

# Curriculum Vita

Martin A. Simon

## Education

- Ed.D. Mathematics Education, University of Massachusetts  
Dissertation title: An external control study of diagram drawing skills for the solution of algebra word problems by novice problem solvers
- M.A.T. St. Mary's College
- B.A. Major: Psychology, Minor: Mathematics, New York University

## Professional Experience

- 2007-present Professor of Mathematics Education, New York University Department of Teaching and Learning
- 2006-2007 Visiting Professor of Mathematics Education, New York University Department of Teaching and Learning
- 2000-2007 Professor of Mathematics Education, Penn State University College of Education, Department of Curriculum and Instruction
- 1994-2000 Associate Professor of Mathematics Education, Penn State University College of Education, Department of Curriculum and Instruction
- 1988-1994 Assistant Professor of Mathematics Education, Penn State University College of Education, Department of Curriculum and Instruction
- 1989-present Consultant to school districts in PA, NY, CT, MA, WA, CA, and NC
- 1985-88 Lecturer in Mathematics Education and Director of SummerMath for Teachers, Mt. Holyoke College
- 1974-76 and 77-82 Classroom teacher (grades 6-8)

## Awards and Honors

- Named Fellow of the American Educational Research Association (AERA), 2010.
- Offered endowed professorship, Penn State University, 2007 (turned down to accept position at NYU).
- Career Achievement Award, Penn State University College of Education, 2001.
- Distinguished Research Award, Association of Teacher Educators, 2000.
- Runner-up for outstanding research article from the Journal for Research in Mathematics Education, 1995.
- Award for Outstanding Scholarship on Teacher Education, Association of Colleges and Schools of Education in State Universities and Land Grant Colleges and Affiliated Private Universities – 1993

**Grants Awarded****As Principal Investigator**

National Science Foundation: Measurement Approach to Rational Number (MARN) 2010-2017, \$1,998,359.

National Science Foundation: Exploratory Analysis of Mathematics Conceptual Learning (EAMCL) 2004-2006, \$149,796

National Science Foundation: Mathematics Teacher Development (MTD) Project, 1996-2003, \$1,111,683.

National Science Foundation: Supplement to MTD Project - \$33,482.

National Science Foundation: Construction of Elementary Mathematics (CEM) Project, 1990-93, \$470,000.

National Science Foundation: Educational Leaders in Mathematics (ELM) Project, 1985-88, \$452,677.

Geraldine R. Dodge Foundation, 1985-1988.

Department of Education - Title II, 1985.

**As Co-author of Grant Proposal / Consultant**

National Science Foundation: Mathematics Leadership Network (MLN), 1989-1992, \$450,000.

**Publications****Articles in Refereed Journals:**

Simon, M.A. (2017). Explicating *mathematical concept* and *mathematical conception* as theoretical constructs. *Educational Studies in Mathematics*, 94(2), 117-137.

Simon, M.A., Kara, M., Placa, N., & Sandir, H. (2016). Categorizing and promoting reversibility of mathematical concepts. *Educational Studies in Mathematics*, 93(2), 137-153.

Simon, M. A. (2016). An approach to design of mathematical task sequences: Conceptual learning as abstraction. *PNA*, 10(4), 270-279.

Simon, M.A., Placa, N., Avitzur, A. (2016). Participatory and anticipatory stages of mathematical concept learning: Further empirical and theoretical development. *Journal for Research in Mathematics Education*, 47(1), 63-93.

Simon, M. A. (2013). Issues in theorizing mathematics learning and teaching: A contrast between learning through activity and DNR research programs. *The Journal of Mathematical Behavior*, 32(3), 281-294.

Simon, M. A. (2013). Promoting Fundamental Change in Mathematics Teaching: A Theoretical, Methodological, and Empirical Approach to the Problem. *ZDM: The International Journal On Mathematics Education*, 45(5), 573-582.

Simon, M. A. (2012). Reasoning about intensive quantities in whole-number multiplication? A possible basis for ratio understanding. *For the Learning of Mathematics*, 32, 35-41.

Simon, M. A. (2012). Extending the coordination of cognitive and social perspectives. *PNA*, 6, 43-49.

Simon, M. A., Saldanha, L., McClintock, E., Karagoz Akar, G., Watanabe, T., & Ozgur Zembat, I. (2010). A developing approach to studying students' learning through their mathematical activity. *Cognition and Instruction*, 28, 70-112.

Simon, M. A. (2009). Amidst multiple theories of learning in mathematics education. *Journal for Research in Mathematics Education*, 40, 477 - 490.

Simon, M. A. (2006). Key developmental understandings in mathematics: A direction for investigating and establishing learning goals. *Mathematical Thinking and Learning*, 8, 4, 359-371.

Simon, M. A. (2004). Raising issues of quality in mathematics education research. *Journal for Research in Mathematics Education*, 35, 157-163.

Simon, M. & Tzur, R. (2004) Explicating the role of mathematical tasks in conceptual learning: An elaboration of the hypothetical learning trajectory. *Mathematical Thinking and Learning*, 6, 91-104.

Simon, M., Tzur, R., Heinz, K., & Kinzel, M (2004). Explicating a mechanism for conceptual learning: Elaborating the construct of reflective abstraction. *Journal for Research in Mathematics Education*, 35, 305-329.

Tzur, R., Simon, M.A. (2004). Distinguishing two stages of mathematics conceptual learning. *International Journal of Science and Mathematics Education*, 2. (2), 287 – 304.

Simon, M. A. (2001). National reform of mathematics teaching: The contrast between China and the United States. *Contemporary Psychology APA review of Books*, 46, 51-53.

Tzur, R., Simon, M.A., Heinz, K., & Kinzel, M. (2001). An account of a teacher's perspective on learning and teaching mathematics: Implications for teacher development. *Journal of Mathematics Teacher Education*, 4, 227-254.

Heinz, K., Kinzel, M., Simon, M. A., & Tzur, R. (2000). Moving students through steps of mathematical knowing: An account of the practice of an elementary mathematics teacher in transition. *Journal of Mathematical Behavior*, 19, 83-107.

McNeal, B. & Simon, M. (2000). Mathematics culture clash: Negotiating new classroom norms with prospective teachers. *Journal of Mathematical Behavior*, 18, 475-509.

Simon, M., Tzur, R., Heinz, K., Kinzel, M., & Smith, M. (2000). Characterizing a perspective underlying the practice of mathematics teachers in transition. *Journal for Research in Mathematics Education*, 31, 579-601.

Simon, M. & Tzur, R. (1999). Explicating the teacher's perspective from the researchers' perspective: Generating accounts of mathematics teachers' practice. *Journal for Research in Mathematics Education*, 30, 252-264.

Simon, M. A. (1998). Review of *Teaching mathematics: Toward a sound alternative*. *Journal of Curriculum Studies*, 30, 235-238.

Sowder, J., Armstrong, B., Lamon, S., Simon, M. A., Sowder, L. & Thompson, A. (1998). Educating teachers to teach multiplicative structures in the middle grades. *Journal of Mathematics Teacher Education*, 1, 127-155.

Simon, M. A. (1996). Beyond inductive and deductive reasoning: The search for a sense of knowing. *Educational Studies in Mathematics*, 30, 197-210.

Simon, M. A. & Blume, G. (1996). Justification in the mathematics classroom: A study of prospective elementary teachers. *Journal of Mathematical Behavior*, 15, 3-31.

Simon, M. A. & Brobeck, S. (1996). Challenges to mathematics reform in classrooms. *Pennsylvania Educational Leadership*, 15, 21-28.

Simon, M. A. (1995). Investigating the development of multiplicative reasoning. *Journal for Research in Mathematics Education*, 26, 282-287.

Simon, M. A. (1995). Elaborating models of mathematics teaching: A response to Steffe and D'Ambrosio. *Journal for Research in Mathematics Education*, 26, 160-162.

Simon, M. A. (1995). Reconstructing mathematics pedagogy from a constructivist perspective. *Journal for Research in Mathematics Education*, 26, 114-145.

Simon, M. A. (1994). Learning mathematics and learning to teach: Learning cycles in mathematics teacher education. *Educational Studies in Mathematics*, 26, 71-94.

Simon, M. A. & Blume, G. (1994). Building and understanding multiplicative relationships: A study of prospective elementary teachers. *Journal for Research in Mathematics Education*, 25, 472-494.

Simon, M. A. & Blume, G. (1994). Mathematical modeling as a component of understanding ratio-as-measure: A study of prospective elementary teachers. *Journal of Mathematical Behavior*, 13, 183-197.

Simon, M. A. (1993). A context for change: Themes related to mathematics education reform. In T. Wood (Ed.), *Reforming children's mathematical learning: Insights and issues*. *Journal for Research in Mathematics Education Monograph Series, Number 6*, Reston, VA: National Council of Teachers of Mathematics.

Simon, M. A. (1993). Focus on children's mathematical learning in classrooms: Input and issues. In T. Wood (Ed.), *Reforming children's mathematical learning: Insights and issues*. *Journal for Research in Mathematics Education Monograph Series, Number 6*, Reston, VA: National Council of Teachers of Mathematics.

Simon, M. A. (1993). Prospective elementary teachers knowledge of division. *Journal for Research in Mathematics Education*, 24, 233-254.

Simon, M. A. & Schifter, D. (1993). Toward a constructivist perspective: The impact of a mathematics teacher inservice program on students. *Educational Studies in Mathematics*, 25, 331-340.

Schifter, D. & Simon, M. A. (1992). Assessing teachers' development of a constructivist view of learning. *Teaching and Teacher Education*, 8, 187-197.

Simon, M. A. & Schifter, D. (1991). Toward a constructivist perspective: An intervention study of mathematics teacher development. *Educational Studies in Mathematics*, 22, 309-331.

Simon, M. A. (1989). Intuitive understanding in geometry: The third leg. *School Science and Mathematics*, 89, 373-379.

Simon, M. A. (1986). The teacher's role in increasing student understanding of mathematics, *Educational Leadership*, 43, #7, 40-43. (Reprinted in *Exemplary Practice Series: Mathematics*. Center on Evaluation, Development, Research, Phi Delta Kappa. Bloomington, IN: 1987.)

#### **Articles in Refereed Proceedings:**

Simon, M. A. (2015). Learning through activity: Analyzing and promoting mathematics conceptual learning. In K. Beswick, T. Muir, & J. Wells (Eds.) (2015). *Proceedings of the 39th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 1, pp. 51-65). Hobart, Australia: PME.

Simon, M. A. (2014). An emerging theory for design of mathematical task sequences: Promoting reflective abstraction of mathematical concepts. In C. Nicol, S. Oesterle, P., Liljedahl, & D. Allan (Eds.), *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education, Vol. 5* (pp. 193-199). Vancouver, Canada: PME.

Simon, M., Placa, N., & Avitzur, A. (2014). Two stages of mathematics concept learning: Additional applications in analysis of student learning. In C. Nicol, S. Oesterle, P., Liljedahl, & D. Allan (Eds.), *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education, Vol. 5* (pp. 201-207). Vancouver, Canada: PME.

Simon, M.A. (2013). Promoting reversibility: Building on learning through activity. In A.M. Lindmeier & A. Heinze (Eds.) *Proceedings of the 37th Conference of the International Group for the Psychology of Mathematics Education, Vol. IV*, (pp. 225-232), Kiel Germany: PME.

Simon, M.A. (2013). Developing theory for design of mathematical task sequences: Conceptual learning as abstraction. In C. Margolinas (Ed), *Task design in mathematics education. Proceedings of ICMI Study 22*, (pp. 503-510). [http://hal.archives-ouvertes.fr/docs/00/83/74/88/PDF/ICMI\\_STudy\\_22\\_proceedings\\_2013-FINAL\\_V2.pdf](http://hal.archives-ouvertes.fr/docs/00/83/74/88/PDF/ICMI_STudy_22_proceedings_2013-FINAL_V2.pdf)

Placa, N. & Simon, M. A. (2012) Demonstrating the usefulness of the participatory-anticipatory distinction. In L. R. Van Zoest, J.-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. 1156 – 1162). Kalamazoo, MI: Western Michigan University.

Simon, M.A., (2011). Studying mathematics conceptual learning: Student learning through their mathematical activity. In L. R. Wiest & T. Lamberg (Eds.), *Proceedings of the Thirty-Third Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 31-43). Reno, NV: University of Nevada, Reno.

Simon, M. (2010). Extending the coordination of cognitive and social perspectives. In Pinto, M. M. F. & Kawasaki, T. F. *Proceedings of the 34th Conference of the International Group for the Psychology of Mathematics Education, Vol. 4*, pp. 177-183. Belo Horizonte Brazil: PME.

Simon, M., Saldanha, L., McClintock, E., Karagoz Akar, G., Watanabe, T., & Zembat, I. (2007). Students' learning through their own activity: Toward a basis for a scientific approach to task design and sequencing. In Lamberg, T., & Wiest, L. R. (Eds.), *Proceedings of the 29<sup>th</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, pp. 311-318. Stateline (Lake Tahoe), NV: University of Nevada, Reno.

Simon, M. (2007). Constraints on what teachers can learn from their practice: Teachers' assimilatory schemes. In J-H Woo, H-C Lew, K-S Park, & D-Y Seo (Eds.), *Proceedings of the 31st Conference of the International Group for the Psychology of Mathematics Education, Vol. 1*, (pp. 137-141).

Simon, M. (2007). Mathematics: A human potential. In J-H Woo, H-C Lew, K-S Park, & D-Y Seo (Eds.), *Proceedings of the 31st Conference of the International Group for the Psychology of Mathematics Education, Vol. 1*, (pp. 109-114).

Simon, M. (2006). Pedagogical concepts as goals for teacher education: Towards an agenda for research in teacher development. S. Alatorre, J.L. Cortina, M. Sáiz, & A. Méndez (Eds.) *Proceedings of the Twenty Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Vol. 2*, (pp. 730-735). Mérida, Mexico: Universidad Pedagógica Nacional.

Simon, M. (2003). Logico-mathematical activity versus empirical activity: Examining a pedagogical distinction, In N. Pateman, B. J. Dougherty, & J. Zilliox (Eds.), *Proceedings of the 27th Conference of the International Group for the Psychology of Mathematics Education, Vol. 4*, (pp. 183-190). Honolulu, Hawaii:

Simon, M. (2002). Focusing on critical understandings in mathematics. In D. Mewborn, P. Sztajn, D. White, H. Wiegel., R. Bryant, & K. Nooney (Eds.), *Proceedings of the Twenty-fourth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Vol II*, (pp. 991-998). Athens, GA: ERIC.

Simon, M. A. (2000). Reconsidering mathematical validation in the classroom. In *Proceedings of the twenty-fourth annual meeting of International Group for the Psychology of Mathematics Education*. Hiroshima, Japan.

Simon, M., Tzur, R., Heinz, K., & Kinzel, M. (2000). Articulating theoretical constructs for mathematics teaching, In *Proceedings of the Twenty-second Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education*. Tucson, AZ.

Heinz, K., Simon, M., Kinzel, M. & Tzur, R. (1999). A perspective on the use of manipulatives: Making sense of a sixth-grade teacher's use of base-ten blocks to promote understanding of the long division algorithm. In F. Hitt & M. Santos (eds.), *Proceedings of the Twentieth-First Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education, Vol. 2*, (pp. 737-743). Cuernavaca, Mexico.

Simon, M., Tzur, R., Heinz, K., Smith, M., & Kinzel, M. (1999). On formulating the teacher's role in promoting mathematics learning. In O. Zaslavsky (Ed.), *Proceedings of the 23rd Conference of the International Group for the Psychology of Mathematics Education, Vol. 4*, (pp. 201-208), Haifa, Israel.

Tzur, R., & Simon, M. (1999). Postulating relationships between levels of knowing and types of tasks in mathematics teaching: A constructivist perspective. In F. Hitt & M. Santos (eds.), *Proceedings of the Twentieth-First Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education, Vol 2*, (pp. 805-810). Cuernavaca, Mexico, Columbus, OH: ERIC.

Simon, M., Tzur, R., Heinz, K., Kinzel, M., and Smith, M. (1998). Characterizing a perspective on mathematics learning of teachers in transition. In S. Berenson, K. Dawkins, M. Blanton, W. Coulombe, J. Kolb, K. Norwood, & L. Stiff (Eds.), *Proceedings of the Twentieth Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education, Vol. 2*, Columbus, OH: ERIC, pp. 768-774.

Tzur, R., Simon, M. A., Heinz, K., & Kinzel, M. (1998). Meaningfully Connecting Mathematical Pieces: An Account of A Teacher in Transition. In A. Olivier & K Newstead

(Eds.), *Proceedings of the Twenty-Second Conference of the International Group for the Psychology of Mathematics Education, Vol. 4*, (pp. 145-152).

Heinz, K., Kinzel, M., Simon, M. A., & Tzur, R. (1997). One teacher's solution to reforming mathematics teaching based on her evolving relationship to mathematics. In J. Dossey, J. Swafford, M. Parmantie, & A. Dossey (Eds.), *Proceedings of the Nineteenth Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education, Vol. 2*, (pp. 365-370), Bloomington/Normal, IL.

McNeal, B. & Simon, M. A. (1997) Mathematics culture clash: Negotiating new classroom norms with prospective teachers. In J. Dossey, J. Swafford, M. Parmantie, & A. Dossey (Eds.), *Proceedings of the Nineteenth Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education Vol. 2*, (pp.487-493), Bloomington/Normal, IL.

Simon, M. A. & Tzur, R. (1997). Generating theoretical accounts of mathematics teachers' practices. In E. Pehkonen (Ed.), *Proceedings of the 21st Conference of the International Group for the Psychology of Mathematics Education, Vol. 4*, (pp. 160- 165), Lahti, Finland.

Simon, M. A. (1996). A methodology for research on mathematics teacher development: The teacher development experiment. In E. Jakubowski, D. Watkins, & H. Biske (Eds.), *Proceedings of the Seventeenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Panama City, FL.

McNeal, B. & Simon, M. A. (1994). Development of classroom social norms and mathematical practices with preservice teachers. In D. Kirshner, *Proceedings of the Sixteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Vol. 2*, (pp. 231-237). Baton Rouge, LA.

Myers, J. & Simon, M. A. (1993). Authorizing mathematical knowledge in a classroom community. In B. Pence (Ed.) *Proceedings of the Fifteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Asilomar, CA.

Simon, M. A. & Blume, G. (1993). Mathematical justification : A classroom teaching experiment with prospective teachers. In B. Pence (Ed.) *Proceedings of the Fifteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Asilomar, CA.

Simon, M. A. & Brobeck, S. (1993). Changing views of mathematics learning: A case study of a prospective elementary teacher. In B. Pence (Ed.) *Proceedings of the Fifteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Asilomar, CA.

Simon, M. A. & Mazza, W. (1993). From learning mathematics to teaching mathematics: A case study of a prospective teacher in a reform-oriented program. In B. Pence (Ed.) *Proceedings of the Fifteenth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Asilomar, CA.

Simon, M. A. & Blume, G. (1992). Understanding multiplicative structures: A study of prospective elementary teachers. In William Geeslin & Karen Graham (Eds.), *Proceedings of the sixteenth annual meeting of the International Group for the Psychology of Mathematics Education, Vol. III* (pp. 11-18), Durham, NH.

Schifter, D. & Simon, M. A. (1991). Toward a constructivist perspective: Impact on students. In R. Underhill (Ed.), *Proceedings of the thirteenth annual meeting Psychology of Mathematics Education, North American Chapter*, Blacksburg, VA.

Simon, M. A. (1991). Initial development of prospective elementary teachers' conceptions of mathematics pedagogy. In F. Furlinghetti (Ed.), *Proceedings of the fifteenth annual meeting of International Group for the Psychology of Mathematics Education*, Assisi, Italy.

Simon, M. A. (1990). Prospective elementary teachers' knowledge of division. In G. Booker, P. Cobb, & T. Mendicuti (Eds.), *Proceeding of the fourteenth annual meeting of the International Group for the Psychology of Mathematics Education*, Mexico City, Mexico.

Simon, M. A. (1988). Diagrams as an intermediate step in the development of algebraic representation. *Proceedings of the tenth annual meeting of Psychology of Mathematics Education, North American Chapter*, DeKalb, IL.

Simon, M. A. (1988). Formative evaluation of a constructivist mathematics teacher inservice program. In A. Borbas (Ed.), *Proceedings of the twelfth annual meeting of International Group for the Psychology of Mathematics Education*, Veszprem, Hungary.

Simon, M. A. (1986). Components of effective use of diagrams in math problem solving. In G. Lappan & R. Evan (Eds.), *Proceedings of the eighth annual meeting of Psychology of Mathematics Education, North American Chapter*.

Simon, M. A. (1985). Diagram drawing: Effect on the conceptual focus of novice problem solvers. *Proceedings of the seventh annual meeting of Psychology of Mathematics Education, North American Chapter*, Columbus, OH.

### **Chapters in Books:**

Simon, M. A. (in press). Challenges in mathematics teacher education from a (mostly) constructivist perspective. In A. Tyminsky & S. Kastenberg (Eds.), *Building support for scholarly practices in methods*. Charlotte, NC: IAP

Simon, M. (2014). Hypothetical Learning Trajectories in Mathematics Education. In S. Lerman, (Ed.), *Encyclopedia of Mathematics Education* (pp. 272-275). Springer Netherlands.

Dougherty, B., & Simon, M. (2014). Elkonin and Davydov Curriculum in Mathematics Education. In S. Lerman, (Ed.), *Encyclopedia of Mathematics Education* (pp. 204-207). Springer Netherlands.

Simon, M. A. (2013). The need for theories of conceptual learning and teaching of mathematics. In K. Leatham & S. Williams (Eds.), *Vital directions for mathematics education research* (pp. 122-157). New York: Springer.

Simon, M. (2008). The challenge of mathematics teacher education in an era of mathematics education reform. In B. Jaworski & T. Wood (Eds.), *International handbook of mathematics teacher education: Vol.4*. The mathematics teacher educator as a developing professional pp. 17-29. Rotterdam, the Netherlands: Sense Publishers.

Simon, M. (2001). Refining conceptualizations of mathematics teaching through studying mathematics teacher development. In T. Wood, B. Nelson, & J. Warfield (Eds.), *Beyond classical pedagogy: Teaching elementary school mathematics*, 157-169. Hillsdale, NJ: Lawrence Erlbaum Associates.



Simon, M. A. (2000). Constructivism, mathematics teacher education, and research in mathematics teacher development. In L. Steffe & P. Thompson (Eds.), *Radical constructivism in Action: Building on the Pioneering work of Ernst von Glasersfeld*, pp. 213-230. London: Routledge Falmer.

Simon, M. A. (2000). Research on mathematics teacher development: The teacher development experiment. In A. Kelly & R. Lesh (Eds.), *Handbook of research design in mathematics and science education*, pp. 335-359. Hillsdale, NJ: Lawrence Erlbaum Associates.

Simon, M. A. (1997). Developing new models of mathematics teaching: An imperative for research on mathematics teacher development. In E. Fennema & B. Nelson. (Eds.), *Mathematics teachers in transition*, pp. 55-86. Hillsdale, NJ: Lawrence Erlbaum Associates.

Simon, M. A. (1996). Focusing on learning mathematics. In D. Schifter (ed.), *Windows on the classroom: Teachers write about learning and teaching mathematics*, pp. 37-43, New York: Teachers College Press.

Simon, M. A. & Stimpson V. (1988). Developing algebraic representations using diagrams. In A. Coxford & A. Shulte, (Eds.) *The ideas of algebra, K-12*, Reston, VA: National Council of Teachers of Mathematics, 136-141.

Simon, M. A. (1985). Diagram drawing in the math classroom: Eddie's story. In *Teaching mathematics*. M. Driscoll and J. Confrey (Eds.), Northeast Regional Exchange, Inc.

### **Keynote or Plenary Speaker**

Plenary Speaker: The Scholarly Inquiry and Practices (SIP) Conference for Mathematics Education Methods, Atlanta, 2015

Plenary Speaker: PME 39, Hobart, Tasmania, Australia, 2015

Plenary speaker: ICEMST Antalya, Turkey 2015

Plenary speaker: PME-NA 33, Reno, Nevada. 2011

Plenary presentation: Meeting on Teacher Education, Oberwolfach, Germany, November, 2007.

Plenary panel member, Psychology of Mathematics Education Annual Meeting, Seoul, Korea, July 2007

Plenary panel member, RUME, Tempe AZ 2003.

Plenary speaker: International Conference on Science and Mathematics Learning, Taipei, 2003.

Plenary speaker: National Meeting of Mathematics Education – The Netherlands, 2000.

Plenary speaker: Ninth Annual North Carolina Research Institute, 1995.

Keynote: California Mathematics Handbook Implementation Workshop, 1982.

### **Invited Speaker**

SPARCME Conference, Berkeley, CA, 2015

University of Georgia, Athens, GA, 2014

Kaput Center Symposium: An Integrated View on Mathematics Conceptual Learning, Dartmouth, Mass, 2014

University of Maryland, 2013

ICMI Study 22: Task Design Conference, Oxford, UK, 2013

Conference to Honor Professor Catherine Fosnot, City College, CUNY, New York 2011

Brigham Young University, Mathematics Education Group, 2009.  
 Western Michigan University, 2008.  
 PME Research Forum, 2007, Seoul, South Korea, July 2007.  
 Visiting Academic, Oxford University, Oxford England, March 2007 (invited lectures at Oxford, New Anglia/Cambridge, London Kings/South Bank).  
 New York University Dept. of Teaching and Learning, 2006.  
 Graduate program in Mathematics and Science Education, University of Texas, Nov. 2001.  
 Benemérita Escuela Nacional de Maestros (National School of Teachers), Mexico City, 1999.  
 Conference on Mathematics Teaching and Teacher Development, Purdue University, W. Lafayette, IN, 1998.  
 Symposium on Symbolizing, Communicating, and Mathematizing. Nashville, TN: Vanderbilt University 1995.  
 Northwest Mathematics Conference, 1995.  
 International Study Group on the Rational Numbers of Arithmetic, Athens, GA, 1993.  
 North Central Pennsylvania Teachers of Mathematics, 1993.  
 National Council Teachers of Mathematics Northeast Regional Conferences, 1991, 1993, 1995.  
 National Science Foundation Principal Investigators Meeting, Washington, DC, 1992.  
 Working Group on Quantities, National Center for Research in Mathematical Sciences, 1992.  
 Education California Schools Leadership Academy Convocation 1990, 1992.  
 National Center for Research in Teacher Education, Michigan State University, 1989.  
 New York Association of Independent Schools, 1988.  
 Pennsylvania Council of Teachers of Mathematics, 1988, 1989, 1991.  
 Cleveland Museums' speaker series on Education, 1988.  
 WCPN "After Nine" - Radio interview on mathematics education, 1988.  
 Professional development program, Acadia University by Teleconferencing, 1988.  
 Association of Teachers of Mathematics in Massachusetts, 1988.  
 Association of Teachers of Mathematics of New England, 1987.  
 Vermont Council Teachers of Mathematics, 1986.  
 New England Piaget Society, 1986.

### **Reviewer**

NSF Research on Teaching and Learning (RTL grant proposals)  
 NSF Research and Evaluation on Education in Science and Engineering (ROLE grant proposals)  
 NSF Teacher Professional Continuum (TPC grant proposals)  
*Journal for Research in Mathematics Education (JRME)*  
*Cognition and Instruction*  
*Journal of Mathematical Behavior*  
*International Journal for Science and Mathematics Education Educational Psychologist*

*Educational Studies in Mathematics*

*Learning and Instruction*

*Journal of Teacher Education (JTE).*

*Teaching and Teacher Education*

*American Educational Research Journal*

*Journal of Mathematics Teacher Education*

*Mathematical Thinking and Learning*

*Elementary School Journal*

*Canadian Journal for Science, Mathematics and Technology Education*

*Proceedings of the Annual Meeting of Psychology of Mathematics Education, International Group (PME).*

American Educational Research Association (AERA) Special Interest Group in Research in Math Education (SIG/RME).

*Proceedings of the Annual Meeting of Psychology of Mathematics Education - North American Chapter.*

American Educational Research Association (AERA), Division K -Teaching and Teacher Education.

American Educational Research Association (AERA), Division C -Learning and Instruction.

National Council of Teachers of Mathematics Research Pre-session.

### **Leadership Positions**

Editorial Board of the *Journal for Research in Mathematics Education*.

Editorial Board of the *International Journal for Science and Mathematics Education*.

Editorial Board of the *Canadian Journal for Science, Mathematics and Technology Education*

Head of the working group on teacher education for the North American Chapter of the International Group for the Psychology of Mathematics Education.

Steering Committee Member, Special Interest Group in Research in Math Education (SIG-RME).

Steering Committee Member, Working Group on Studying Teacher Change, National Center for Research in Mathematical Sciences Education.

Co-organizer - Psychology of Mathematics Education (PME) Working Group on Research on the Psychology of Mathematics Teacher Development.

Organizer/Chair - Symposium of Teacher Educators in Mathematics, at Mount Holyoke College.

Steering Committee - Mathematics Teacher Preparation and Development Group.

Advisory Board University of Texas

Advisory Board – NSF funded project: University of Colorado Denver

Advisory Board – NSF funded project TERC

Advisory Board – NSF funded project CUNY

Advisory Board - NSF funded project North Carolina State University

Advisory Board - NSF funded Turning to the Evidence, EDC  
Advisory Board - NSF funded Project University of Colorado  
Advisory Board - NSF funded Talking Math Project at TERC.  
Advisory Board - NSF funded Teaching to the Big Ideas, EDC.  
Advisory Board - University of Rochester NSF-funded project..  
Advisory Board - Vanderbilt University 3 NSF-funded projects.  
Advisory Board -- Greenfield Community College Mathematics Center.  
Advisory Board – NSF Career grant for Dr. Karen King  
Advisory Board – NSF Career grant for Dr. Kay McClain  
Advisory Board – NSF Career grant for Dr. Patricio Herbst