

Jonathan E. Singer

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Education

University of Michigan
Post-doctorate Fellow, May, 1999
University of Missouri August, 1997
Ph.D. - August, 1997
Colgate University
M.A.T. Biology - May 1992
Brown University August 1984 - December 1988
B.A. Biochemistry -December 1988

Academic Experience

- Assistant Research Scientist, School of Education, Univ. of Michigan, 1999-2000
- Assistant Professor, College of Education University of South Carolina, Aug. 2000 – 2005
Associate Research Professor, College of Education University of South Carolina, Aug. 2005 – Aug. 2007.
- Associate Professor, Department of Education, University of Maryland, Baltimore County Aug. 2007

Honors

National Science Teachers Association – Research Division Director (2005 – 2008).
National Association in Research of Science Teaching – Executive Board Member (2005-2008).

External Funding

- National Science Foundation, DRL-1418183 (Engineering Teacher Pedagogy: Using INSPIRES to Support Integration of Engineering Design in Science and Technology Classrooms). Awarded Sept. 2014. PI Julie Ross, Co-PI Jonathan Singer, Christopher Rakes Total Awarded \$2,999,999.
- National Science Foundation, DUE-0833316 (UMBC Noyce Scholars Program). Awarded Sept. 2008. PI Nagaraj Neerchal, Co-PI Jonathan Singer, Total Awarded \$750,000
- National Science Foundation, DRL-0822286 (R&D: The INSPIRES Curriculum for Engineering and Technology Education). Awarded Sept. 2008. PI Julie Ross, Co-PI Jonathan Singer, Total Awarded \$2,200,000.
- National Science Foundation, DESIE-0455811 (Professional Development Threading Content, Pedagogy and Curriculum: A Study of Classroom Impact). Awarded April, 2005. PI Jonathan Singer Total Awarded \$297,453
- National Science Foundation, DUE-0410992 (Peer Review as a mechanism for both curriculum reform and assessment). Awarded August, 2004. PI- Briana Timmerman, Co-PI Jonathan Singer
- South Carolina Commission on Higher Education: Middle School/Higher Education Partnership Awarded March 15 ,2002 Project Director Jonathan Singer, Total Awarded \$499,000.
- US Department of Education, Preparing Tomorrow's Teachers to Use Technology Awarded July 1, 2001

Jonathan Singer, Project Director, Total Award – \$898,014

PUBLICATIONS

- Singer, J., Ross, J., Lee, Y., (in press). Professional development for the integration of engineering in high school STEM classrooms. *Journal of Pre-College Engineering Education Research*.
- Ross, J., Bayles, T. & Singer, J. (2015). The INSPIRES Curriculum. In C. Sneider (Ed.), *Engineering Curricula Ready to Go!* Thousand Oaks, CA: Corwin Press.
- North, C. M., Singer, J. E., Neugebauer, W. (2014). Helping Strengthen the University /School Bond and Ensuring the Success of Teacher-Candidates. *School-University Partnerships/NAPDS*, 7(2), 86-97.
- Lotter, C., Rushton, G., & Singer, J.E. (2013). Teacher Enactment Patterns: How Can We Help Move All Teachers to Reform-Based Inquiry Practice Through Professional Development? *Journal of Science Teacher Education Volume 24(8)* pp. 1263.
- Singer, J., Lotter, C., Feller, R., & Gates. (2011) Exploring a model of situated professional development: Impact on classroom practice. *Journal of Science Teacher Education*. Volume 22 (3) pp. 203-227.
- Rushton, G., Lotter, C. & Singer, J. (2011). Chemistry Teachers' Emerging Expertise in Inquiry Teaching: The effect of an Authentic Professional Development Model on Beliefs and Practice. *Journal of Science Teacher Education Volume 22 (1)* pp 23-52.
- Lotter, C.R., Singer, J.E., Godley, J., (2009) The Influence of Repeated Teaching and Reflection on Preservice Teachers' Views of Inquiry and Nature of Science. *Journal of Science Teacher Education*.
- Feller, R.J., Lotter, C.R., Singer, J.E. (2008). An awakening (Part II): How you can help science Education. *Oceanography 21(2)* pp. 68 – 71.
- Singer, J., Maher, M.,(2007). Pre-Service Teachers and Technology Integration: Rethinking Traditional Roles *Journal of Science Teacher Education 18 (6) pp 955 - 984..*
- Singer, J. (2005) Integrating Technology and Pedagogy: The Ideas, the Shift and the Targets in S., Rhine and M. Bailey, (Eds) *Integrated Technologies, Innovative Learning: Insights form the PT3 Program*. Eugene, OR: International Society for Technology in Education
- Singer, J., & LaCross, R. (2005). Re-conceptualizing the structure of professional development. Presented as part of the multiple paper set, Professional development: Threading content, pedagogy, and the classroom, Jonathan Singer, Chair. Annual meeting of the American Educational Research Association. Montreal, Canada
- Singer, J., and Castelli, (2004). D. *Collaborative Curriculum Enactment: A case of Professional development*. Annual meeting of the National Association for Research in Science Teaching. Vancouver, BC. 2004
- Singer, J., Tal, R., Wu, H. (2003) Students™ understanding of the particulate nature of matter. *School Science and Mathematics 103 (1)*.
- Singer, J., Krajcik, J., Marx, R., Clay Chamber, J.(2000) Constructing extended inquiry projects: Curriculum materials for science education reform. *Educational Psychologist*.

ADVISORS AND SPONSORS

Post Doctorate Advisors

Krajcik, Joseph, University of Michigan

Marx, Ronald, University of Arizona

Doctorate, Science Education

Barrow, Lloyd, (Chair), University of Missouri

James, Laffey, University of Missouri
Masters of Arts in Teaching
Deboer, George, Colgate University

Synergistic Activities

- Co-PI Instructional Materials Design grant, collaboration with University of Michigan, Northwestern University and AAAS.
- Co-PI Synergistic Communities: Aggregating Learning about Education (SCALE), collaboration with University of California-Berkley
- Contributor to the development of inquiry based curriculum design principles for the Center for Learning Technologies in Urban Schools