberg, S. E., Leatham, K. R., & Sanchez, W. B. (2002). *Handheld graphing technology in secondary mathematics: Research findings and implications for classroom practice*. Dallas, TX: Texas Instruments, Inc.

### **Invited reviews**

- Leatham, K. R., Johnson, K. R., Jones, S. R. (2015). An introduction to research in mathematics education: Review of MasterClass in Mathematics Education: International perspectives on teaching and learning. *Journal for Research in Mathematics Education*, 46, pp. 497-504.

- Leatham, K. R. (2010). Book review: Crocheting adventures with hyperbolic planes. *Mathematics Teacher*, 104, p. 399.
- Leatham, K. R. (2010). Book review: Listening figures: Listening to learners of mathematics at secondary school and above. *Mathematics Teacher*, 104, p. 158.
- Leatham, K. R. (2005). Book review: The art of problem posing. *Mathematics Teacher*, 99, p. 223.
- Leatham, K. R. (2004). Book review: Geometry of the golden section. *Mathematics Teacher*, 98, p. 207.

### INVITED PRESENTATIONS

- Leatham, K. R., & Matthews, P. (2018, May). *The role of theoretical frameworks in research dissemination*. Virtual presentation for the webinar series of the Journal for Research in Mathematics Education.
- Leatham, K. R. (2017, June). *Research dissemination in mathematics education*. Virtual presentation at the mathematics education pre-conference school of the 4th Strathmore International Mathematics Conference, Nairobi, Kenya.
- Hodges, T. E., Leatham, K. R., Wood, M. B., & Spangler, D. A. (2017, April). *Getting to know the research companion to Principles to Actions*. Presentation at the ninety-fifth annual meeting of the National Council of Teachers of Mathematics, San Antonio, TX.
- Leatham, K. R. (2017, April). *Using technology to engage in whole-class mathematical inquiry*. Presentation at the ninety-fifth annual meeting of the National Council of Teachers of Mathematics, San Antonio, TX.
- Leatham, K. R., & Peterson, B. E. (2016, July). *The structure of student teaching can change the focus to students' mathematical thinking*. Presentation at the 13th International Congress on Mathematics Education, Hamburg, Germany.
- Leatham, K. R. (2016, May). *Restructuring student teaching to focus on students' mathematical thinking*. Invited lecture at Kennesaw State University, Kennesaw, GA.
- Leatham, K. R. (2011, April). *Questioning assumptions about mathematics teacher education*. Invited colloquium to the Department of Mathematics and Science Education at University of Georgia, Athens, GA.
- Leatham, K. R. (2009, October). *Restructuring student teaching to focus on students' mathematical thinking*. Invited colloquium to the Mathematics Department at Brigham Young University-Idaho, Rexburg, ID.
- Leatham, K. R. (2008, December). *Effectively using students' mathematical thinking*. Invited colloquium to the Department of Mathematics and Statistics at Utah State University, Logan, UT.
- Leatham, K. (2004, April). *Beliefs about teaching mathematics with technology*. Department of Mathematics Education colloquium, Brigham Young University, Provo, UT.
- Leatham, K. R. (2003, August). *Motivating understanding*. Presentation to the custom research group at Gartner Research, Portland, OR.
- Leatham, K. R. (2003, May). *Music and mathematics*. Pi and Ice Cream Lecture, Mathematics Department, Clackamas Community College, Oregon City, OR.
- Leatham, K. (2002, March). *How do you believe what you believe?* Department of Mathematics Education colloquium, Brigham Young University, Provo, UT.



## PRESENTATIONS

- Van Zoest, L. R., Bishop, J. P., Hardison, H., Przybyla-Kuchek, J., Peterson, B. E., Stockero, S. L., Leatham, K. R., Freeburn, B., & Kazemi, E. (2018, April). *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.
- Stockero, S. L., Van Zoest, L. R., Leatham, K. R., & Peterson, B. E. (2017, February). *Barriers to building on student mathematical thinking*. Presentation at the 21st annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- Van Zoest, L. R., Peterson, B. E., Leatham, K. R., & Stockero, S. L. (2016, November). *Conceptualizing the teaching practice of building on student mathematical thinking*. Presentation at the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ.
- Leatham, K. R. (2016, May). *Building on MOSTs: Identifying and taking advantage of teachable moments in mathematics classrooms*. Presentation at the conference celebrating 50 years of mathematics education at the University of Georgia, Athens, GA.
- Stockero, S. L., Van Zoest, L. R., & Leatham, K. R. (2016, April). *I've got my students sharing their mathematical thinking—now what?* Presentation at the ninety-fourth Annual Meeting of the National Council of Teachers of Mathematics, San Francisco, CA.
- Leatham, K. R., Peterson, B. E., & Merrill, L. (2016, April). *How we can "attend to precision" in classroom mathematics discussions*. Presentation at the ninety-fourth Annual Meeting of the National Council of Teachers of Mathematics, San Francisco, CA.
- Leatham, K. R., Matthews, P., Langrall, C. & Cai, J. (2016, April). *The role of theoretical frameworks in research dissemination*. Presentation at the 2016 National Council of Teachers of Mathematics Research Conference, San Francisco, CA.
- 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*. Presentation at the 20th annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.
- Peterson, B. E., Van Zoest, L. R., Stockero, S. L., & Leatham, K. R. (2016, January). *Productive use of student mathematical thinking is more than a single move*. Presentation at the 20th annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.
- Achieng, M., Leatham, K., Stockero, S. L., & Van Zoest, L. (2015, February). *Teachers' perceptions of "use" of student mathematical thinking in whole class discussion*. Presentation at the 19th annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- Webel, C., DeLeeuw, W., Empson, S., Jacobs, V., Land, T., Leatham K., Peterson, B., Stockero, S. L., Van Zoest, L., & Conner, K. (2015, February). *Defining and developing teaching practices related to responding to students' mathematical thinking*. Presentation at the 19th annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- Leatham, K. R., Van Zoest, L. R., Stockero, S. L., & Peterson, B. E. (2014, July). *Teachers' perceptions of productive use of student mathematical thinking*. Presentation at the Joint Meeting of PME38 and PME-NA 36, Vancouver, Canada.
- Hollebrands, K., Stockero, S. L., Leatham, K. R., & Cayton, C. (2014, April). *Analyzing critical moments in high school mathematics classrooms*. Presentation at the 2014 National Council of Teachers of Mathematics Research Conference, New Orleans, LA.

- Leatham, K. R., Peterson, B. E., Stockero, S. L., & Van Zoest, L. R. (2014, April). *Making the MOST of student mathematical thinking*. Presentation at the 2014 National Council of Teachers of Mathematics Research Conference, New Orleans, LA.
- Leatham, K. R., Peterson, B. E., & Franc, N. (2014, February). *Student teachers and cooperating teachers talking about students' mathematics rather than students' behavior*. Presentation at the 18th annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.
- Peterson, B. E., Leatham, K. R., & Van Zoest, L. R. (2014, February). *What does it mean to build on student mathematical thinking?* Presentation at the 18th annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.
- Leatham, K. R., & Peterson, B. E. (November, 2013). *Talking about pedagogy, students and mathematics*. Presentation at the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Chicago, IL.
- Leatham, K. R., Stockero, S. L., Peterson, B. E., & Van Zoest, L. R. (2013, January). *A Framework for Recognizing Teachable Moments in Mathematics Classrooms*. Presentation at the 17th annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- Enderson, M. C., Manouchehri, A., Shockey, T., Leatham, K. R., Bush, W., Burrill, G. F., & Somayajulu, R. (2013, January). *Developing Mathematics Content Knowledge for Secondary Teachers: Taking Steps to Meet the Challenge*. Presentation at the 17th annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- Leatham, K. R., Peterson, B. E., Stockero, S. L., & Van Zoest, L. R. (2011, October). *Mathematically Important Pedagogical Opportunities*. Presentation at the 33rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, NV.
- Lee, H. S., Driskell, S. O., Harper, S. R., Leatham, K. R., Kersaint, G., & Angottie, R. L. (2011, October). *Prospective teachers' use of representations in solving statistical tasks with dynamic statistical software*. Presentation at the 33rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Reno, NV.
- Leatham, K. R., & Peterson, B. E. (2011, January). *Students' mathematics thinking: The "struggles" student teachers notice and the thinking they find "interesting"*. Presentation at the 15th annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.
- Leatham, K. R., Stockero, S. L., Van Zoest, L. R., & Peterson B. E. (2010, October). *Investigating mathematically important pedagogical opportunities*. Presentation at the 32nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, OH.
- Sanchez, W., Chauvot, J., Kastberg, S. E., Leatham, K. R., Lovin, L., & Norton, A. H. (2010, August). *Navigating belief systems of mathematics teacher educators: Making the private public to inform practice*. Presentation at the eighth international conference on self-study of teacher education practices, East Sussex, England.
- Leatham, K. R., & Hill, D. S. (2009, April). *The diversity of mathematical identities: Understanding the dispositions that define our relationships with mathematics*. Presentation at the annual meeting of the National Council of Teachers of Mathematics, Washington DC.
- Leatham, K. R., & Peterson, Blake E. (2009, February). *Conceptualizing Teachable Moments in Mathematics Classrooms*. Presentation at the annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.
- Leatham, K. R. (2008, October). *Effectively using students' mathematical thinking*. Presentation at the annual conference of the Utah Council of Teachers of Mathematics, Salt Lake City, UT.

- Leatham, K. R., Norton, A. H., Wilson, P. S., Peterson, B. E., & Galindo, E. (2008, April). *Restructuring field experiences to focus on students' mathematical thinking*. Presentation at the Research Pre-session of the annual meeting of the National Council of Teachers of Mathematics, Salt Lake City, UT.
- Galindo, E., Leatham, K. R., Peterson, B. E., Wilson, P. S., Lester, F. K., & Lambdin, D. V. (2008, March). *Learning to focus on students' mathematical thinking: Highlights from three teacher preparation projects*. Presentation at the annual meeting of the American Educational Research Association, New York, NY.
- Leatham, K. R. (2008, March). *The development of TPACK in "technology, pedagogy and mathematics" courses in the U.S.* Presentation at the 19th international conference of the Society for Information Technology & Teacher Education, Las Vegas, NV.
- Lovin, L., Chauvot, J., Kastberg, S., Norton, A., Leatham, K., & Sanchez, W. (2008, January). *The beliefs of mathematics teacher educators and the implications for mathematics teacher education*. Presentation at the twelfth annual conference of the Association of Mathematics Teacher Educators, Tulsa, OK.
- Romagnono, L., Peterson, B., Leatham, K., Evans, B., Gilmore, D., & Takahashi, A. (2008, January). *Lesson study in preservice secondary mathematics teacher preparation: Alternative models of student teaching*. Presentation at the twelfth annual conference of the Association of Mathematics Teacher Educators, Tulsa, OK.
- Chauvot, J., Ice, N., Sanchez, W., Kastberg, S. E., Leatham, K. R., Lovin, L. et al. (2007, October). *A collaborative to study beliefs of mathematics teacher educators*. Presentation at the twenty-ninth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Stateline (Lake Tahoe), NV.
- Leatham, K. R., & Peterson, B. E. (2007, October). *Using students' mathematical thinking to orchestrate a class discussion*. Presentation at the twenty-ninth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Stateline (Lake Tahoe), NV.
- Leatham, K. R. (2007, February). *The nature of technology in the mathematics classroom*. Presentation at the annual conference of the Consortium for Mathematics Education Enhancement, Salt Lake City, UT.
- Leatham, K. R. (2006, April). *Let's mathematize! Developing and assessing algebraic reasoning*. Presentation at the eighty-fourth Annual Meeting of the National Council of Teachers of Mathematics, St. Louis, MO.
- Leatham, K. R., Mewborn, D. S., & Speer, N. M. (2006, April). *Theoretical and methodological issues in research on teachers' beliefs*. Presentation at the Research Pre-session of the eighty-fourth Annual Meeting of the National Council of Teachers of Mathematics, St. Louis, MO.
- Leatham, K. R. (2006, January). *A characterization of the preparation of preservice mathematics teachers to teach mathematics with technology*. Presentation at the tenth annual conference of the Association of Mathematics Teacher Educators, Tampa, FL.
- Peterson, B., & Leatham, K. R. (2006, January). *What is the purpose of student teaching?* Presentation at the tenth annual conference of the Association of Mathematics Teacher Educators, Tampa, FL.
- Leatham, K. R., & Peterson, B. (2005, October). *Discussion group: Research on teaching and learning mathematics with technology*. Presentation at the twenty-seventh annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Roanoke, VA.

- Leatham, K. R., Stone, H., & White, J. (2005, April). *Learning to teach mathematics with technology: Experiences as students, (future) teachers and researchers*. Presentation at the annual conference of the Consortium for Mathematics Education Enhancement, Salt Lake City, UT.
- Leatham, K. (2004, October). *Viewing teachers' beliefs as sensible systems*. Presentation at the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Toronto, Canada.
- Leatham, K. R., & McGehee, J. (2004, October). *Geometry and technology working group*. Presentation at the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Toronto, Canada.
- Leatham, K. R. (2004, July). *Beliefs about the Nature of Technology in the Classroom*. Presentations at the International Conference on Technology in Mathematics Education, Montréal, Québec, Canada.
- Leatham, K. R. (2004, February). *Do actions truly speak louder than words? Research on teacher beliefs*. Presentation at the annual conference of the Utah Association of Mathematics Teacher Educators, Salt Lake City, UT.
- Sanchez, W. B., Cooney, T. J., & Leatham, K. R. (2003, April). *Open-ended assessment: A resource for teachers and teacher educators*. Presentation at the eighty-first annual meeting of the National Council of Teachers of Mathematics, San Antonio, TX.
- Leatham, K. R., & Kastberg, S. E. (2003, February). *Research on handheld graphing technology at the secondary level: Implications for mathematics teacher education*. Presentation at the seventh annual conference of the Association of Mathematics Teacher Educators, Atlanta, GA.
- Peterson, B. E., Leatham, K. R., & Wilson, S. (2002, January). *A course in using technology to teach mathematics: What should it look like?* Presentation at the sixth annual conference of the Association of Mathematics Teacher Educators, San Antonio, Texas.
- Leatham, K. R., Lovin, L. H., & Sanchez, W. B. (2002, January). *Journeys to the other side: Impacts of early collaborative research*. Presentation at the Fifteenth Annual Conference on Interdisciplinary Qualitative Studies, Athens, GA.
- Lawrence, K., Leatham, K. R., & Mewborn, D. S. (2001, May). *Using open-ended assessment items in the elementary mathematics classroom*. Presentation at the Spring Conference of the League of Professional Schools, Athens, GA.
- Oppong, N., & Leatham, K. R. (2000, October). *Experiencing a technology-rich mathematics classroom at a distance*. Paper presented at the twenty-second annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, Arizona.
- Wilson, P. S., Anderson, D. L., Leatham, K. R., Lovin, L. H., & Sanchez, W. B. (1999, October). *Giving voice to mentor teachers*. Paper presented at the twenty-first annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Cuernavaca, México.

## PROFESSIONAL SERVICE

- 2018-present **Advisory Board**, Preparing to Teach Mathematics with Technology – Examining Student Practices, an NSF-funded research project led by principal investigators from Middle Tennessee State University, North Carolina State University, University of North Carolina-Charlotte, and East Carolina University.

- 2018-present **Editorial Panel Member**, Mathematics Teacher Educator
- 2017-present **Advisory Board**, Attaining Excellence in Secondary Mathematics Clinical Experiences with a Lens on Equity, an NSF-funded research project led by principal investigators from Auburn University, University of South Florida, and the Association of Public and Land-grant Universities
- 2016-present **Staff**, Service, Teaching and Research (STaR) in Mathematics Education Program, Association of Mathematics Teacher Educators
- 2015-present **Associate Chair**, Department of Mathematics Education
- 2005-present **AP Calculus Reader**, Educational Testing Service
- 2002-present **Reviewer**  
 Asia Pacific Education Review ◇ Compendium for Research in Mathematics Education ◇ Educational Studies in Mathematics ◇ International Electronic Journal of Mathematics Education ◇ International Journal of Education in Mathematics, Science and Technology ◇ International Journal of Science and Mathematics Education ◇ Journal for Research in Mathematics Education ◇ Journal of Mathematical Behavior ◇ Journal of Mathematics Teacher Education ◇ Journal of Numerical Cognition ◇ Journal of Teacher Education ◇ Mathematical Thinking and Learning ◇ Mathematics Teacher ◇ Mathematics Teacher Educator ◇ Mathematics Teaching in the Middle School ◇ OnMath ◇ Research in Mathematics Education ◇ School Science and Mathematics ◇ Statistics Education Research Journal
- 2015-2016 **Editorial Advisory Board**, Handbook of Research on Transforming Mathematics Teacher Education in the Digital Age
- 2013-2016 **Editorial Panel Member & Chair**, Journal for Research in Mathematics Education (Chair of panel 2015-2016)
- 2011-2013 **Mathematics Education Curriculum Consultant**, Preparing to Teach Mathematics with Technology: Expanding, Transforming, and Building Community [PTMT-ETC], an NSF-funded research project at North Carolina State University
- 2013 **Grant Reviewer**, National Science Foundation
- 2011-2012 **Program Committee Chair**, Association of Mathematics Teacher Educators 16th annual conference
- 2009-2013 **Advisory Board**, Scaling up STEM Learning with the VCL, an NSF-

funded research project at North Carolina State University

- 2008-2009      **Program Committee**, Society for Information Technology & Teacher Education annual conference
- 2007-2008,  
2009-2013      **Program Committee**, Association of Mathematics Teacher Educators annual conference
- 2007-2013      **Graduate Coordinator**, Department of Mathematics Education
- 2006-2007      **President**, Utah Association of Mathematics Teacher Educators
- 2006            **Recognized Scholar Discussant**, North American Chapter of the International Group for the Psychology of Mathematics Education
- 2005-2006      **President Elect**, Utah Association of Mathematics Teacher Educators
- 2004-2009      **Associate Editor**, Journal for Research in Mathematics Education
- 2004-2005      **Secretary**, Utah Association of Mathematics Teacher Educators
- 2002-2003      **Committee Chair**, Faculty Grievances Committee, Portland State University
- 1999-2001      **Editor**, *The Mathematics Educator*

#### **AWARDS AND HONORS**

- 2001            **Outstanding Graduate Teaching Award**, University of Georgia, Athens, GA.
- 1997            **Teaching Award**, Department of Mathematics and Statistics, Utah State University, Logan, UT.
- 1994            **Teaching Award**, Timpview High School, Provo, UT.