

## Sharon Dotger, Ph.D.

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### EDUCATION

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North Carolina State University Doctor of Philosophy, Science Education	2006
Montana State University Master of Science, Science Education	2003
University of North Carolina, Charlotte Postbaccalaureate Teacher Licensure	2001
University of North Carolina, Chapel Hill Bachelor of Arts, Biology	1998

### PROFESSIONAL EXPERIENCE

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*Dual Associate Professor of Science Education, Syracuse University* 2013 - Present  
*Chair, Department of Science Teaching, College of Arts & Sciences*  
*Department of Teaching & Leadership, School of Education*

*Dual Assistant Professor of Science Education, Syracuse University* 2006 - 2013

Courses:

- Curriculum Studies
- Elementary Science Methods & Curriculum
- Methods of Teaching Science to Young Children
- Quests & Questions in Physical Phenomena, I
- Quests & Questions in Physical Phenomena, II
- Teaching and Learning Science in the Undergraduate Setting: Theory and Practice
- Teacher Led Professional Development: Lesson Study and Learning Communities
- Science Instructional Leadership
- First Year Forum

*Co-instructor, North Carolina State University* 2003-2005  
Theoretical & Critical Perspectives in Science Education  
Undergraduate Methods in Science Education  
Introduction to Science Education  
Introduction to Child Advocacy

*Secondary Science Teacher, Cabarrus County Schools, North Carolina* 1998-2003

### REFEREED PUBLICATIONS

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Dotger, S. & Walsh, D. (2015 – *forthcoming*). Elementary art & science: Observational drawing

- in lesson study. *International Journal for Lesson and Learning Studies*, 4(1).
- Dotger, B., Masingila, J., Bearkland, M., & Dotger, S. (2014). Exploring iconic interpretation and mathematics teacher development through clinical simulations. *Journal of Mathematics Teacher Education*. DOI 10.1007/s10857-014-9290-7.
- Dotger, S. & McQuitty, V. (2014). Describing teachers' operative systems: A case study. *Elementary School Journal*, 115(1), 73-96.
- Dotger, S., & Barry, D. (2014). Lesson study with graduate teaching assistants: three comparative cases in the sciences. In Sunal, D., Sunal, C. & Wright, E., Mason, C., and Zollman, D. (Eds.) *Research based undergraduate science teaching*. Charlotte, NC: Information Age Publishing.
- Glen, N. & Dotger, S. (2013). Writing like a scientist: Connections between elementary teachers' understandings and practices of writing in science and the nature of science. *Journal of Science Teacher Education*, 24(6), 957-976.
- Dotger, S., Barry, D., Wiles, J., Benevento, E., Brzozowski, F., Hurtado-Gonzales, J.L., Jacobs, N., Royse, E., Ruppel, R., Sen, D., Synder, J., Stokes, R., & Wisner, E. (2012). Developing graduate students' knowledge of Hardy-Weinberg Equilibrium through lesson study. *Journal of College Science Teaching*, 42(1), 20-24.
- Dotger, S., Moquin, F.K., & Hammond, K. (2012). Lesson study as a mechanism for assessing student learning. *Educator's Voice*, 5, p. 22-31.
- Jones, M.G., Robertson, L., Gardner, G., Dotger, S., & Blanchard, M.R. (2011). Differential use of elementary science kits: one size does not fit all. *International Journal of Science Education*, DOI:10.1080/09500693.2011.602755.
- Dotger, S. (2011). Exploring new territories: My trajectory toward becoming an inclusive science teacher educator. *Reflective Practice: International and Multidisciplinary Perspectives*, 12(3), 415-426.
- Franklin, R. & Dotger, S. (2011). Sex education knowledge differences among freshman and senior college undergraduates. *College Student Journal*, 45(1), 199-213.
- Dotger, S. (2011). Exploring and developing graduate teaching assistants' pedagogy via lesson study. *Teaching in Higher Education*, 16(2), 157-169.
- Fidler, C.G. & Dotger, S. (2010). Astronomical scale of stellar distances using 3-D models. *Science Scope*, 34(3). 38-44.
- McQuitty, V., Dotger, S., & Khan, U. (2010). One without the other isn't as good as both together: A theoretical framework of integrated writing/science instruction in the primary grades. *National Reading Conference Yearbook*, 59, 315-328.
- Dotger, B.H., Dotger, S., & Maher, M. (2010). From medicine to teaching: The evolution of the simulated interaction model. *Innovative Higher Education*, 35(3), 129-141.
- Dotger, S. & Causton-Theoharis, J. (2010). Differentiation through choice: Utilizing a think-tac-toe for science content. *Science Scope*, 33(6), 18-23.

- Dotger, S. (2010). Offering more than “Here is the textbook”: Teaching assistants’ perspectives on introductory science courses. *Journal of College Science Teaching*, 39(3), 71-76.
- Dotger, S. & Dotger, B.H., & Tillotson, J. (2010). Examining how pre-service teachers navigate simulated parent-teacher conversations on evolution and intelligent design. *Science Education*, 94, 552 – 570.
- Fidler, C.G. & Dotger, S. (2009). Visualizing the earth and moon relationship via scaled drawings. *Science Scope*, 33(4), 14-19.
- Glen, N. & Dotger, S. (2009). Elementary teachers’ use of language to label and interpret science concepts. *Journal of Elementary Science Education*, 21(4), 71-83.
- Dotger, S. (2008). Using simple machines to leverage learning. *Science & Children*, 45(7) 22-27.
- Annetta, L.A. & Dotger, S. (2006). Aligning preservice teacher basic science knowledge with INTASC I and NSTA core content standards. *Eurasia Journal of Mathematics, Science, and Technology Education*, 2(2), 40-58.
- Falvo, M., Jones, M.G., Broadwell, B., & Dotger, S. (2006). Self-assembly: How nature builds itself. *The Science Teacher*, 73(9), 54-57.

### **BOOKS AND BOOK CHAPTERS**

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- Theoharis, G., & Dotger, S. (Eds.) (In press). *On the High Wire: Education Professors Walk Between Work and Parenting*. Charlotte: Information Age Press.
- Dotger, S., Theoharis, G., & Shallish, L. (in press). Introduction. In Theoharis, G., & Dotger, S. (Eds.) *On the High Wire: Education Professors Walk Between Work and Parenting*. Charlotte: Information Age Press.
- Dotger, S. (in press). Anonymous chapter. In Theoharis, G., & Dotger, S. (Eds.) *On the High Wire: Education Professors Walk Between Work and Parenting*. Charlotte: Information Age Press.

### **WEBINARS**

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- Dotger, S. (2014). P-20 School Partnerships: The Case of Lesson Study. Webinar created for the New York State Consortium of Independent Colleges and Universities (clcu), May 22.

### **MANUSCRIPTS UNDER REVIEW**

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- Dotger, S. (2014). Methodological understandings from elementary science lesson study facilitation and research.
- Dotger, S., Orado, G., & Layow, E. (2014). Making student thinking about magnetic forces

visible in the classroom: A lesson study case.

## **MANUSCRIPTS IN PROCESS**

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Dotger, S. & Foley, A. (in preparation). Improving classroom research with video methodologies.

Fidler, C.G. & Dotger, S. (in revision). Pre-service elementary teachers' conceptualization of cosmic dimensions.

Fidler, C.G. & Dotger, S. (in revision). The interconnection between preservice elementary teachers' perception of scale and spatial aptitude when learning astronomy.

Khan, U.M. & Dotger, S. (in revision). Exploratory investigation: How administrators perceive their role as science instructional leaders in one suburban school district.

Dolphin, G. & Dotger, S. (in revision). Mapping good student identities in a collegiate context.

Barry, D. & Dotger, S. (in revision). Graduate teaching assistants' use of lesson study to design a cryosphere recitation.

Dotger, S., Orado, G., Bearkland, M., & Dawes, P. (in revision). Revealing the complexity of teacher educator learning: A lesson study case.

## **GRANTS**

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Dotger, B. (PI), Dotger, S., Masingila, J., & Rozelle, J. (Co-PIs) (August 2011 – July 2014). *The Science and Mathematics Simulated Interaction Model*. The National Science Foundation, Discovery Research K12 Program (DR-K12), (\$449,563).

Foley, A., Brown, A., Dotger, B., Gordon, C. & Dotger S., (2009) MRI-R2: Acquisition of Shared Digital Video Data Analysis Infrastructure. Major Research Instrumentation Program (MRI), National Science Foundation, \$473,434. Funded May, 2010.

Shedd, J. (PI) & Canino-Rispoli, D. (Co-PI), Dotger, S. (Senior Personnel), Masingila, J. (Senior Personnel), Mangram, J. (Senior Personnel), Roland, J. (Senior Personnel) (2009). Educational leadership program enhancement project. New York Stated Education Department, \$300,000, Funded July, 2009.

Tillotson, J., Strempe, E., Wiles, J. R., Masingila, J., & Dotger, S. (2009). Syracuse University: Noyce Scholars Program for Science and Mathematics Teachers. National Science Foundation, Noyce Scholarship program, \$900,000. Funded May, 2009.

Zarach, N. & Dotger, S. (2007). 2007-2010 Title II B Math & Science Partnership Grant with Syracuse City School District, \$300,000 subcontract over three years. Full funding amount: \$1,500,000. Funded July, 2007.

## **PEER-REVIEWED RESEARCH CONFERENCE PRESENTATIONS**

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Dotger, S. (2015). Breathing life into the NGSS through lesson study: A live research lesson. Presentation submitted to the National Science Teacher's Association annual meeting,

Chicago, IL, March.

- Flynn, C., Davidson, C., & Dotger, S. (2014). Engineering student misconceptions about rate and accumulation processes: Preliminary evidence for the development of the rate and accumulation concept inventory. Paper presented to the ASEE 2014 Zone 1 Conference, April 3-5, University of Bridgeport, Bridgeport, CT.
- Masingila, J. O., Dotger, B., Dotger, S., & Bearkland, M. (2014). Simulated interaction model (SIM): An innovative approach for preparing preservice mathematics teachers. Paper for presentation at the Annual Meeting of the Association of Mathematics Teacher Educations, Irvine, CA, February 6 – 8, 2014.
- Bearkland, M., Dotger, S., Moquin, K., Osborne, S., & Walsh, D. (2014). How do we know what they know? Using student interviews to illuminate student knowledge. Paper for presentation at the annual meeting of the National Association of Science Teachers, Boston, April 3-6.
- Dotger, S., Moquin, K., & Hammond, K. (2014). Developing trust to improve elementary science teaching through lesson study. Paper presented at the National Association of Science Teachers, Boston, April 3-6.
- Stewart, S., Dotger, S., & Brown, D. (2013). On adopting educational materials: A cautionary tale. Paper presented at the annual meeting of the Astronomical Society of the Pacific, San Jose, CA, July 20-24.
- Masingila, J. O., Dotger, B., Dotger, S., & Bearkland, M. (2013). Simulated interaction model (SIM): An innovative approach for preparing preservice mathematics teachers. *Proceedings of the 35<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Chicago, IL: University of Illinois – Chicago.
- Theoharis, G., Dotger, S., Reed, L., Marshall, J., Gooden, A., Boske, C., Brooks, J., Scanlan, M., & Hernandez, F. (2013). "We don't want your nasty pot of gold": Education professors and their professional/personal tension of K-12 parenting. Paper to be presented at the Annual Meeting of the University Council for Educational Administration, Indianapolis, IN, November 7 – 10.
- Dotger, S., Moquin, K., & Hammond, K. (2013). Developing trust to improve elementary science teaching through lesson study. Paper presented at the National Association for Research in Science Teaching (NARST), Puerto Rico, April 6-9.
- Rozelle, J., Dotger, S., Dotger, B., Masingila, J., & Bearkland, M. (2013). Simulated interactions as a pedagogy for preservice science teachers. Paper presented at the National Association for Research in Science Teaching (NARST), Puerto Rico, April 6-9.
- Dotger, S. (2012). When Yo-Yo Plays Ennio: An Example of *Shu-Ha-Ri*. In Johnson, A., & Settlage, J. (Eds.) *Science Education at the Crossroads Conference Proceedings*, September 6-8, Providence, RI.
- Dotger, B., Dotger, S., Masinglia, J., & Rozelle, J. (2012). Developing the simulated interaction

- model in science and mathematics contexts. Paper presented at the Annual Conference of the American Educational Research Association, Vancouver, CA.
- Rozelle, J., Dotger, B., Dotger, S., & Masingila, J. (2012). An innovative approach for preparing and researching preservice science teachers. Paper presented at the National Association for Research in Science Teaching (NARST), Indianapolis, IN, April 2012.
- Dotger, S. (2011). Commensalism, parasitism, and mutualism: Metaphors for School-University Partnerships. In Johnson, A., Settlage, J., Dotger, S., & Ceglie, R. (Eds.) *Science Education at the Crossroads Conference Proceedings*, September 25-27, San Antonio, Texas.
- Barry, D., & Dotger, S. (2011). Enhancing content knowledge in graduate teaching assistants through lesson study. Paper presented to the National Study of Education in Undergraduate Science, Research Based Undergraduate Science Teaching: Investigating Reform in Classrooms Conference, Tuscaloosa, Alabama, June 19-22.
- Dotger, S., & McQuitty, V. (2011). Urban elementary teachers as novice lesson study practitioners: Timing is everything. Paper presented to the Annual Conference of the American Educational Research Association, New Orleans, Louisiana, April 8 – 12.
- McQuitty, V. & Dotger, S. (2011). Science notebook writing in first and second grade. Paper presented to the Annual Conference of the American Educational Research Association, New Orleans, Louisiana, April 8 – 12.
- Dotger, S. (2011). Including students with disabilities in teachers' lesson study planning. Paper presented to the Annual Conference of the Association of Science Teacher Educators, St. Paul, Minnesota, January 20-22.
- Wisniewski, A., Preczewski, P., Dotger, S., & Stratton, S. (2011). Assessing scientific literacy in elementary education majors. Paper presented to the Annual Conference of the Association of Science Teacher Educators, St. Paul, Minnesota, January 20-22.
- Dolphin, G. & Dotger, S. (2011). A model of the "good student" for pre-service elementary teachers. Paper presented to the Annual Conference of the Association of Science Teacher Educators, St. Paul, Minnesota, January 20-22.
- Preczewski, P.J. Bossarte R.M., Stephens, B., Knox, K., Dotger, S., Maisto, S., Funderburk, J. (July 2010). Analysis of slogans used for suicide prevention through mental health literacy. Poster presented at the 4th Annual VHA Mental Health Conference. Baltimore, MD.
- Khan, U., Dotger, S., & McQuitty, V. (2010). Identifying micro-steps for implementing inquiry-based science in the primary grades. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 18-21.
- McQuitty, V., Dotger, S., & Khan, U. (2010). Exploring primary teachers' conceptions and implementation of science notebook writing. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 18-21.

- Dotger, S., McQuitty, V., & Khan, U. (2010). Becoming an inclusive science teacher: exploring the intersection of inquiry and inclusion in the primary classroom. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 18-21.
- Robertson, L., Gardner, G., Jones, M.G., & Dotger, S. (2010). Elementary science kits: Adoption and implementation. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 18-21.
- Dotger, S., McQuitty, V., & Khan, U. (2010). Becoming an inclusive science teacher: exploring the intersection of inquiry and inclusion in the primary classroom. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 18-21.
- Robertson, L., Gardner, G., Jones, M.G., & Dotger, S. (2010). Elementary science kits: Adoption and implementation. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 18-21.
- McQuitty, V., Dotger, S. & Khan, U (2009). Studying teachers' conceptions of scientific writing in the primary grades via lesson study. Paper presented at the National Reading Conference, Albuquerque, NM, December 2-5, 2009.
- Dotger, S. (2009). Lesson study in the undergraduate context: A case of graduate teaching assistants in the sciences. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Garden Grove, CA, April 17 - 21, 2009.
- Robertson, L., Gardner, G., Jones, M.G., & Dotger, S. (2009). Elementary science kits: Classroom practices, instructional strategies, and assessment types. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, California, April 7 - 11.
- Dotger, S. (2009). Is opening the door really good enough? Creating the inclusive science course at the undergraduate level. Paper presented at the Annual Meeting of the Association of Science Teacher Educators, Hartford, CT, January 8 -10.
- Dotger, S. (2008). Sincerity from ambiguity. In Johnson, A. & Settlage, J. (Eds.) *Science Education at the Crossroads Conference Proceedings*, October 2- 4, Alta, Utah, 30 - 31.
- Dotger, S., Johnson, L., & Dotger, B. (2008). The applicability of science to decision-making: Moral and reflective factors. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Baltimore, MD, March 30-April 2, 2008.
- Glen, N. & Dotger, S. (2008). Elementary teachers' perspectives of writing in science. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Baltimore, MD, March 30-April 2, 2008.
- Fidler, C. & Dotger, S. (2008). Pre-service elementary teachers' concepts of scale. Paper presented at the Annual Meeting of the Association of Science Teacher Educators, St. Louis, MO, January 10-12, 2008.

- Glen, N. & Dotger, S. (2008). Teachers' focus on vocabulary use during elementary science lessons. Paper presented at the Annual Meeting of the Association of Science Teacher Educators, St. Louis, MO, January 10-12, 2008.
- Dotger, S. (2007). Reflective judgment & nature of science: Commonalities explored. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, New Orleans, LA, April 15 – 18.
- Dotger, S. (2006) Implications for applying the reflective judgment model to the design of lessons on evolution. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, April.
- Dotger, S. (2006). Evolution for all: Theoretical and practical approaches. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, San Francisco, CA, April 20-25.
- Dotger, S., Jones, M.G., & Broadwell, B. (2006). Using kits to revitalize elementary science: an on-going analysis of teachers' conceptions. Paper presented at the Annual Meeting of the Association of Science Teacher Educators, Portland, Oregon, January 11 – 14.
- Dotger, S., & Jones, M.G. (2005). Using theories of epistemic cognition to evaluate the goals for teaching the nature of science. Paper presented at the Eighth Meeting of the International History and Philosophy of Science Teaching Group, Leeds, United Kingdom, July 15-18.
- Dotger, S., & Jones, M.G. (2005). The mis-match between goals and results: Looking at the nature of science through the reflective judgment model. Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Dallas, TX, April 4 - 7.
- Jones, M.G., Minogue, J., Kubasko, D.S., Tretter, T., & Dotger, S. (2005). Nanoscience education: teaching tools for the exploration of this emerging field. Presentation at the Annual Meeting of the National Science Teachers Association, Dallas, TX, March 31 – April 3.
- Dotger, S. & Annetta, L. (2005). Addressing the INTASC standards in an introduction to science education course at North Carolina State University. Paper presented at the Annual Meeting of the Association Science Teacher Educators: Colorado Springs, January 20 – 22.

## **REGIONAL CONFERENCE PRESENTATIONS**

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- Dotger, S. (2014). P-20 Partnerships – Lesson Study for Clinically Rich Teacher Preparation. Consortium of Independent Colleges and Universities Conference, Albany, NY: June 18.
- Bearkland, M., Dotger, S., Moquin, K., Osborne, S., & Walsh, D. (2014). Using science notebooks in lesson study to make student thinking visible. Paper to be presented at the Annual Meeting of the Science Teacher Association of New York State.
- Bearkland, M., Dotger, S., Moquin, K., Osborne, S., & Walsh, D. (2014). How do



we know what they know? Using student interviews to illuminate student knowledge. Paper to be presented at the Annual Meeting of the Science Teacher Association of New York State.

- Rozelle, J., Dotger, S., Ibarra, M., & Unislawski, E. (2012). Let's give them something (real) to talk about: Using anchoring activities to guide authentic interdisciplinary inquiry. Presented at the STEM Summer Institute, Syracuse, NY: July 10.
- Dotger, S., Bearkland, M., Hammond, K., Moquin, K., Osborne, S., Vaughn, K., & Walsh, D. (2012). Using science notebooks to make student thinking visible. Presented at the Chicago Lesson Study Conference, Chicago, IL: May 3.
- Dotger, S., Moquin, F.K., & Sardella, J. (2011). Lesson study: A model for improving teachers' instruction. A presentation for the Annual TLQP conference, Syracuse, NY, June 2.
- Horst, A.J., Nanfita, A.F., Barry, D.S., & Dotger, S. (2010). Geology lesson study: A revised approach to teaching earth sciences in an undergraduate setting. Poster presented at the Central New York Earth Sciences Student Symposium, Syracuse, NY: April 16.
- Dotger, S., Khan, U., & McQuitty, V. (2009). Exploring Lesson Study as a Mechanism for Building Relationships between Teachers, Students, and Curriculum. Presented to New York State Staff Development Council Annual Conference, Syracuse, NY, May 7-8.
- Preczewski, P., Jones, R., Tillotson, J., & Dotger, S. (2008). Scientific literacy among preservice elementary and early-childhood educators. Presented at the Northeast Regional Association for Science Teacher Education Conference. Dingmans Ferry, PA, October 15-17.
- Dotger, S., & Khan, U. (2008). Responding to the challenges of leadership for inquiry teaching & learning. Workshop presented at the New York State Staff Development Council Annual Meeting, Syracuse, NY, May 1.
- Dotger, S. (2007). Implementation of inquiry: The role of the principal. Presentation at the Annual Northeast Regional Meeting of the Association for Science Teacher Education, Amherst, MA, October 18-19.
- Fidler, C. & Dotger, S. (2007). Preservice teachers' conceptions of scale. Presentation at the Annual Northeast Regional Meeting of the Association for Science Teacher Education, Amherst, MA, October 18-19.
- Glen, N. & Dotger, S. (2007). A fourth grade teachers' emphasis on standardized tests to plan science lessons. Presentation at the Annual Northeast Regional Meeting of the Association for Science Teacher Education, Amherst, MA, October 18-19.
- Preczewski, P., Jones, R., Tillotson, T., & Dotger, S. (2007). Determining factors of scientific literacy using structural equation modeling. Presentation at the Annual Northeast Regional Meeting of the Association for Science Teacher Education, Amherst, MA, October 18-19.
- Jones, M.G., Kubasko, D. S., Minogue, J., Tretter, T., & Dotger, S. (2004). Nanoscience

education: teaching tools for the exploration of this emerging field. Presentation at the North Carolina Science Teachers Association Meeting, Greensboro, NC. November 11 – 13.

### **INVITED PROFESSIONAL PRESENTATIONS**

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Dotger, S. (2012). An introduction to inclusion – does it matter for science education? Workshop presented to the Association of Science Teacher Educator (ASTE) National Conference. Clearwater, FL, January 4.

Dotger, S. (2010). Differentiation through choice. Workshop presented at the Response to Intervention: A Secondary School Perspective statewide meeting, Orlando, FL, May 19,.

Settlage, J., Johnston, A., & Dotger, S. (2009). Writing workshop for graduate students: Strategies to benefit your CV. Workshop presented at the Annual Meeting of the Association of Science Teacher Educators, Hartford, CT, January 8-10, 2009.

Park, J., Slykhuis, D., & Dotger, S. (2004). Researching student use of school science images. NTLI Invited Fellows Presentation at the Society for Information Technology and Teacher Education: Atlanta, Georgia. March 4.

### **SCHOLARSHIP WITH LOCAL SCHOOLS – OPEN RESEARCH LESSONS**

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Dotger, S., Moquin, K., Guida, P., & Radford, R. (2013). Magnetic forces over a distance. 4<sup>th</sup> Grade Lesson, 29 attendees, March 29.

Dotger, S., Bearkland, M., Clancy, J., Hammond, K., Hunter, R., McCaffer, D., Moquin, K., Walsh, D. (2012). Seeds and germination. 4<sup>th</sup> Grade Lesson, 64 attendees. April 9.

Dotger, S., Bidwell, J., & Casey, D. (2011). Energy. 5<sup>th</sup> Grade Lesson. 9 attendees. March 3.

Dotger, S., Hall, C., Osborne, S., Vaughn, K., & Walsh, D. (2011). Air & Weather. 2<sup>nd</sup> Grade Lesson. 17 attendees. March 3.

Dotger, S., Hammond, K., McCaffer, D., & Moquin, K. (2011). Magnetism. 4<sup>th</sup> Grade Lesson, 21 attendees. March 3.

Dotger, S., Bidwell, J., Casey, D., Hall, C., Hammond, K., McCaffer, D., Moquin, K., Osborne, S., Sardella, J. Vaughn, K., & Walsh, D. (2011) Sound. 4<sup>th</sup> Grade Lesson, 104 attendees. May 19.

## RECENT PROFESSIONAL DEVELOPMENT WORKSHOPS FOR K-12 TEACHERS

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### *Lesson Study Workshops*

Topic	Location	Date
Secondary Lesson Study	Nottingham High School	April 28, 2012
Beginning Lesson Study	Cortland, NY Teacher Center	December 5, 12, 2011 and January 19, 2012
Lesson Study Introduction	Salem Hyde Elementary School	June 17, 2009
Lesson Study Introduction	Dr. King Elementary School	September 15, 2008

### *Content/Curriculum Workshops*

Topic	Location	Date
High Quality Elementary Curriculum Materials	Willowfield Elementary School	November 14, 21, and 28, 2012
FOSS	Willow Field Elementary School	October 11, 2012
Fundamentals of Inquiry	West Genesee Teacher Center	October 19, 2010
Inquiry for K-12	Say Yes to Education Fall Institute	September 25, 2009
Energy concepts, K-12	Syracuse University	June 28 – July 2, 2009
Meeting all learners' needs	Syracuse Teaching Center	December 12, 2008
Using FOSS with NYS Standards	Corcoran High, Levy School	September 8, October 24, 2008

### *Science Writing*

Topic	Location	Date
Notebooks in the Middle & Secondary Grades	Syracuse Teaching Center	July 27 & 28, 2012
Notebooks in High School	Syracuse Teaching Center	October 11, 2012
Science Notebooks	Museum of Science and Technology	October 7, 21, & 28, 2010
Science writing in the middle grades	Syracuse Teacher Center	May 19, 2010
Incorporating Literacy into Science Instruction	Syracuse Teacher Center	February 17, 18, and April 1, 2010
Literacy in Science Class	Dr. King Elementary School	April 6, 2009

## PROFESSIONAL DEVELOPMENT FOR GRADUATE STUDENTS OR FACULTY

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Dotger, S. (2013). Working to bridge student thinking to the learning targets. 2-hour workshop for all STEM Graduate Teaching Assistants, Syracuse University, August 22.

Dotger, S. (2012). Will studying hand samples of igneous rocks help undergraduates be better stewards of the Earth? Establishing teaching priorities in earth science. 3 hour workshop for 10 incoming Graduate Teaching Assistants, Syracuse University, August 22.

Dotger, S. (2011). Lesson study in the United States' context. Presentation to visiting Japanese scholars, Syracuse University, October 4.

- Dotger, S. (2011). Teaching undergraduates in the Earth Sciences. Workshop for 15 incoming Graduate Teaching Assistants. Syracuse University, August 25.
- Dotger, S. (2011). Writing learning objectives for sustainability in engineering. Presentation to faculty at the Annual meeting of the Center for Sustainable Engineering, Center for Excellence, Syracuse, NY, May 23.
- Dotger, S. (2010). Managing time in the academy. Presentation for McNair Scholars, Syracuse University, October 22.
- Dotger, S. (2010). The teaching presentation as part of the academic job search. Panel presentation for the Professional Development Programs Office in the Graduate School, Syracuse University, October 8.
- Dotger, S. (2010). The dual academic job search. Panel presentation for the Professional Development Programs Office in the Graduate School, Syracuse University, March 26.
- Dotger, S. (2009). Managing classroom conflict. Invited presentation for University Teaching Assistant Orientation, Graduate School, Syracuse University, August 19.
- Dotger, S. (2009). Accomplishing your writing goals. Workshop presented at the Minnowbrook Conference for the Future Professoriate Project/Preparing Future Faculty, Blue Mountain Lake, New York, May 13 – 15.
- Dotger, S. & Chandler-Olcott (2009). Energizing and creatively engaging student learning. Workshop presented at the Minnowbrook Conference for the Future Professoriate Project/Preparing Future Faculty, Blue Mountain Lake, New York, May 13 – 15.
- Dotger, S. (2008) Teaching in the college setting. Invited keynote presentation for University Teaching Assistant Orientation, Graduate School, Syracuse University, August 15.
- Dotger, S. (2007). You on paper: Writing a CV. Invited lecture for the Professional Development Programs Office in the Graduate School, Syracuse University, October 23.
- Dotger, S. (2007). The Professoriate: Professional and Personal Experiences. Invited lecture for EDU 910: Current Scholarship in Teaching & Leadership, Syracuse University, September 24.
- Dotger, S. (2007) Teaching Tips. Invited presentation for International Teaching Assistant Orientation, Graduate School, Syracuse University, August 12.
- Dotger, S. (2006). Mentoring for Success in Graduate School. Invited lecture for the Professional Development Programs Office in the Graduate School, Syracuse University.

## SERVICE

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### *National Organizations*

#### Association for Science Teacher Educators

- Co-chair, Inclusive Science Forum 2012 - 2013
- Equity Committee Member 2009 - 2012
- Manuscript Reviewer for Annual Meeting 2005 - 2010
- Ex-officio member, Equity Committee 2005 - 2006
- Ex-officio member, Elections Committee 2009 - 2012

#### National Association of Research in Science Teaching

- Dissertation Award Committee Member 2006 - 2009
- Manuscript Reviewer for Annual Meeting 2004 - 2010

#### Science Education at the Crossroads

- Co-editor of proceedings 2011 - 2012
- Manuscript Reviewer for Annual Meeting 2011 - 2012

### *University*

Center of Excellence, Symposium Program Development Committee 2013

University Senate Curriculum Committee 2011 - 2013

Early Education Center – Toddler Transition & Classrooms Committees 2011

Research Service Infrastructure Task Force 2010 - 2011

Partnerships in STEM Education Research Interest Group 2011

Task-force on Sustainability 2008 - 2010

Graduate School, Outstanding TA Award Committee 2009, 2010

#### School of Education, Syracuse University

- Inclusive Steering Committee 2010 - 2013
- Search Committee, Communication Trainer, Institute on Communication and Inclusion 2011
- Coordinator, Block 3 2010 - 2011
- Promotion and Tenure Committee 2008 - 2009
- Inclusive Elementary Block III Ad-hoc Planning Committee 2007 - 2009
- Policy & Standards Committee 2006 - 2009
- Ad-hoc Doctoral Committee for Teaching & Leadership 2006 - 2008
- Inclusive Education Steering Committee - advisor for science 2006 - 2008

#### College of Arts & Sciences, Syracuse University

- Academic Committee 2012 - 2014
- Curriculum Committee 2007 - 2009
- Assistant Developer of Tutoring Modules for Chemistry 116 2010 - 2011  
2006

### *Schools*

Science Department Advisor/Professional Developer, Early College High School, Nottingham 2010 - 2011

Science Cabinet, Liverpool Central Schools 2011 - 2013

Judge, Salem Hyde Elementary Science Fair	2011
ECLIPSE Leadership Team Member, Syracuse City School District	2006 - 2009
<i>Reviews</i>	
Editorial Board, Reflective Practice	2012
Guest reviewer, International Journal of Science Education	2007 - 2011
Guest reviewer, Journal of Science Teacher Education	2006 - 2012
Guest reviewer, American Educational Research Journal	2005 - 2007
Manuscript Reviewer, American Education Research Association	2005
Manuscript Reviewer, Society for Information Technology & Teacher Education	2005

### **HONORS AND AWARDS**

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Recognition, NSTA Summer Reading List for Teachers	2010
Teaching Recognition Award for Teaching Excellence, Syracuse University	2009
Joan N. Burstyn Endowed Fund for Research in Education Award for Collaborative Research, Syracuse University, School of Education	2008
Excellence in Graduate Education, Faculty Recognition Award, Syracuse University	2008
Member, Phi Kappa Phi, North Carolina State University	2006
Recipient, NC State College of Education Dissertation Support Award	2005
Time Warner Star Teacher, Cabarrus County Schools	2003
Morehead Scholar, University of North Carolina at Chapel Hill	1998

### **PROFESSIONAL LICENSES**

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North Carolina Standard Professional II, Comprehensive Science, 9-12, M-level

### **PROFESSIONAL MEMBERSHIPS**

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American Educational Research Association  
 Association for Science Teacher Education  
 National Association for Research in Science Teaching  
 National Science Teachers Association