

**Publishing Biology Education
Scholarship: Culture & Practice**
(focus: journal articles)

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(Publication of the Ecological Society of America)

Message

Biology faculty need help with the practice of education publishing because they have not been involved in the culture of education publishing.

ASM Biology Scholars Program- Writing Residency

BiologyScholars.org

What was confirmed:

- Biology faculty are publishing education scholarship at increasing rates
- Quality of submissions is improving
- However, many faculty still need a good deal of help with their submissions
- Others are surprised to know this

Professor Dewey wishes to publish his findings - strengths, limitations?

Asset - knows

- publication process
- how to write a scientific research paper
- how to analyze data

However, in contrast to publishing his biology research, there is much he is not familiar with and does not know!

Culture of publishing biology
education scholarship

Issues

- Which journals?
- Context & Background - interesting questions, critiques
 - Literature
 - Colleagues

What we see as editors

- Many faculty use a few “standard” references (e.g. NRC - *How People Learn*)
- May be missing some core, relevant work
- Conception of how their work fits into a larger context is often limited
- May need help with qualitative analysis

Implications

- Editors & reviewers need to work with many faculty to help them write better articles
- Biology faculty need help with the whole process of publishing their education scholarship - our professional societies can play an important role here

Role of Biological Professional Societies

- Workshops at meetings - repeated
- Publication(s)
- Coordination between societies about this issue and what to do - oversight committee that includes education journal editors

Fundamental barriers

Faculty member is going to quickly face issues of time & motivation. Why publish education scholarship? Will it be worth the



REWARD SYSTEM

How do we see ourselves?



Journals that publish biology education scholarship

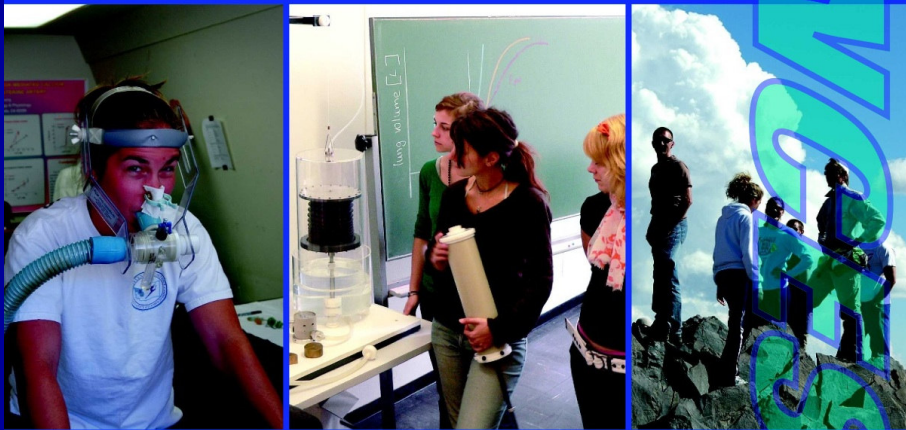
- Professional Society Education Journals
- Biology Research Journals
- Education Research Journals

Biological Society Peer-reviewed Publications

Journal/Publication	Society	First Published
<i>Cell Biology Education</i>	American Society of Cell Biology	2002
<i>Advances in Physiology Education</i>	American Physiological Society	1989
<i>Biochemistry & Molecular Biology Education</i>	International Union of Biochemistry & Molecular Biology	1972
<i>Teaching Issues & Experiments in Ecology</i>	Ecological Society of America	2004
<i>Journal of Molecular & Biology Education</i>	American Society for Microbiology	2000
<i>Journal of Nutrition Education and Behavior</i>	Society for Nutrition Education	2001

ADVANCESⁱⁿ PHYSIOLOGY EDUCATION

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by The Amer. Soc. Cell Biology
(formerly *Cell Biology Education*)

- Free, online quarterly (High Wire Press)
- Features, Articles, Essays
- K-12, undergrad. grad
- Supported by HHMI

TIEE

TEACHING ISSUES AND EXPERIMENTS IN ECOLOGY

— a peer reviewed publication of ecological educational materials
by the Ecological Society of America

CURRENT VOLUME

ALL VOLUMES

ABOUT TIEE

SUBMIT WORK

SEARCH

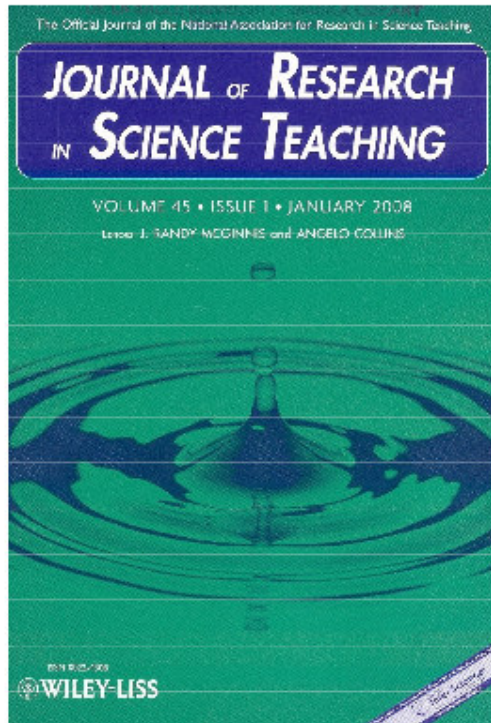
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Teaching Issues & Experiments in Ecology (TIEE)

published by Ecological Society of America

- Electronic, free
- Research, Practice (field, lab classroom), Reviews
- Supported by CCLI grants
- In transition



Journal of Research in Science Teaching
Published by the National Association
For Science Teaching (NARST) & Wiley

Scientific Journals

- *BioScience (AIBS) - Forum, Overview*
- *Science (AAAS) - Education Forum*

Summary:

- Biologists are publishing education research; often in their society's education journal
- In these journals submissions rates are increasing and quality is improving
- Faculty need help writing education papers; editors and reviewers are helping them
- Biological professional societies could work together provide more guidance and resources for faculty