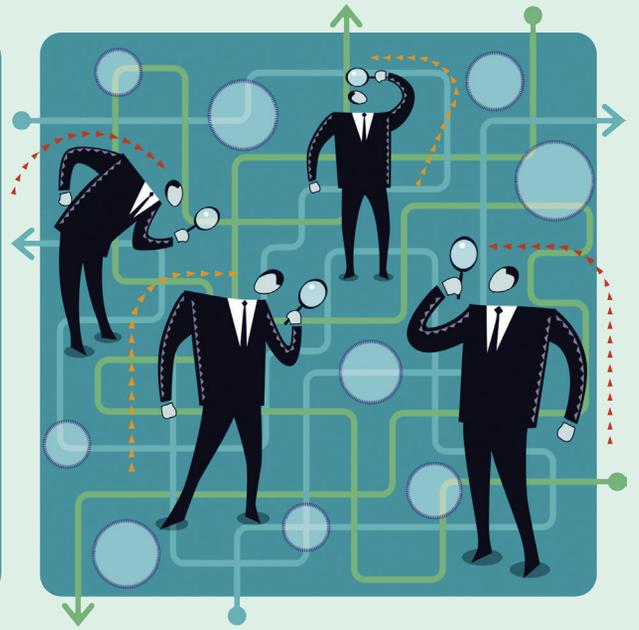


# WHY DON'T WE INVESTIGATE?



Our Research Support Team continues to help the College of Education obtain impressive grants. Here are our recently funded grants:

## DEAN'S OFFICE

### Long-term Vulnerability and Resilience of Coupled Human-Natural Ecosystems to Fire Regime and Climate Changes at an Ancient Wildland Urban Interface

*Sponsor: National Science Foundation*  
**\$1,500,000**

THOMAS SWETNAM (LEAD PI, UA LABORATORY OF TREE-RING RESEARCH) AND SARA CHAVARRIA Provides immersive workshops for teachers in Tucson and Jemez Valley (New Mexico) to develop teaching materials for existing curriculum about the nature of fire and forests in local landscapes.

### Processes and Patterns in the North American Monsoon Macrosystem

*Sponsor: National Science Foundation*  
**\$2,950,000**

RUSSELL MONSON (LEAD PI, UA SCHOOL OF NATURAL RESOURCES AND THE ENVIRONMENT AND THE UA LABORATORY OF TREE-RING RESEARCH) AND SARA CHAVARRIA Provides immersive workshops and field experiences for local teachers to develop teaching materials about the role of scientific models in understanding the North American monsoon macrosystem.

### Common-Core State Standards for Mathematics

*Sponsor: Arizona Board of Regents*  
**\$125,000**

RENÉE T. CLIFT Working with regional partners (Pima County Superintendent, UA Department of Mathematics, Sunnyside Unified School District) and Arizona State University and Northern Arizona University, provides professional development for beginning teachers related to the implementation of the Common-Core Standards.

### DISABILITY AND PSYCHOEDUCATIONAL STUDIES

#### National Leadership Consortium in Sensory Disabilities

*Sponsor: U.S. Department of Education, Salus University*  
**\$53,893**

SHIRIN D. ANTIA Increases the number and quality of doctoral graduates who specialize in the education of deaf and hard-of-hearing, blind and visually impaired, and deaf and blind children. Funds go directly to select NLCSD Fellows who are doctoral students at the 24 consortium universities (including the University of Arizona). Faculty at

consortium universities collaborate in offering online consortium courses focused on research and teacher preparation in the field of sensory disabilities.

#### Special Education Research and Development Center on Reading Instruction for Deaf and Hard-of-Hearing Students

*Sponsor: U.S. Department of Education, Georgia State University*  
**\$241,699**

SHIRIN D. ANTIA Identifies variables that influence literacy outcomes in young deaf and hard-of-hearing students from a variety of educational settings; examines child-by-instruction interactions; and develops and field-tests literacy interventions. The Center on Literacy and Deafness is a five-year Special Education Research and Development Center funded by the Institute of Education Sciences. Georgia State University, University of Arizona, University of Colorado at Boulder, and the Rochester Institute of Technology are the universities involved in this project.

### The Development of Population-Specific Social Support Major for People with Serious Mental Illness

*Sponsor: National Institutes of Health*  
**\$43,817**

CHIH-CHIN CHOU AND JULIE CHRONISTER (SAN FRANCISCO STATE UNIVERSITY) Develops and tests a tailored social-support scale, which is critical to assessment and treatment-effectiveness studies for those affected by serious mental illness (SMI); adds to the current support structures of psychopharmacological and behavioral approaches available to people suffering from SMI.

#### Technical Assistance Continuing Education IX

*Sponsor: U.S. Department of Education*  
**\$73,500**

WILLIAM DOWNEY Provides training for Arizona's rehabilitation community, delivering three two-day institutes a year — one in Tucson, one in Phoenix, and one in Flagstaff. Topics vary depending on input from participants, typically practitioners from the Arizona Rehabilitation Services Administration, community rehabilitation programs, school transition and special education programs, and tribal rehabilitation programs.

### Combined Priority for Personnel Development

*Sponsor: U.S. Department of Education*

JANE ERIN AND IRENE TOPOR Prepares 30 teachers of students with visual impairments under two instructional models. Student outcomes compared through student follow-up, including documentation of first-year teaching experiences and supervisor evaluations to identify strengths and weaknesses of each delivery model.

### Arizona Children's Research and Advocacy Project

*Sponsor: UA Foundation*  
**\$60,890**

RICHARD MORRIS Focuses on research, public-policy studies, and advocacy work with children and youth involved in the juvenile justice system, studying the relationship between juvenile delinquency and the emotional, cognitive, neuropsychological, and academic functioning of these offenders. Includes psychological and psychoeducational assessment and diagnostic services, as well as psychological and educational intervention recommendations.

# WHY DON'T WE INVESTIGATE?

## Preparing Professors in Evidence-Based Practice

*Sponsor: U.S. Department of Education*  
**\$139,723**

JOHN UMBREIT

Prepares six new professors in special education who can develop and promote evidence-based practice in schools throughout the United States. Graduates will have the expertise to develop, examine, and disseminate sustainable practices that result in high achievement and successful independent living for children and adolescents with special needs. Focuses on both the high-incidence and low-incidence areas of special education, with a specific emphasis on students with disabilities who are at high risk for school failure due to the combination of disability, cultural/linguistic diversity, and high-need status.

## EDUCATIONAL POLICY STUDIES & PRACTICE

### Safe and Supportive Schools Program

*Sponsor: U.S. Department of Education*  
**\$406,708**

KRIS BOSWORTH

Improves conditions for learning and eliminates barriers to learning in Arizona schools. Decreases bullying and harassment, suspensions for violent incidents, students being offered, sold, or given illegal substances on campus, and violence and risk behaviors. Also focuses on increasing student connectedness to school, positive student-teacher relationships, order and discipline on campus, safety on campus, as well as student referrals to appropriate interventions for substance use.

## EDUCATIONAL PSYCHOLOGY

### Helios Rational Numbers

*Sponsor: Helios Foundation*  
**\$181,594**

THOMAS GOOD

Brings together an interdisciplinary team from the Departments of Educational Psychology and Teaching, Learning, and Sociocultural Studies and the UA Office of Instruction and Assessment to design, implement, and evaluate free, high-quality professional development for elementary and middle school mathematics teachers around rational numbers and early algebra content. Incorporates content with concrete classroom strategies for increasing students' conceptual and procedural understanding, as well as examples of how teachers can create opportunities for meaningful student practice in their classrooms. Builds on previous success with live, in-service workshops to take advantage of the benefits and flexibility of online learning.

## TEACHING, LEARNING, AND SOCIOCULTURAL STUDIES

### The Study of the United States Institutes for Student Leaders on U.S. History and Government

*Sponsor: U.S. Department of State, Institute for Training and Development*  
**\$226,380**

ALBERTO ARENAS

Provides professional development and training for a cohort of 40 college students from various Latin American countries (Paraguay, Bolivia, Peru, Guatemala, and Mexico) in the areas of history and culture of the U.S. Participants divided into two institutes (summer and winter) of 20 students each.

## Partners in Professional Development

*Sponsor: Arizona Early Childhood Development and Health Board, United Way*  
**\$61,400**

SONYA GACHES

Provides support for undergraduate and graduate students in early childhood education to extend the leadership capacity of these professionals throughout Pima County. Participating students receive financial support, access to events with national experts, and ongoing small-group activities tailored to support their success at the university.

### Target Partnership: Culturally Relevant Ecology, Learning Progressions, and Environmental Literacy

*Sponsor: National Science Foundation, Colorado State University*  
**\$27,077**

KRISTIN GUNCKEL

Describes changes in students' explanations for and predictions of water and substances in water moving through environmental systems and includes the development of curriculum materials to support middle and high school teachers in using learning progressions to teach about water moving through these systems.

### CRPA: How Do We Learn the Fate of Tropical Forests under Climate Change? A Multimedia Exhibition of Photographic Art Portraying Scientists and Students

*Sponsor: National Science Foundation*  
**\$29,959**

BRUCE JOHNSON AND SCOTT SALESKA (DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY)

In collaboration with Biosphere 2, Department of Ecology and Evolutionary Biology, and Flandrau Science Center, creates and hosts a multimedia exhibit that documents the effects of climate change.

## Teachers in Industry

*Sponsor: Freeport-McMoRan Copper and Gold Foundation*  
**\$310,000**

BRUCE JOHNSON AND JULIA OLSEN

Integrates paid summer internships in local businesses throughout Arizona together with either a focused master's degree program or professional development. Based in the science, technology, engineering, and mathematics (STEM) disciplines, as well as teacher education and training. Formerly known as MASTER-IP, Teachers in Industry focuses on guiding teachers to bring their real-world experiences into classrooms while building in-depth and practical knowledge of the workplace. Open to all Arizona STEM teachers.

### Assessing Instructional Quality in Mathematics: A Comparative Study of High and Low Value-Added Teachers' Videotaped Lessons

*Sponsor: National Science Foundation*  
**\$169,230**

NICOLE KERSTING

Examines how stable value-added scores are across different models and model specifications both in terms of teacher-rank ordering and performance-group designation. Using value-added scores in high-stakes assessment situations, such as teacher evaluations, requires understanding the meaning, the relationship to other measures of teacher proficiency that contribute to overall evaluation score, and the consistency within teachers over time.

### Community-Based Early Childhood Education Project

*Sponsor: Helios Foundation*  
**\$414,965**

ILIANA REYES

Redesigns early childhood education by immersing teacher-education students into family, community, and classroom settings to explore the ways in which these interactions can enhance literacy and

learning for young children. Early childhood teacher preparation is shifting from a focus on learning *about* to promoting learning *with and from* family members, children, university students, and early childhood caregivers.

### Scholarship for Education and Economic Development (SEED) Program

*Sponsor: U.S. Agency for International Development, Georgetown University*  
**\$275,535**

RICHARD RUIZ

Provides comprehensive academic and professional development for indigenous Mexican educators and draws upon the social, linguistic, and cultural resources of the UA and the Tucson community, resulting in a knowledge exchange of academic, development, service learning, and personal and professional reflection. Project SEED Arizona focuses on resource-building by working with individual teachers committed to returning to their communities to lead new waves of transformational reform in indigenous education.

### Self-Determination and Teen Pregnancy

*Sponsor: UA Foundation*  
**\$9,980**

JESSICA SUMMERS

Develops a motivational model to predict the academic resilience of teen mothers and why some pregnant and parenting teens stay in school and earn good grades rather than drop out once they become mothers.

### Teachers Empowered to Advance Change in Mathematics (TEACH MATH)

*Sponsor: National Science Foundation*  
**\$6,590**

ERIN TURNER

Along with colleagues at Michigan State University, addresses the key challenge of enhancing the ability of teachers to provide STEM education.