

# Publishing Articles on Diversity and Inclusion in the Geosciences

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# WHY PUBLISH AN ARTICLE?

- NEW TECHNIQUE TO BETTER EDUCATE STUDENTS
- NEW TECHNIQUE TO GENERATE INTEREST IN GEOSCIENCES
- REPORT ON A SUCCESSFUL PROJECT OR INITIATIVE
- MAKE A NEW CONNECTION IN PEDAGOGY
- REVIEW THE STATE OF THE ART IN AN AREA



# SCIENTIST OR SOCIAL SCIENTIST?

- DATA DRIVEN VS PEDAGOGY DRIVEN
- ARTICLES VARY ACROSS THE SPECTRUM
- CHOOSE THE RIGHT JOURNAL
- CHOOSE THE RIGHT CATEGORY

# THE LITERATURE SEARCH

- **DEPENDS UPON TOPIC**
- **EDUCATION LITERATURE: EG, *JOURNAL OF GEOSCIENCE EDUCATION***
- **SOCIAL SCIENCE LITERATURE: NUMEROUS**
- **DAISYCHAINING**

# POTENTIAL JOURNALS

- **Earth's Future**
- **Geosphere**
- **International Journal of Science Education**
- **Journal of College Science Teaching**
- **Journal of Geoscience Education**
- **Journal of Research in Science Teaching**
- **Science Education**
- **Others**



# JOURNAL OF GEOSCIENCE EDUCATION

**St. John, K., Petcovic, H., Stokes, A., Arthurs, L., Callahan, C., Feig, T., Gates, A., Gray, K., Kortz, K., McNeal, K., Nagy-Shadman, E., Teed, R., and Van Hoesen, J., 2016, Un-packaging Manuscript Preparation and Review Guidelines for Curriculum and Instruction and Research Papers, *Journal of Geoscience Education*, vol. 64, p. 1-4, DOI: 10.5408/1089-9995-64.1.1.**

# TYPES OF ARTICLES

- Research
- Curriculum & Instruction
- Commentaries
- Literature Reviews



# EXAMPLES OF PAPERS

**Gates, A.E., McNeal, K., Riggs, E., Sullivan, S. and Dalbotten, D. (eds.), 2019, New Developments in Diversity and Inclusiveness in Geosciences, *Journal of Geoscience Education*, vol. 67, no. 4, 285-517.**



# RESEARCH STUDY

- Empirical research papers describe data collection and analyses to answer a specific geocognition or geoscience education research question or test a hypothesis.
- Theoretical research papers describe new geocognition or geoscience education theories, including philosophies, developed to fill a theoretical or philosophical gap.
- NOVEL IDEA OR TECHNIQUE
- DATA COLLECTION: EFFECTIVENESS IN LEARNING OR ATTITUDE
- FULL CHARACTERIZATION OF STUDY GROUP
- DATA/STATISTICS
- BEST TO HAVE A CONTROL GROUP
- IRB

# DATA SOURCES

- **AUTHENTIC DATA COLLECTION - SURVEYING**
  - **QUANTITATIVE - LIKERT**
  - **QUALITATIVE - INTERVIEWS**
- **INSTITUTIONAL RESEARCH – GRADES, GPA**
- **HIGHER EDUCATION CLEARING HOUSE – IN COLLEGE?**
- **LONGITUDINAL DATA – STAYING IN CONTACT**

# CURRICULUM & INSTRUCTION

**The main purpose of a Curriculum & Instruction paper is to share innovative materials or approaches relevant to teaching and learning in the geosciences.**

- Curriculum papers describe new materials developed for geoscience-related instruction and provide evidence of their effectiveness.
- Instructional Approaches papers describe new teaching methods developed for geoscience-related instruction and provide evidence of their effectiveness.

# COMMENTARY

**The purpose of commentaries is to provide a critical or alternative viewpoint on a key issue or provide insight into an important development that is of broad interest to geoscience educators or researchers.**

- Topic and approach
- Context
- Opinion/viewpoint
- Conclusions and/or recommendations

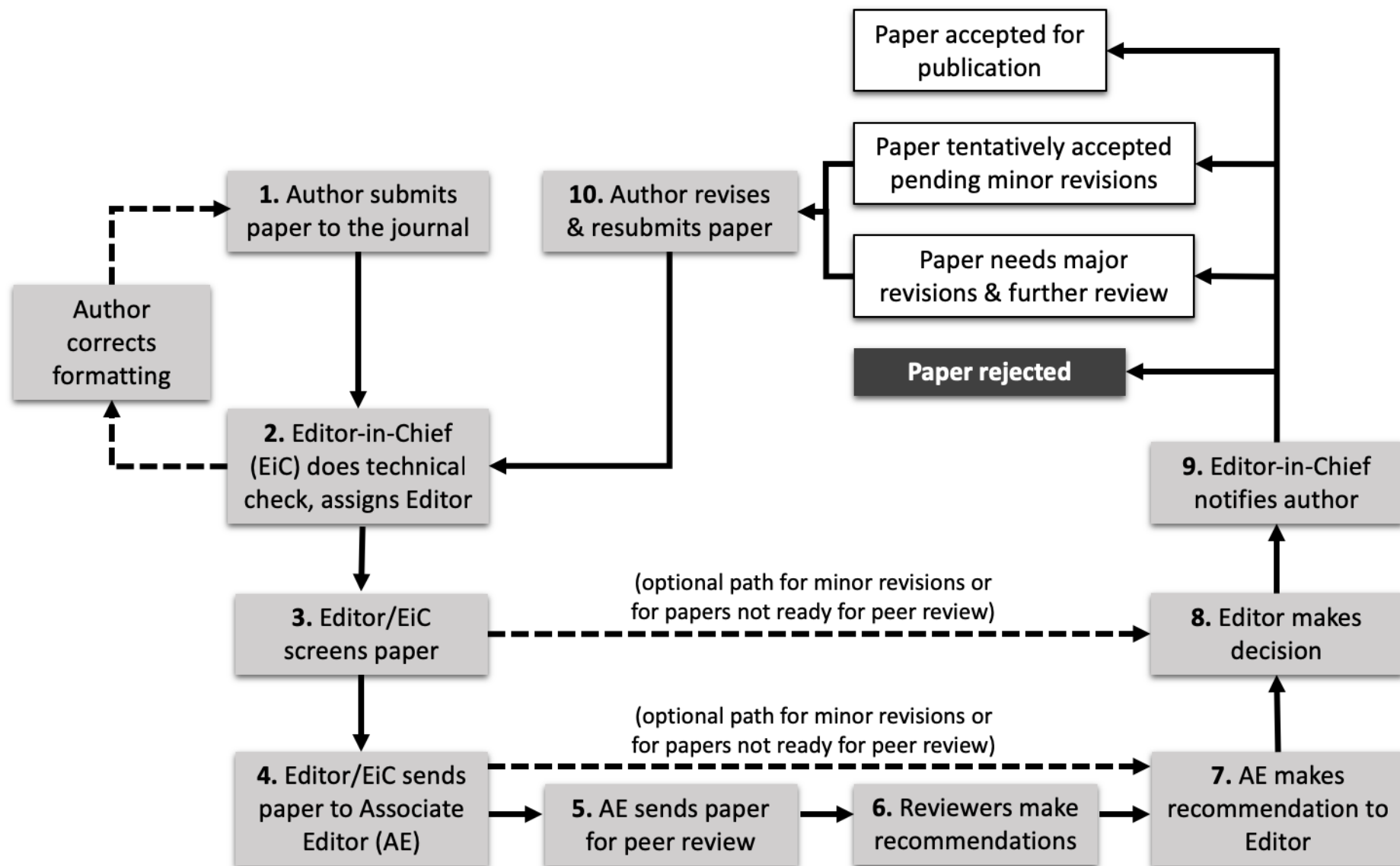


# LITERATURE REVIEW

**The purpose of literature reviews is to synthesize and evaluate the published literature on a topic within geoscience education research or practice.**

- Thesis question
- Review methods and time frame
- Analysis
- Conclusions and recommendations

# REVIEW PROCESS AT JGE



# TIPS

- **DO NOT REINVENT THE WHEEL**
- **KEEP YOUR WRITING PROFESSIONAL**
- **KEEP YOUR WRITING SIMPLE AND EFFICIENT**
- **INCLUDE EVERYTHING THAT IS REQUIRED IN SUBMISSION**
- **FOLLOW THE FORMATTING REQUIREMENTS**
- **MAKE OR ADDRESS ALL SUGGESTED CHANGES**
- **IF YOU HAVE A QUESTION, ASK**



NE/SE  
COMBINED GSA  
MEETING,  
RESTON, VA

DEADLINE:  
DECEMBER 10

Blair R. Tormey; and Paul J. Hearty.

**Description:** Conrad Neumann was a pioneering oceanographer and marine geologist at the forefront of research on sea-level and climate change, carbonate platforms, reefs, bioerosional notches, and biohermal mounds. This symposium welcomes abstracts related to Conrad's research, teaching, and artistry, which left an indelible mark on these fields of endeavor.

[➤ Submit an abstract to this session](#)

#### S4. New Developments in Diversity and Inclusion in the Geosciences

Alexander E. Gates; and Marilyn J. Suiter.

**Description:** There have been many new efforts to attract and retain women, underrepresented minorities, and persons with disabilities to the geosciences, with impressive results. This session will highlight successful initiatives that are making an impact on the field in both formal and informal education.

[➤ Submit an abstract to this session](#)

#### S5. Radionuclides: Biogeochemistry, Transport, and Geological Applications

James Kaste; and Joshua D. Landis.

**Description:** Radionuclides from cosmogenic production, nuclear fission, and U/Th decay provide powerful tracers for characterizing and quantifying earth-system processes. We invite studies measuring radionuclide activities in air, soil, sediment, vegetation, or waters, along with models applying radionuclides to measure sediment transport or mixing. Advances in analytical methodologies are also welcome.

[➤ Submit an abstract to this session](#)

#### S6. Stratigraphic Problems and Solutions in the Appalachian Basin

*Cosponsored by GSA Sedimentary Division; GSA Hydrogeology Division; GSA Karst Division.*

Daniel H. Doctor; Randall C. Orndorff; and David J. Weary.

**Description:** This symposium explores aspects of Appalachian Basin stratigraphy that provide new insights into basin architecture for energy and water resource exploration, or that may present challenges for regional correlation and geologic mapping. Especially welcome are abstracts that



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- Urban Ecology, Sustainability & Biodiversity

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- Writing & Communication Skills

## ☐ COMMUNITY ENGAGEMENT

- Local Organizations & Citizens

## ☐ FIELD TRIPS

- Newark & Beyond



**Questions?**

**Contact: [ashaki.rouff@rutgers.edu](mailto:ashaki.rouff@rutgers.edu)**

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