2019 Annual report
Anne Egger
Editor-in-Chief, Journal of Geoscience Education

Editorial board
We have established an application process for Associate Editors and are implementing three-year terms to ensure some rotation through the role. AEs may serve additional terms if their performance is satisfactory.

Current AEs:
- Alexandra Davatzes, Temple University
- Diana Dalbotten, University of Minnesota
- Todd Ellis, Western Michigan University
- Alexander Gates, Rutgers University
- Kyle Gray, University of Northern Iowa
- Stephanie Hathcock, Oklahoma State University
- Alison Jolley, University of British Colombia
- Karen McNeal, Auburn University
- Ellen Metzger, San Jose State University
- Elizabeth Nagy-Shadman, Pasadena City College
- Nir Orion, Weizmann Institute of Science, Israel
- Heather Petcovic, Western Michigan University
- Ilyse Resnick, University of Canberra
- Katherine Ryker, University of South Carolina
- Benjamin Wolfe, University of Kansas

In addition, we currently have seven guest editors. Susan Sullivan and Eric Riggs continue to serve as guest AEs for the theme issue New Developments in Diversity and Inclusiveness in Geosciences. Catherine Riihimaki and Kathleen Quardokus-Fisher are serving as guest AEs for the theme issue Large-Scale Analysis of Teaching Practices and Education Communities in STEM disciplines. Stephanie Pfirman, Anne Gold, and Gail Scowcroft are serving as guest AEs for the theme issue on polar education.

At the end of 2019 (volume 67), Alec Gates, Karen McNeal, and Nir Orion will be stepping down and we will be seeking additional AEs.

Submissions
In addition to regular submissions, we received submissions for two theme issues in 2019:
- Polar Education
  - Guest editors: Anne Gold, Gail Scowcroft, and Stephanie Pfirman
  - 13 submissions
- Large-scale analysis of Teaching Practices and Education Communities in STEM disciplines
  - Guest editors: Catherine Riihimaki and Kathleen Quardokus-Fisher
  - 11 submissions
Table 1 our monthly submissions for 2018 and the first part of 2019.

**TABLE 1. Monthly submissions**

<table>
<thead>
<tr>
<th>Month</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Feb</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Mar</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Apr</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>May</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Jun</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Jul</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Aug</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>Sep</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>76 (total – 23 revisions)</td>
</tr>
</tbody>
</table>

Theme issues clearly encourage submissions. However, we are receiving sufficient submissions to fill issues even without theme solicitations. As a result, in 2019, we are likely to meet or exceed the number of new submissions received in 2018.

Table 2 shows the types of articles submitted as of August 16.

**TABLE 2. Types of articles submitted.**

<table>
<thead>
<tr>
<th>Article Type</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commentary</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Curriculum &amp; Instruction Manuscript</td>
<td>36</td>
<td>27</td>
</tr>
<tr>
<td>Literature Review</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Research Manuscript</td>
<td>46</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99</td>
<td>63</td>
</tr>
</tbody>
</table>

The large proportion of research manuscripts in 2018 reflects the theme issue of diversity and inclusion, which received 26 submissions and only a few of those were curriculum and instruction manuscripts. Literature reviews are the least commonly submitted and are overall a weaker category of paper, but we are working to improve the quality of these submissions (see Miscellaneous).

**Turnaround time**

Since 2018, the average time between receiving a manuscript and the first decision was 60.6 days. The average time from initial submission to a final decision (accept or reject) was 190 days. Our turnaround time has improved significantly with the use of reminders and some of the automated features of Editorial Manager.
**Acceptance rate**
Since transitioning to Editorial Manager in February of 2018, our total acceptance rate is 59%. It was 50% in 2018 and is currently 67% in 2019; the 2018 rate should be interpreted with caution for several reasons. I anticipate that our acceptance rate will stabilize around 60-65% moving forward.

**Publishing**
For each issue of volume 67 (2019), we have had more articles ready for publication (and available online) than we have had pages in the journal. Along with the upcoming diversity theme issue, this has resulted in a fairly substantial backlog, approximately a full issue’s worth of articles at any given time. Our current page limits of 88 pages/issue are stipulated in our contract with Taylor & Francis, and we pay the publisher for page overages. In order to publish all of the articles submitted to the diversity theme in a single issue, we will have a total page overage of approximately 170 pages. As of the time of writing of this report, we do not have an estimate of the cost of this overage, but anticipate that it will be on the order of $2000–$5000.

**Downloads**
Downloads have been steadily increasing since the journal transitioned to Taylor & Francis. As of the end of August, 2018, total downloads were 5874; as of August 16, 2019, total downloads in 2019 were 16,317. There has been a quarter-over-quarter increase since the journal launched.

**Awards**
The **Outstanding Paper Award** goes to Benjamin A. Wolfe for his 2018 paper *Introducory geosciences at the two-year college: Factors that influence student transfer intent with geoscience degree aspirations*, Journal of Geoscience Education, 66:1, p. 36-54.
In making this award, the editors noted the strong design of the study, the important contribution it makes to the literature, and the impressive number of downloads it has already achieved. We also note that, this paper, in addition to Ben's reviews, led us to invite him to serve as an Associate Editor for the journal to bring his expertise in two-year colleges to our board. (We love to reward good work with... more work!)

The **Outstanding Reviewer Award** goes to Peggy McNeal from Towson University.
In making this award, the editors noted her thoughtfulness and attention to detail, her willingness to review revisions, and her consistency in submitting thorough, carefully considered reviews on time. Her reviews have been especially helpful as we have sought to grow our submissions from and readership in the atmospheric sciences.

**Indexing**
The journal is now indexed in Scopus and Scimago.
- Scopus is Elsevier’s abstract and citation database. They calculate a CiteScore and rank journals within different categories (link to JGE on Scopus).
  - CiteScore = 1.01 (2018), 1.13 (2017)
  - Ranked 475/1040 (54th percentile) in Education journals in 2018, 301/979 (69th percentile) in 2017
2018 comparisons for several other discipline-based education research journals (and others) are provided in Figure 1.

<table>
<thead>
<tr>
<th>Source title</th>
<th>CiteScore</th>
<th>Highest percentile</th>
<th>Citations 2018</th>
<th>Documents 2015-17</th>
<th>% Cited</th>
<th>SNIP</th>
<th>SJR</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Research in Science Teaching</td>
<td>4.31</td>
<td>97% 24/1040 Education</td>
<td>789</td>
<td>183</td>
<td>89</td>
<td>2.822</td>
<td>2.867</td>
<td>Wiley-Blackwell</td>
</tr>
<tr>
<td>CBE Life Sciences Education</td>
<td>3.15</td>
<td>94% 62/1040 Education</td>
<td>844</td>
<td>268</td>
<td>75</td>
<td>1.908</td>
<td>1.162</td>
<td>American Society for Cell Biology</td>
</tr>
<tr>
<td>Journal of Environmental Education</td>
<td>2.8</td>
<td>92% 78/1040 Education</td>
<td>196</td>
<td>70</td>
<td>76</td>
<td>1.876</td>
<td>1.022</td>
<td>Taylor &amp; Francis</td>
</tr>
<tr>
<td>International Journal of Science Education</td>
<td>1.89</td>
<td>80% 205/1040 Education</td>
<td>726</td>
<td>384</td>
<td>71</td>
<td>1.194</td>
<td>0.916</td>
<td>Taylor &amp; Francis</td>
</tr>
<tr>
<td>Journal of Chemical Education</td>
<td>1.78</td>
<td>78% 224/1040 Education</td>
<td>2,039</td>
<td>1,144</td>
<td>64</td>
<td>1.099</td>
<td>0.464</td>
<td>American Chemical Society</td>
</tr>
<tr>
<td>Journal of Geoscience Education</td>
<td>1.01</td>
<td>54% 475/1040 Education</td>
<td>121</td>
<td>120</td>
<td>51</td>
<td>0.862</td>
<td>0.414</td>
<td>National Association of Geoscience Teachers, Inc.</td>
</tr>
<tr>
<td>American Journal of Physics</td>
<td>1.01</td>
<td>42% 123/1040 General Physics and Astronomy</td>
<td>388</td>
<td>384</td>
<td>48</td>
<td>1.351</td>
<td>0.609</td>
<td>American Association of Physics Teachers</td>
</tr>
</tbody>
</table>

**Figure 1.** Screenshot from Scopus showing comparison journals.

- Scimago uses data from Scopus to calculate a variety of other statistics and rankings (link to [JGE on Scimago](#)). As of August 14, 2019:
  - H Index = 28
  - Average of 10% international collaboration
  - About 50% of published articles are cited

**Miscellaneous**
All of the covers, tables of contents, and front matter have been scanned for every issue. These will be used to assemble an online timeline of the journal.
We participated in a journal editor roundtable at AERA (American Education Research Association) (thanks to Julie Libarkin) and will do the same (remotely) at the ESERA (European Science Education Research Association) meeting in August in Bologna, Italy. These continue to expand the reach of the journal; although Julie said no one stopped by to talk to her about JGE, I did receive a phone call from someone who said they had come across JGE at the AERA meeting and wanted to know if a manuscript they were writing would be appropriate (it was).

Our partnership with GSA that allows GSA members to subscribe to JGE for $45 has only yielded a few subscriptions. GSA has promoted the offer widely but it has not been popular. It is possible, however, that even their advertising of the offer has promoted use and viewing of the journal, as it may prompt members to see if their institution already has a subscription.

In hopes of improving the quality of literature reviews submitted to JGE, we are presenting a poster at GSA (see attached abstract). Katherine Ryker, as Associate Editor, suggested it to me after reviewing a few submissions, and I asked authors of recently published well, written literature reviews to participate.
GSA ABSTRACT

264-4 HOW TO WRITE A LITERATURE REVIEW ARTICLE FOR JGE: KEY STRATEGIES FOR A SUCCESSFUL PUBLICATION

SCHERER, Hannah H., Agricultural, Leadership, and Community Education, Virginia Tech, 270 Litton-Reaves Hall (0343), Blacksburg, VA 24061, CALLAHAN, Caitlin N., Geology Department, Grand Valley State University, Allendale, MI 49401, MCCONNELL, David A., Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC 27695, RYKER, Katherine, School of the Earth, Ocean and Environment, University of South Carolina, 701 Sumpter Street, EWS 617, Columbia, SC 29208 and EGGER, Anne E., Geological Sciences and Science Education, Central Washington University, 400 E. University Way, Ellensburg, WA 98926-7418

The Journal of Geoscience Education (JGE) describes literature review articles as those which “synthesize and evaluate the published literature on a topic within geoscience education research or practice.” Most scientific articles include at least a partial review of previous work in order to situate the study within the current body of knowledge. In contrast, a literature review article presents findings from a deep and rigorous interrogation of the literature that addresses a focused purpose or question. A literature review is much more than the summary of the contents of a collection of papers. Consistent with other types of research studies, literature reviews are systematic, methodologically sound, and generate new knowledge that is relevant to the field.

While the nature of literature review articles can provide considerable flexibility to the authors, effective reviews both within and beyond geoscience education research meet the current JGE review criteria and incorporate a thesis question, review methods and time frame, analysis, and conclusions and recommendations. For example, thesis questions could be motivated by a need to bridge a topic in geoscience education with findings from another discipline (e.g. cognitive science) or a need to make sense of the literature in a particular area within geoscience education (e.g. systems thinking). Methods could be deductive (e.g. using an existing theoretical framework to classify articles) or inductive (e.g. open coding and theme development). Rigorous analysis can result in findings that illuminate changes in methodological approaches over time, provide a decision-making guide for practitioners, or highlight gaps in the research.

Drawing on our collective experience in authoring, reviewing, and editing literature review articles for JGE, we provide recommendations and strategies for potential authors. Additionally, we describe the different roles research team members can play, and we discuss effective approaches to managing the varying tasks necessary to conduct a systematic review. Finally, we use research themes in A Community Framework for Geoscience Education Research to illustrate the process of developing a literature review article and the variety of potential reasons for and approaches to conducting systematic reviews.

Session:

264: T190. Making Sense of Methodologies and Theoretical Frameworks in Geoscience Education Research (Posters) Katherine Ryker, School of the Earth, Ocean and Environment, University of South Carolina, Columbia, SC, Karen McNeal, Geosciences, Auburn University, Auburn, AL, Leilani Arthurs, Department of Geological Sciences, University of Colorado at Boulder, Boulder and Emily M. Geraghty Ward, Geology Program, Rocky Mountain College, Billings, MT