

FEBRUARY 2019



NAGT



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## THE GER EXCHANGE

*Promoting high-quality scholarly research in geoscience education.*

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### Fall 2019 GSA Meeting Session Proposal Deadline 2/20/19

Proposing a session to GSA this year? The NAGT-GER division is looking to sponsor sessions that are relevant to geoscience education research. Please apply for sponsorship by the division [here](#). More information about the sponsorship policy can be found [here](#).

### GER at the Earth Educator Rendezvous 2019

The GER division would like to ask our membership if they would be interested in a 3-day writing retreat at the upcoming EER meeting in Nashville. The writing retreat would be scheduled during the M-W morning timeslot of the [EER agenda](#). If you are interested in participating in a writing retreat, and/or would be interested in helping to coordinate the retreat please contact GER VP Kelsey Bitting ([kelsey.bitting@gmail.com](mailto:kelsey.bitting@gmail.com)).

## Feb. 2019 Spotlight:

The February 2019 [GER Spotlight](#) is Dr. Julie Sexton, Research Associate at The Mathematics and Science Teaching (MAST) Institute and Assistant Director of Assessment at University of Northern Colorado. In her profile, Dr.

Sexton discusses her research on how social, cultural, educational, and personal/individual factors influence students' decisions to select and persist in geoscience academic and career paths. Check out the full [February 2019 Spotlight here!](#)



## Featured Article:

### [A global assessment of Indigenous community engagement in climate research](#)

**Authors: Dominique M David-Chavez and Michael C Gavin**

#### **Abstract**

For millennia Indigenous communities worldwide have maintained diverse knowledge systems informed through careful observation of dynamics of environmental changes. Although Indigenous communities and their knowledge systems are recognized as critical resources for understanding and adapting to climate change, no comprehensive, evidence-based analysis has been conducted into *how* environmental studies engage Indigenous communities. Here we provide the first global systematic review of levels of Indigenous community participation and decision-making in all stages of the research process (initiation, design, implementation, analysis, dissemination) in climate field studies that access Indigenous knowledge. We develop indicators for assessing responsible community engagement in research practice and identify patterns in levels of Indigenous community engagement. We find that the vast majority of climate studies (87%) practice an extractive model in which outside researchers use Indigenous knowledge systems with minimal participation or decision-making authority from communities who hold them. Few studies report on outputs that directly serve Indigenous communities, ethical guidelines for research practice, or providing Indigenous community access to findings. Further, studies initiated *with* (in mutual agreement between outside researchers and Indigenous communities)

and *by* Indigenous community members report significantly more indicators for responsible community engagement when accessing Indigenous knowledges than studies initiated by outside researchers alone. This global assessment provides an evidence base to inform our understanding of broader social impacts related to research design and concludes with a series of guiding questions and methods to support responsible research practice with Indigenous and local communities.

## Professional Development Opportunity

### 2019 PKAL STEM Leadership Institutes

#### **Institute I: July 9-14, 2019**

- Early Bird application deadline is January 15, 2019
- Regular application deadline is March 15, 2019

#### **Institute II: July 16-21, 2019**

- Early Bird application deadline is January 15, 2019
- Regular application deadline is March 15, 2019

## Job Opportunities

● Postdoctoral Fellow – Instructional Research & Development Organization: **UC Davis Center for Educational Effectiveness**

● Postdoctoral Researcher - Project EDDIE, Center for Mathematics Science and Technology (CeMaST) at Illinois State University. **The position will start as early as spring 2019 and is for 12 months.**

● Postdoctoral Researcher - Geoscience Education Lab at **Northern Illinois University (NIU)**. The start date would be September 1, 2019, but an earlier start date is preferred.

The postdoc will lead a mixed-methods investigation of students' spatial conceptions of erosional processes, support the collection and analysis of quantitative classroom data, develop and publish manuscripts for education and geoscience journals, and develop proposals for external funding. This is a two-year position funded by NSF award #1835950. The project includes the opportunity for a week-long residency at the Research in Spatial Cognition laboratory at Temple University.

For more information about this position, please contact Nicole LaDue ([nladue@niu.edu](mailto:nladue@niu.edu)). Interested candidates should submit a letter of application, curriculum vitae, and the names and contact information for two references directly to Nicole LaDue ([nladue@niu.edu](mailto:nladue@niu.edu)). **Please submit applications by February 15, 2019.**

● [STEM Education Postdoctoral Researcher](#) - California State University-Monterey Bay. The position will report to the Associate Dean of the College of Science, and operate as part of the STEM Education Working Group to support faculty in the assessment, development and revision of key STEM curriculum and pedagogy.

**The application period for this position has been extended until filled** – please apply online at: [csumb.peopleadmin.com/postings/4779](https://csumb.peopleadmin.com/postings/4779)

● [Teaching Postdoctoral Associate](#) - STEM BUILD at University of Maryland, Baltimore County. **Review of materials begins January 7 but will continue until position is filled.**

● [Postdoctoral Fellow](#) – Instructional Research & Development, **UC Davis Center for Educational Effectiveness**

● [Assistant/Associate Director](#), Tennessee STEM Education Center (TSEC), Research Track. **Review of applications begins Jan. 15, 2019**

● [Director of Teaching & Learning](#) - Florida Polytechnic University in Florida

● [Director, Center for Teaching & Learning \(CTL\)](#) - University of La Verne, California

● [Executive Officer](#) - Council on Undergraduate Research. **Review of applications will begin February 11, 2019, and will continue until the position is filled.**

## Grant, Award, and Scholarship Deadlines

- Provide comments to the [Institute of Education Sciences](#) on their proposed grants competition to support replication studies for evidence-based teaching interventions. Submit comments to **Mark Schneider, Director, IES** ([Mark.schneider@ed.gov](mailto:Mark.schneider@ed.gov))
- 2017 Emerald/HETL Education [Outstanding Doctoral Research Award](#) deadline **March 1, 2019**
- Association for Women Geoscientists [Chrysalis Scholarship](#) deadline **March 31, 2019**
- Association for Women Geoscientists [Outstanding Educator Award](#) deadline **April 1, 2019**
- National Science Foundation [Improving Undergraduate STEM Education: Education and Human Resources](#) (Exploration and Design Tier for Engaged Student Learning & Institution and Community Transformation) Submission Window **October 1, 2018-September 30, 2019**

### Submit to the GER Exchange

NAGT-GER provides monthly updates on professional opportunities, funding, articles of note, researcher profiles, and other content of interest to our membership. Please consider [contributing items](#) of interest for inclusion in future editions of the Exchange!

For questions, or to join the GER Communications Committee, contact Media Director [Emily Ward](#).



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This monthly email goes out to all GER Division members to share opportunities and ideas relevant to the community.

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