

Curriculum Vitae

Jane-Jane Lo

Department of Mathematics
Western Michigan University
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PROFESSIONAL TRAINING

- Ph.D. 1991 Florida State University, Tallahassee, Florida
Area: Curriculum and Instruction with a specialization in
Mathematics Education
- M.S. 1987 National Tsing Hua University, Hsing-Chu, Taiwan
Area: Mathematics
- B.S. 1985 National Taiwan University, Taipei, Taiwan
Area: Mathematics

PROFESSIONAL EXPERIENCE

- 2014–Present Professor, Department of Mathematics
Western Michigan University, Kalamazoo, Michigan
- 2007–2014 Associate Professor, Department of Mathematics
Western Michigan University, Kalamazoo, Michigan
- Spring 2009 Visiting Associate Professor, Graduate Institute of Education
National Sun Yat-Sen University, Kaohsiung, Taiwan
- Fall 2008 Visiting Research Associate, Department of Teacher Education
Michigan State University, East Lansing, Michigan
- 2002–2007 Assistant Professor, Department of Mathematics,
Western Michigan University, Kalamazoo, Michigan
- 1999–2002 Lecturer, Department of Education
Cornell University, Ithaca, New York
- 1998–1999 Lecturer, Department of Mathematics and Computer Science
Ithaca College, Ithaca, New York

- 1994–1999 Visiting Scholar, Department of Mathematics
Cornell University, Ithaca, New York
- Summer 1998 Lecturer, Center for Teaching and Learning
Cornell University, Ithaca, New York
- 1997–1998 Lecturer, Department of Mathematics and Department of Education
SUNY-Cortland, Cortland, New York
- Summer 1997 Lecturer, Department of Teaching and Leadership
Syracuse University, Syracuse, New York
- 1995–1997 Spencer Postdoctoral Fellow, Spencer Foundation and
National Academy of Education, Stanford, California
- 1993–1994 Visiting Fellow, Department of Education
Cornell University, Ithaca, New York
- 1991–1993 Assistant Professor Education Unit
Arizona State University West, Phoenix, Arizona
- 1990–1991 Research Fellow, Department of Curriculum and Instruction
Florida State University, Tallahassee, Florida
- Spring 1990 Graduate Instructor, Department of Curriculum and Instruction
Florida State University, Tallahassee, Florida
- 1988–1989 Research Assistant, Department of Curriculum and Instruction
Florida State University, Tallahassee, Florida
- Spring 1988 Graduate Instructor, Department of Mathematics
Purdue University, West Lafayette, Indiana

GRANT

- 2014-2015 Co-Principal Investigator (with K. C. Chen)
Interdisciplinary Research Grant, College of Arts and Sciences,
Western Michigan University, \$5,000.
- 2013-2014 Instructional Development Travel Grant, Western Michigan
University, \$1,200
- 2011–2012 Co-Principal Investigator (with T. Grant)
Prospective Teachers' Conceptions of Numbers and Operations
Faculty Research and Creative Activities Support Fund
Western Michigan University, \$9,997

- 2009–2010* Co-Project Director (Principal Investigator: R. Meyer)
Kalamazoo Area Algebra Project
 Michigan Department of Education, \$324,400
 *The project was funded for three years for a total of \$992,938.
 But I have to resign from the co-projector director at the end of
 Summer 2010 due to family reason.
- 2009–2010 Principal Investigator
Middle and High School Students' Conceptions of Rate of Change
 Arts and Science Teaching and Research Award
 Western Michigan University, \$800
- 2006–2007 Co-Principal Investigator (with T. Grant)
Conversations Among Colleagues Planning Grant
 Instruction Development Grant
 Western Michigan University, \$650
- 2005–2006 Principal Investigator
Saturday Mathematics Academy at Milwood Middle School
 Arts and Science Teaching and Research Award
 Western Michigan University, \$900
- 2004–2005 Principal Investigator
Prospective Elementary School Teachers' Proportional Reasoning
 Faculty Research and Creative Activities Support Fund
 Western Michigan University, \$6,884
- 2003–2004 Co-Principal Investigator (with T. Grant)
Lesson Study of MATH 150
 Arts and Science Teaching and Research Award
 Western Michigan University, \$600
- 2002 Co-Principal Investigator (with K. Kline)
*Improving the Content Preparation of Elementary Pre-service
 Teachers*
 Eisenhower Higher Education Grant Program, subcontracted from
 Michigan State University, \$10,722
- 2000–2001 Co-Principal Investigator (with J. Cai & T. Watanabe)
*Teaching and Learning Average and Proportionality in School
 Mathematics Curriculum: An International Perspective*
 National Academy of Education, \$6,000
- 1998–1999 Co-Project Director (Principal Investigator: D. Henderson)
Undergraduate Faculty Enhancement in Mathematics

- National Science Foundation, \$100,000
- 1996–1997 Co-Project Director (Principal Investigator: D. Henderson)
Undergraduate Faculty Enhancement in Mathematics
National Science Foundation, \$80,000
- 1992–1993 Principal Investigator
Young Children’s Proportional Strategies in Situated Activities
Arizona State University, \$7,275
- 1992–1993 Principal Investigator
Young Children’s Proportional Reasoning in Meaningful Classroom Activities
Arizona State University West, \$5,186

HONOR/AWARD

- 2008–2009 Sabbatical Leave, Western Michigan University
- 2003 Travel Fellowship for 2003 Fellows Retreat
National Academy of Education
- 1995–1997 Spencer Postdoctoral Fellowship
National Academy of Education and Spencer Foundation
- 1990–1991 Dissertation Fellowship
Florida State University

PUBLICATION

Referred Journals

- Thanheiser, E., Browning, C., Edson, A. J., Lo, J. Whitacre, I.; Olanoff, D., & Morton, C. (2014). Prospective Elementary Mathematics Teacher Content Knowledge: What Do We Know, What Do We Not Know, and Where Do We Go? *The Mathematics Enthusiast*. 11(2), 433-448.
http://www.math.umt.edu/TMME/vol11no2/TMEvol11no2_Aug2014_fullissue.pdf
- Olanoff, D. E., Lo, J., & Tobias, J. (2014). Mathematical content knowledge for teaching elementary mathematics: A focus on fractions. *The Mathematics Enthusiast*. 11(2), 267-310.
http://www.math.umt.edu/TMME/vol11no2/TMEvol11no2_Aug2014_fullissue.pdf
- Cox, D., & Lo, J. (2014). Detecting distortion: Bridging visual and quantitative reasoning on similarity tasks. *Mathematics Education Research Journal*. 26(1), 1-23.

- Thanheiser, E., Browning, C. A., Edson, A. J., Kastberg, S., & Lo, J. (2013). Building a knowledge base: Understanding prospective elementary school teachers' mathematical content knowledge. *International Journal for Mathematics Teaching and Learning*. <http://www.cimt.plymouth.ac.uk/journal/thanheiser.pdf>
- Lo, J., & Ko, Y. (2013). A bargain price for teaching about percentage. *Mathematics Teaching in the Middle School*, *19*, 108-115.
- Lo, J., & Luo, F. (2012). Prospective elementary teachers' knowledge of fraction division. *Journal of Mathematics Teacher Education*, *15*, 481–500.
- Lo, J., & Kratky, J. L. (2012). Looking for connections between linear and exponential functions. *Mathematics Teacher*, *106*, 295–301.
- Cox, D., & Lo, J. (2012). Discuss similarity using visual intuition. *Mathematics Teaching in the Middle School*, *18*(1), 30–36.
- Lin, C. Y., Luo, F., Lo, J., & Yang, D. C. (2011). U.S. and Taiwanese preservice teachers' geometry knowledge and thinking. *International Journal for Mathematics Teaching and Learning*. <http://www.cimt.plymouth.ac.uk/journal/lin.pdf>
- Luo, F., Lo, J., & Leu, Y. (2011). Fundamental fraction knowledge of pre-service elementary teachers: A cross-national study in the United States and Taiwan. *School Science and Mathematics*, *111*, 164–177.
- Lo, J., & Tsai, F. (2011). Taiwanese Arithmetic and Algebra. *Mathematics Teaching in the Middle School*, *16*, 422–429.
- Lo, J., & McCrory, R. (2010). Teaching teachers through justifying activities. *Teaching Children Mathematics*, *17*, 149–155.
- Leung, S. S., & Lo, J. (2010). Sweet plays. *Teaching Children Mathematics*, *17*, 330–334.
- Lo, J., & Cheng, H. W. (2009). Fidelity of implementation: What, why, how and its challenges [in Chinese]. *Taiwan Journal of Mathematics Teachers*, *19*, 2–14.
- Cox, D., & Lo, J. (2009). Comparing sizes. *Teaching Children Mathematics*, *16*, 204–208.
- Lo, J., Grant, T., & Flowers, J. (2008). Challenges in deepening prospective teachers' understanding of multiplication through justification. *Journal of Mathematics Teacher Education*, *11*, 5–22.

Grant, T., Lo, J., & Flowers, J. (2007). Shaping prospective teachers' justifications for computation: Challenges and opportunities. *Teaching Children Mathematics*, 14, 112–116.

Lo, J., Watanabe, T., & Cai, J. (2004). The development of ratio concepts: An Asian perspective. *Mathematics Teaching in the Middle School*, 9, 362–367.

Lo, J., Hung, T., & Liu, S. (2002). An analysis of the reform since 1994 in teacher education in Taiwan and its potential impacts on the preparation of mathematics teaching at the elementary school level. *International Journal of Education Research*, 37, 145–159.

Cai, J., Lo, J., & Watanabe, T. (2002). Intended curricular treatments for students' conceptual understanding in U.S. and Asian school mathematics: A case of arithmetic average. *School Science and Mathematics*, 102, 391–404.

Lo, J., & Watanabe, T. (1997). Developing ratio and proportion schemes: A story of a fifth grader. *Journal for Research in Mathematics Education*, 28, 216–236.

Lo, J., Gaddis, K., & Henderson, D. (1996). Building upon student experience in a college geometry course. *For the Learning of Mathematics*, 16, 34–40.

Lo, J., & Wheatley, G. H. (1994). Learning opportunities and negotiation of social norms in mathematics class discussion. *Educational Studies in Mathematics*, 27, 145–164.

Lo, J., Wheatley, G. H., & Smith, A. C. (1994). The participation, beliefs and development of arithmetic meaning of a third grade student in mathematics class discussions. *Journal for Research in Mathematics Education*, 25, 30–49.

Edited Book

Lo, J., Leatham, K. R. & Van Zoest, L. R. (Eds.). (2014). *Research Trends in Mathematics Teacher Education*. New York, NY: Springer.

Van Zoest, L. R., Lo, J., & Kratky, J. L. (Eds.). (2012). *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Kalamazoo, MI: Western Michigan University.

Book Chapter

Lin, F. L., Yang, K. L., Lo, J., Tsamir, P., Tirosh, D., & Stylianides, G. (2012). Teachers' professional learning on teaching proof and proving. In G. Hanna & M. de Villiers (Eds.), *Proof and proving in mathematics education* (pp. 327–348). New York, NY: Springer Science + Business Media, LLC.

Lin, C Y., Luo, F., & Lo, J. (2011). Web-based instruction: A case of preservice elementary teachers' efficacy in modeling and reasoning with fraction. In I. L. Chen & D. McPheeters (Eds.), *Cases on educational technology integration in urban schools* (pp. 195–203). Hershey, PA: Information Science Reference.

Lo, J., & Gaddis, K. (2010). Problem centered learning for prospective elementary school teachers: Focusing on mathematical tasks. In A. Reynolds (Ed.), *Problem centered learning in mathematics: Reaching all students* (pp. 123–136). Saarbrücken, Germany: LAP Lambert Academic.

Grant, T. J., & Lo, J. (2008). Reflecting on the process of task adaptation and extension: The case of computational starters. In B. Clarke, R. Millman, & B. 36). New York, NY: Springer Science + Business Media, LLC.

Gaddis, K., Lo, J., & Cai, J. (2004). Recommended resources in mathematics education. In K. Flower (Ed.), *Using mathematics literature* (pp. 327–356). New York, NY: Marcel Dekker.

Refereed Conference Proceeding

Leu, Y. C., Lo, J. J., & Luo, F. (2015). Assessing mathematical creativity of pre-service Taiwanese teachers. In K. Beswick, T. Muir, & J. Wells (Eds.), *Proceedings the 39th Conference of International Group for the Psychology of Mathematics Education* (Vol 3, pp. 185-192). Hobart, Australia: PME.

Son, J., Lo, J. & Watanabe, T. (2015). Intended treatments of fractions, fraction addition and subtraction in mathematics curriculum from Japan, Korea Taiwan and U.S. Paper accepted by the 37th annual conference of the International Group of the North American Chapter of the International Group for the Psychology of Mathematics Education, East Lansing, MI

Lo, J., Yang, D., & Weng, W. (2013). An analysis of algebra content in the Finland and Taiwan elementary school mathematics textbooks. *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 78-81). Chicago, IL: University of Illinois Chicago.

Tobias, J., Olanoff, D., & Lo, J. (2012). A research synthesis of preservice teachers' knowledge of multiplying and dividing fractions. In L. R. Van Zoest, J. Lo, & J. L. Kratky (Eds.), *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 668–673). Kalamazoo, MI: Western Michigan University.

Lo, J., & Grant, T. (2012). Prospective elementary teachers' conceptions of fractional unit. In T. Y. Tsao (Ed.), *Proceedings of the 36th conference of the International*

Group for the Psychology of Mathematics Education (Vol. 3, pp. 169–176). Taipei, Taiwan: PME.

Lo, J., & Tsai, F. C. (2011). Middle and high school students' methods for generalizing linear patterning tasks. In L. R. Wiest & T. Lamberg (Eds.), *Proceedings of the 33rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 730–737). Reno, NV.

Lo, J. (2010). Taiwanese prospective elementary teachers' knowledge for fraction division. In P. Brosnan, D. B. Erchick, & L. Flevaris (Eds.), *Proceedings of the 32nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 1192–1199). Columbus, OH: Ohio State University.

Luo, F., Lo, J., & Leu, Y. (2009). Comparing U.S. and Taiwanese pre-service elementary teachers' process in reasoning and solving fraction problems. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the 31st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 5, pp. 1386–1394). Atlanta, GA: Georgia State University.

Lo, J., McCrory, R., & Young, S. (2009). Developing prospective teachers' knowledge of elementary mathematics: A case of fraction division. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the 31st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 5, pp. 1386–1394). Atlanta, GA: Georgia State University.

Lo, J., & McCrory, R. (2009). Proof and proving in a mathematics course for prospective elementary teachers. In F. Lin, F. Hsieh, G. Hanna, & M. de Villiers (Eds.), *Proof and proving in mathematics education: Proceedings of the ICMI Study* (Vol. II, pp. 41–46). Taipei, Taiwan: ICMI.

Luo, F., Lo, J., & Leu, Y. (2008). Taiwan and U.S. prospective elementary teachers' fundamental knowledge of fractions. In O. Figueras & A. Sepúlveda (Eds.), *Proceedings of the joint meeting of the 32nd conference of the International Group for the Psychology of Mathematics Education, and the XX North American Chapter* (Vol. III, pp. 337–344). Morelia, Michoacán, México: PME.

Lo, J., Kim, R., & McCrory, R. (2008). Teaching assistants' uses of written curriculum in enacting mathematics lessons for prospective elementary teachers. In O. Figueras & A. Sepúlveda (Eds.), *Proceedings of the joint meeting of the 32nd conference of the International Group for the Psychology of Mathematics Education, and the XX North American Chapter* (Vol. III, pp. 321–328). Morelia, Michoacán, México: PME.

- Cox, D. C., Lo, J., & Mingus, T. (2007). Low achieving middle school students' conception of same shape. In T. Lamberg & L. Wiest (Eds.), *Proceedings of the 29th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 130–132). Stateline (Lake Tahoe), NV: University of Nevada, Reno.
- Lo, J., Cox, D. C., & Mingus, T. (2006). A conceptual-based curricular analysis of the concepts of similarity. In S. Alatorre, J. L. Corina, M. Sáiz, & A. Méndez (Eds.), *Proceedings of the 28th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. 2, pp. 221–228). Mérida, México: Universidad Pedagógica Nacional.
- Lo, J., Mingus, T., Cox, D. C., Hervas, D., & Thomas, T. (2005). A curriculum analysis framework for conceptual understanding of mathematics. In G. M. Lloyd, M. Wilson, J. L. M. Wilkins, & S. L. Behm (Eds.), *Proceedings of the 27th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (CD-ROM). Roanoke, VA.
- Lo, J., Grant, T., & Flowers, J. (2004). Developing mathematical justification: The case of prospective elementary school teachers. *Proceedings of the 26th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. III, pp. 1159–1166). Toronto, Ontario, Canada.
- Lo, J. (2004). Prospective elementary school teachers' solution strategies and reasoning for a missing value proportion task. *Proceedings of the 28th annual meeting of the International Group for the Psychology of Mathematics Education* (Vol. III, pp. 265–272). Bergen, Norway.
- Lo, J. (1996). Teaching mathematics to all students: The mathematical experience and learning of a third grader. *Proceedings of the 18th annual meeting of the North American Chapter International Group for the Psychology of Mathematics Education* (Vol. I, pp. 167–172). Panama City, FL.
- Lo, J., & Watanabe, T. (1995). A fifth grader's attempt to expand her ratio and proportion concepts. *Proceedings of the 17th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (Vol. I, pp. 383–389). Columbus, OH.
- Watanabe, T., Reynolds, A., & Lo, J. (1995). A fifth grader's understanding of fractions and proportions. *Proceedings of the 19th annual meeting of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 200–207). Recife, Brazil.
- Lo, J., & Watanabe, T. (1993). Conceptual bases of young children's solution strategies of missing value proportional tasks. *Proceedings of the 17th annual*

meeting of the International Group for the Psychology of Mathematics Education (Vol. III, pp. 162–169). Japan.

Lo, J., & Wheatley, G. H. (1992). Understanding mathematics class discussion. *Proceedings of the 16th annual meeting of the International Group for the Psychology of Mathematics Education* (Vol. III, p. 129). Durham, NH.

Lo, J., Wheatley, G. H., & Smith, A. C. (1991). Negotiation of meaning and social norms in mathematics learning. *Proceedings of the 13th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 99–105). Blacksburg, VA.

Lo, J., Wheatley, G. H., & Smith, A. C. (1990). The potential learning opportunities of mathematics class discussions in a third grade classroom. *Proceedings of the 14th annual meeting of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 121–128). Mexico.

Wheatley, G. H., & Lo, J. (1989). The role of spatial patterns in the construction of number units. *Proceedings of the 11th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 118–124). New Brunswick, NJ.

PRESENTATION

Professional Conference

Lo, J. (2016, July). *A self-study of integrating computer technology in a geometry course for prospective elementary teachers*. Presentation at the 13th International Congress on Mathematical Education (ICME-13), Hamburg, Germany.

Lo, J. (2016, March). *The use of tools in supporting prospective elementary teachers' learning of geometry*. Presentation at the annual conference of Michigan Chapter of the Association of Mathematics Teacher Educators and Conversation Among Colleagues conference, Kalamazoo, MI

Lo, J. (2016, February). *On-line and off-line investigation with area and circumference of a circle*. Math in Action conference. Grand Rapids, MI.

Cox, D., Lo, J., Cirillo, M., Rathouz, M. (2016, January). *Preparing pre-service teachers (K-8) to teach geometry*. Panel discussion at the annual conference of the Association of Mathematics Teacher Education, Irvine, CA.

Lo, J., & Grant, T. (2013, April). *Levels of fraction understanding among prospective elementary teachers*. Poster presented at the annual conference of the American Educational Research Association, San Francisco, CA.

- Lo, J. (2013, January). *The teaching and learning of fractions from Taiwanese perspectives: Opportunities and challenges of Common Core*. Presentation at the annual conference of the Association of Mathematics Teacher Education, Orlando, FL.
- Lo, J., & Tsai, F. C. (2012, February). *Mathematical knowledge for teaching fractions from Taiwanese perspectives: Opportunities and challenges of Common Core*. Presentation at the annual conference of the Association of Mathematics Teacher Education, Fort Worth, TX.
- Lo, J., & Tsai, F. C. (2011, October). *Middle and high school students' methods for generalizing linear patterning tasks*. Paper presented at the joint meeting of the 33rd Conference of the International Group for the Psychology of Mathematics Education—North American Chapter, Reno, NV.
- Lin, C. Y., Luo, F., & Lo, J. (2011, April). *Web-based instruction: A study of preservice elementary teachers' efficacy in modeling and reasoning with fractions*. Paper presented at the annual conference of the American Educational Research Association, New Orleans, LA.
- Tsai, F. C., & Lo, J. (2011, April). *Middle and high school students' methods for generalizing linear patterning tasks*. Poster presented at the annual conference of the American Educational Research Association, New Orleans, LA.
- Lo, J. (2010, October). *Taiwanese prospective elementary teachers' knowledge for fraction division*. Paper presented at the 32nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, OH.
- Francis, A. P., Lo, J., & McCrory, R. (2010, April). *Taiwanese and U.S. prospective elementary teachers' mathematical knowledge for teaching: An exploratory study*. Paper presented at the annual conference of the American Educational Research Association, Denver, CO.
- Luo, F., Lo, J., & Leu, Y. (2009, September). *Comparing U.S. and Taiwanese pre-service elementary teachers' process in reasoning and solving fraction problems*. Presentation at the joint meeting of the 31st conference of the International Group for the Psychology of Mathematics Education—North American Chapter, Atlanta, GA.
- Lo, J., McCrory, R., & Young, S. (2009, September). *Developing prospective teachers' knowledge of elementary mathematics: A case of fraction division*. Presentation at the joint meeting of the 31st conference of the International Group for the Psychology of Mathematics Education—North American Chapter, Atlanta, GA.

- Lo, J., & McCrory, R. (2009, May). *Proof and proving in a mathematics course for prospective elementary teachers*. Presentation at Proof and Proving in Mathematics Education: ICMI 19 Study Group, Taipei, Taiwan.
- Grant, T., & Lo, J. (2008, October). *Exploring the mathematics knowledge needed to teach fraction division*. Presentation at the 2008 Fall Central Section Meeting of the American Mathematics Society, Kalamazoo, MI.
- Luo, F., Lo, J., & Leu, Y. (2008, July). *Taiwan and U.S. prospective elementary teachers' fundamental knowledge of fractions*. Presentation at the joint meeting of the 32nd conference of the International Group for the Psychology of Mathematics Education and the 30th North American Chapter, Morelia, Michoacán, México.
- Lo, J., Kim, R., & McCrory, R. (2008, July). *Teaching assistants' uses of written curriculum in enacting mathematics lessons for prospective elementary teachers*. Presentation at the joint meeting of the 32nd conference of the International Group for the Psychology of Mathematics Education and the 30th North American Chapter, Morelia, Michoacán, México.
- Davis, J., & Lo, J. (2008, March). *Categorizing and connecting teacher adaptations in a Standards-based mathematics textbook to implementation fidelity*. Presentation at the annual meeting of the American Educational Research Association, New York, NY.
- Cox, D. C., & Lo, J. (2008, March). *Similarity: Conceptualizing proportion in a geometric context*. Presentation at the annual meeting of the American Educational Research Association, New York, NY.
- Cox, D. C., Lo, J., & Mingus, T. (2007, October). *Low-achieving middle school students' conceptions of "same shape."* Presentation at the 29th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Lake Tahoe, NV.
- Lo, J. (2007, October). *Prospective elementary teachers' fraction knowledge*. Presentation at the 29th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Lake Tahoe, NV.
- Lo, J., & Grant, T. (2007, March). *Challenges to conceptualizing fraction multiplication*. Presentation at the research pre-session at the annual conference of the National Council of Teachers of Mathematics, Atlanta, GA.
- Lo, J., Grant, T., & Flowers, J. (2006, April). *Reasoning with fractions: The case of prospective elementary school teachers*. Presentation at the annual conference of the National Council of Teachers of Mathematics, St. Louis, MO.

Grant, T., & Lo, J. (2005, April). *Developing and justifying reasoning procedures: Challenges faced by instructors and their prospective teacher students*. Presentation at the annual meeting of the American Educational Research Association, Montreal, Quebec, Canada.

Lo, J., Grant, T., & Flowers, J. (2005, April). *Prospective elementary teachers' efforts to develop and justify computation procedures*. Symposium presentation at the research pre-session of the annual meeting of the National Council of Teachers of Mathematics, Anaheim, CA.

Lo, J., & Watanabe, T. (2005, February). *Analyses of the intended curriculum*. Presentation at the curriculum research conference of the Center of the Study of Mathematics Curriculum, Phoenix, AZ.

Cox, D. C., Lo, J., Mingus, T., Hervas, D., & Thomas, T. (2005, February). *A curriculum analysis framework for conceptual understanding of mathematics*. Poster presented at the curriculum research conference of the Center of the Study of Mathematics Curriculum, Phoenix, AZ.

Lo, J. (2004, February). *Problem centered learning for prospective elementary school teachers*. Paper presented at the annual meeting of Research Council on Mathematics Learning, Oklahoma City, OK.

Cai, J., Lo, J., & Watanabe, T. (2001, April). *Intended curricular treatments for students' conceptual understanding in U.S. and Asian school mathematics: A case of arithmetic average*. Paper presented at the annual meeting of American Educational Research Association, Seattle, WA.

Watanabe, T., Lo, J., & Cai, J. (2001, April). *Teaching average in China, Japan and Taiwan: Analysis of teaching materials*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Orlando, FL.

Lo, J., Hung, C., & Liu, S. (2001). *An analysis of the recent reform in elementary teacher education in Taiwan and its potential impacts on the mathematics teaching at the elementary school levels*. Paper presented at the research pre-session of annual meeting of the National Council of Teachers of Mathematics, Orlando, FL.

Lo, J. (2000, April). *Geometry curriculum in Taiwan and a preliminary comparison of the 1–8 geometry guidelines in Taiwan and U.S.* Paper presented at the research pre-session of the annual conference of National Council of Teachers of Mathematics, Chicago, IL.

Lo, J. (2000, January). *Short writing exercise in a pre-calculus course: What, how and why?* Paper presented at the annual conference of the Mathematics Association of America, Washington, DC.

Lo, J. (1998, April). *Planning for students with special needs: Issues emerged from a third grade classroom*. Paper presented at the annual conference of National Council of Teachers of Mathematics, Washington, DC.

Lo, J., Caren, A., & Yale, A. (1996, April). *An estimate is better than a guess. It's a guess with reasons*. Paper presented at the annual meeting of American Educational Research Association, New York.

Lo, J., & Watanabe, T. (1995, October). *A fifth grader's attempt to expand her ratio and proportion concepts*. Paper presented at the annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, OH.

Lo, J., & Watanabe, T. (1994, April). *Developing proportion schemes: A story of a fifth grader*. Paper presented at the annual meeting of the American Education Research Association, New Orleans, LA.

Lo, J., & Watanabe, T. (1993, April). *Children's image-based schemes for solving proportion-type tasks*. Paper presented at the annual meeting of American Education Research Association, Atlanta, GA.

Lo, J., & Wheatley, G. H. (1992, August). *The importance of re-negotiating social norms in mathematics class discussion*. Paper presented at the Seventh International Congress on Mathematical Education, Quebec, Canada.

Lo, J., & Wheatley, G. H. (1992, April). *Why use class discussion in mathematics instruction?* Paper presented at the annual meeting of American Educational Research Association, San Francisco, CA.

Lo, J., Wheatley, G. H., & Smith, A. C. (1991, April). *Brad is off task: A student's view of mathematics class discussions*. Paper presented at the 69th annual meeting of the National Council of Teachers of Mathematics, New Orleans, LA.

Lo, J., Wheatley, G. H., & Smith, A. C. (1991, April). *Learning to talk mathematics*. Paper presented at the annual meeting of American Educational Research Association, Chicago, IL.

Other Presentation/Colloquia

Lo, J. & Grant T. (2014, October 4). Why $\frac{3}{4} = 0.75$? Reasoning through multiple meanings and representations. Presentation at the Teaching Mathematics Content Courses Conference, Ann Arbor, MI.

Grant, T. & Lo, J. (2014, October 4). Designing written Record for courses with no textbook. Presentation at the Teaching Mathematics Content Courses Conference, Ann Arbor, MI.

- Lo, J. (2010, May 1). Chair and organizer of the symposium *Promoting teaching and learning through discourse practices: Dialoguing across diverse settings in mathematics education*. Denver, CO.
- Lo, J. (2009, April 28). *Comparison of the K-12 educational experience in U.S. and Taiwan*. National Taipei University of Education, Taipei, Taiwan.
- Lo, J. (2009, March 25). *Proof and proving for prospective elementary teachers*. National Chaiyi University, Chaiyi, Taiwan.
- Lo, J. (2009, March 11). *Fidelity of curriculum implementation: What, why, how and the challenges*. Graduate Institute of Education Colloquium, National Sun Yat-Sen University, Kaohsiung, Taiwan.
- Lo, J., Kim, R. & McCrory, R. (2008, February 21). *Teaching assistants' uses of written curriculum in enacting mathematics lessons for prospective elementary teachers*. Mathematics Colloquium, Western Michigan University, Kalamazoo, MI.
- Lo, J., Grant, T., & Flowers, J. (2004, April 30). *Developing mathematical justification: The case of prospective elementary school teachers*. Mathematics Learning Research Group Seminar, Michigan State University, East Lansing, MI.
- Lo, J. (2003, October 11). *Prospective elementary school teachers' information strategies for solving a missing value proportion task*. Mathematics Learning Research Group Seminar, Michigan State University, East Lansing, MI.
- Lo, J. (1998, October 23). *Performance assessment from NAEP and TIMMS—Implications for college teaching*. Educational Seminar, Department of Mathematics, Cornell University, Ithaca, NY.
- Lo, J. (1998, March 18). *Is this a calculus problem—It does not have a formula?* Educational Seminar, Department of Mathematics, Cornell University, Ithaca, NY.
- Lo, J. (1995, March 15). *Geometry around us*. Mathematics Fair of the Donlin Elementary School, Liverpool, NY.
- Lo, J. (1995, February 8). *How do our views change what we see?* Saturday Cornell/Schools Math Resource Program (CSMRP) Workshop, Cornell University, Ithaca, NY.
- Lo, J. (1994, December 12). *Mathematics communication*. Mathematics Pilot Workshop, Ithaca City School District, Ithaca, NY.

Lo, J. (1994, October 19). *Spatial sense and visualization*. K-8 Mathematics Workshop: Establishing Mathematical Learning Environments (EMLE), Syracuse University, Syracuse, NY.

Lo, J. (1992, February 8). *Developing spatial reasoning in grades K-3*. K-3 Conference, Department of Education, Arizona State University West, Phoenix, AZ.

COURSE TAUGHT

Western Michigan University

Algebra for the Elementary and Middle School Curriculum

Calculus I

Curriculum Studies in School Geometry

Geometry for Elementary and Middle School Teachers

Mathematics Curriculum Issues and Trends

Modeling and Problem Solving for Elementary and Middle School Teachers

National Policy and Standards

Number Concepts and Operations for Elementary and Middle School Teachers

Precalculus

Statistics and Probabilities for Elementary and Middle School Teachers

Teaching Elementary/Middle School Mathematics

Cornell University

Introduction to Calculus

Introduction to College Mathematics

Knowing and Learning in Agriculture, Mathematics and Science (co-taught with D. Trumbull)

Syracuse University

Assessing Mathematics Understanding

SUNY-Cortland

Teaching Strategies in Mathematics

Calculus A

Ithaca College

Basic Statistics Reasoning

Calculus for Decision Making

Arizona State University West

Culture and Schooling

Mathematics in Elementary School

Florida State University

How Children Learn Mathematics

Purdue University

Mathematics for Elementary Mathematics Teachers II

SERVICE

Journal and Professional Organization

2012–present	Member, Editorial Board, <i>International Journal of Science and Mathematics Education</i>
2012	Co-Chair, Annual Conference of the Psychology of Mathematics Education–North American Chapter
2008–present	Reviewer, <i>International Journal of Science and Mathematics Education</i>
Spring 2008	Member of the Steering Committee, The Fourth Annual Conversations Among Colleagues Conference
2007–present	Reviewer, <i>Learning and Individual Differences</i>
2007–present	Reviewer, <i>Journal of Mathematics Teacher Education</i>
2006–present	Reviewer, <i>Teaching Children Mathematics</i>
2001–present	Reviewer, <i>Mathematics Thinking and Learning</i>
1994–present	Reviewer, Annual Conference for Division C, American Education Research Association
1994–present	Reviewer, Annual Conference for SIG-Research in Mathematics Education, American Education Research Association
1993–present	Reviewer, Annual Conference for Psychology of Mathematics Education–North America Chapter
1991–present	Reviewer, <i>Journal for Research in Mathematics Education</i>

University Service

2012–present	Member of the Taskforce of 21st Century
2014–present	Member of the Academic Integrity Review Board

College Service

2013–present Member of the Women's Caucus

Department Service

2014–present Associate Chair of Instruction in Mathematics Educaiton

2013–2014 Member of the Graduate Committee

2012–2013 Member of the Assessment Committee

2010–2012 Co-coordinator of TA Seminar

2009–2012 Member of the Instruction Committee

2005–2006,
Fall 2007, 2009 Course Coordinator for MATH 1500

2013–present
Spring 2008 Course Coordinator for MATH 1510

2006–2007,
Fall 2007 Coordinator for the Math Ed Seminar

2005–2006 Member of the Chair Search Committee

2004–2005 Course Coordinator for MATH 2650

2004–2005 Member of the Collegiate Mathematics Education Search
Committee

2002–2005 Member of the Undergraduate Student Committee

PROFESSIONAL AFFLIATION AND SELF-EDUCATION (as a non-presenter)**Professional Affiliation**

2001–present Michigan Council of Teachers of Mathematics

1989–present American Educational Research Association

1989–present AERA SIG: Research in Mathematics Education

1989–present Psychology of Mathematics Education–North American Chapter

1989–present International Group of Psychology of Mathematics Education

1989–present National Council of Teachers of Mathematics

Self-Education

Attended the Annual Conference of Society of Information Technology and Teacher Education, Jackson, FL, March 10-14, 2014.

Attended the Institute of Fractions: A Critical Foundation for Algebra. Michigan Council of Teachers of Mathematics, Utica, MI, August 4–5, 2009.

Attended the training workshop for Hierarchical Linear Model (HLM), Taiwanese Association of Statistical Methodology, Kaohsiung, Taiwan, June 30–July 1, 2009.

Attended the Conversation Among Colleagues Conference: Educating Future Teachers of Mathematics–Elementary through University. Western Michigan University, Kalamazoo, MI, March 15, 2008.

Attended the Conversation Among Colleagues Conference: Collaborating to Improve the Mathematical Education of our Students, University of Michigan, Ann Arbor, MI, March 24, 2006.

Attended the Mathematics Learning Research Group Seminar, Michigan State University, East Lansing, August 2003–August 2004.

Attended the Conversation Among Colleagues Conference: Collaborating to Improve the Mathematical Education of our Students, Grand Valley State University, Allendale, MI, March 20, 2004.

Attended the Fall Retreat of the National Academy of Education and led a round table discussion. Harvard University, Boston, MA, October 16–18, 2003.

Attended monthly meetings of Mathematics Teaching Study Groups on the mathematical preparation of teachers as part of University of Michigan Center for Proficiency in Mathematics Teaching, Ann Arbor, Michigan, August 2002–August 2003.

Attended the AMS-MER workshop: Excellence in Undergraduate Mathematics: Mathematics for Teachers and Mathematics for Teaching, Ithaca College, Ithaca, NY, March 13–16, 2003.