

February 2019

Jonathan Norris Thomas

Associate Professor of Mathematics Education
University of Kentucky &
The Kentucky Center for Mathematics
Taylor Education Building 119
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jonathan.thomas1@uky.edu

EDUCATION

- Ed.D. Curriculum and Instruction **2010**
Teaching and Learning of School Subjects:
Mathematics Education
University of Cincinnati,
Cincinnati, Ohio
Dissertation Title
Picture this: An examination of children's quantitative mental imagery
Nominated for Garvin Dissertation Award
- M. Ed. Educational Leadership **2006**
Summa cum Laude
University of Cincinnati,
Cincinnati, Ohio
- B. A. Elementary Education **2003**
Cum Laude
University of Kentucky
Lexington, Kentucky
Area of Concentration:
Mathematics

PROFESSIONAL EMPLOYMENT

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

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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

Northern Kentucky University

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

Primary Instructor

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

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Co-Instructor

EDU 493 Elementary Student Teaching
University Supervisor
EDU 392 Elementary Field Experience
University 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

Rachel Blackwell (in progress). Committee Member, Ph.D. STEM Education
University of Kentucky
Dawn Hood (in progress). Committee Member, Ph.D. STEM Education
University of Kentucky
Catherine Lawless (in progress). Committee Member, Ph.D. Educational Leadership
University of Kentucky

Masters Students

Heather Chapman (in progress). Committee Chair, M.Ed. STEM Education
University of Kentucky
Amy Chalk. (2011). Committee Member, M.Ed. Mathematics Education
University of Cincinnati

UNDERGRADUATE RESEARCH SUPERVISION*

Meredith Davis – 2015-2016
Special Education, University of Kentucky
Mallory Bickett – 2015-2016
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

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

PUBLICATIONS AND PRESENTATIONS

* denotes international publications

PEER-REVIEWED PUBLICATIONS

***Thomas, J.** & Harkness, S.S. (in press). Tethering Towards Number: Coordinating Cognitive Variability and Stage-oriented Development in Children's Arithmetic Thinking. *Mathematics Education Research Journal*

Thomas, J. & Dueber, D. (in press). Thinking with our hands: The power of gesture in mathematical moments. *Mathematics Teaching in the Middle School*.

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

Fisher, M. H., **Thomas, J.**, Jong, C., Schack, E. O., Tassell, J. (2018). Interpreting the Interrelationships of PSET Professional Noticing, Mathematics Knowledge for Teaching, and Attitudes towards Mathematics. *Mathematics Education Research Journal*, 30, 209-232.

Thomas, J. (2018). Talking with our hands. *Teaching Children Mathematics*, 24, 308-314.

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. **(Peer-Reviewed Monograph Chapter)**.

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: A framework for responsive mathematics teaching. *Teaching Children Mathematics*, 21, 295-303.

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- Miracle-Meiman, B. & **Thomas, J.** (2014). Making a mathematical symphony: Emphasis on relational thinking and connections. *Ohio Journal of School Mathematics*, 70, 11-15.
- 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. **(Peer-Reviewed Monograph Chapter)**.
- 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.
- *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.

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INVITED PUBLICATIONS

- 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. [Monograph Chapter]
- Schroeder, M.M. & **Thomas, J.** (Eds.). (2015). *Proceedings from the School Science and Mathematics Association Annual Conference*. SSMA.
- 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. [Book Review]
- Thomas, J.** (2015). Finding common ground. *School Science and Mathematics Journal*, 115, 1-3. [Editorial]
- Thomas, J.** (2012). Towards meaningful mathematical fluency. *School Science and Mathematics Journal*, 112, 327-329. [Editorial]

PEER-REVIEWED PUBLICATIONS IN CONFERENCE PROCEEDINGS

- 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.
- 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.

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PUBLICATIONS IN PREPARATION, REVIEW, OR REVISION

Thomas, J., Dueber, D., Fisher, M.H., Jong, C., & Schack, E.O. (in review). Putting a practice into practice: examining teachers' perceptions of professional noticing. *Investigations in Mathematics Learning*.

Thomas, J., Dueber, D., Fisher, M.H., Jong, C., & Schack, E.O. (in preparation). The coherence of professional noticing: Examining relationships between the component processes. *Mathematical Thinking and Learning*.

PEER-REVIEWED NATIONAL & INTERNATIONAL PRESENTATIONS

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.

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.

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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., Eisenhardt, 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

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

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.

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- 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 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.

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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

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 Presenter)**.

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*. Austin, 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.

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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.

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

INVITED STATE OR REGIONAL PRESENTATIONS

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.

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

EXTERNALLY FUNDED ACTIVITY

National Science Foundation

In Review

Principal Investigator

\$499,026

Education and Human Resources Core Research (ECR)

Project Title: Collaborative Research: Categorizing Decision-Making in Mathematical Moments (Cat-DM³)

Project Abstract: The proposed project aims to investigate the most consequential component of professional noticing of students' mathematical thinking - the *deciding* component. This project has the potential to generate knowledge and theory surrounding decision making in mathematics instructional contexts and how to assess those decisions for professional development of preservice and inservice teachers as this project aims to categorize the instructional decisions into various mathematical practices and understand how learning environments might influence such decisions.

National Science Foundation

In Review

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 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.

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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

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

Funded 2013-2015

Faculty Associate & Proposal Co-Author

\$335,000

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

Funded 2013-2014

External Evaluator & Proposal Co-Author

\$200,000

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

Funded 2012-2013

Research Group Member

\$10,260

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

Funded 2011-2014

Principal Investigator

\$199,920

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'

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capacity to attend, interpret, and respond appropriately to the mathematical thinking of children. Faculty members from seven Kentucky universities (NKU, EKV, 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.

SERVICE

COLLEGE AND DEPARTMENT-LEVEL SERVICE

Committee Member <i>Evaluation Center Advisory Board</i> College of Education University of Kentucky	2018
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
Committee Co-Chairperson <i>Faculty Search Committee</i> Mathematics Educator Department of Teacher Education Northern Kentucky University	2013-2014
Committee Member	2012-2013

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Search Committee

Dean

College of Education and Human Services
Northern Kentucky University

Committee Member

2012-2013

Distinguished Scholar Committee

College of Education and Human Services
Northern Kentucky University

Committee Member

2011-2012

Middle Grades Mathematics Intervention

Kentucky Center for Mathematics

Committee Member

2011-2012

Continuous Assessment Committee

College of Education and Human Services
Northern Kentucky University

Committee Chairperson

2010-2015

Elementary Mathematics Specialist Design Team

Department of Teacher Education,
Department of Mathematics, &
Kentucky Center for Mathematics
Northern Kentucky University

Committee Member

2010-2015

Elementary Education Program

Department of Teacher Education
Northern Kentucky University

Committee Member

2010-2015

Early Childhood Education Program

Department of Teacher Education
Northern Kentucky University

Committee Co-Chairperson

Spring, 2012

Faculty Search Committee

Technology Educator
Department of Teacher Education
Northern Kentucky University

Committee Member

Spring, 2015

Peer Evaluation

Dr. Patti Bills
Department of Teacher Education
Northern Kentucky University

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Committee Member **Spring, 2013**
Peer Evaluation
Dr. Tammie Sherry
Department of Teacher Education
Northern Kentucky University

Committee Member **Fall, 2012**
Peer Evaluation
Dr. Bianca Prather-Jones
Department of Teacher Education
Northern Kentucky University

Committee Member **Fall, 2011**
Peer Evaluation
Dr. Helene Hart
Department of Teacher Education
Northern Kentucky University

Committee Chairperson **Spring, 2011**
Peer Evaluation
Dr. Kevin Besnoy
Department of Teacher Education
Northern Kentucky University

Committee Member **Spring, 2011**
Peer Evaluation
Dr. Sarah Kasten
Department of Teacher Education
Northern Kentucky University

Committee Member **Fall, 2010**
Peer Evaluation
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

Board Member **2014 – 2015**
Institutional Review
Northern Kentucky University

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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 - 2018**
U.S. Math Recovery Council

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

Board Member **2017 - present**
*Kentucky Association of Mathematics
Teacher Educators*

Committee Member **Spring, 2019**
Executive Director Search Committee
Kentucky Center for Mathematics

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Committee Member Mathematics Standards Revision Panel <i>Kentucky Department of Education</i>	2018
Committee Member Publications Committee <i>School Science and Mathematics Association</i>	2014 - present
Proposal Review Panelist <i>National Science Foundation</i>	Spring, 2015
Facilitator <i>Professional Noticing of Children's Mathematical Thinking</i> Professional Development Sessions (5) Erlanger/Elsmere Independent Schools	Spring, 2014
Session Leader <i>Mathematics & Entrepreneurship</i> Norse Think Tank Institute for Talent Development & Gifted Studies Northern Kentucky University	Summer, 2013
Facilitator <i>Conceptual Fraction Construction</i> Lesson Modeling Session Kelly Elementary School Boone County Schools	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
Facilitator <i>Mathematics Response to Intervention</i> Professional Development Session River Ridge Elementary School Kenton County Schools	2011-2012

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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>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
Referee <i>Journal for Research in Mathematics Education</i> National Council of Teachers of Mathematics (NCTM)	2016-present
Referee <i>Cognition and Instruction</i> Routledge	2017-present
Referee <i>Mathematics Education Research Journal</i> Mathematics Education Research Group – Australasia (MERGA)	2013-present

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

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

Referee **2009-present**
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

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
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.