Laura J. Grandau, Ph.D.

Assistant Professor, Teacher Education
Senior Program Developer, Early Math Collaborative
Erikson Institute, Graduate School in Child Development
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EDUCATION

Ph.D., University of Wisconsin – Madison, Madison, WI, May, 2013
Curriculum and Instruction, Teacher Education/Mathematics Education
Minor: Educational Policy Studies
M.A. with honors, University of Chicago, Chicago, Illinois, 1996; Education/Educational Psychology
B.A. University of Chicago, Chicago, Illinois, 1991; Anthropology/Linguistics
DePaul University, Chicago, Illinois, 1987-89; Major coursework in Mathematics

PROFESSIONAL EXPERIENCE

University Teaching Experience

Assistant Professor, Teacher Education
Senior Program Developer, Early Math Collaborative
Course titles: COG 426, Cognition, Language and Play I; COG 427, Cognition, Language and Play II; T432 Advanced Methods of Teaching and Learning; Courses in Facilitator Track, Meaning-making in Early Mathematics; additional Early Math courses as needed; Supervision of student teachers and clinical support in the field; additional program development in Teacher Education and Early Childhood STEM
Winter 2016 – present

Assistant Professor of Education
Lake Forest College
Course titles: ED 215 Instructional Communication: Theory and Practice; ED 416 Elementary and Middle School: Literacy in the Content Areas; and ED 417/517 Elementary and Middle School: Math and Science; ED 303/403 Reading Methods in the Elementary School; and ED 304/404 Elementary Fieldwork and Seminar
Fall 2014 – Fall 2015

Adjunct Faculty
Dominican University, College of Education
Course title: Teaching Mathematics in the Elementary and Middle School
Fall 2013

Teaching Assistant and Pre-Service Education Field Support
University of Chicago, Urban Teacher Education Program
Course title: Number Theory and the Elements of Mathematics Instruction
Course title: Geometry and the Elements of Mathematics Instruction
Autumn 2007 - Spring 2008

Elementary/Middle School Mathematics Methods Instructor
University of Wisconsin – Madison, School of Education, Department of Curriculum and Instruction
Course title: Teaching Mathematics
Autumn 2003 - Spring 2004

Instructor/In-service Teacher Graduate Math Education Course
University of Wisconsin – Madison, School of Education, Department of Curriculum and Instruction
Course title: Action Research in Schools: Understanding and Cultivating Students' Algebraic Reasoning
Autumn 2003 - Spring 2004

Research, Professional Development, Supervision, and Evaluation Experience

Math Coach and Professional Development Provider
Erikson Institute, Early Math Collaborative (*Innovations* and *P5* Projects)
Jan 2014 – June 2015

Facilitated professional development sessions in mathematics teaching and learning. Provided on-going, individualized coaching for elementary school teachers and administrators centered on innovative and best practices in mathematics. Guided teachers and administrators in developing high-impact, inquiry-based math lessons connected to Common Core State Standards. Provided additional support to school leaders as needed.

Professional Development Provider, Middle School Mathematics
Teachscape, Inc.
Oct 2008 – June 2011

Developed and led face-to-face and virtual professional learning for middle school math teachers in network of inner-city schools in Washington D.C. Work involved deepening teachers' math knowledge and pedagogical content knowledge, as well as supporting teachers in conducting research in their own classrooms. Also completed extensive curriculum design work for these schools with teachers and Teachscape colleagues.

Research Analyst
Northwestern University, School of Education and Social Policy
July 2005 – Aug 2007, Jim Spillane, Penelope Peterson, and Miriam Sherin, Principal Investigators

Conducted research on leadership and math teaching and learning, and participated in the design and implementation of professional development courses for elementary and high school math leaders and teachers. Also supervised and evaluated pre-service high school math teachers.

Project Assistant – Advancing Teacher Education as an All-University Responsibility Project
University of Wisconsin – Madison, School of Education, Office of the Dean
June 2004 to June 2005

Involved in collaboration of faculty in UW's math department and math education department; gathering and analyzing information from these departments on how to best prepare UW pre-service teachers.

Project Assistant – Investigating Principals' Views of the Quality of Teaching Provided by UW-Madison Teacher Education Graduates Project
University of Wisconsin – Madison, School of Education, Office of the Dean
June 2004 to June 2005

Developed, delivered and analyzed survey to collect information on UW-Madison teacher education graduates' post-graduation teaching performance from all principals in the state of Wisconsin.

Fellow, Diversity in Mathematics Education/Center on Learning and Teaching
University of Wisconsin – Madison, Wisconsin Center for Education Research, School of Education
Aug 2002 – Aug 2003, Walter Secada and Tom Carpenter, Principal Investigators at UW-M

Conducted research using LessonLab technology and videotaped data, and participated in the development of a professional development courses focused on the ideas of early number sense, early algebra and issues related to learners from diverse cultural, economic, and linguistic backgrounds.

Project Assistant – Understanding and Cultivating the Transition from Arithmetic to Algebraic Reasoning
University of Wisconsin – Madison, Wisconsin Center for Education Research, School of Education
Sept 2002 to June 2005, Eric Knuth, Mitch Nathan, Sharon Derry and Martha Alibali, Principal Investigators at UW-M

Conducted data collection and analyses for this 5-year federally funded (IERI) project that sought to understand the development of mathematical reasoning of middle school students and develop learning environments for students and teachers that facilitates students' transitions from arithmetic to algebraic reasoning. This project was a collaborative effort among researchers at the University of Wisconsin-Madison, University of Colorado-Boulder, and Carnegie Mellon University.

Researcher, Curriculum Developer, and Teacher Professional Development Provider
Northwestern University, Evanston, IL, 1998-2002, on-going/current collaborative work with Fuson and team

Researched and developed *Children's Math Worlds* (CMW), a reform mathematics curriculum project for students grades K-5 led by Karen Fuson. Co-authored Kindergarten program and contributed to the research, writing, and development of texts grades 1-5. Observed and analyzed process by which teachers reflect on own practice to understand teaching and learning of mathematics and pedagogical connections. Facilitated teacher workshops and discussions of math content and instructional strategies. *Children's Math Worlds* was purchased by Houghton Mifflin and was made available in 2005 as *Math Expressions*. Developed and led related professional development workshops for Chicago-area teachers.

Clinical Researcher and Teacher Educator
Center for School Improvement at the University of Chicago, Chicago, Illinois, 1998-2000

Responsible for overseeing pilot implementation of reform-based math curriculum in fifteen Chicago public school classrooms in five schools, which included teaching children and coaching teachers, PK-6. Conducted research on mathematics teaching and learning of diverse learning populations. Research included videotaped data collection used to help teachers explore and reflect on practice. Facilitated regular teacher training, tutor training and user-group sessions. Offered CPS Lane Credit Courses as part of teacher professional development.

Program Evaluator – Teacher Knowledge Project
Madison Metropolitan School District, Madison, WI
Sept 2003 to Jan 2005

Conducted extensive evaluation study of the work of teachers and District facilitators seeking to improve teaching and learning for K-12 students who are non-native speakers of English.

Other Workshops, Teacher Professional Development, and K-12 Partnerships

- Organized and delivered summer professional development institutes for Madison Metropolitan School District PK-5 Teachers; focus on mathematics teaching and learning.
- Mathematics tutor training, University of Chicago, Center for School Improvement; focus on helping tutors learn how to teach students struggling with mathematics.
- Day-long workshops to *MathMinds* teacher group, Catholic Schools of Chicago; focus on student thinking in mathematics; K-8.
- Seminar at the University of Chicago, Urban Teacher Education Program; focus on understanding student thinking in mathematics and connections between literacy and mathematics teaching and learning; PK-8.
- Additional workshops and institutes in Chicago Public Schools and surrounding areas.

K-8 Teaching Experience

Special Education Assistant/Mathematics (grades 2-8)
Lincoln Elementary, Madison Metropolitan School District, Madison, Wisconsin, 2002 to Jan 2005

Mathematics and Science Lead Teacher (grades 2-8) and Mathematics Curriculum Coordinator (K-8)
Science and Arts Academy, Des Plaines, Illinois, 2000-2002

Mathematics Teacher (grade 5) and Mathematics Program Development Coordinator (grades K-5)
Math and Science Club Leader
North Kenwood/Oakland Charter School, Chicago, Illinois, 1998-2000

Mathematics Teacher/Trainer (grades K-8)
for Chicago Public Schools involved with the University of Chicago's Center for School Improvement, including Park Manor Elementary, Sawyer Elementary, and Mireles Elementary Academy, 1998-2000

Elementary Teacher/ESL (grades 2-3)
MacCorkindale Elementary School, Vancouver, B.C., Canada, 1993-1995

Team-Teacher/Science, Mathematics and Social Studies and Girls Gymnastics Coach (grades 7-8-9)
Clark Junior High School now called Clark Middle School (grades 7-8), Anchorage, Alaska, 1992-1993

Other Work Experience

Manager and Lead Instructor
Learning Labs, Apprenticeships and Mentoring, Department of Science and Education
Museum of Science and Industry, Chicago, Illinois, 1995-1998

Designed, implemented, and evaluated *Learning Lab* experiences for students and teachers, summer math and science workshops, Science Club Network programs, Role Models and Leaders activities, and MSI Summer Institute for teachers. Supervised staff of twelve employees and team of volunteers in curriculum development and implementation of instructional programs. Prepared and monitored annual budget. Developed local partnerships for the Museum and co-authored successful grant proposals.

Reviewer: 2001 to present

of manuscripts submitted to *Educational Action Research: An International Journal*
of conference proposals and manuscripts submitted to *American Educational Research Association*
of math education textbooks published by *Allyn & Bacon/Pearson Education Publishers*
of manuscripts submitted to *National Council of Teachers of Mathematics* journals

PAPERS, PUBLICATIONS AND PRESENTATIONS

Grandau, L. Presentation at ECSTEM, Pasadena, CA. February 2017. Developing and Sustaining Teachers' and Students' Curiosity.

Grandau, L., Fuson, K. C., & Murata, A. (under review) A Framework that Differentiates Math Teaching and Learning within Whole-Class Activities.

Grandau, L., Landis, M., & Ryan, K. (2007). On location: Using school classrooms as sites for preparing teachers of mathematics. *Phi Delta Kappan*.

McNeil, N. M., **Grandau, L.**, Knuth, E. J., Alibali, M. W., Stephens, A. C., Hattikudur, S., & Krill, D. E. (2006). Middle-school students' understanding of the equal sign: The books they read can't help. *Cognition and Instruction*, 24 (3), 367-385.

Grandau, L. & Stephens, A. C. (2006). Algebraic thinking and geometry. *Mathematics Teaching in the Middle School*, Reston, VA, 11 (7), 344-349.

Grandau, L. (2005). Learning from self-study: Gaining knowledge about how fourth graders move from relational description to algebraic generalization. *Harvard Educational Review*, 75 (2), 202-221.

Asquith, P., Stephens, A. C., **Grandau, L.**, Knuth, E. J., & Alibali, M. W. (2005). Investigating middle-school teachers' perceptions of algebraic thinking. Paper presented at the Annual Meeting of the American Education Research Association, Montreal, Québec, Canada.

Grandau, L. (2005). The Teacher Knowledge Project: Madison Metropolitan School District. Evaluation Study. Unpublished report.

McNeil, N. M., **Grandau, L.**, Stephens, A. C., Krill, D. E., Alibali, M. W., & Knuth, E. J. (2004). Middle-school students' experience with the equal sign: Saxon Math does not equal Connected Mathematics. *Proceedings of the twenty-sixth annual meeting of the North American Chapter of the international group for the psychology of mathematics education*.

Stephens, A. C., **Grandau, L.**, Asquith, P., Knuth, E. J., & Alibali, M. W. (2004). Developing teachers' attention to students' algebraic thinking. Paper presented at the Annual Meeting of the American Education Research Association, San Diego, CA.

Rubel, L., Gau, T., Slaughter, M., & **Grandau, L**. *The Black-White Mathematics Achievement Gap: Teachers' Beliefs and Practices*. Research presented at the Annual Meeting of the National Council of Teachers of Mathematics, April 2004.

Zeichner, K., Siedl, B., Boyle-Baise, L., & **Grandau, L**. *The Role of Community-Based Learning in Preparing Teachers for Culturally Responsive Teaching*. Research presented at the Annual Meeting of the American Association of Colleges for Teacher Education, February 2004.

Gau, T., Rubel, L., Slaughter, M., & **Grandau, L**. *Teachers' Beliefs and Practices Regarding the Black-White Mathematics Achievement Gap*. Research presented at the Psychology of Mathematics Education – North America Conference, July 2003.

Fuson, K., **Grandau, L.**, and Sugiyama, P. (2001) Achievable Numerical Understandings for All Young Children, *Teaching Children Mathematics*, Reston, VA.

Fuson, K., Sugiyama, P., and **Grandau, L**. (2001-2004) revisions *Children's Math Worlds: Kindergarten Program*, Northwestern University manuscript (to be published 2004/05 by Houghton Mifflin Company).

Enyedy, N., Rubel, L., Bachman, M., Brown, G., Castellon, V., Esmonde, I., Gaalaas, C., **Grandau, L.**, Mukhopadhyay, S., Slaughter, M., Spencer, J., Secada, W.G., (2003, April). *Possible and actual social and linguistic resources that support student participation in a bilingual mathematics classroom.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Sugiyama, P., **Grandau, L**. and Fuson, K. (2000) *Children's Math Worlds: Kindergarten Program*, Northwestern University, manuscript.

Grandau, L. (1996). *Dealing with Diversity and Multicultural Education in the Classroom: Moving from Awareness to Action*, University of Chicago, M.A. thesis with honors. Unpublished paper. Describes extensive research with educators and administrators at the University of Chicago Laboratory Schools.

Grandau, L. (1996). *Elementary School Students' Perception of Subject-Matter Relatedness*, University of Chicago. Unpublished paper. Describes fieldwork and research conducted in urban classrooms with elementary school children and teachers.

Action research I conducted and wrote about for *Harvard Educational Review* (2005) described and discussed with permission in *Teachers Investigate Their Work: An Introduction to Action Research Across the Professions*, by Altricher, Feldman, Posch, and Somekh (2007).

Contributed to research described in *Hand and Mind* (1995) authored by Dr. David McNeill, during research assistantship in the S. Goldin-Meadow Psycholinguistics Lab at the University of Chicago. Worked with subjects of all ages collecting, coding, and analyzing data related to verbal and non-verbal communication.

PROFESSIONAL MEMBERSHIPS AND AWARDS

American Educational Research Association
American Association of Colleges for Teacher Education
National Association for the Education of Young Children
Psychology of Mathematics Education – North America Group
National Council of Teachers of Mathematics
Illinois Council of Teachers of Mathematics
National Science Teachers Association
American Association of Museums, Education Committee

Diversity in Mathematics Education/Center on Learning and Teaching: Fellowship 2002-2003
University of Wisconsin – Madison, Wisconsin Center for Education Research, School of Education

Tashia F. Morgridge Wisconsin Distinguished Graduate Fellowship 2007-2008
University of Wisconsin – Madison, School of Education

Overdeck Family Foundation – Grant award 2017
Erikson Institute