

MARCH 2020



THE GER EXCHANGE

Promoting high-quality scholarly research in geoscience education.

GER Division Elections

Nominations for new GER officers due by April 17th

Are you looking to get more involved in the GER Division or know someone who is? Consider submitting your nominations for one of the open officer positions! Self-nominations welcome. We are looking for people to serve in the following positions:

- **Vice President**
- **Secretary**

For more information about the duties for each position, the officer responsibilities are described in the [GER bylaws](#) and laid out on our annual calendar [here](#). [Current officers](#) would also be happy to talk with you about their position. Submit nominations to [Katherine Ryker](#) (chair of the Nominations and Election Committee) with 2-3 sentences on why you'd like to be involved by **April 17th**.

Call for Nominations for GER Transformation and Collaborations Award

Nomination process is now open!

development of and capacity for geoscience education research, including non-GER colleagues (e.g. geophysicists, educational psychologists, education researchers, etc.) who have infused the GER community with new ideas.

Find out more [here](#) and **make your nominations by May 15th!**

Featured Publication

[Making Sense of Persistence in Scientific Purgatory: A Multi-Institutional Analysis of Instructors in Introductory Science, Technology, Engineering, and Mathematics \(STEM\) Courses](#)

Prior research points to a variety of factors that influence student persistence in science, technology, engineering, and mathematics (STEM) degree programs. Little attention, however, has been given to how STEM faculty understand these processes and subsequently frame their role in supporting students. To address this gap, this article reports on an analysis of the interpretive frames through which instructors of introductory STEM courses make sense of the factors that influence student persistence and success in STEM degree programs. Interview data were collected from 73 instructors of introductory STEM courses at six predominantly white institutions of higher education across the United States. The coding of interviews included concept and theoretical coding using cluster analysis, multidimensional scaling, and correspondence analysis. The coding process identified six unique interpretive frames through which instructors made sense of student persistence. These frames varied greatly in the ways that students were perceived to have agency in shaping their persistence and success in STEM, as well as the steps that can be taken to ameliorate social inequalities in these outcomes. The findings thus have important implications for how researchers and program designers frame strategies that can support student persistence outcomes in STEM degree programs.

[Ferrare, J. J., & Miller, J. M. \(2020\). Making sense of persistence in scientific purgatory: A multi-institutional analysis of instructors in introductory science, technology, engineering, and mathematics \(STEM\) courses. *The Journal of Higher Education*, 91\(1\), 113-138.](#)

Upcoming Conferences

Earth Educator Rendezvous 2020

[Check out the agenda for 2020](#) and [submit your own abstracts](#) by **March 2, 2020**.

The GER division would like to invite our membership to participate in a writing retreat presented by Peggy McNeal, Towson University on "Writing as a Community of Practice". [Prior registration is required](#) and space is limited.

The GER division will also be hosting a mixer at the EER, and more information will be provided closer to the date of the meeting.

Inaugural X-DBER Conference

May 18-19, 2020 at the University of Nebraska-Lincoln

[Register on the conference website.](#)

The organizing committee is pleased to invite you to X-DBER 2020, a conference exploring themes in discipline-based education research across STEM disciplines. This conference aims to foster cross-disciplinary conversations focused on several core themes: educational tools and interventions; learning and cognitive research; diversity, inclusion, and equity; student experiences and affect; and integrating disciplinary practices. Financial support for hotel accommodations will be provided for a limited number of participants.

Invitation to Submit Article to Special Issue of the Journal Water

Contributions are invited for a Special Issue of the journal Water (ISSN 2073-4441) focused on water education efforts to foster water literacy. Submissions should describe research on the design, implementation, and impact of innovative water education programs that support learners to develop understanding of core horological concepts and relationships between water and human activities. Such programs might include K-12 or postsecondary curricula or courses, outreach programs with youth or adults, preservice teacher education, and/or professional development with K-12 educators, informal educators, or postsecondary faculty, each of which may focus on education about some aspect(s) of natural and/or managed water systems.

[Please see the journal's special issue website for more information.](#)

This is a wonderful opportunity to showcase empirically-based water education programs, strategies, and approaches.

Job and Graduate Student Opportunities

● **Northern Illinois University invites applications for a Postdoctoral Researcher in the Science of Learning.** For more information, interested candidates should contact Nicole LaDue (nladue@niu.edu). To apply, submit a cover letter describing how this position aligns with your background and goals, a CV, and contact information for three references. Application review for this position will begin March 15, 2020 and will continue until the position is filled. Preferred start date is June 1, 2020, but start date is negotiable

● **Science Program Officer Position for the Heising-Simons Foundation in Los Altos, Ca.** Full job posting and [applications details are posted on the website](#).

● **The Department of Geology & Environmental Geosciences at Northern Illinois University is seeking a graduate research assistant (GRA) to support a scholarship program for undergraduate students.** Visit the [BELONG in STEM website](#) for more information.

Grant, Award, and Scholarship Deadlines

● [Paleontological Society Outreach and Education Grant](#) deadline **March 2, 2020**

● 2020 Emerald/HETL Education [Outstanding Doctoral Research Award](#) deadline **March 15, 2020**

● Association for Women Geoscientists [Chrysalis Scholarship](#) deadline **March 31, 2020**

● Association for Women Geoscientists [Outstanding Educator Award](#) deadline **April 1, 2020**

● National Science Foundation [Improving Undergraduate STEM Education: Education and Human Resources](#)

- Institutional and Community Transformation Capacity-Building- February 4, 2020
- Engaged Student Learning and Institutional and Community Transformation Level 1- February 4, 2020
- Institutional and Community Transformation Capacity-Building- August 4, 2020
- Engaged Student Learning and Institutional and Community Transformation Level 1- August 4, 2020

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 [Lauren Neitzke-Adamo](#).



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