

## **Alfred Richard Schademan**

Associate Professor of Secondary Pedagogy Specializing in Science  
Single Subject Program Coordinator

School of Education  
College of Communication and Education  
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### **Education**

*University of Rochester*  
Ph.D. in Curriculum and Instruction, 2008

*University of Utah*  
M.A. in Teaching and Learning, 2002

*Pennsylvania State University*  
B.S. in Biology, 1983.

### **Employment**

California State University, Chico  
Assistant Professor, August 2008-present

University of Rochester  
Visiting Assistant Professor, 2007-2008  
Instructor and Teaching Assistant, 2005-2007

University of Utah  
Instructor, 2003

Challenger Schools  
Middle School Science and Mathematics Teacher, 1999-2001

Utah Division of Wildlife Resources  
Environmental Educator, 1993-1995

Susquehanna Township School District  
Middle School Life Science Teacher, 1988-1993

### **University Instruction**

#### **Teaching**

California State University, Chico

EDTE 255 Introduction to Democratic Perspectives in K-12 Teaching  
EDTE 523B Curriculum Theory and Practice: Science  
EDTE 530 Fundamentals of Teaching Practice  
EDTE 535 Teaching Practicum I (Supervision)  
EDTE 536 Subject Area Pedagogy II: Science  
EDTE 537 Applications for Democratic Education  
EDTE 538 Teaching Practicum II (Supervision)  
EDCI 602 Assessment and Evaluation of Learning  
EDCI 625 Curriculum Development and Instruction: Science  
EDMA 610 Introduction to Inquiry in Education

University of Rochester

EDU 425 Integrating Science and Technology  
EDU 434 Theory and Practice in Teaching and Learning Science  
EDU 448 Implementing Innovation in Science Education  
EDU 406 Master's Research Methods

University of Utah

TL 5370 Elementary Science Methods

### ***Thesis or Project Advising***

Committee Chair

Maloney, L. D. (in progress). *A curriculum guide for the Earth Arts Academy: An interdisciplinary environmental high school program.*

Rowen, B. (In progress). *The construction of meaning by first generation college students of academic and social systems in higher education.*

Lausten, C. (In progress). *Environmental literacy for primary grades.*

Committee Member

Chinchay, M. A. (2008). *Content-based instruction in community college ESL programs: A literature review.*

### ***Professional Growth and Achievement***

#### ***Refereed Journal Articles***

**Schademan, A. R., & Thompson, M.** (in press). Are College Faculty and First Generation, Low-Income Students Ready for Each Other? *The Journal of College Student Retention.*

**Schademan, A. R.** (2014). Building connections between a cultural practice and modeling in science education. *International Journal of Science and Mathematics Education*. DOI: 10.1007/s10763-014-9554-9.

**Schademan, A. R.** (2011). What does playing cards have to do with science? A resource-rich view of African American young men. *Cultural Studies in Science Education*, 6(2), pp. 361-380.

Ares, N., Stroup, W. & **Schademan, A. R.** (2009). The power of mediating artifacts in group-level development of mathematical discourses. *Cognition and Instruction*, 27(1), pp. 1-24.

### **Book Chapters**

**Schademan, A. R.**, Ares, N., & Gonzalez, N. (2010). Negotiating hybridity in youth cultural practice. In N. Ares (Ed.). *Youthful productions: Cultural practices and constructions of content and social spaces*. Peter Lang.

### **Doctoral Dissertation and Master's Thesis**

**Schademan, A. R.** (2008). *Playing Spades: The scientific and mathematical resources of African American young men*. Unpublished doctoral dissertation. University of Rochester.

**Schademan, A. R.** (2003). *The evolving nature of student contributions to an activity in a computer-networked classroom*. Unpublished Master's Thesis, University of Utah.

### **Awards**

**Outstanding Project Director Debut Award**, 2011-2012. Awarded by CSU Chico Research and Sponsored Programs for excellence in directing the Chico Rural Teacher Pathway, a grant funded program to create a teacher pipeline for at-risk youth in Butte County.

### **Refereed Presentations**

**Schademan, A. R.**, & Thompson, M. (2013). *Cultural Agents and First Generation College Student Persistence: A Case Study of the California Teacher Pathway*. 38<sup>th</sup> Annual Conference of the Association for the Study of Higher Education, November 2013, St. Louis, MO.

**Schademan, A. R.**, & Thompson, M. (2013). *The California teacher pathway: Creating a homegrown, diverse teaching workforce*. American Educational Research Association Conference, April 2013, San Francisco, CA.

Goldberg, R., **Schademan, A. R.**, Sanders, G., Parsons, S. (2012). *Preparing California's next generation of teachers through collective impact*. California Workforce Association's Meeting of the Minds Conference, September, 2012, Monterey, CA.

*Accomplishing multiple goals with one Summer STEM Institute*. Science Education at the Crossroads Conference, September 2011, San Antonio, TX.

**Schademan, A. R.**, Atkins, L., Monet, J., Salter, I., & Kotar, M. (2010). *“Why does it choose to go that way?” Identifying pivotal discourse events in model-based inquiry.* Jean Piaget Society Conference, June 2011, Berkeley, CA.

*How an African American cultural practice supports scientific modeling.* Jean Piaget Society Conference, June 2011, Berkeley, CA.

*Building connections between an African American cultural practice and scientific modeling.* Paper presented at the 2010 meeting of the American Educational Research Association, April-May, Denver, CO.

*Standards and testing as constraints and affordances.* Paper presented at the 2009 meeting of Science Education at the Crossroads, September, Portland, OR.

*Playing Spades: The rich resources of African American young men.* Paper presented at the 2008 meeting of the American Educational Research Association, April, New York City, NY.

*Rolling the dice on a game of cards.* Paper presented at the 2008 meeting of Science Education at the Crossroads, October, Alta, UT.

*Mathematics and numeracy as social and spatial practice,* Paper presented at the 2006 meeting of the American Educational Research Association, April, San Francisco, CA.

*Playing Spades: The rich social and cultural practices of African American youth,* Paper presented at the 2006 meeting of the American Educational Studies Association, November, Spokane, WA.

*Classrooms where children do science rather than do testing,* Paper presented at the 2006 meeting of Science Education at the Crossroads, September, Ogden, UT.

### ***Invited Presentations, Seminars, or Colloquia***

*STEM Teacher Pathways: Mapping New Methods.* California STEM Summit: Transforming Ideas into Action, California STEM Learning Network, San Diego, CA. October 15-16, 2012.

*Fostering Modeling and Model-based Reasoning in the Science Classroom: A Colloquium to Develop Consensus and Set an Agenda for Research and Practice.* University of California, Davis. November 14-15, 2011.

*Creating spaces of possibility in mathematics and science classrooms,* Presentation at the Mathematics Faculty Colloquium, CSU Chico, October 14, 2011.

*Cultural practices as multidimensional contexts for learning,* Seminar for the Teaching Excellence and Achievement Programs (TEA), CSU Chico, July 9, 2011.

*Model-based instruction in science education,* Seminar for the Teaching Excellence and Achievement Programs (TEA), CSU Chico, March 7, 2011.

*Students as resources in science education*, Presentation to the Ninth Annual Science Teaching Symposium, California Science Project, CSU Chico, March 2009.

### **Proposal Reviewer/Conference Participation**

Proposal Reviewer, 38<sup>th</sup> Annual Conference of the Association for the Study of Higher Education, November 2013, St. Louis, MO.

Proposal Reviewer, Division C – Learning & Instruction, Section 1d: Science, AERA, 2012.

Proposal Reviewer, Cultural-Historical Special Interest Group, AERA, 2010-2011.

Proposal Reviewer, Teacher's Professional Development for Inland California, Teacher-Based Reform Master Grant, 2011 & 2012. Dr. Michael Kotar and Dr. Julie Monet: Principal Investigators.

Paper Session Chair. *Promoting Science Achievement: Variables and Approaches*. AERA, New Orleans, LA. April 8-12, 2011.

### **Conferences Attended**

National Science Foundation Regional Grants Conference, October 25-26, 2011, Salt Lake City, UT.

### **Guest Lecturer**

*Ethnographic research methods*. Presented in EDSL 635: Research and Development in Foreign and Second Language Education. Lisa Buschman - Instructor, April 2013 and 2014.

*Researching cultural practices: Building trust with research participants*. Presented in EDSL 635: Research and Development in Foreign and Second Language Education. Dr. Paula Selvester. March 14, 2012.

*Cultural practices as multidimensional contexts for learning*. Presented in EDSL 633: Foreign and Secondary Language Teachers: Culture. Dr. Hilda Hernandez, professor. September 23, 2010.

### **Affiliations/Memberships in Scholarly or Professional Organizations**

Association for the Study of Higher Education (ASHE), 2013-2015  
American Educational Research Association (AERA), 2004-2014  
National Association for Research in Science Teaching (NARST), 2011  
Jean Piaget Society (JPS), 2011  
National Science Teachers Association (NSTA), 2005 – present  
American Educational Studies Association (AESAs), 2005 to 2008

## **Grants Awarded – Total of \$694, 000**

*CSU Preparing a New Generation of Educators*, Bechtel Foundation - **\$54,000** to support the Triad Project in which education professors, teacher candidates, and cooperating teachers collectively design and implement, a field-tested, NGSS unit. Grant period July 16, 2015 to June 1, 2016. Project Director.

*Chico Rural Teacher Pathway*. Walter S. Johnson Foundation - **\$75,000** to support personnel to continue the CRTP. Grant period February 1, 2013 to January 31, 2014. Project Director.

*Summer STEM Institutes, 2012 & 2013*. Bechtel Foundation - **\$44,000** to support a Summer STEM Institute at Butte College for students in the Chico Rural Teacher Pathway. Partners include Butte College and the Boy's and Girl's Clubs of the North Valley. Project Director.

*Chico Rural Teacher Pathway, Governor's Gang Reduction and Prevention Initiative (CalGRIP), 2010/11*. Grant awarded March 2011 for **\$500,000** by the Employment Development Department of CA. Partners include: *CSU Chico, Butte Community College, Chico Unified School District, Butte County Office of Education, Boys and Girls Clubs of the North Valley*. Project Director

*Project STREAM (Science, Technology, Recreation, Engineering, Agriculture, and Mathematics)*. Grant awarded by the David and Lucille Packard Foundation in February 2011 for **\$75,000** to support the planning of a rural teacher pathway for underserved youth. Served as member of the advisory committee and proposal preparation team that led to Project Director position of the Chico Rural Teacher Pathway. Program partners include: *CSU Chico, Chico and Yuba City Unified School Districts, Butte and Yuba Community Colleges, Butte and Sutter County Offices of Education*. Co-Project Director with Dr. Maggie Payne.

## **Service**

### **National**

Article Reviewer - *Journal of Geoscience Education & International Journal of Science and Mathematics Education*

### **University**

2015 – present	Faculty Learning Group – REACH and U-Course
2014 – present	REACH Faculty Mentor
2014 – present	Interdisciplinary in Sustainability
2013 – present	Technical Advisory Committee – Big Chico Creek Ecological Reserve
2013 – present	Science Education Task Force – College of Natural Sciences
2010 – 2013	Elected to Academic Senate for three-year term.
2010 – 2013	Faculty and Student Policies Committee (FASP)

### **College of Communication and Education**

2012 – present	Member, NOYCE Scholarship Committee
2010 – present	Member, Mathematics and Science Teaching Initiative (MISTI) Steering Committee
2009 – 2010	Chair, ASK Committee to Enhance Preparation of Candidates in Science Education
2008 – 2010	Member, Library Committee

### **School of Education**

2015 – 2016	Chair – Search Committee
2014 – present	Personnel Committee
2013 – 2014	Member Elect – Temporary Faculty Evaluation Committee
2013 – present	Coordinator of Torres Shelter Serving, SOE Community Service
2013	Member, University Supervisor Search Committee
2010 – present	Member, SOE Advisory Board
2010 – present	Member of the SOE Governance Council
2010 – 2011	Member, Transitional Governance Council for School of Education Restructuring
2010 – present	Committee of Program Coordinators

### **Department of Education**

2010 – 2011	Member, Search Committee
2008 – 2010	Member, Assessment Committee
2008 – 2010	Chair, Library Committee
2008 – 2010	Member, Comprehensive Examination Committee

### ***University Administrative Experience***

Single Subject Program Coordinator, School of Education, CSU, Chico. 2010 – present.