

Dr. Peter Rillero

Associate Professor, Mary Lou Fulton Teachers College

Arizona State University

Education

- Ph.D. Science Education, The Ohio State University 1994
- M.A. Biology, City University of New York 1990
- M.A. Science Education, Teachers College, Columbia University 1988
- B.A. SUNY College at Buffalo, NY 1982

Biography

Peter Rillero, PhD, is an associate professor of science education at Arizona State University. He has been a science educator for over thirty years. Rillero joined the US Peace Corps in 1982 and taught grades 8 to 10 in a rural school in Kenya for three years. He taught high school general science, physics, biology, and science research for four years in a public school in Bronx, NY, while earning a masters degree in science education (Teachers College, Columbia University) and a masters degree in biology (City University of New York). Rillero accepted a tenure-track faculty position in science education at Arizona State University in 1994 after earning his doctoral degree in science education from The Ohio State University with Stan Helgeson as his major advisor.

He was an exchange professor at the National University of Costa Rica, a Fulbright Lecturer in science education in Iceland, STEM consultant in Cebu, Philippines, and Chair of the department of secondary education. Rillero has authored and co-authored dozens of books with the goal of improving science education.

His scholarship interests focus around science education and include deep conceptual learning, problem-based learning, inquiry, teacher education, program evaluation, modeling, graphing, international education, and the history of science education. Rillero is working on a US Department of Education grant which combines problem-based learning with methods for helping English language learners in an approach called Problem-Based Enhanced-Language Learning (PBELL).

Research Interests

Guiding Research Questions:

- How can we as a college embrace Problem-Based Enhanced-Language Learning?

- What do elementary preservice teachers understand about graphing as it relates to science education?
- How can we promote science teacher education in developing countries?

Current Research Projects:

- Dr. Rillero works on a US Department of Education grant where he combines Problem-Based Learning with methods for helping English language learners in an approach we call Problem-Based Enhanced-Language Learning (PBELL). PBL is an important method for integrating STEM.
- Dr. Rillero researches how to best teach preservice elementary science teachers graphing abilities, which again is of critical importance for STEM
- Dr. Rillero has been active in program evaluation for Arizona Board of Regents ITQ grants for the last four years as well as for Intel Corporation and Arizona Department of Education.

Publications

- Rillero, P. & Hernandez, J. (April/May 2016). Problem-Based Enhanced-Language Learning with Pendulums. *Science Scope*, 39(8), 10-15
- Jimenez-Silva, M., Merritt, J., Rillero, P., & Kelley, M. (2016). Working Together to Prepare Teachers of Science and Language: Examining the Value of Collaboration Among Science and Language Faculty. *Electronic Journal of Science Education*, 20(3). <http://ejse.southwestern.edu/article/view/15866>
- Rillero, P. (2010). The Rise and Fall of Science Education: A Content Analysis of Science in Elementary Reading Textbooks of the Nineteenth Century. *School Science and Mathematics*, 110(5), 227-237.

Research Activity

- Harris,Pamela Joy, Jimenez-Silva,Margarita, Kelley,Michael Francis, Merritt,Joi Deshawn, Oakes,Wendy Peia, Rillero,Peter. Integrating STEM Literacy and Language to Prepare All Teachers to Teach English Language Learners: iTeach ELLs. ED(10/1/2014 - 9/30/2019).
- Culbertson,Robert John*, Covatto,Carl, Dolenko,Darya Vitalyevna, Judson,Eugene E, Middleton,James Arthur, Rillero,Peter. Physics Teacher Pipeline Project: A Comprehensive PhysTEC Site. AMER PHYSICAL SOC(8/1/2013 - 7/31/2014).
- Culbertson,Robert John*, Covatto,Carl, Dolenko,Darya Vitalyevna, Judson,Eugene E, Middleton,James Arthur, Rillero,Peter. Physics Teacher Pipeline Project: A Comprehensive PhysTEC Site. AMER PHYSICAL SOC(8/1/2012 - 7/31/2013).
- Osborn Popp,Sharon Elizabeth*, Rillero,Peter. Evaluation of Phoenix Area MSP Science Literacy Project. PENDERGAST ELEMENTARY SCHOOL D(9/1/2009 - 8/30/2010).

- Rillero, Peter*, Osborn Popp, Sharon Elizabeth. Phoenix Area MSP Sci & Lit Project Evaluation. PENDERGAST ELEMENTARY SCHOOL D(9/1/2008 - 8/30/2009).
- Rillero, Peter*, Zambo, Ronald W. An Evaluation of Intel Initiatives in the Promotion of Inquiry, Project-based Learning, and Science Fair Participation. INTEL FDN(1/1/2006 - 8/31/2007).
- Rillero, Peter*, Haas, Nancy S, Zambo, Ronald W. 2005 Program Evaluation for the Intel International Science and Engineering Fair. INTEL FDN(2/1/2005 - 8/15/2005).
- Rillero, Peter*, Haas, Nancy S, Zambo, Ronald W. Intel ISEF Phoenix Middle School Outreach 2005 Evaluation. INTEL FDN(1/1/2005 - 8/31/2005).
- Rillero, Peter*. Program Assessment of Intel ISEF and Middle School Programs. INTEL FDN(4/15/2004 - 4/14/2005).
- Wetzels, Keith A*, Buss, Ray Richard, Christie, Alice A, Cleland, Joann V, De La Cruz, Yolanda, Rillero, Peter, Zambo, Ronald W. PROJECT SCOUT LEADER. AZ BOARD OF REGENTS(3/1/1999 - 2/29/2000).
- Rillero, Peter*, Buss, Ray Richard. WE LIVE IN THE SONORAN DESERT. CPB-CORP PUBLIC BROADCASTING(8/1/1997 - 10/31/1998).