



THE GER EXCHANGE

Promoting high-quality scholarly research in geoscience education.



Dec. 2016 Spotlight: Leilani Arthurs

The **December 2016 GER Spotlight** is Dr. Leilani Arthurs, Assistant Professor of Earth & Atmospheric Sciences at the University of Nebraska-Lincoln. In her profile, she describes the importance of geoscience education research for preparing students to become global citizens, describes her position at UNL, and seeks potential research collaborations around novice conceptions in instruction, science literacy in environmental decision-making, metacognition, and the adoption of evidence-based teaching practices. Read the full [December 2016 Spotlight here!](#)

Featured Article

[Commentary: A Summary and Analysis of Twenty-Seven Years of Geoscience Conceptions Research](#)

"Seventy-nine studies in geoscience conceptions appeared in peer-reviewed publications in English from 1982 through July 2009. Summaries of the 79 studies suggest certain recurring themes across subject areas: issues with terms, scale (temporal and spatial), role of prior experience, and incorrect application of everyday knowledge to geoscience phenomena. The majority of studies reviewed were descriptive and employed only one method of data collection and response type. Eleven-fourteen-year-olds and university undergraduates were most commonly represented in the samples. A small percentage of studies of geoscience conceptions of K-12 students made reference to standards documents or a curriculum as justification for the research design. More directed descriptive studies, along with greater parity between descriptive and intervention studies is needed. Greater attention to developmental theories of concept acquisition, national standards documents, and intersection with cognitive science literature are warranted."

Cheek, K. A. (2010). [Commentary: A Summary and Analysis of Twenty-Seven Years of Geoscience Conceptions Research](#). *Journal of Geoscience Education*, 58(3), 122-134.

Job, Internship, and Scholarship Opportunities

- [STEM Program Director](#), American Association for the Advancement of Science (click "Browse AAAS Jobs," search for position)
- [STEM Education Research \(Math\) Program Director](#), American Association for the Advancement of Science (click "Browse AAAS Jobs," search for position)
- [Assistant Professor of Earth Sciences](#) (research field unspecified), Ohio State

University at Newark (Requisition #420687, deadline **December 5, 2016**)

● [Renewable Term Instructor of Science Education](#), Earth Science, University of Northern Iowa (Requisition # 51113, deadline **January 6, 2017**)

● [Visiting Assistant Professor/Visiting Instructor](#), Geology and Environmental Science, James Madison University (Posting # 0407728, review begins **January 13, 2017**)

● [Post Doctoral Research Associate](#), Mathematics and Science Teaching Institute, University of Northern Colorado (deadline **May 15, 2017**)

Upcoming Grant and Award Deadlines

● National Science Foundation [Alliances for Graduate Education and the Professoriate \(AGEP\)](#) Full Proposal Deadline **December 9, 2016**

● National Science Foundation [ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers](#) Letter of Intent Deadline **December 14, 2016**

● National Science Foundation [Improving Undergraduate STEM Education: Education and Human Resources](#) (Development and Implementation Tier) Full Proposal Deadline **January 11, 2017**

● Spencer Foundation [Small Research Grants](#) Full Proposal Deadline **February 1, 2017**

● National Science Foundation [Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science \(INCLUDES\)](#) Preliminary Proposal Deadline **February 14, 2017**

● 2016 Emerald/Higher Education Teaching and Learning Association [Doctoral Research Awards](#) Application Deadline **March 1, 2017**

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!

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