

Sarah E. Kasten
Northern Kentucky University
Department of Teacher Education
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ACADEMIC PREPARATION

- Ph.D.** Mathematics Education, Michigan State University August 2009
Dissertation Title: *Exploring the Interaction between a Field Experience and One Preservice Teacher Learning to Anticipate Students' Mathematical Responses.*
Dissertation Advisor: Dr. Michael Steele
- M.A.**, Mathematics Education, The Ohio State University August 2004
Master's Thesis: *Using Writing to Increase Student Achievement in a Mathematics Classroom.*
Thesis Advisor: Dr. Douglas Owens
- B.S.**, Mathematics Education, Miami University May 2001
Secondary Mathematics Teaching Certification
- B.S.**, Mathematics, Miami University May 2001

PROFESSIONAL EXPERIENCE

- Associate Professor, Northern Kentucky University August 2015 – Present
- Assistant Professor, Northern Kentucky University August 2009 – July 2015
- Graduate Research Assistant, Michigan State University August 2005 – May 2009
Center for the Study of Mathematics Curriculum
- Graduate Teaching Assistant, Michigan State University August 2005 – May 2009
- Research Associate, Key Curriculum Press June 2006 – June 2007
- Graduate Teaching Assistant, The Ohio State University September 2004 – June 2005
- Mathematics Teacher, Columbus Public Schools August 2001 – June 2004
West High School, Columbus, OH

COURSES TAUGHT

Northern Kentucky University

- EDU 107 Foundational Mathematics for Elementary and Middle Grades Teachers (FA20, SP21)
- EDU 306 Teaching Elementary Mathematics (SP15, FA15, SP16, FA16, SP17)
- EDU 325 Educational Assessment Secondary (FA18, SP19)
- EDU 333 Teaching Mathematics in Secondary Schools (FA16, FA17, FA18, FA19)
- EDU 347 Teaching Mathematics in the Middle Grades (FA09, SP10, FA10, SP10, FA11, SP12, FA12, SP13, FA13, SP14, FA14, SP15, FA15, SP16, FA16, SP17, FA17, SP18, FA18, SP19, FA19, SP20, FA20, SP21)
- EDU 393 Secondary Practicum I (FA09, SP10, FA11, SP12, FA12, FA14)
- EDU 495/496 Student Teaching in Middle Grades/Secondary School (SP13, SP15, FA17, FA19)
- EDU 577 Mathematics Education in the Middle School (SP12, FA12, FA13)
- EDMT 544 Methods and Pedagogy of Middle School Mathematics (FA09, FA10, FA11, FA12, FA13, FA15, FA16, FA19, FA20)
- EDG 605 Introduction to Educational Research for School Leaders (FA09, SP10, FA10, SP12, FA12, SP13, FA13, SP14)
- EDG 658 Assessment Techniques for P -12 Mathematics (SP10, SP16)
- EDG 691 Applied Educational Research I (FA16, SP17, SU17, FA17, SP18, FA18, SP19, FA19, SP20, SU20, FA20, SP21)
- EDG 693 Investigating and Implementing Standards-Based Curricular Materials and Teaching Practices in Middle Grades Mathematics Classrooms (Course designed and taught for Winton Woods City Schools) (SP10)
- EDS 702 Research Based Teaching (FA18, SP19, FA19, SP20, SUM 20, FA20, SP21)
- MAT 140 Mathematics for Elementary and Middle Grades Teachers I (FA10, FA11, FA12, FA13, FA14, SP18)
- MAT 141 Mathematics for Elementary Teachers II (SP14, FA19)
- MAT 240 Geometry for Middle School Teachers (FA17)
- MTE 650 Advanced Methods for Teaching Number in Grades P – 2 (FA20)
- MTE 651 Advanced Methods for Teaching Number in Grades 3 – 5 (SP21)

MTE 654 Advanced Number, Algebra and Data for P – 5 Teachers (SU20)

Michigan State University

MTH 202 Elementary Mathematics for Teachers (SP09)

TE 407 Teaching Subject Matter to Diverse Learners in Mathematics (FA05, FA07)

TE 408 Crafting Teaching Practice in Mathematics (SP06, SP08)

SME 600 Special Problems K – 8 Teachers: Geometric Reasoning: Shape and Measurement (SU07)

SME 954 Design and Methods in Mathematics Education Research (FA08)

DISSERTATION COMMITTEES

Chair, Ed.D Dissertation Committee

- Erika Jay, *Institutional Diversity Policy And Retention Of Black Faculty At Northern Kentucky University: An Examination Of Policy And Perceptions*

Member, Ed.D. Dissertation Committee

- Stani Kantcheva, *Cost-Benefit Analysis On Initiatives Intended To Improve Degree Completion At Cincinnati State Technical And Community College* (Summer, 2020)
- Georgetta Kelly, *Human Resource Reform in Action: A case study analysis for local governments* (Spring, 2020)
- Dannie Moore, *Black Men Matter - A Case Student Analysis of the Experience of Three African American Men Navigating a Predominantly White Institution* (Spring, 2019)
- Debra Allen, *Female Self-Efficacy and Mathematical Ability: Do Effective Mathematics Teaching Strategies and Gender Based Learning Environments Influence Participatory Behaviors and Academic Performance?* (Spring, 2013)

FELLOWSHIPS AND RECOGNITIONS

- Outstanding University Clinical Educator, Fall 2019
- Summer Research Fellowship, Northern Kentucky University, 2015
- Fellow in the Service, Teaching, and Research (STaR) in Mathematics Education Program, 2011

PUBLICATIONS

Refereed Journal Articles

- Thomas, J., Fisher, M. H., Jong, C., Schack, E. O., Krause, L. R., & **Kasten, S.** (2015). Professional noticing: Learning to teach responsively. *Mathematics Teaching in the Middle School*, 21(4), 238-243.
- Kasten, S.E.**, Austin, C., & Jackson, C. (2014). Am I a mathematics teacher who teaches middle grades or a middle grades teacher who teaches mathematics? Untangling the multiple identities of preservice teachers. *Middle Grades Research Journal*. 9 (2), 125 - 138.
- Newton, J., & **Kasten, S.** (2013). Two models for evaluating alignment of state standards and assessments: Competing or complementary perspectives? *Journal for Research in Mathematics Education*, 44(3), 550-581.
- Kasten, S.** & Sinclair, N. (2009). Using dynamic geometry software in the mathematics classroom: A study of teachers' choices and rationales. *International Journal for Technology in Mathematics Education*, 16(4), 132-144.

Refereed Articles in Conference Proceedings

- Jackson, C., Austin, C., & **Kasten, S.** (2016). Preservice teachers' use of mathematical explanations. In Wood, M. B., Turner, E. E., Civil, M., & Eli, J. A. (Eds.). (2016). *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Tucson, AZ: The University of Arizona.
- Thomas, J., **Kasten, S.**, & Jackson, C. (2015). Teachers' perceptions of mathematics standards: A comparison of PSSM and CCSSM. In Bartell, T.G., Bieda, K.N., Putnam, R.T., Bradfield, K. & Domninguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 126). East Lansing, MI: Michigan State University.
- Wood, M.B., **Kasten, S.E.**, Drake, C., Newton, J.A., Spangler, D.A., & Wilson, P.S. (2015). Prospective teachers and *Common Core State Standards for Mathematics*: Activities used by mathematics teacher educators. In Bartell, T.G., Bieda, K.N., Putnam, R.T., Bradfield, K. & Domninguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1016). East Lansing, MI: Michigan State University.
- Kasten, S.** & Newton, J. (2012). A survey of texts and corresponding assignments used in secondary mathematics methods courses. In Van Zoest, L. R., Lo, J.-J., & Kratky, J. L. (Eds.), *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 721 – 724). Kalamazoo, MI: Western Michigan University.

Refereed Newsletter Articles

Newton, J., Wood, M., Spangler, D., Wilson, P., Drake, C., & **Kasten, S.** (2013). Investigating the impact of the *Common Core State Standards for Mathematics (CCSSM)* on mathematics teacher preparation. *AMTE Connections*.

Contributions to Research Monographs

Kasten, S., & Newton, J. (2010). An analysis of K-8 measurement grade level expectations. In J. P. Smith (Ed.), *Variability is the rule: A companion analysis of K-8 state mathematics standards*. Charlotte, NC: Information Age.

Edited Books

Kasten, S. & Newton, J. (Eds.) (2011). *Reasoning and sense making for high school mathematics: Activities from Mathematics Teacher*. Reston, VA: National Council of Teachers of Mathematics.

Invited Contributions

Kasten, S. (2004). A case for using reading and writing in a mathematics classroom. *Adolescent Literacy in Perspective*. ohiorc.org/adlit/inperspective/issue/2004-11/Article/vignette2.aspx

PRESENTATIONS

Kasten, S. (March, 2021). *Making Mathematical Meaning in the Middle Grade: Connections Between Algebraic Representations*. Invited presentation at the annual meeting of the Kentucky Center for Mathematics.

Kasten, S. & Noblitt, B. (February, 2020). *Prospective Teachers Learning to Use Real-World Contexts in a Lesson Study*. Presentation at the annual meeting of the Association of Mathematics Teacher Educators, Phoenix, FL.

Kasten, S. & Noblitt, B. (February, 2019). *Prospective Teachers Learning to Use Real-World Contexts in a Lesson Study*. Presentation at the annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.

Edson, A.J., Browning, C., **Kasten, S.,** & Males, L. (February, 2019). *Using Middle and High School Mathematics Curriculum Materials in Teacher Education*. Presentation at the annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.

- Tosolt, B., Bacevich, A., Bills, P., **Kasten, S.** & Childs, D. (October, 2018). *A Framework for Developing Responsive Teaching Practices in an Embedded Urban Preparation Program*. Presentation at the annual meeting of the Mid-Western Educational Research Association, Cincinnati, OH.
- Kasten, S.** & Noblitt, B. (February, 2018). *Addressing the Standards for Effective Programs through an Embedded Methods and Clinical Experience*. Poster presented at the annual meeting of the Association of Mathematics Teacher Educators, Houston, TX.
- Wood, M.B., **Kasten, S.**, Drake, C., Newton, J.A., Spangler, D.A., & Wilson, P.S. (November, 2015). *Prospective Teachers and Common Core State Standards for Mathematics: Activities Used by Mathematics Teacher Educators*. Poster presented at annual meeting of the Psychology of Mathematics Education North American Chapter, East Lansing, MI (contributed but did not attend).
- Noblitt, B. & **Kasten, S.** (October, 2015). *The Five Practices for Organizing Meaningful Mathematical Discussions*. Presentation at the annual meeting of the Kentucky Council of Teachers of Mathematics, Shelbyville, KY.
- Newton, J., Staples, M., & **Kasten, S.** (February, 2015). *Preparing to Teach the Standards for Mathematical Practice: A Learning Progressions Approach*. Presentation at the Association of Mathematics Teacher Educators, Orlando, FL.
- Noblitt, B. & **Kasten, S.** (November, 2013). *Incorporating 5 Practices for Orchestrating Productive Mathematics Discussions in methods courses*. Presentation at a regional meeting of the National Council of Teachers of Mathematics, Louisville, KY.
- Males, L.M., Newton, J., Hudson, R.A., Horvath, A., **Kasten, S.**, Lorenzo, C., & Keating, F. (November, 2013). *Investigating prospective secondary teachers' mathematical knowledge for teaching equations and inequalities*. Poster presented at annual meeting of the Psychology of Mathematics Education North American Chapter, Chicago, IL (contributed but did not attend).
- Wood, M. B., Newton, J.A., Drake, C., **Kasten, S. E.**, Spangler, D. A., Wilson, P. S. (November 2013). *Investigating mathematics teacher educators' practices in the context of Common Core State Standards for Mathematics*. Poster presented at annual meeting of the Psychology of Mathematics Education North American Chapter, Chicago, IL (contributed but did not attend).

Kasten, S., Austin, C., Jackson, C., Noblitt, B., & Thomas, J. (February, 2013). *Preservice teacher preparation (PTP) working group*. Presentation at the annual meeting of the Kentucky Center for Mathematics, Lexington, KY.

Newton, J., **Kasten, S.,** Karunaratne, S., Kenney, R., Senk, S., He, J., Wortinger, K., Jung, H., & Heid, M.K. (January, 2013). *Investigations into secondary mathematics teacher education programs: Capstones, "methods," and algebra*. Presentation at the annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.

Kasten, S. & Newton, J. (April, 2012). *Reasoning and sense making: Classroom activities from the Mathematics Teacher*. Presentation at the annual meeting of the National Council of Teachers of Mathematics, Philadelphia, PA.

Kasten, S. & Jackson, C. (February, 2012). *A comparative analysis of verb use and voice between CCSSM and PSSM*. Poster presented at the STaR pre-session of the annual meeting of the Association of Mathematics Teacher Educators, Fort Worth, TX.

Thomas, J., Schack, E., Eisenhardt, S., Fisher, M., & **Kasten, S.** (April, 2011). *Preservice teacher preparation collaboratives: Building multi-institutional partnerships*. Presentation at Connecting STEM Education across the Bluegrass State, a UK STEM Education Symposium, Lexington, KY.

Kasten, S. (March, 2011). *A framework to study preservice teachers' practices of anticipating students' mathematical responses*. Presentation at the annual conference of the Research Council on Mathematics Learning, Cincinnati, OH.

Liberman, H., & **Kasten, S.** (October, 2010). *The need for measurement*. Presentation at the annual meeting of the Kentucky Council of Teachers of Mathematics, Somerset, KY.

Kasten, S., & Newton, J., (February, 2009). *Aligning state standards: One state, two perspectives*. Poster presented at the annual research conference of the Center for the Study of Mathematics Curriculum, Phoenix, AZ.

Kasten, S. (October, 2008). *The microteaching learning experience: Using what preservice teachers notice to understand its impact*. Presentation at the regional conference of the National Council of Teachers of Mathematics, Cleveland, OH.

Kasten, S., (February, 2008). *Standards and assessments: The alignment between content and cognitive demand*. Poster presented at the annual research conference of the Center for the Study of Mathematics Curriculum, Phoenix, AZ.

Kasten, S., & Newton, J. (August, 2007). *Measurement: A look across state standards*. Presentation at the annual meeting of the Michigan Council of Teachers of Mathematics, Holt, MI.

Newton, J., & **Kasten, S.** (March, 2007). *Geometry and measurement: A look across state standards*. Presentation at the annual meeting of the National Council of Supervisors of Mathematics, Atlanta, GA.

Lappan, G., **Kasten, S.**, Wang, S., Newton, J., Tarr, J., & Dingman, S. (March, 2007). *Geometry, measurement, and probability: A look across state standards*. Presentation at the research pre-session of the annual meeting of the National Council of Teachers of Mathematics, Atlanta, GA.

Kasten, S. (February, 2007). *Using Sketchpad in the CMP classroom: Focus on teaching*. Presentation at the annual Connected Mathematics Users Conference, Michigan State University, East Lansing, MI.

Kasten, S., Larnell, G., Newton, J., & Wang, S. (August, 2006). *Geometry and measurement: A look across state standards*. Presentation at the annual meeting of the Michigan Council of Teachers of Mathematics, Holt, MI.

Kasten, S. (August, 2002). *Using data in the classroom*. Presentation for Columbus Public Schools, Columbus, OH.

Kasten, M., & **Kasten, S.** (October, 2001). *Best practices in elementary geometry*. Presentation at the regional conference of the National Council of Teachers of Mathematics, Columbus, OH.

GRANTS

MaTCH: Mathematics Teaching: Clinical Horizons 2015 – 2017
PI

Kentucky Council on Postsecondary Education

Focus: Embedding middle and secondary mathematics methods courses in school contexts in order to create learning communities of preservice teachers, inservice teachers, and university faculty.

Amount Funded: \$150,000

Investigation of Teacher's Use of Curriculum Materials in the CCSSM Era 2012 – 2013
Research Group Organizer

Center for the Study of Mathematics Curriculum Travel Grant

Focus: Enactment of CCSSM Priority Research Agenda

Amount Funded: \$10,260

PRIME: Preparing Regional Increases in Mathematics Educators – A Robert Noyce Teacher Scholarship Program 2009 – 2015

Co-PI added in 2012 (PI Dr. Bethany Noblitt, Northern Kentucky University)

Focus: Supporting secondary preservice mathematics teachers through scholarships and professional development.

Amount Funded: \$897,690

PROFESSIONAL SERVICE

Selected Service to the University

- Graduate Council (2019 – 2020)
- Search Committee Member, CINSAM Associate Director (2017 – 2018)
- CO-PI, NOYCE Grant (2012 – 2015)
- CO-PI, WIDER Grant Writing (SU13)

Selected Service to the College

- Graduate Programs Coordinator (2019 – 2020)
- Member, College of Education and Human Services Self Study Task Force (2018 – 2019)
- Member, Indirect Cost Committee (2014 – 2018)
- Chair, Indirect Cost Committee (2018 – Present)
- Member, COEHS/PK-12/AS Task Force (2013 – 2014)
- Member, Distinguished Scholars Committee (2012 – 2013)

Selected Service to the Department

- Co-Designer and Facilitator, Elementary Mathematics Specialist Endorsement (2017 – Present)
- MAT One-Year Program Development Team (2016 – 2018)
- Member, RPT Committee (2016, 2017, 2019)
- Chair, Search Committee, Elementary Mathematics Educator (2015 – 2016)
- Member, Search Committee, Clinical Educator (2014 – 2015)
- Co-Chair, Search Committee, Elementary Mathematics Educator (2013 – 2014)
- Member, Faculty Learning Community (2013 – 2016)
- Member, Peer Review Committee (FA10, FA11, FA12, SP15, SP16, SP18, FA19)
- Facilitator, Secondary Program Team (2012 – 2013)
- Co-Facilitator, Secondary Program Team (2010 – 2012)
- Member, Secondary Program Team (2009 – 2010, 2013 – 2015)
- Member, Middle School Program Team (2009 – Present)
- Member, Search Committee, Elementary Mathematics Educator (2009)

Selected Service to the Profession

- Co-Director, Kentucky Mathematics Teacher Mentor program (2020 – Present)
- Editorial Panel Member, Connections Newsletter of the Association of Mathematics Teacher Educators (2021 – present)
- President-Elect, Kentucky Association of Mathematics Teacher Educators (2019 – Present)
- Reviewer, School Science and Mathematics Journal (2019 – Present)
- Co-Organizer of the Kentucky Mathematics Educator Development(KMED) conference (2015, 2016)
- Northern Kentucky University Representative, Kentucky Committee for Mathematics Achievement (2012 – 2015)
- College Representative Northern Kentucky Council of Teachers of Mathematics (2011 – 2017)
- Referee, International Journal of Technology in Mathematics Education (2010, 2013, 2016)

- Organizer of the Middle Grades Preservice Teacher Preparation (MPTP) Collaborative through the Kentucky Center for Mathematics (2010 – 2015)
- Editorial Board Member for the quarterly newsletter of the Association of Mathematics Teacher Educators (2009 – 2011)
- Member of planning committee for and moderator at the Second International Conference: Future Curricular Trends in School Algebra and Geometry, a conference of the Center for the Study of Mathematics Curriculum (2007 – 2008)

PROFESSIONAL MEMBERSHIPS

Kentucky Association of Mathematics Teacher Educators (2017 – Present)

Kentucky Council of Teachers of Mathematics (2009 – Present)

Association of Mathematics Teacher Educators (2008 – Present)

Ohio Council of Teachers of Mathematics (2001 – 2011, 2018 – 2019)

National Council of Teachers of Mathematics (1996 – Present)