

October 2021

Jonathan Norris Thomas

Associate Professor of Mathematics Education
Department Chair – STEM Education
University of Kentucky &
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EDUCATION

Ed.D. Curriculum and Instruction Teaching and Learning of School Subjects: Mathematics Education University of Cincinnati, Cincinnati, Ohio	2010
M. Ed. Educational Leadership Summa cum Laude University of Cincinnati, Cincinnati, Ohio	2006
B. A. Elementary Education Cum Laude University of Kentucky Lexington, Kentucky Area of Concentration: <i>Mathematics</i>	2003

PROFESSIONAL EMPLOYMENT

Chairperson Department of STEM Education College of Education University of Kentucky	July 2019- Present
Associate Professor of Mathematics Education Department of STEM Education College of Education University of Kentucky	June 2017- Present
Assistant Professor of Mathematics Education Department of STEM Education College of Education University of Kentucky	Aug 2015- May 2017
Associate Professor of Mathematics Education Department of Teacher Education College of Education and Human Services Northern Kentucky University	May 2015

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Assistant Professor of Mathematics Education
Department of Teacher Education
College of Education and Human Services
Northern Kentucky University

Aug 2010 – May 2015

Associate Faculty Member
The Kentucky Center for Mathematics
Northern Kentucky University

Aug 2010 – Present

Assistant Director of Diagnostic Intervention Programs
The Kentucky Center for Mathematics
Northern Kentucky University

Jul. 2007 – May 2010

Evaluation Coordinator
The Kentucky Center for Mathematics
Northern Kentucky University

Jan. 2007 – Jun. 2007

Graduate Assistant
Evaluation Services Center &
Center for Access and Transition
University of Cincinnati

Sep. 2006 – Dec. 2006

Mathematics Intervention Teacher
Phoenix Community Learning Center
Cincinnati, OH

Jun. 2006 – Aug. 2006

Mathematics Intervention Teacher
Marva Collins Preparatory School
Cincinnati, OH

Aug. 2005 – May 2006

Infantry Paratrooper
82nd Airborne Division
United States Army
Ft. Bragg, NC

May 1994 – Aug. 1997

POST-SECONDARY TEACHING, SUPERVISION, AND ADVISING

TEACHING

University of Kentucky

SEM 706 Research in STEM Education

Primary Instructor

SEM 337 Teaching Mathematics in Elementary Schools

Primary Instructor

EDC 433 Elementary Student Teaching

Field Supervisor

Northern Kentucky University

EDG 699 Diagnostic Interventions in Primary Mathematics (*Independent Study*)

Primary Instructor

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EDG 659 Diagnostic Interventions in Primary Mathematics

Primary Instructor

EDG 658 Assessment Techniques in P-12 Mathematics

Primary Instructor

EDU 567 Mathematics and Science Explorations Grades PreK-3rd

Co-Instructor

EDU 493 Elementary Student Teaching

Field Supervisor

EDU 392 Elementary Field Experience

Field Supervisor

EDU 306 Teaching Elementary School Mathematics

Primary Instructor

University of Cincinnati

42 MATH 091 Elementary Algebra I

Graduate Teaching Assistant

42 MATH 092 Elementary Algebra II

Graduate Teaching Assistant

GRADUATE ADVISING

Doctoral Students

Shane Campbell (in progress). Committee Chair, Ph.D. STEM Education

University of Kentucky

Busari Isiaka (in progress). Initial Mentor, Ph.D. STEM Education

University of Kentucky

Cindy Weaver (in progress). Committee Co-Chair, Ph.D. STEM Education

University of Kentucky

Rachel Rogers (in progress). Committee Member, Ph.D. STEM Education

University of Kentucky

John Baumgarten (in progress). Committee Member, Ph.D. Instructional Systems Design

University of Kentucky

Dawn Hood (in progress). Committee Member, Ph.D. STEM Education

University of Kentucky

Boyd Gudgel (in progress). Committee Member, Ph.D. Educational Leadership

University of Kentucky

Kristen Witt (2020). Committee Member, Ph.D. STEM Education

University of Kentucky

Catherine Lawless (2019). Committee Member, Ph.D. Educational Leadership

University of Kentucky. Dissertation Title: Superintendents and the Micropolitics of Innovation in Rural School Districts.

Masters Students

Heather Chapman (2019). Committee Chair, M.Ed. STEM Education

University of Kentucky

Amy Chalk. (2011). Committee Member, M.Ed. Mathematics Education

University of Cincinnati

UNDERGRADUATE ADVISING AND RESEARCH SUPERVISION*

Meredith Davis – 2015-2016

Special Education, University of Kentucky

Mallory Bickett – 2015-2016

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Elementary Education, University of Kentucky

David Brown – 2017-2018

Elementary Education, University of Kentucky

Kristin Reeves – 2017-2018

Mathematics, University of Kentucky

Taylor Marzilli – 2018-2019

Elementary education, University of Kentucky

Brittney Sawyer – 2018-2019

Health Sciences, University of Kentucky

Natalya Hippesty – 2020

Honor Capstone Advisor

Elementary education, University of Kentucky

Sarah Poston – 2021-2022

Elementary education, University of Kentucky

Kayla Woodward – 2021-2022

Health Sciences, University of Kentucky

* undergraduate research supervision funded by the National Science Foundation as part of the Research in Undergraduate Education (REU) program.

PUBLICATIONS AND PRESENTATIONS 46 publications; 73 presentations
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PEER-REVIEWED PUBLICATIONS (26; 13 as first author)

Thomas, J. Dueber, D., Fisher, M.H., Jong, C., & Schack, E.O. (in press). Professional Noticing Coherence: Exploring Relationships between Component Processes. *Mathematical Thinking and Learning*.

Jong, C., Schack, E.O., Fisher, M.H., **Thomas, J.**, & Dueber, D. (2021). What role does professional noticing play? Examining connections with affect and mathematical knowledge for teaching among preservice teachers. *ZDM-Mathematics Education*, 53, 151-164.

Thomas, J. Sawyer, B., Marzilli, T., Jong, C., Schack, E.O., & Fisher, M.H. (2020). Investigating the Manifestations of Bias in Professional Noticing of Mathematical Thinking among Preservice Teachers. *Journal of Mathematics Education at Teachers College*, 11, 1-11.

Thomas, J. Dueber, D., Fisher, M.H., Jong, C., & Schack, E.O. (2020). Professional noticing into practice: An examination of inservice teachers' conceptions and enactment. *Investigations in Mathematics Learning*, 12, 110-123.

Thomas, J. & Dueber, D. (2020). Thinking with our hands: The power of gesture in mathematical moments. *Mathematics Teacher: Learning and Teaching PK12*, 113, 69-73.

Fisher, M.H., **Thomas, J.**, Jong, C., Schack, E.O. & Dueber, D. (2019). Comparing preservice teachers' professional noticing skills in elementary classrooms. *School Science and Mathematics*, 119, 142-149.

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- Thomas, J.** & Harkness, S.S. (2019). Tethering Towards Number: Coordinating Cognitive Variability and Stage-oriented Development in Children's Arithmetic Thinking. *Mathematics Education Research Journal*, 31, 325-347.
- Fisher, M. H., **Thomas, J.**, Jong, C., Schack, E. O., Tassell, J. (2018). Noticing Numeracy Now! Examining Changes in Preservice Teachers' Noticing, Knowledge, and Attitudes. *Mathematics Education Research Journal*, 30, 209-232.
- Thomas, J.** (2018). Talking with our hands. *Teaching Children Mathematics*, 24, 308-314.
- Thomas, J.**, Jong, C., Fisher, M.H., & Schack, E.O. (2017). Noticing and Knowledge: Exploring Theoretical Connections between Professional Noticing and Mathematical Knowledge for Teaching. *The Mathematics Educator*, 26, 3-25.
- Jong, C. **Thomas, J.**, Fisher, M.H., Schack, E.O., Davis, M., & Bickett, M. (2017). Decimal dilemmas: Interpreting and addressing misconceptions. *Ohio Journal of School Mathematics*, 75, 13-21.
- Thomas, J.** & Harkness, S.S. (2016). Patterns of Non-verbal Social Interaction within Intensive Mathematics Intervention Contexts. *Mathematics Education Research Journal*, 28, 277-302.
- Thomas, J.**, Fisher, M.H., Jong, C., Schack, E.O., Krause, L., Kasten, S. (2015). Professional Noticing: Learning to teach responsively. *Mathematics Teaching in the Middle School*, 21, 238-243.
- Lane, C.P., Harkness, S.S., & **Thomas, J.** (2015). Multiple ways to persevere: Liar's bingo. *Ohio Journal of School Mathematics*, 72, 23-28.
- Thomas, J.**, Fisher, M., Eisenhardt, S., Schack, E., Tassell, J., & Yoder, M. (2015). Professional Noticing: Developing Responsive Mathematics Teaching. *Teaching Children Mathematics*, 21, 295-303.
- Miracle-Meiman, B. & **Thomas, J.** (2014). Making a mathematical symphony: Emphasis on relational thinking and connections. *Ohio Journal of School Mathematics*, 70, 11-15.
- Eisenhardt, S., Fisher, M., **Thomas, J.**, Schack, E., Tassell, J., & Yoder, M. (2014). Is it counting or is it adding? *Teaching Children Mathematics*, 20, 498-507.
- Schack, E., Fisher, M., **Thomas, J.**, Eisenhardt, S., Tassell, J., & Yoder, M., (2013). Preservice teachers professional noticing of children's early numeracy. *Journal of Mathematics Teacher Education*, 16, 379-397.
- Lane, C., **Thomas, J.**, & Harkness, S.S. (2013). What is the Whole in Cornhole? Introducing and Capitalizing upon Disequilibrium with Fraction Operations. *Ohio Journal of School Mathematics*, 67, 33-41.
- Thomas, J.** & Harkness, S. S. (2013). Implications for intervention: Categorizing the quantitative mental imagery of children. *Mathematics Education Research Journal*, 25, 231-256.

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Harkness, S.S., **Thomas, J.**, Lane, C., & Cooper, A. (2013). Lesson Study: Allowing "What Is the Whole?" to Usurp "Where Is the Reciprocal?" *Far East Journal of Mathematics Education*, 10, 1-30.

Thomas, J. & Tabor, P.D. (2012). Developing Quantitative Mental Imagery. *Teaching Children Mathematics*, 19, 174-183. [NCTM Linking Research and Practice Outstanding Publication Award]

Burrows, A., **Thomas, J.**, Dole, D., Suess, R., & Woods, A. (2012). Riding the wave: Action researchers reflect on the ebb and flow of research engagement. *Education Action Research*, 20, 291-312.

Eisenhardt, S. & **Thomas, J.** (2012). The Mathematical Power of a Dynamic Professional Development Initiative: A Case Study. *Journal of Mathematics Education Leadership*, 14, 28-36.

Thomas, J., Tabor, P. D., & Wright, R. J. (2010). Three aspects of first-graders' number knowledge: Observations and instructional implications. *Teaching Children Mathematics*, 16, 299-308.

Harkness, S. S. & **Thomas, J.** (2008). Multiplication as original sin: The Implications of Using a Case to Help Preservice Teachers Understand Invented Algorithms. *Journal of Mathematical Behavior*, 27, 128-137.

BOOKS AND BOOK CHAPTERS (1 book; 3 book chapters)

MacDonald, B.L. & **Thomas, J.** (accepted). *Teaching Mathematics Conceptually: Guiding Principals for 5-10 Year-Olds*. London: Sage.

Thomas, J. (2017). The Ascendance of Noticing: Connections, Challenges, and Questions. In Schack, E.O., Fisher, M.H., & Wilhelm, J. (eds.) *Research Trends in Mathematics Teacher Education*. (pp.507-514). New York: Springer.

Fisher, M.H., Jong, C., **Thomas, J.**, & Schack, E.O. (2017). Noticing preservice teachers' attitudes toward mathematics in traditional and online classrooms. In D. Polly, M. Putman, T.M. Petty, & A.J. Good (eds.) *Handbook of Research on Innovative Practices in Teacher Preparation and Graduate-Level Teacher Education Programs* (pp.123-133). Hershey, PA: IGI Global.

Fisher, M., Schack, E., **Thomas, J.**, Jong, C., Eisenhardt, S., Yoder, M., & Tassell, J. (2014). Examining the Relationship Between Preservice Elementary Teachers' Attitudes Toward Mathematics and Professional Noticing Capacities. In J. Cai & J. Middleton (eds.) *Research Trends in Mathematics Teacher Education*. (pp. 219-237). New York: Springer.

INVITED PUBLICATIONS (5)

Thomas, J. (2019). The Big Short. *School Science and Mathematics Journal*, 119, 429-431.

Schroeder, M.M. & **Thomas, J.** (Eds.). (2015). *Proceedings from the School Science and Mathematics Association Annual Conference*. SSMA.

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Schack, E.O., Fisher, M.H., & **Thomas, J.** (2015). Multiple perspectives of teacher noticing: An emerging area of research. *Journal for Research in Mathematics Education*, 46, 371-375.

Thomas, J. (2015). Finding common ground. *School Science and Mathematics Journal*, 115, 1-3.

Thomas, J. (2012). Towards meaningful mathematical fluency. *School Science and Mathematics Journal*, 112, 327-329.

PEER-REVIEWED PUBLICATIONS IN CONFERENCE PROCEEDINGS (11)

Jong, C., Fisher, M.H., **Thomas, J.**, Schack, E.O., & Mask, W. (2021). Conceptualizing mathematics modules that integrate professional noticing and equity. *Psychology of Mathematics Education – North America Annual Conference*. Philadelphia, PA.

Thomas, J., Marzilli, T., Sawyer, B., Jong, C., Fisher, M.H. (2021). Manifestations of bias within preservice teachers' professional noticing of children's mathematical thinking. *Psychology of Mathematics Education – North America Annual Conference*. Mazatlán, MX.

Thomas, J., Brown, D., Reeves, K., Jong, C., Fisher, M.H., & Schack, E.O. (2019). Perceived ethnicity and gender influences on preservice teachers' professional noticing of children's mathematical thinking. *Psychology of Mathematics Education – North America Annual Conference*. St. Louis, MO.

Jong, C., **Thomas, J.**, Schack, E.O., Fisher, M.H., & Dueber, D. (2019). What role does professional noticing play? Exploring connections to affect and pedagogical content knowledge. *Psychology of Mathematics Education – North America Annual Conference*. St. Louis, MO.

Fisher, M.H., **Thomas, J.**, Jong, C., Schack, E.O., & Dueber, D. (2018). Professional noticing in complex mathematical contexts: Examining preservice teachers' changes in performance. *Psychology of Mathematics Education – North America Annual Conference*. Greenville, SC.

Fisher, M.H., Schack, E.O., Jong, C. & **Thomas, J.** (2017). Noticing preservice teachers' attitudes toward mathematics: Comparing traditional and technology-mediated approaches. *Psychology of Mathematics Education – North America Annual Conference*. Indianapolis, IN

Thomas, J., Jackson, C., & Kasten, S. (2015). Teachers' perceptions of mathematics standards: A comparison of PSSM and CCSSM. *Psychology of Mathematics Education – North America Annual Conference*. East Lansing, MI.

Schack, E. O., Fisher, M. H., Jong, C. & **Thomas, J.** (2015). Flowcharts to evaluate responses to video-based professional noticing assessments. *Psychology of Mathematics Education – North America Annual Conference*. East Lansing, MI.

Schack, E., Fisher, M., **Thomas, J.**, & Eisenhardt, S. (2013). Learning to professionally notice: Pre-service elementary teachers' attitudes towards mathematics in context. *Psychology of Mathematics Education – North America Annual Conference*. Chicago, IL.

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Fisher, M., Schack, E., **Thomas, J.**, Eisenhardt, S., Yoder, M., & Tassell, J. (2012). The stages of early arithmetic learning: A context for learning to professionally notice. *Psychology of Mathematics Education – North America Annual Conference*. Kalamazoo, MI.

Eisenhardt, S., Fisher, M., Schack, E., Tassell, J., & **Thomas, J.** (2011). Noticing Numeracy Now (N³): A collaborative research project to develop preservice teachers' abilities to professionally notice children's mathematical thinking. *Research Council on Mathematics Learning Annual Conference*. Cincinnati, OH.

PEER-REVIEWED NATIONAL & INTERNATIONAL PRESENTATIONS (23)

LaRochelle, R., Dick, L., Skultety, L., & **Thomas, J.** (Feb. 2020). Investigations into connections between teachers' professional noticing and teachers' cognitive resources: Looking back and moving forward. *Association of Mathematics Teacher Educators*. Phoenix, AZ.

Fisher, M.H., Schack, E.O., **Thomas, J.**, & Jong, C. (Feb. 2020). Mathematical teacher decisions: The analytic lens matters. *Association of Mathematics Teacher Educators*. Phoenix, AZ.

Thomas, J., & Harkness, S.S. (Apr. 2019). Tethering toward number: Synthesizing cognitive variability and stage-oriented development in children's arithmetic thinking. *American Educational Research Association*. Toronto, ON.

Fisher, M.H., Schack, E.O., Jong, C., & **Thomas, J.** (Apr. 2019). Mathematical teacher decisions: The analytic lens matters. *American Educational Research Association*. Toronto, ON.

Thomas, J., Brown, D., Reeves, K., Fisher, M.H., Jong, C., & Schack, E.O. (Apr. 2019). Influence of perceived ethnicity and/or gender on preservice teachers' professional noticing. *American Educational Research Association*. Toronto, ON.

Thomas, J., Dueber, D., Fisher, M.H., Jong, C., & Schack, E.O. (Apr. 2018). Professional noticing into practice: An examination of inservice teachers' conceptions and enactment. *American Educational Research Association*. New York, NY.

Fisher, M.H., Davis, M., **Thomas, J.**, Jong, C., & Schack, E.O. (Nov. 2017). Analyzing preservice elementary teachers' content knowledge using the TEDS-M assessment. *School Science and Mathematics Association (SSMA) Annual Meeting*, Lexington, KY.

Fisher, M.H., **Thomas, J.**, Jong, C., & Schack, E.O. (Apr. 2017). Decimal operations: Making meaningful moves from misconceptions. *National Council of Teachers of Mathematics (NCTM) Annual Meeting*, San Antonio, TX.

Thomas, J., Jong, C., Schack, E.O., Fisher, M.H., & Dueber, D. (Apr. 2017). Developing an adaptable instrument to measure professional noticing skills. *National Council of Teachers of Mathematics (NCTM) Research Conference*, San Antonio, TX.

Thomas, J. & Dueber, D. (Feb. 2017). Exploring in-service teachers' perceptions of professional noticing. *Association of Mathematics Teacher Educators (AMTE)*. Orlando, FL.

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- Fisher, M.H., Schack, E.O., Thomas, J., & Jong, C. (July. 2016). Changes in pre-service teachers' attitudes toward mathematics: Differences in traditional and online approaches. *International Congress on Mathematics Education (ICME)*. Hamburg, Germany.
- Fisher, M.H., Jong, C., **Thomas, J.** & Schack, E.O. (Feb. 2016). Implementing an online professional noticing module and its effects on attitudes towards mathematics. *Association of Mathematics Teacher Educators (AMTE)*. Irvine, CA.
- Thomas, J.**, Jong, C., Schack, E.O., Fisher, M.H., Wilhelm, J., & Stockero, S. (Nov. 2015). Teacher noticing: A hidden skill of teaching. *Psychology of Mathematics Education – North America Group Conference*. East Lansing, MI. **(Working Group)**
- Jong, C., Schack, E.O., **Thomas, J.**, & Fisher, M.H. (Apr. 2015). Flowcharts to assess professional noticing: Methods for coding open-ended responses. *National Council of Teachers of Mathematics Research Conference*. Boston, MA.
- Thomas, J.**, Fisher, M.H., Schack, E.O., & Tassell, J. (Feb. 2015). Trajectory-based measures of professional noticing capacities. *Association of Mathematics Teacher Educators (AMTE)*. Orlando, FL.
- Fisher, M.H., Schack, E.O., Wilhelm, J., **Thomas, J.**, & McNall-Krall, R. (Jul. 2014). Teacher noticing: A hidden skill of teaching. *Psychology of Mathematics Education – International Group Conference*. Vancouver, BC. **(Working Group)**
- Fisher, M. H., **Thomas, J.**, Eisenhardt, S., Schack, E. O., Jong, C., & Tassell, J. (Apr. 2014). Correlating professional noticing and mathematics knowledge for teaching. *National Council of Teachers of Mathematics Research Conference*. New Orleans, LA.
- Schack, E. O., Eisenhard, S., Fisher, M. H., Jong, C., Tassell, J., & **Thomas, J.** (Apr. 2014). An instructional model to develop preservice teachers' professional noticing skills. *National Council of Teachers of Mathematics Research Conference*. New Orleans, LA.
- Eisenhardt, S., Fisher, M., Schack, E., Tassell, J., **Thomas, J.**, & Yoder, M., (Apr. 2013). The Impact of a Professional Noticing Numeracy Module on Elementary Pre-service Teachers' Attitudes Toward Mathematics. *American Educational Research Association*. San Francisco, CA.
- Thomas, J.**, Schack, E., Fisher, M., Eisenhardt, S., Yoder, M., & Tassell, J. (Apr. 2012). Noticing Numeracy Now: Preservice teachers' ability to attend to children's mathematical thinking. *American Educational Research Association*. Vancouver, BC.
- Fisher, M., **Thomas, J.** & Schack, E. (Feb. 2012). Noticing Numeracy Now (N³): Developing preservice teachers' professional noticing of children's mathematical thinking. *Association of Mathematics Teacher Educators (AMTE)*; Ft. Worth, TX.
- Thomas, J.**, Schack, E., Fisher, M., Eisenhardt, S., Tassell, J., & Yoder, M. (Apr. 2011). Noticing Numeracy Now (N³): A Collaborative Effort to Bolster Preservice Teachers' Professional Noticing of Students' Mathematics. *National Math Recovery Conference*; Louisville, KY

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Tabor, P. D. & **Thomas, J.** (Apr. 2009). Climbing out of the box: Enhancing commercial intervention products. *National Math Recovery Conference*; Minneapolis, MN.

PEER-REVIEWED STATE OR REGIONAL PRESENTATIONS (23)

Gonulates, F., Crowe, C., Harris, T., Noblitt, B., Peters, S., & **Thomas, J.**, (May 2018). Evidence-based practices in teaching mathematics. *Kentucky Excellence in Educator Preparation Conference*, Louisville, KY.

Thomas, J. (Nov. 2017). Talking with our hands: Exploring gesture in mathematics instruction. *National Council of Teachers of Mathematics (NCTM) Regional Conference*, Chicago, IL.

Lane, C., **Thomas, J.**, & Harkness, S. S. (Mar. 2014). Nurturing mathematical behavior with Liar's Bingo. *Kentucky Center for Mathematics Conference*. Lexington, KY.

Schack, E.O., Fisher, M., & **Thomas, J.** (Nov. 2013). Look before you leap: Using children's thinking to target instruction. *National Council of Teachers of Mathematics (NCTM – regional meeting)*; Louisville, KY.

Kasten, S., Austin, C., Jackson, C., Noblitt, B., & **Thomas, J.** (Feb. 2013). Preservice Teacher Preparation [Working Group]. *Kentucky Center for Mathematics Conference*. Lexington, KY.

Lane, C., Harkness, S.S., & **Thomas, J.** (Nov. 2012). Pictures and portions: Understanding fractions through contexts and representations. *National Council of Teachers of Mathematics (NCTM – regional meeting)*; Chicago, IL.

Fisher, M., **Thomas, J.**, & Eisenhardt, S. (Feb. 2012). Noticing Numeracy Now (N^3): Focusing on children's mathematical thinking. *3rd Annual University of Kentucky STEM Symposium*; Lexington, KY.

Fisher, M., **Thomas, J.**, & Schack, E. (Oct. 2011). Noticing Numeracy Now (N^3): Focusing on children's mathematical thinking. *National Council of Teachers of Mathematics (NCTM – regional meeting)*; St. Louis, MO.

Thomas, J., Tassell, J., & Eisenhardt, S. (Oct. 2011). Noticing Numeracy Now (N^3). *Kentucky Council for Teachers of Mathematics (KCTM)*; Bowling Green, KY.

Fisher, M., **Thomas, J.**, Schack, E., & Yoder, M. (May 2011). Noticing Numeracy Now (N^3): A collaborative research project to develop preservice teachers' professional noticing. *2nd Annual STEM Symposium – University of Kentucky*; Lexington, KY.

Schack, E., **Thomas, J.**, Fisher, M., Eisenhardt, S., Tassell, J., Yoder, M., & Higgins, P. (Feb. 2011). Noticing Numeracy Now (N^3): A collaborative research project to develop preservice teachers' abilities to professionally notice children's mathematical thinking. *Kentucky Center for Mathematics Conference*; Lexington, KY

Thomas, J., Eisenhardt, S., & Tassell, J. (Nov. 2010). Noticing Numeracy Now (N^3): A collaborative research project to develop preservice teachers' ability to professionally

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- notice children's mathematical thinking. *Appalachian Association of Mathematics Teacher Educators (AAMTE) Annual Conference*; Williamsburg, KY.
- Thomas, J.** (Oct. 2010). Picture this: Exploring the quantitative mental imagery of children. *National Council of Teachers of Mathematics (NCTM – regional meeting)*; Denver, CO.
- Eisenhardt, S. & **Thomas, J.** (Feb. 2010). Capturing the mathematical moment: Using preservice teacher created video as a tool for developing understanding of numeracy. *Kentucky Center for Mathematics Conference*; Frankfort, KY.
- Harkness, S. S., Lane, C., & **Thomas, J.**, (Feb. 2010). Pictures and portions: Leveraging contexts and representations to buttress understandings of fractions. *Kentucky Center for Mathematics Conference*; Frankfort, KY.
- Thomas, J** & Harkness, S.S. (Nov. 2009). Multiplication as original sin: Algorithms and attitudes in the elementary classroom. *Ohio Council for Teachers of Mathematics Annual Conference (OCTM)*; Cincinnati, OH.
- Stallworth, J., Chalk, A., Cohen, M., Harkness, S.S., Lane, C., & **Thomas, J.** (Nov. 2009). Condos and contexts: Making sense of division with fractions. *Ohio Council for Teachers of Mathematics Annual Conference (OCTM)*; Cincinnati, OH.
- Thomas, J.** (Oct. 2009). Develop + mental - mathematics: Conceptual place value and problem strings. *Kentucky Council for Teachers of Mathematics Annual Conference (KCTM)*; Paris, KY.
- Thomas, J.** & Bristol, L. (Mar. 2009). KCM progress points project. *Kentucky Center for Mathematics Conference*; Louisville, KY.
- Gabbard, A., Eisenhardt, S., Smiddy, J., & **Thomas, J.** (Mar. 2008). Pathways to numeracy for every child every day. *Kentucky Teaching and Learning Conference*; Louisville, KY.
- Harkness, S.S. & **Thomas, J.** (Mar. 2008). X-Mania: A valuable place for place value. *Kentucky Teaching and Learning Conference*; Louisville, KY.
- Thomas, J.** (Oct. 2008). Picture this: Mental imagery and early mathematics. *Kentucky Council for Teachers of Mathematics Annual Conference (KCTM)*; Louisville, KY.
- Thomas, J.** (Oct. 2007). Conceptual place value: Research, resources, and challenges to understanding. *Kentucky Council for Teachers of Mathematics Annual Conference (KCTM)*; Lexington, KY.
- INVITED NATIONAL PRESENTATIONS (12; 4 Keynote)**
- Moss, C., Day, S., **Thomas, J.**, Daoud, W. (2020). Preparing Students for STEM Careers. *Discovery Education + Cognia STEMinar*. virtual conference (**Keynote panel**).
- Thomas, J.** (Oct. 2018). Family Ties, Growing Pains, and The Wonder Years: Tracing our Math Recovery journey. *U.S. Math Recovery Annual Conference*. Denver, CO. (**Keynote speaker**).

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Mohr-Schroeder, M. J., Jackson, C. D., Schroeder, D. C., & **Thomas, J.** (Apr. 2017). Connecting the "M" in STEM. *National Council of Teachers of Mathematics (NCTM)*, San Antonio, TX.

Edwards, B. Hudson, R., Males, L., Spangler, D.A., & **Thomas, J.** [*listed alphabetically*] (Feb. 2017). Service Teaching and Research (STaR) Fellowship faculty panel discussion. *Association of Mathematics Teacher Educators (AMTE)*. Orlando, FL.

Thomas, J. (May. 2014). Bridging distances: Connecting classroom and intervention mathematics instruction. *U.S. Math Recovery Conference*. Aulin, TX. (**Keynote Speaker**).

Gibbons, L. K., Jackson, K., Johnson, H. L., & **Thomas, J.** [*listed alphabetically*] (Apr. 2014). Perspectives on linking research and practice: Thoughts from the field. *National Council of Teachers of Mathematics Research Conference*. New Orleans, LA.

Thomas, J. (Nov. 2013). Noticing Numeracy Now: Pre-service elementary teachers' capacity to professionally notice children's mathematical thinking. *School Science and Mathematics Association Annual Conference*; San Antonio, TX. (**Early Career Scholar Award Presentation**)

Eisenhardt, S., Fisher, M., Schack, E.O., Tassell, J., **Thomas, J.**, & Yoder, M. (Jan. 2013). Measuring Professional Noticing: Rubric Development and Calibration. *Association of Mathematics Teacher Educators (AMTE) – Service Teaching and Research (STaR) Seminar*; Orlando, FL. (**Poster Presentation**)

Thomas, J., Wu, H.S., Alberti, S., & Sawchuck, S. (May, 2012). Professional Demands of the Common Core State Standards for Mathematics. Participant in the *Education Week* electronic panel discussion.

Schroeder, C., **Thomas, J.**, Hunter, S., & Bristol, L. (Feb. 2012). Supporting classroom educators in integrating the mathematics standards. *Architecture for Implementing the Common Core Standards: Strategies, Partnerships, and Progress*; Louisville, KY.

Steffe, L. P., **Thomas, J.**, & Kinsey, K. (Apr. 2010). Early numeracy workshop for Math Recovery teachers. *National Math Recovery Conference*; Albuquerque, NM. (**Keynote Workshop**).

Kinsey, K. & **Thomas, J.** (Apr. 2010). Counting: It's harder than it looks. *National Math Recovery Conference*; Albuquerque, NM.

INVITED STATE OR REGIONAL PRESENTATIONS (15; 6 Keynote)

Thomas, J. (Jul. 2021). Teaching Equitable Noticing: Beginning and Extending Conversations. *Kentucky Center for Mathematics Teacher Leader Summit*. Louisville, KY. (**Keynote Presenter**).

Thomas, J. (Mar. 2021). Between the Lines: Noticing and Equity in Elementary Mathematics. *Kentucky Center for Mathematics Conference*. [Virtual Event].

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Thomas, J. & Jong, C. (Mar. 2020). Maximizing the Mathematical Moment. *Kentucky Center for Mathematics Conference*. Lexington, KY.

Thomas, J. (Mar. 2018). Family Ties, Growing Pains, and The Wonder Years: Tracing our KCM journey over the past decade. *Kentucky Center for Mathematics Conference*. Lexington, KY. **(Keynote Presenter)**.

Gabbard, A., Hill, R., **Thomas, J.**, & McCallum, W.G. (Mar. 2015). Implementing the Common Core: A panel discussion. *Kentucky Center for Mathematics Conference*. Lexington, KY.

Thomas, J. (Oct. 2014). Common ground: Traditions, themes, and theories to unite mathematics educators. *Purdue University-Calumet 33rd Annual Conference on the Improvement of Mathematics Teaching*. **(Keynote Presenter)**.

Thomas, J. (Mar. 2014). Professional Noticing: Expanding the lens. *Kentucky Center for Mathematics Conference*. Lexington, KY. **(Keynote Presenter)**.

Thomas, J. (Jun. 2013). Consensus: Finding an effective vision for mathematics intervention *Instructional Support Leadership Network / Kentucky Leadership Academy Joint Summer Conference*. Lexington, KY.

Thomas, J. (Jun. 2013). Common ground: Building consensus around key ideas for effective mathematics teaching and learning. *Kentucky Educational Development Corporation Annual Mathematics Conference*. Ashland, KY. **(Keynote Presenter)**.

Thomas, J. (Feb. 2013). Bridging distances: Connecting classroom and intervention mathematics instruction. *Kentucky Center for Mathematics Conference*. Lexington, KY. **(Keynote Presenter)**.

Thomas, J. (Jun. 2012). Mathematics under the Microscope: Professional noticing to support teacher growth. *First People's Center for Education Annual Summit*; Sheridan, WY.

Thomas, J. (Feb. 2012). Achieving mathematical fluency: Tipping the iceberg. *3rd Annual University of Kentucky STEM Symposium*; Lexington, KY.

Thomas, J. (Nov. 2011). Response to Intervention. *Center for Integrated Natural Sciences and Mathematics (CINSAM) Elementary Alliance meeting*; Crestview Hills, KY.

Thomas, J. (Oct. 2011). Structuring Number. *Center for Integrated Natural Sciences and Mathematics (CINSAM) Elementary Alliance meeting*; Highland Heights, KY.

Thomas, J. & Yoder, M. (Jun. 2011). Noticing Numeracy Now. *Committee for Mathematics Achievement*; Frankfort, KY.

EXTERNALLY FUNDED ACTIVITY	total project funding	3,382,491
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National Science Foundation **Funded 2019-2022**

Co-Principal Investigator

\$599,875

Improving Undergraduate STEM Education (IUSE)

Project Title: Collaborative Research: Project M³INE: Microlearning Mathematics Modules that Intersect Noticing and Equity

Project Abstract: Project M³INE is aimed at developing preservice elementary teachers' (PSETs') capacity to enact equitable and responsive instruction in the mathematics classroom. Via a series of related microlearning modules, this project will provide context and activity for the development of these complex practices among PSETs such that diverse experiences of K-5 students may be *mined* more thoughtfully to create enriching and inclusive mathematical opportunities.

National Science Foundation **Funded 2016-2022**

External Consultant to Project Leaders at Hofstra University

1,217,623

NOYCE Scholars Program – Phase 2

With funding from the National Science Foundation's Robert Noyce Teacher Scholarship Program, Hofstra University will partner with Nassau Community College (NCC) and four high-need school districts on Long Island, for this Scholarships & Stipends Phase II project, Noyce Scholars Program Phase II: Expanding the Model. The project will support 22 juniors /seniors/post-baccalaureate students who are majoring in mathematics or a science discipline (or who have completed such a major) and who are preparing to teach secondary mathematics or science in a high-need district. Each Scholar will receive 1 or 2 years of scholarship support. The new teachers will use vetted methods of mathematics and science instruction, connecting concepts across disciplines and engaging learners in collaborative problem solving related to real world contexts. My role as consultant was to design and implement professional learning activities for Noyce Scholars.

National Science Foundation **Funded 2014-2018**

Principal Investigator

\$499,813

Improving Undergraduate STEM Education (IUSE)

Project Title: Collaborative Research-Project TECHNO

Project Abstract: Build upon previously funded NSF research (Collaborative Research: Noticing Numeracy Now) to develop technologically-centered learning modules for use in online teacher preparation contexts that will positively affect preservice teachers' capacity to professionally notice and respond appropriately to children's mathematical thinking along learning trajectories in numeracy and early-algebra.

Kentucky Department of Education **Funded 2014-2016**

Faculty Associate & Proposal Co-Author

\$320,000

Mathematics and Science Partnership (MSP)

Project Title: Kentucky Numeracy Project - Intensive

October 2021

Project Abstract: In order to address the needs of the partner schools for improving students' mathematics proficiency the KNPI (Kentucky Numeracy Project Intensive) will provide a rigorous, extended professional learning experience designed to improve primary teachers' pedagogical content knowledge to advance students' foundational number knowledge

Kentucky Department of Education
Faculty Associate & Proposal Co-Author
\$335,000

Funded 2013-2015

Mathematics and Science Partnership (MSP)

Project Title: Mathematics Response to Intervention Network

Project Abstract: In order to address the needs of the partner schools for improving students' mathematics proficiency the Mathematics Response to Intervention Network will provide a rigorous, extended professional learning experience designed to improve mathematics intervention teachers' understanding of responsive instructional practices organized at promoting fluency among struggling learners.

Kentucky Department of Education
External Evaluator & Proposal Co-Author
\$200,000

Funded 2013-2014

Project Title: Examining Effective Response-to-Intervention

Project Abstract: To grow teachers' understanding of early numeracy development and their abilities for establishing in students strong foundations for fluently adding and subtracting, in support of the KDE's statewide initiatives to develop highly effective teaching and learning in Kentucky classrooms that will lead to the success of all Kentucky students.

Center for the Study of Mathematics Curriculum
Research Group Member
\$10,260

Funded 2012-2013

Project Title: Enactment of Standards Priority Research Agenda

Project Abstract: The focus of this research group is the comparison of teacher selection and use of written curriculum materials in Common Core State Standards for Mathematics (CCSSM) adopting and non-adopting states. We are considering written curriculum materials broadly to include the texts provided to teachers by their districts along with the materials they seek out and choose themselves to implement the standards in their states.

National Science Foundation
Principal Investigator
\$199,920

Funded 2011-2014

Transforming Undergraduate Education in Science,
Technology, Engineering, and Mathematics (TUES) – Type 1
Project Title: Collaborative Research-Noticing Numeracy Now

Project Abstract: This project examines the extent to which an innovative learning experience focused on the professional noticing of children's numeracy develops pre-service teachers' capacity to attend, interpret, and respond appropriately to the mathematical thinking of children. Faculty members from seven Kentucky universities (NKU, EKU, WKU, UK, UofL, Morehead State, & Murray State) and the Kentucky Center for Mathematics have designed and implemented a proprietary module, *Noticing Numeracy Now (N3)* based on literature in the areas of professional noticing and early mathematical learning.

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SERVICE

COLLEGE AND DEPARTMENT-LEVEL SERVICE

Committee Member <i>Evaluation Center Advisory Board</i> College of Education University of Kentucky	2018-present
Committee Member <i>College of Education Staffing Redesign Team</i> University of Kentucky	Summer, 2020
Committee Member Science Educator Faculty Search College of Education University of Kentucky	2019-2020
Committee Member (interim) <i>Faculty Council</i> College of Education University of Kentucky	2018
Committee Chairperson <i>Research Advisory Committee</i> College of Education University of Kentucky	2015-2017
Committee Member <i>Rules Committee</i> College of Education University of Kentucky	2015-2016; 2017-2019
Committee Member <i>Elementary Education Program</i> College of Education University of Kentucky	2015-present
Program Chairperson <i>Elementary Education Program</i> Department of Teacher Education Northern Kentucky University	2014-2015
Committee Member <i>Council for the Accreditation in Educator Preparation (CAEP) Task Force</i> College of Education and Human Services Northern Kentucky University	2013-2014

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Committee Co-Chairperson <i>Faculty Search Committee</i> Mathematics Educator Department of Teacher Education Northern Kentucky University	2013-2014
Committee Member <i>Search Committee</i> Dean College of Education and Human Services Northern Kentucky University	2012-2013
Committee Member <i>Distinguished Scholar Committee</i> College of Education and Human Services Northern Kentucky University	2012-2013
Committee Member <i>Middle Grades Mathematics Intervention</i> Kentucky Center for Mathematics	2011-2012
Committee Member <i>Continuous Assessment Committee</i> College of Education and Human Services Northern Kentucky University	2011-2012
Committee Chairperson <i>Elementary Mathematics Specialist Design Team</i> Department of Teacher Education, Department of Mathematics, & Kentucky Center for Mathematics Northern Kentucky University	2010-2015
Committee Member <i>Elementary Education Program</i> Department of Teacher Education Northern Kentucky University	2010-2015
Committee Member <i>Early Childhood Education Program</i> Department of Teacher Education Northern Kentucky University	2010-2015
Committee Co-Chairperson <i>Faculty Search Committee</i> Technology Educator Department of Teacher Education Northern Kentucky University	Spring, 2012
Committee Member <i>Peer Evaluation</i>	Spring, 2015

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Dr. Patti Bills
Department of Teacher Education
Northern Kentucky University

Committee Member
Peer Evaluation

Spring, 2013

Dr. Tammie Sherry
Department of Teacher Education
Northern Kentucky University

Committee Member
Peer Evaluation

Fall, 2012

Dr. Bianca Prather-Jones
Department of Teacher Education
Northern Kentucky University

Committee Member
Peer Evaluation

Fall, 2011

Dr. Helene Hart
Department of Teacher Education
Northern Kentucky University

Committee Chairperson
Peer Evaluation

Spring, 2011

Dr. Kevin Besnoy
Department of Teacher Education
Northern Kentucky University

Committee Member
Peer Evaluation

Spring, 2011

Dr. Sarah Kasten
Department of Teacher Education
Northern Kentucky University

Committee Member
Peer Evaluation

Fall, 2010

Dr. Denise Dallmer
Department of Teacher Education
Northern Kentucky University

UNIVERSITY-LEVEL SERVICE

Senator

2018-2019

University Senate
Representing the College of Education
University of Kentucky

Faculty Learning Community

2017-2019

Support Systems for Student Veterans
University of Kentucky

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Board Member **2014 – 2015**
Institutional Review Board (IRB)
Northern Kentucky University

Committee Member **2013-2014**
Planning Committee
Meet, Greet, and Grab a Seat Conference
Northern Kentucky University

Committee Member **2012-2013**
Search Committee
Executive Director
Center for Integrated Natural Sciences and Mathematics (CINSAM)
Northern Kentucky University

Faculty Advisor **2011-2014**
Elementary Education Alliance
Center for Integrated Natural Sciences and Mathematics (CINSAM)
Northern Kentucky University

Faculty Participant **2011**
Professor Panel for New Students
September 19, 2011
Residence Life
RA Coordinator: Aaron Howell

Faculty Participant **2011**
Professor Panel for New Students
March 30, 2011
Residence Life
RA Coordinator: Aaron Howell

Presenter – Fall Event **2010**
Early Childhood Education Alliance
Center for Integrated Natural Sciences and Mathematics (CINSAM)
Northern Kentucky University

SERVICE TO DISCIPLINE AND PROFESSIONAL COMMUNITY

Board Chairperson **2018 - 2019**
U.S. Math Recovery Council

Board Member **2015 - present**
U.S. Math Recovery Council

Associate Editor **2011 - present**
School Science and Mathematics Journal
Publisher: Wiley-Blackwell

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Board Member at Large <i>Kentucky Association of Mathematics Teacher Educators</i>	2017 - 2019
Proposal Review Panelist <i>National Science Foundation Division of Undergraduate Education</i>	2015, 2021
Committee Member Executive Director Search Committee <i>Kentucky Center for Mathematics</i>	Spring, 2019
Committee Member Mathematics Standards Revision Panel <i>Kentucky Department of Education</i>	2018-2019
Committee Member Publications Committee <i>School Science and Mathematics Association</i>	2014 - present
Facilitator <i>Professional Noticing of Children's Mathematical Thinking Professional Development Sessions (5) Erlanger/Elsmere Independent Schools</i>	Spring, 2014
Session Leader <i>Mathematics & Entrepreneurship Norse Think Tank Institute for Talent Development & Gifted Studies Northern Kentucky University</i>	Summer, 2013
Facilitator <i>Conceptual Fraction Construction Lesson Modeling Session Kelly Elementary School Boone County Schools</i>	Spring, 2013
Professional Source <i>Education Week</i> Article Title: "Concerns Abound over Teachers' Preparedness for Standards"	Spring, 2012
Professional Source <i>Education Week</i> Article Title: "Common Core brings K12 and Higher Education Together"	Spring, 2012
Professional Source <i>Education Week</i> Article Title: "Kentucky: Building a Bumpy Road from K12 through College"	Spring, 2012

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Facilitator <i>Mathematics Response to Intervention</i> Professional Development Session River Ridge Elementary School Kenton County Schools	2011-2012
Project Team Member <i>Response to Intervention: Collaborating to Make a Difference</i> Refereed Symposium National Council of Teachers of Mathematics (NCTM) & Council for Exceptional Children (CEC)	2011-2012
Facilitator <i>Professional Noticing for Mathematics Intervention</i> Professional Development Session Ockerman Elementary School Boone County Schools	Spring, 2011
Lead Facilitator <i>Pre-service Teacher Preparation (PTP) Collaborative</i> Kentucky Center for Mathematics	2009-present
Committee Member <i>Mathematics Education Research Collaborative (MERC)</i> Kentucky Association of Colleges of Teacher Education	2009-2010
Committee Member <i>K-12 Common Core Standards Workgroup.</i> Kentucky Department of Education	2009-2010
Co-Facilitator <i>PRIME Mathematics Intervention Teacher Leadership Group</i> Kentucky Center for Mathematics	2008-2009
Referee <i>Mathematics Teaching and Learning PK12</i> National Council of Teachers of Mathematics (NCTM)	2020-present
Referee <i>Journal of Numerical Cognition</i> PsychOpen	2018-present
Referee <i>Journal of Education Research</i> Taylor and Francis	2018-present
Referee <i>Journal of Mathematics Teacher Education Research</i> Springer	2018-present

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Referee **2016-present**
Journal for Research in Mathematics Education
National Council of Teachers of Mathematics (NCTM)

Referee **2017-present**
Cognition and Instruction
Routledge

Referee **2013-present**
Mathematics Education Research Journal
Mathematics Education Research Group – Australasia (MERGA)

Referee **2008-present**
Ohio Journal of School Mathematics.
Ohio Council of Teachers of Mathematics (OCTM)

Referee **2015-2019**
Mathematics Teaching in the Middle School.
National Council of Teachers of Mathematics (NCTM)

Referee **2009-2019**
Teaching Children Mathematics.
National Council of Teachers of Mathematics (NCTM)

Referee **2017-present**
Learning and Individual Differences
Elsevier

Referee **2016-present**
National Council of Teachers of Mathematics (NCTM)
Research Conference

AWARDS & HONORS

Department Chair Leadership Academy **2020-2021**
University of Kentucky

Outstanding Publication Award **2014**
Linking Research to Practice
National Council of Teachers of Mathematics

Outstanding Early Career Scholar Award **2013**
School Science and Mathematics Association

Academic Impact Senior Survey **2009, 2012, 2013, 2014**
Office of Student Affairs
Northern Kentucky University †

Excellence in Teaching Award **2013**
Delta Gamma Fraternity

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Northern Kentucky University

Service Teaching and Research (STaR) **2012**
Summer Fellowship for
Rising Early-Career Mathematics Educators
National Science Foundation &
The Park City Mathematics Institute

Faculty Excellence in Teaching Award (*Nominee*) **2012**
College of Education and Human Services
Northern Kentucky University

† *The Northern Kentucky University Academic Impact Senior Survey is administered to all undergraduate senior students and asks these individuals to identify a single faculty member who had the greatest positive impact on their academic experience. The Office of Student Affairs notifies faculty members of such mentions the following semester.*