Kenneth Rath

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Brief Biography

I have performed many evaluative and research activities for a number of federally-funded projects, starting with my work with the Center for Computer-Based Instructional Technology at the University of Massachusetts/Amherst and then with Peterfreund Associates and SageFox Consulting Group. Finally, in 2019, I became an independent consultant through my own firm, Rath Educational Evaluation and Research (REER). As an evaluator and researcher, I manage projects, design and implementing evaluation and research plans, collect and analyze data using statistical and non-statistical methods, and interface with and preparing reports for clients. I also assist clients in proposal creation.

I also have several years training in reading and math development as part of my graduate work, especially regarding learning disabilities. I have taught educational psychology at the college level as well as having acted as a teaching assistant for statistics and research methods classes. In addition, I volunteer at my church as a teacher and child protection advocate. I currently live in Amherst, Massachusetts with my wife and two children.

Education

Ph.D.	2002	University of Massachusetts Amherst (Educational Psychology, Minor in Statistics)
M.S.	1998	University of Massachusetts Amherst (Educational Psychology)
B.S.	1995	Rensselaer Polytechnic Institute (Chemistry)

Professional Experience

2019-present	Director, Rath Educational Evaluation and Research, Amherst, Mass.
2003-2019	Evaluator, Peterfreund Associates/SageFox Consulting Group, Amherst, Mass.
2004	University Instructor, Educational Psychology, Psychology Department, University of Massachusetts Amherst
1998-2004	Project Evaluator, Center for Computer-based Instructional Technology, University of Massachusetts Amherst
1997-2001	Laboratory Coordinator, Laboratory for the Assessment and Training of Academic Skills, University of Massachusetts Amherst
1999-2000	University Instructor, Educational Psychology, Department of Continuing Education, University of Massachusetts Amherst
1995-1997	Teaching Assistant, Research Methods and Design, Statistics in Psychology, Psychology Department, University of Massachusetts Amherst

Professional Affiliations

2006-2019	American Evaluation Association

Project Evaluation Experience

New Jersey Alliance Schools:

Rutgers-Newark Bridges to the Doctorate. Principal Investigator: Dr. Alexander Gates; NSF. 2020-Present.

Sustainable Pathways from Community College to Bachelor's Degree for Urban Youth in STEM, Northern New Jersey. Principal Investigator: Dr. Alexander Gates, Rutgers University-Newark; NSF. 2017-Present.

Northern New Jersey Bridge to the Baccalaureate. Principal Investigator: Dr. Thomas van Aken, Passaic Community College; NSF. 2015-Present.

Garden State Louis Stokes Alliance for Minority Participation. Principal Investigator: Dr. Alexander Gates, Rutgers University-Newark; NSF. 2015-Present.
PCCC Takes Flight. Principal Investigator: Dr. Ali Saleh, Passaic Community College; NASA. 2019.
IMSD Minority Biomedical Research Support Program (MBRS). Principal Investigator: Dr. Barry Komisaruk, Rutgers University-Newark; NIH, General Medical Sciences. 2014-2016.

Northeastern University:
Engineering PLUS INCLUDES. Principal Investigator: Dr. Karl Reid; NSF. 2021-Present.
TRANSFORM: TRANSFORMing Liberal arts careers to meet demand for advanced manufacturing workforce. Principal Investigator: Dr. Ibrahim Zeid; NSF. 2015-2017.
Northeastern University STEP-UP. Principal Investigator: Dr. Christos Zahopolous; NSF. 2007-2011.
Northeastern University RET – PLUS (Partners Linking Urban Schools). Principal Investigator: Dr. Michael Silevitch; NSF. 2008-2010.
Northeastern / Boston Public Schools Graduate K-12 Fellows Project. Principal Investigator: Dr. Thomas Gilbert; NSF. 2004-2009.

San Francisco State University:
Genentech Foundation Scholars. Principal Investigator: Dr. Frank Bayliss; Genentech Foundation. 2019-Present.
Bridges to Doctorate Project at San Francisco State University. Principal Investigator: Dr. Frank Bayliss, Dr. Megumi Fuse; NIH, General Medical Sciences. 2002-Present.
MARC U Star Project at San Francisco State University. Principal Investigator: Dr. Frank Bayliss, Dr. Raymond Esquerra; NIH, General Medical Sciences. 2002-Present.
MBRS RISE Project at San Francisco State University. Principal Investigator: Dr. Frank Bayliss, Dr. Megumi Fuse; NIH, General Medical Sciences. 2002-Present.
Administrative Supplements for Curriculum or Training Modules to Promote Safe and Inclusive Biomedical Research Training Environments: Mental Health Workshops. Principal Investigator: Dr. Raymond Esquerra; NIH, General Medical Sciences. 2020-2021.
NIH City College of San Francisco/Skyline College/San Francisco State University Bridges to Baccalaureate Program. Principal Investigator: Dr. Steve Weinstein; NIH, General Medical Sciences. 2018-2019.
GK-12: Creating Momentum by Communicating Mathematics (CM-2). Principal Investigator: Dr. Matthias Beck; NSF. 2009-2014.
PREP Project at San Francisco State University. Principal Investigator: Dr. Frank Bayliss; NIH, General Medical Sciences. 2002-2008.
Louis Stokes Alliance for Minority Participation. Principal Investigator: Dr. Frank Bayliss; NSF. 2002-2004.
San Francisco State University / San Francisco Unified School District Graduate K-12 Fellows Project. Principal Investigator: Dr. John Stubbs; NSF. 2002-2004.
Increasing Access Opportunity: A New Approach to General Chemistry. Principal Investigator: Dr. Ray Trautman; Dept of Ed., FIPSE. 2001-2004.

University of Massachusetts, Amherst:
BPC-A: Expanding Computing Education Pathways (ECEP) Alliance. Principal Investigator: Dr. Rick Adrion; NSF. 2012-2016.
The Western Massachusetts Mathematics Partnership (WMMP). Principal Investigator: Dr. George Avrunin; NSF. 2011-2014.
BPC-A: Commonwealth Alliance for Information Technology Education. Principal Investigator: Dr. Rick Adrion; NSF. 2007-2014.
Seeing the Forest and the Trees. Principal Investigator: Dr. Elizabeth Dumont; NSF. 2010-2012.
IPY STEM Polar Connections. Principal Investigator: Dr. Morton Sternheim; NSF. 2008-2011.

Franklin County STEM Research Academies for Young Scientists. Principal Investigator: Dr. Morton Sternheim; NSF. 2006-2010.

Center for Hierarchical Manufacturing – Educational Outreach Component. Principal Investigator: Dr. James Watkins; NSF. 2006-2010.

IGERT: Research and Innovation in Nanoscale Device Development. Principal Investigator: Dr. James Watkins; NSF. 2005-2010.

Building a Java Instructor Community: An Online Plan for Improving Introductory Computer Science Teaching and Learning. Principal Investigator: Dr. Robert N. Moll; Dept of Ed., FIPSE. 2005-2009.

Commonwealth Information Technology Initiative: Higher Education. Principal Investigators: Dr. Andrew Effrat, Dr. Rick Adrian; Anonymous private funding. 2004-2007.

Commonwealth Information Technology Initiative: K-12. Principal Investigators: Dr. Andrew Effrat, Dr. Lynn Griesemer; Mass. Dept. of Ed. 2004-2007.

STEM Alternative Certification for Teachers Conference (STEM ACT). Principal Investigator: Dr. Morton Sternheim; NSF. 2006.

An Internet-based Intelligent Tutor for General Chemistry. Principal Investigator: Dr. William Vining; Dept of Ed., FIPSE. 2004-2006.

Expanding a General Framework for Inquiry Learning. Principal Investigator: Dr. Beverly Woolf; Dept of Ed., FIPSE. 2003-2006.

Reading the Forest Floor: Online Case-Based Inquiry Learning in Forestry. Principal Investigator: Dr. Beverly Woolf; NSF. 2004-2005.

Louis Stokes Alliances for Minority Participation (LSAMP): Northeast Louis Stokes Alliance for Minority Participation. Principal Investigator: Dr. John Cunningham; NSF. 2003-2005.

Interactive Organic Chemistry Learning on the World Wide Web. Principal Investigators: Dr. Peter Lillya, Dr. Stephen Hixson; NSF. 2001-2005.

On-Line Support for Modern Programming Language Instruction. Principal Investigator: Dr. Robert N. Moll; NSF. 2001-2005.

Building a Curriculum in Innovation, Entrepreneurship and Technology Management at UMass Amherst. Principal Investigator: Dr. Soren Bisgaard; NCIIA. 2003-2004.

Calculus Tutor Project. Principal Investigator: Dr. George Knightly; NSF. 2000-2004.

A History of Art for the 21st Century. Principal Investigator: Dr. Laetitia La Follette; Dept of Ed., FIPSE. 2000-2004.

A Powerful Model for Controlling Costs in Large-Enrollment Courses. Principal Investigator: Dr. Beverly Woolf; Dept of Ed., FIPSE. 1998-2003.

University of Massachusetts Boston:

Urban Massachusetts Louis Stokes Alliance for Minority Participation. Principal Investigator: Drs. Paul Fonteyn and Winston Langley; NSF . 2008-2019.

NIH IMSD Project at the University of Massachusetts Boston. Principal Investigator: Dr. Rachel Skversky; NIH, General Medical Sciences. 2008-2017.

NIH Bridge to Baccalaureate. Principal Investigator: Dr. Michael Shiaris; NIH, General Medical Sciences. 2007-2015.

Boston Science Partnership Supplemental. Principal Investigator: Dr. Hannah Sevian; NSF. 2007-2009.

Synergy 2008. Principal Investigator: Dr. Deborah Boisvert; NSF. 2008.

Synergy 2006. Principal Investigator: Dr. Deborah Boisvert; NSF. 2006.

University of Massachusetts Lowell:

The MIT Climate Pathways Project. Principal Investigator: Dr. John Sterman, Massachusetts Institute of Technology; Head of Research Team: Dr. Juliette Rooney-Varga, University of Massachusetts Lowell; Private Foundation Funding. 2021-Present.

GP:IMPACT: Interactive Simulations and Systems Thinking to Broaden Pathways into the Geosciences. Principal Investigator: Dr. Juliette Rooney-Varga; NSF. 2017-2022.
Transforming Mental Models of Climate Change through Simulations, Games, and Systems Thinking. Principal Investigator: Dr. Juliette Rooney-Varga; NSF. 2013-2017.
Climate Change Education: Science, Solutions, and Education in an Age of Media. Principal Investigator: Dr. Juliette Rooney-Varga; NASA. 2010-2013.
GK-12: Vibes and Waves in Action. Principal Investigator: Dr. Kavitha Chandra; NSF. 2009-2012.

Yale University:
Tropical Research Experience in Ecological Sciences: Regeneration Dynamics in a Hyper-Diverse Tropical Forest. Principal Investigator: Dr. Simon Queensborough; NSF. 2021-Present.
Evolutions After School Program. Principal Investigators: Dr. Jane Pickering, David Heiser, Andrea Motto; NSF, IMLS, and internal funds. 2009-2022.
Peabody Fellows Earth Science Program. Principal Investigator: Dr. Jay Ague; NSF. 208-2010.
Solar Cycle Investigations: NASA Science Exploration for Middle School Students and Teachers. Principal Investigator: Dr. Sarbani Basu; NASA. 2010-2014.
Geo.CORPS: Pipeline for Success in the Geosciences. Principal Investigator: Dr. Derek Briggs; NSF. 2010-2012.
GEOPATH: Geoscience Educational Opportunities Promoting Advancement to Higher Education. Principal Investigator: Dr. Derek Briggs; NSF. 2008-2010.
Museums for America - Engaging Communities. Principal Investigator: Dr. Derek Briggs; IMLS. 2006-2007.
Peabody Fellows Biodiversity and Human Health Program. Principal Investigator: Dr. Michael Donoghue; NIH & IMLS. 2004-2005.
American Histories: Indigenous & Europeans in the Americas. Principal Investigator: David Heiser; Arthur Vining Davis Foundation. 2013-2015.
Climate and Patterns of Vector-borne Disease: Development of Translational Science Curricula. Principal Investigator: Dr. Leonard Munstermann; NIH/SEPA. 2011-2016.
Curricula Modeled on Biodiversity & Vector-Borne Disease. Principal Investigator: Dr. Leonard Munstermann; NIH/SEPA. 2007-2010.
IMLS National Leadership Grant. Principal Investigator: Dr. Jane Pickering, David Heiser; IMLS. 2010-2012.
Peabody Teachers Collaborative on Global Change. Principal Investigator: Jane Pickering, David Heiser; IMLS. 2005-2014.
Yale / New Haven Public Schools Graduate K-12 Fellows Project. Principal Investigator: Dr. Michael Donoghue; NSF. 2004-2008.

Other:
Program Analysis of the S-STEM Program. Principal Investigator: Dr. Alina Martinez, **Abt Associates, Inc.**; NSF. 2012-2014.
Howard Hughes Medical Institute Summer Teachers' Workshop. Principal Investigator: Dr. Steven George, **Amherst College**; HHMI. 2010.
New Internet Exhibits to Bridge Science, Art, and Increase Cultural Literacy. Principal Investigator: Dr. Michael Henchman, **Brandeis University**; Dept. of Ed., FIPSE. 2004-2006.
The Broad Summer Research Program. Principal Investigator: Dr. Bruce Birren, **Broad Institute**. 2018.
Broad Cancer Genomics Scholars. Principal Investigator: Dr. Bruce Birren, **Broad Institute**. 2018.
Summer Research Program in Genomics. Principal Investigator: Dr. Bruce Birren, **Broad Institute**. NIH/NHGRI. 2013-2015.
GK-12: Physical Processes in the Environment. Principal Investigator: Dr. Timothy Herbert, **Brown University**; NSF. 2008-2009.

Foundations of Model Driven Discovery from Massive Data. Principal Investigator: Dr. Jeffrey Brock, Dr. Bjorn Sandstede, **Brown University**; NSF. 2018-2019.

NIH MORE Research and Evaluation of Students Using Long-Term Studies. Principal Investigator: Dr. Simeon Slovacek, **California State University Los Angeles**; NIH. 2005-2011.

Cengage Learning OWL Study. Principal Investigator: Lisa Lockwood; **Cengage Learning**. 2006-2009.

Studying Air Pollution-Health-Climate Interactions for People of Color in Southeast Queens, NY: A Community-Based Project. Principal Investigator: Dr. Dawn Roberts-Semple, **City College of New York, York College**; EPA. 2022-Present.

iStronG: Inclusive Strong and Green. Principal Investigator: Margaret Callahan, **Council for Opportunity in Education**; NSF. 2019-2022.

DukeMed Activated. Principal Investigator: Dr. Brenda Armstrong, **Duke University**; NIH SEPA. 2017-2019.

Connecticut Pathways to Innovation & Design 21. Principal Investigator: Matt Mervis, **Education Connection**; NSF. 2014-2016.

Addressing the Nationwide Lack of Accessible Educational Media: The Described and Captioned Media Program. Principal Investigator: Jason Stark, **DCMP**; U.S. DOE, OSEP. 2021-Present.

Engaging Undergraduates in On-line Inquiry Learning: A Case-Based CyberLibrary in Human Biology. Principal Investigator: Dr. Merle Bruno, **Hampshire College**; NSF. 2004-2006.

Harvard / Cambridge Public Schools Graduate K-12 Fellows Project. Principal Investigator: Dr. John Hutchinson, **Harvard University**; NSF. 2004-2005.

CER: Import PCK: What 10K Novice Teachers Can Learn from Teachers with 10K Hours of Experience. Principal Investigator: Dr. Colleen Lewis, **Harvey Mudd University**; NSF. 2014-2015.

Collaborative Research: Electronic Delivery and Criterion Referencing of Assessment Materials for Chemistry. Principal Investigator: Dr. Thomas Holme, **Iowa State University**; NSF. 2009-2010.

Integrating Nanotechnology and Technician Education into the Curriculum. Principal Investigator: Neil Sheer, **Middlesex Community College**; NSF. 2010.

MolySym. Principal Investigator: Keith Donaldson, **MolySym Corporation**; U.S. DOE. 2007.

Queensborough Community College Bridges to the Baccalaureate Program. Dr. Patricia Schneider, **Queensborough Community College**; NIH, General Medical Sciences. 2016-2017.

Collaborative Research: Establishing and Propagating a Model for Evaluating the Long Term Impact of Pre-College Computing Activities. Principal Investigator: Dr. Adrienne Decker, **Rochester Institute of Technology**; NSF. 2017-2018.

National Leadership Consortium for Sensory Disabilities. Principal Investigator: Brooke Kruemmling, **Salus University**; U.S. DOE, OSEP. 2015-2021.

MBRS RISE Project at San Jose State University. Principal Investigator: Dr. Karen Singmaster, **San Jose State University**; NIH, General Medical Sciences. 2007-2017.

MARC U Star Project at San Jose State University. Principal Investigator: Dr. Herbert Silber, **San Jose State University**; NIH, General Medical Sciences. 2005-2013.

TD Chestnut Creatives. Principal Investigators: Heather Cahill, Alicia Bono, **Springfield Museums**; TD Foundation. 2020-2021.

Springfield Museums MassMutual Grant. Principal Investigators: Heather Cahill, Alicia Bono, **Springfield Museums**; TD Foundation. 2018-2020.

Springfield Teaching American History Program. Principal Investigator: Rosemary Kalloch, **Springfield Public Schools**; U.S. DOE, TAH. 2007-2014.

Project VIABLE (Visual Impairment and Applied Behavioral Learning Experiences). Principal Investigator: Dr. Derrick Smith, **University of Alabama Huntsville**; U.S. DOE, OSEP. 2020-Present.

MARC U Star Project at University of Hawaii Manoa. Principal Investigator: Dr. Healani Chang, **University of Hawai;i Manoa**; NIH, General Medical Sciences. 2006-2007.

Developing, Implementing and Evaluating a Post-Transfer Pathway Program for Computing and Engineering Majors. Principal Investigator: Dr. Susan Martin, **University of Maryland Baltimore County**; NSF. 2017-2019.

Michigan LSAMP (Louis Stokes Alliance for Minority Participation. Principal Investigator: Dr. Susan Collins, **University of Michigan**; NSF. 2021-Present.

Pathways to Careers in Sciences: Academic Roadmaps. Principal Investigator: Dr. Deborah Grossman-Garber, **University of Rhode Island**; NSF. 2009-2011.

On-line Inquiry Learning in Geology: Prototype Development of a Case-Based Cyber Library. Principal Investigator: Dr. Daniel Murray, **University of Rhode Island**; NSF. 2004-2005.

I-CORP L EAGER: Study of Longitudinal Results and the I-CORP L Ecosystem. Principal Investigators: Dr. Phil Wellerstein, VentureWell, Dr. Alan Peterfreund, **SageFox Consulting Group**; NSF. 2015-2018.

Discovering the Art of Mathematics: Inquiry Based Learning in Mathematics for Liberal Arts. Principal Investigator: Dr. Julian Fleron, **Westfield State University**; NSF. 2013-2016.

Integrated Bioengineering Research, Education, and Outreach Opportunities for Females and Underrepresented Minorities. Principal Investigator: Dr. David DiBiasio**, Worcester Polytechnic Institute**; NSF. 2005-2009.

Articles & Other Published Works

Bayliss, F., Gartner, Z., Marshall, W., Rath, K., & Peterfreund, A. (2022). Training of a Diverse Science Workforce in a University-Industry-Government Research Partnership: Center for Cellular Construction. ICERI2022 Proceedings, 1099-1109.

Hensel, M., Bryan, J., McCarthy, C., McNeal, K. S., Norflaes, N., Rath, K., & Rooney-Varga, J. N. (2022). Participatory approaches enhance a sense of urgency and collective efficacy about climate change: Qualitative evidence from the *World Climate* simulation. Journal of Geoscience Education, 70.

Rooney-Varga, J. N., Hensel, M., McCarthy, C., McNeal, K., Norflaes, N., Rath, K., Schnell, A., & Sherman, J. D. (2021). Building Consensus for Ambitious Climate Change through the *World Climate* Simulation. Earth's Future, 9(12).

Rooney-Varga, J. N., Fracassi, E., Franck, T., Kapmeier, F., McCarthy, C., McNeal, K., Norfles, N., Rath, K., & Sterman, H. D. (2021). A Simulation Game that Motivates People to Act on Climate. In J. W. Dash (Ed.), World Scientific Encyclopedia of Climate Change: Case Studies of Climate Risk, Action, and Opportunity Volume 3: Climate Change: Policy, Impacts, Risk Management, Renewable Energy, Electricity, Transportation. World Scientific Publishing.

Rooney-Varga, J., Kapmeier, F., Sterman, J. D., Jones, A. P., Putko, M., & Rath, K. (2019). The Climate Action Simulation. Simulation & Gaming, 51(2), 114-140.

Eroy-Reveles, A. A., Hsu, E., Rath, K. A., Peterfreund, A. R., & Bayliss, F. (2019). History and Evolution of STEM Supplemental Instruction at San Francisco State University, a Large, Urban, Minority-Serving Institution. In Z. Wilson-Kennedy (ed.), Diversity in Higher Education. Emerald Publishing.

Rath, K. A., Peterfreund, A. R., & Bayliss, F. (2018). Programmatic Mentoring: Providing Mentoring as a Community, Going Beyond Mentor/Protégé Pairs. Understanding Interventions Journal, 9(2).

Bayliss, F., Peterfreund, A., & Rath, K. (2018). STEM Mentoring Programs to Prepare Career Scientists at San Francisco State University. In J. McClinton, D. S. Mitchell, T. Carr, M. A. Melton, & G. B. Hughes (Eds.), Mentoring at Minority Serving Institutions (MSIs): Theory, Design, Practice, and Impact. Information Age Publishing: Charlotte, NC.

Rooney-Varga, J. N., Sterman, J. D., Fracassi, E., Franck, T., Kapmeier, F., Kurker, V., Johnston, E., Jones, A. P., & Rath, K. (2018). Combining Role-Play with Interactive Simulation to Motivate Informed Climate Action: Evidence from the *World Climate* Simulation. PLoS ONE 13(8).

Rooney-Varga, J., Allende Brisk, A., Shuldman, M. & Rath, K. (2015). The CAM project: Tools for bringing student media production into climate change education. In the Trenches, 5(1), 4-7.

Rooney-Varga, J. N., Brisk, A. A., Adams, E., Shuldman, M., & Rath, K. (2014). Student media production to meet challenges in climate change science education. Journal of Geoscience Education, 62(4), 598-608.

Pickering, J., Ague, J. J., Rath, K. A., Heiser, D. M., & Sirch, J. N. (2012). Museum-based teacher professional development: Peabody Fellows in earth science. Journal of Geoscience Education, 60(4), 337-349.

Rath, K. A., Peterfreund, A. R., Bayliss, F., Runquist, E., and Simonis, U. (2012). Impact of supplemental instruction in entry-level chemistry courses at a midsized public university. Journal of Chemical Education, 89(4), 449-455.

Slovacek, S. P., Whittinghill, J. C., Tucker, S., Peterfreund, A. R., Rath, K. A., Kuehn, G. D., and Reinke, Y. G. (2011). Minority students severely underrepresented in Science, Technology, Engineering and Math. Journal of STEM Education: Innovations and Research, 12(1), 5-16.

Bayliss, F. T., Peterfreund, A. R., and Rath, K. A. (2009). Institutional transformation: Establishing a commitment to research and student services. In Broadening Participation in Undergraduate Research: Fostering Excellence and Enhancing the Impact, M. K. Boyd, J. L. Wesemann, Eds., pp. 281-294. Council on Undergraduate Research: Washington, D. C.

Peterfreund, A. R., Rath, K. A., Xenos, S. P., & Bayliss, F. (2008). The impact of supplemental instruction on students in STEM courses: Results from San Francisco State University. Journal of College Student Retention, 9(4), 487-503.

Botch, B., Day, R., Vining, W., Rath, K., Stewart, B., Hart, D., & Peterfreund, A. (2007). *ChemPrep*: A self-paced, online preparatory course for general chemistry. Journal of Chemical Education, 84(3), 547-553.

Rath, K. A., Peterfreund, A. R., Xenos, S. P., Bayliss, F., & Carnal, N. (2007). Supplemental instruction in Introductory Biology I: Enhancing the performance and retention of underrepresented minority students. Cell Biology Education-Life Sciences Education, 6(3), 203-216.

Mestre, J. P., Hart, D. M., & Rath, K. A., & Dufresne, R. J. (2002). The effect of web-based homework on test performance in large enrollment introductory physics courses. Journal of Computers in Mathematics and Science Teaching, 21(3), 229-251.

Rath, K. A., & Royer, J. M. (2002). The nature and effectiveness of learning disability services for college students. Educational Psychology Review, 14, 353-382.

Rath, K. A. (2002). Using children's errors in single-word reading to explore a theory of dyslexia within the reading process. Doctoral Dissertation, University of Massachusetts, Amherst, MA.

Royer, J. M., Rath, K. A., & Tronsky, L. N. (2001). Automaticity training as a reading intervention for adolescents with attentional disorders. In T. E. Scruggs & M. A. Mastropieri (Eds.) Advances in learning and behavioral disabilities volume 15: Technological applications. Amsterdam: JAI (Elsevier Science).

Presentations & Posters

Bayliss, F., Gartner, Z., Marshall, W., Rath, K., & Peterfreund, A. (2022). Training of a Diverse Science Workforce in a University-Industry-Government Research Partnership: Center for Cellular Construction. Poster presented at the 15th Annual International Conference of Education, Research and Innovation, Seville, Spain.

Rath, K., Peterfreund, A., Xavier, J., Menier, A., Gates, A., San Miguel, C., & van Aken, T. (2021). Telling the LSAMP Story: When the Whole is Much More than the Sum of Its Parts. Presentation at the 2021 LSMRCE Annual Conference, Online.

Menier, A., Rath, K. A., Xavier, J., Peterfreund, A., Tuttle, T., & Zarch, R. (2021). Resilient STEM College Student Support Programs: Lessons of COVID-19 in Northern New Jersey. Paper presented at the Virtual American Educational Research Association Annual Meeting, Online.

Hensel, M., Bryan, J., McCarthy, C., McNeal, K., Norfles, N., Rath, K., Sterman, J., & Rooney-Varga, J. (2020). How the Simulation-Based Learning Game, World Climate, Shapes Climate Change Perspectives Among High School and College Students, Traditionally Under-represented in

STEM Fields. Poster presented at the Geological Society of America Annual Scientific Meeting, Online.

Hensel, M., Bryan, J., McCarthy, C., McNeal, K., Norfles, N., Rath, K., Sterman, J., & Rooney-Varga, J. (2020). How the Simulation-Based Learning Game, World Climate, Shapes Climate Change Perspectives Among High School and College Students, Traditionally Under-represented in STEM Fields. Presentation at the 2020 American Geological Union Meeting, Online.

Rooney-Varga, J., Rath, K., McCarthy, C., McNeal, K., Norfles, N., Hensel, M., & Sterman, J. (2020). Depolarizing Climate Change Communication: A Simulation-Based Experience Shifts Climate Change Beliefs and Worldview Among People Who Value Individualism and Social Hierarchy. Presentation at the 2020 American Geological Union Meeting, Online.

Bayliss, F., Hsu, E., Rath, K., & Peterfreund, A. (2019). STEM Supplemental Instruction at San Francisco State University, a Large, Urban, Hispanic-Serving Institution. Poster presented at the 12th annual International Conference of Education, Research, and Innovation, Seville, Spain.

Bayliss, F., Rath, K. A., & Peterfreund, A. R. (2019). STEM Supplemental Instruction at San Francisco State University, a Large, Urban, Hispanic-Serving Institution. Poster presented at the Hawaii International Conference on Education, Honolulu, HI.

Armstrong, B., Cullins, M., Coleman, D., Valladares, A., Coward, S., Peterfreund, A., DeHaro-Otero, E., & Rath, K. (2018). Duke BOOST Scholars: Watching the Ripple Effect Changing Lives Through Robust Relationships. Poster presented at NIH SciEd 2018, Washington, DC.

Peterfreund, A. R., Rath, K. A., & Bayliss, F. (2018). Programmatic Mentoring: Providing Mentoring as a Community, Going Beyond Mentor/Protégé Pairs. Presentation at the 10th Annual Understanding Interventions That Broaden Participation in Research Careers, Baltimore, MD.

Rooney-Varga, J. N., Norfles, N., Rath, K., McNeal, K., Cahalan, M., Stillwell, B., Cloran, S., & Stemmler, K. (2018). Using the World Climate Simulation to Broaden Pathways into Climate Change and Sustainability. Poster presented at the 2018 American Geological Union Meeting, Washington, DC.

Kapmeier, F., Rooney-Varga, J., Sterman, J., Fracassi, E., Franck, T., Kurker, V., Johnston, E., Jones, A., & Rath, K. (2017). Die World Climate Simulation: Kann Ein Interacktives Rollenspiel zu Mehr Wissensdurst, Impulsiven Emotionen und Handlungsdrang zum Schutz des Llimas Führen? Presentation at the Dutschen Gesellschaft für System Dynamics e.V. Dessau-Roßlau, Germany.

Sterman, J., Rooney-Varga, J., Fracassi, E., Franck, T., Kapmeier, F., Kurker, V., Johnston, E., Jones, A., & Rath, K. (2017). Learning for Ourselves about Climate Change: The *World Climate* Simulation: Can Role-Play with Interactive Models Enhance Knowledge, Affect and Intent to Act? Presentation at the 9th Annual Alliance for Research on Corporate Sustainability Conference, Rotterdam, Netherlands.

Bayliss, F., Gutierrez, C., Rath. K., & Peterfreund, A. (2016). The Master's Degree as a Path to the PhD: Are Master's Degree Programs a Good Investment? Presentation at the 8th Annual Understanding Interventions That Broaden Participation in Research Careers, Philadelphia, PA.

Rooney-Varga, J. N., Rath, K., Jones, A., Johnston, E., & Sterman, J. (2015). The World Climate project: Bringing the UN climate negotiations to classrooms, boardrooms, and living rooms near you. Poster presented at the 2015 American Geological Union Meeting, San Francisco, CA.

Rooney-Varga, J. N., Rath, K., Jones, A., Johnston, E., & Sterman, J. (2015). The World Climate exercise: Is (simulated) experience our best teacher? Presentation at the 2015 American Geological Union Meeting, San Francisco, CA.

Rooney-Varga, J. N., Sterman, J., Jones, A., Johnston, E., Rath, K., & Nease, J. (2014). Let the games begin: New opportunities to address climate change communication, education, and decision support. Presentation at the 2014 AGU Meeting, San Francisco, CA.

Rooney-Varga, J. N., Allende Brisk, A., Rath, K., & Shuldman, M. (2013). Student media production to meet challenges in climate change science education. Poster presented at the 2013 NASA/NOAA/NSF Climate Change Education PI Meeting, Washington, DC.

Fall, R., Mahadev, A., Rath, K., Xavier, J., Risinger, E., & Wilkins, D. (2013). Supplementary Instruction to increase success in computing/STEM. Presentation at the STEP to Success Conference, Wellesley Hills, MA.

Hindo, S., Botch, B., Whelan, T., Hart, D., Peterfreund, A., & Rath, K. (2013). iExams – Electronic delivery of chemistry exams using OWL. Paper presented at the 245th ACS National Meeting & Exposition, New Orleans, LA.

Bayliss, F., Peterfreund, A., & Rath, K. (2013). Partnering for success: Creating & maintaining STEM student enrichment programs at San Francisco State University. Poster presented at the 2013 Hawaii International Conference for Education, Honolulu, HI.

Xavier, J., & Rath, K. (2012). Undergraduate research programs can overcome environmental barriers to success. Paper presented at the 5th Annual Conference on Understanding Interventions That Broaden Participation in Research Careers, Baltimore, MD.

Rath, K., Peterfreund, A., & Bell, D. (2011). Lessons learned from a TAH evaluation at the Springfield Public Schools, Springfield MA. Presentation at the 2011 Teaching American History Project Director's Conference, Washington, DC.

Pickering, J., Ague, J., Heiser, D., Rath, K., & Sirch, J. (2010). Peabody Fellows in earth science: A museum-based professional development program for middle and high school teachers. Paper presented at the 2010 Geological Society of America Denver Annual Meeting, Denver, CO.

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Advising

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