

MARCH 2017



THE GER EXCHANGE

Promoting high-quality scholarly research in geoscience education.



March 2017 Spotlight: Kaatje van der Hoeven Kraft

The [March 2017 GER Spotlight](#) is Dr. Kaatje van der Hoeven Kraft, Geology Faculty at Whatcom Community College. In her profile, she describes her career as a faculty member and researcher at a two-year college (2YC), and shares strategies for finding fun and interesting projects and staying productive in writing. Read the full [March 2017 Spotlight here!](#)

[GER Toolbox](#) **Now Available**

Last year, NAGT GER members were asked to contribute to a geoscience education research (GER) community needs survey. The results of the survey indicated there was community interest in identifying useful instruments and analytical tools, as well as getting advice/mentoring on different aspects of GER. In response to this need, and with funding from the National Science Foundation, members of the GER community have collaboratively developed an [online toolbox](#) of resources to help faculty start or improve how they do research on geoscience teaching and learning. Included in the toolbox are resources and advice on: Instruments and Surveys, Analytical Tools, Conducting GER Studies Across Institutions, Navigating a Career in GER, Getting Published, and Translating Results into Practice. This [GER Toolbox](#) is now live on the NAGT website.

Featured Article

Gender Differences in Recommendation Letters for Postdoctoral Fellowships in Geoscience

"Gender disparities in the fields of science, technology, engineering and mathematics, including the geosciences, are well documented and widely discussed. In the geosciences, despite receiving 40% of doctoral degrees, women hold less than 10% of full professorial positions. A significant leak in the pipeline occurs during postdoctoral years⁴, so biases embedded in postdoctoral processes, such as biases in recommendation letters, may be deterrents to careers in geoscience for women. Here we present an analysis of an international data set of 1,224 recommendation letters, submitted by recommenders from 54 countries, for postdoctoral fellowships in the geosciences over the period 2007–2012. We examine the relationship between applicant gender and two outcomes of interest: letter length and letter tone. Our results reveal that female applicants are only half as likely to receive excellent letters versus good letters compared to male applicants. We also find no evidence that male and female recommenders differ in their likelihood to write stronger letters for male applicants over female applicants. Our analysis also reveals significant regional differences in letter length, with letters from the Americas being significantly longer than any other region, whereas letter tone appears to be distributed equivalently across all world regions. These results suggest that women are significantly less likely to receive excellent recommendation letters than their male counterparts at a critical juncture in their career."

Dutt, K., Pfaff, D. L., Bernstein, A. F., Dillard, J. S., & Block, C. J. (2016). [Gender differences in recommendation letters for postdoctoral fellowships in geoscience.](#) *Nature Geoscience*, 9, 805-808.

Geoscience Education Transdisciplinary Spatial Learning (GET Spatial)

Through the collaboration of cognitive psychologists, education researchers, and geoscience educators, the [Geoscience Education Transdisciplinary Spatial Learning Network \(GET Spatial\)](#) aims to develop educational tools that can help students, across classroom and field settings, to better understand and build upon historically difficult geoscience concepts. These educational tools will be developed as a result of interdisciplinary effort, with a focus on two spatial learning principles: Spatial feedback and spatial accommodation.

[Blog posts](#) will be added regularly to stimulate conversation and communicate to broader community about the work already underway.

Job, Internship, and Scholarship Opportunities

- [Senior Associate Director for Teaching Initiatives & Programs](#), McGraw Center, Princeton University (preferred consideration submission by **March 3, 2017**)
- [Seasonal Science Educator](#), Mount St. Helens Institute (deadline **March 6, 2017**)
- [Visiting Assistant Professor](#), Geology, Oberlin College (review begins **March 17, 2017**)
- [Education Programs Coordinator](#), Geological Society of America (deadline **March 22, 2017**)
- [Seasonal Education and Interpretation Internship](#), Mount St. Helens Institute
- [Seasonal Interpretation Internship](#), Mount St. Helens Institute

NAGT Council Meeting Summary

The NAGT Council met on February 10, and GER President Todd Ellis provides a summary for GER members. Topics discussed included plans for geoscience education advocacy, discussion of NAGT's mission and vision, changes to banking and taxation within the society, and reminders for the upcoming Earth Educators' Rendezvous. See the full [Feb. 2017 NAGT Council Meeting summary here](#).

Upcoming Grant and Award Deadlines

- National Science Foundation *Building Community and Capacity in Data Intensive Research in Education* Full Proposal Deadline **March 15, 2017**
- Paleontological Society *Outreach and Education Grant* Application Deadline **March 24, 2017**
- National Science Foundation *STEM + Computing Partnerships* Full Proposal Deadline **March 29, 2017**
- Association for Women Geoscientists *Chrysalis Scholarship* Application Deadline **March 31, 2017**
- National Association of Geoscience Teachers *Shea Award* Nomination Deadline **April 1, 2017**
- Association for Women Geoscientists *Outstanding Educator Award* Nomination Deadline **April 1, 2017**
- National Science Foundation *Dear Colleague Letter: Public Participation in STEM Research: Capacity-building, community-building, and direction-setting* Application Deadline **April 11, 2017**
- Spencer Foundation *Small Research Grants* Full Proposal Deadline **May 1, 2017**
- International Association for Geoscience Diversity *Inclusive Geoscience Education and Research Awards* Nomination Deadline **May 1, 2017**

*Join the **STEM DBER Alliance***

With funding from the Helmsley Trust, AAAS and APLU held a meeting of discipline-based education researchers (DBER) in November 2016 to discuss building a cross-DBER community of scholars. You can read more about the [inaugural meeting here](#).

From that conversation emerged a vision for a cross-disciplinary STEM DBER community that will advance and disseminate knowledge and theory that promote learning and success for all students across STEM fields. This community has the opportunity to address complex, cross-cutting research questions, as well as issues that arise in individual disciplines and can best be understood and addressed with theories that transcend disciplines. At its core, this STEM DBER community will focus on undergraduate learning and teaching at 2- and 4-year colleges and universities, with links to K-12 and graduate education. STEM is broadly defined to include social and behavioral sciences, and **participation of geoscientists is crucial to seeing our community well-represented in this conversation**.

You can join the conversation by [joining the STEM DBER Alliance now!](#)

Summer Professional Development Opportunities

- [Earth Educators Rendezvous](#), July 17-21, 2017, University of New Mexico, Albuquerque, NM (submission deadline **March 3**, travel stipend application deadline **April 1**, early registration deadline **May 1**)
- AAC&U 2017 [Institute on High-Impact Practices and Student Success](#), June 24-27, 2017, Boston University, Boston, MA (application deadline **March 8**)
- 2017 Science Education for New Civic Engagements and Responsibilities (SENCER) [Summer Institute](#), August 3-6, 2017, Stony Brook University, Stony Brook, NY (early [registration](#) deadline **March 13**)
- 2017 Project Kaleidoscope (PKAL) [STEM Leadership Institute](#), July 11-16, July 18-23, or July 25-30, 2017, Adamstown, MD ([application](#) deadline **March 14**)
- AAC&U 2017 [Institute on Integrative Learning and Signature Work](#), July 11-14, 2017, Loyola University, Chicago, IL (application deadline **March 15**)

- American Meteorological Society's [Climate Studies Diversity Project Course Implementation Workshop](#) (for minority-serving institution faculty members), May 21-26, 2017, Silver Spring, MD (application deadline **March 15**)
- 2017 [Google Earth Engine User Summit](#), June 12-14, 2017, Mountain View, CA (application deadline **March 21**)
- NAGT [Workshop for Early Career Geoscience Faculty](#): Teaching Research, and Managing Your Career, July 9-13, 2017, University of Maryland, College Park, MD (application deadline **March 22**)
- Goldschmidt Conference: Education Outreach and Career Opportunities [theme](#) (sessions on "Promoting Geoscience in Schools and the Community" and "Technology Enhanced Learning in Geoscience Teaching"), August 13-18, 2017, Paris, France ([abstract](#) submission deadline **April 1**)
- [Case Studies in Science Workshop](#), May 22-26, 2017, University at Buffalo, State University of New York (first-come, first-serve registration process)

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 Communications Committee Chair [Kelsey Bitting](#).

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