

Megan Powell Cuzzolino

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Education

HARVARD GRADUATE SCHOOL OF EDUCATION Cambridge, MA
Ed.D. in Human Development and Education, expected 2019.

HARVARD GRADUATE SCHOOL OF EDUCATION Cambridge, MA
Ed.M. in Human Development and Psychology, May 2009.

HARVARD UNIVERSITY Cambridge, MA
A.B. in Psychology, June 2008.

Awards and Fellowships

Qualifying Paper passed with distinction, *Harvard Graduate School of Education* 2016

Sinai and Synapses Fellow, *Sinai and Synapses* 2015-2017

Presidential Scholar, *Harvard University* 2013-2018

Ewa Abraham Fellow, *Harvard Graduate School of Education* 2008-2009

Professional Experience

NATIONAL SCIENCE FOUNDATION Arlington, VA; 2012-2013
Science Education Analyst, Division of Research on Learning in Formal and Informal Settings

- Collaborated with the Division Director and Program Officers on research and evaluation projects, including a major analysis of NSF's investments in early childhood STEM education
- Participated in the planning and execution of Congressional briefings, outreach events, and professional development workshops for teachers, administrators, and policy makers, all with a focus on successful K-12 STEM education
- Wrote articles for the general public to communicate the impact of NSF research, and served as the primary author of the National Medal of Science 50th Anniversary website
- Coordinated a meeting co-hosted by NSF and the Spencer Foundation on mathematics learning and perseverance

NORWOOD SCHOOL Bethesda, MD; 2010-2012
Science Teacher

- Taught a full course load of science classes to students in grades 1-6
- Conceptualized and developed a unit on food science implemented by the K-6 science department
- Contributed to ongoing professional development for the science department by regularly presenting research at department meetings and attending National Science Teachers Association conferences
- Choreographed the middle school musical and coached the dance team

JOHNS HOPKINS CENTER FOR TALENTED YOUTH Alexandria, VA; Summer 2011
Instructor

- Designed and taught a three-week science course for 12 highly able rising 3rd and 4th graders
- Mentored a high school student who served as a Program Assistant for the course

PROJECT ZERO, HARVARD UNIVERSITY

Cambridge, MA; 2009-2010

Research Assistant II, Understandings of Consequence Project (Principal Investigator Tina Grotzer)

- Managed three graduate students working in the laboratory
- Conducted research on children's understanding of complex causal patterns
- Conducted analyses of student and teacher data to determine the effectiveness of curricular materials
- Advised on the Understandings of Consequence Project curriculum modules
- Developed online professional development materials for science teachers

Consulting Experience

THE RIGHT QUESTION INSTITUTE

Cambridge, MA; 2010

Research and Strategy Consultant

- Advised on research, project management, and outreach strategies for *Make Just One Change: Teach Students to Ask Their Own Questions* (Rothstein and Santana, 2011, Harvard Education Press)
- Supported the planning and implementation of professional development sessions for teachers and administrators

WAINSCOTT STUDIOS

East Hampton, NY; Fall 2009

Educational Consultant

- Advised on curricular content for the PBS program *It's a Big, Big World*

Research Experience

CAUSAL COGNITION IN A COMPLEX WORLD (Tina Grotzer)

Graduate Research Assistant, 2013-present.

UNDERSTANDINGS OF CONSEQUENCE PROJECT (Tina Grotzer)

Graduate Research Assistant, 2008-2009.

Undergraduate Research Assistant, 2006-2008.

HARVARD LABORATORY FOR DEVELOPMENTAL STUDIES (Jesse Snedeker)

Undergraduate Research Assistant, 2005-2006.

University Teaching Experience

Teaching Fellow Development Specialist (2015-present)

Develops, organizes and runs programming to support HGSE Teaching Fellows, including a session to orient new Teaching Fellows to their role at the beginning of each semester, in collaboration with the HGSE Teaching and Learning Lab.

Teaching Fellow Positions

Applying Cognitive Science to Learning and Teaching: Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Spring 2017, Spring 2018.

Introduction to Qualitative Research: Fall 2015, Fall 2016, Fall 2017.

Informal Learning for Children: Winter 2014, Winter 2015, Winter 2016, Winter 2017, Winter 2018.

Research and Evidence: Framing Scientific Research for Public Understanding: Fall 2013.

Growing Up in a Media World: Fall 2009.

Publications

- Cuzzolino, M.P.**, Grotzer, T.A., & Tutwiler, M.S. (Revised and resubmitted). *Journal for Research in Science Teaching*.
- Grotzer, T.A., Solis, S.L., Tutwiler, M.S., & **Cuzzolino, M.P.** (2017). A study of students' reasoning about probabilistic causality: Implications for understanding complex systems and for instructional design. *Instructional Science*, 45(1), 25-52.
- Grotzer, T.A., **Powell, M.M.**, Derbiszewska, K.M., Courter, C.J., Kamarainen, A.M., Metcalf, S.J., & Dede, C.J. (2015). Turning transfer inside out: The affordances of virtual worlds and mobile devices in real world contexts for teaching about causality across time and distance in ecosystems. *Technology, Knowledge and Learning*, 20(1), 43-69.

Conference Papers and Presentations

- Cuzzolino, M.P.** (2018). *Scientists' experiences of transformative awe*. New England Educational Research Organization (NEERO) Conference. Portsmouth, NH. May 3, 2018.
- Cuzzolino, M.P.**, Tutwiler, M.S., Torres, E.W., & Grotzer, T.A. (2017). *How problem features interact with the ways that seventh graders frame agency in ecological problems*. National Association for Research in Science Teaching (NARST) Conference. San Antonio, TX, April 24. 2017.
- Solis, S.L., Grotzer, T.A., **Powell, M.M.**, & Tutwiler, M.S. (2016). *Characterizing shifts in students' reasoning about probabilistic causality: A microgenetic study*. American Educational Research Association (AERA) Conference. Washington, D.C., April 11, 2016.
- Powell, M.M.**, Tutwiler, M.S., Grotzer, T.A., Metcalf, S.J., Kamarainen, A.M., & Dede, C.J. (2015). *The relationship between scripting and student data collection behaviors in a Multi User Virtual Environment*. American Educational Research Association (AERA) Conference. Chicago, IL, April 19, 2015.
- Powell, M.M.**, Grotzer, T.A., Kamarainen, A.M., & Metcalf, S.J. (2015). *Investigating student reasoning about agency in ecosystems science*. National Association for Research in Science Teaching (NARST) Conference. Chicago, IL, April 12, 2015.
- Powell, M.M.** (2015). *Conceptualizing the relationship between religion and science: Implications for science learning*. Harvard Graduate School of Education Student Research Conference. Cambridge, MA, April 10, 2015.
- Powell, M.M.** & Donaldson, M., on behalf of Principal Investigator, Dr. Tina Grotzer (2014). *CAREER: Learning about complex causality in the classroom*. National Science Foundation (NSF) Discovery Research K-12 PI Meeting, Washington, D.C. August 4, 2014.
- Grotzer, T.A., Kamarainen, A.M., Derbiszewska, K., **Powell, M.M.**, Courter, C., Tutwiler, M.S., Metcalf, S., & Dede, C. (2014). *Using virtual worlds and augmented reality to teach causality across time and distance in ecosystems*. American Educational Research Association (AERA) Conference. Philadelphia, PA, April 2014.
- Courter, C.J., Grotzer, T.A., Derbiszewska, K.M., **Powell, M.M.**, Tutwiler, M.S., Kamarainen, A., Metcalf, S.J., & Dede, C. (2014). *A case study contrasting students' exploration behaviors of a complex causal scenario in a virtual world: Mapping proximity and goal directed movement in EcoMUVE*. National Association of Research in Science Teaching (NARST) Conference. Pittsburgh, PA, March 31, 2014.
- Grotzer, T.A., **Powell, M.M.**, Carr, E. & Cooke, C. (2011). *Enhancing pedagogical content knowledge: Supporting teachers' efforts to teach underlying causal structure in density*. American Educational Research Association (AERA) Conference. New Orleans, LA, April 2011.

Arsenault, T., Grotzer, T., & **Powell, M.M.** (2011). *Teaching causal complexity in science: A professional development website for teachers*. National Science Teachers Association (NSTA) Conference. San Francisco, CA, March 12, 2011.

Invited Talks

Cuzzolino, M.P. (2018). *The science of awe and the awe of science*. Two interactive presentations delivered as an invited Scholar-In-Residence at Temple Beth Or, Ridgewood, NJ, February 10-11, 2018.

Powell, M.M. (2015). *How can we teach for understanding?* Invited presenter at training session for Undergraduate Seminar Leaders, Harvard Summit for Young Leaders in China. Cambridge, MA, May 2, 2015.

Powell, M.M. (2010). *Patterns of reasoning that impede understanding in science and beyond*. Two professional development workshops at *Educating for Today and Tomorrow*, Project Zero and the Center for Advancement and Study of International Education. Washington, D.C., November 13-14, 2010.

HGSE Campus Involvement

Dean's Research Doctoral Student Advisory Committee (2014-present; 2016 Co-Chair)

Member of a volunteer committee which serves to provide continual feedback to the HGSE Dean and program administration on matters pertaining to the Ed.D. and Ph.D. student body. Committee achievements include: working with the Dean to establish a dissertation completion stipend for advanced Ed.D. students, with costs totaling roughly \$2 million; securing a new parental leave policy for Ed.D. students; conducting a year-long mixed-methods research project on the nature of HGSE student/faculty advising relationships to inform doctoral program policy improvements.

Admissions and Doctoral Programs Office Volunteer (2014-2017)

Delivered presentations and served on panels to provide information to prospective and incoming doctoral students regarding topics such as writing the statement of purpose and navigating student life.

Student Research Conference Volunteer (2014-2016)

Proposal Review Board (2014, 2015, 2016). Reviewed and provided feedback on proposals submitted to the annual Student Research Conference hosted by the Harvard Graduate School of Education.

Conference Assistant (2015). Provided assistance to a faculty member running a session during the conference.

