EDITOR'S NOTE:

Creating Engaging Abstracts For The Journal Of Astronomy & Earth Sciences Education

ABSTRACT

The crafting of journal article abstracts is a consistent weakness among authors across many disciplines. Far too many abstracts serve as brief "teasers" and fail to comprehensively provide a summary of the research. Abstracts that result in the largest number of article citations are those that follow a simple writing formula that starts with a broad description of the field and highlights what is as yet unsatisfactorily examined in the existing literature. The middle section provides the research question, a description of the study-participants, and the research methods used. Finally, desirable, comprehensive abstracts that present a summary of the paper include illustrative results and a short statement of evidence-based conclusions.

cholars often devote many weeks, and sometimes even many months, to crafting a research article for peer-reviewed publication. Even after all the data has been converted into evidence and conclusions carefully justified, authors must be meticulous in getting all the tables perfectly laid out, all the cited references in just the right format, and all of the oxford commas justified appropriately. After all those diligent efforts, taking time to carefully construct the perfect 150-word abstract might seem rather anticlimactic. However, I would argue that an article's abstract might well be the most important part of the entire article publishing process.

What should an abstract look like? When actively writing scholars are digesting a seemingly infinite portfolio of journal articles to use as references to frame their own studies and construct their literature reviews, your article's abstract may be the only portion of your research report that is carefully read. Recognizing this, you might be mistakenly encouraged to write your article's abstract as a teasing appetizer or cliff-hanging book jacket blurb designed to coerce a researcher to read your entire article from first word to last, and ingest every nuance. Alternatively, you might try to capture readers' attentions by being humorous rather than clinical (Cham, 2009). Unfortunately, abstracts that are incomplete and fail to concisely and compellingly deliver your article's research conclusion encourage readers to skip right past your article. In other words, when an abstract is incomplete, most readers assume that the gems of data and conclusions in your article will be too difficult to uncover in the scarce amount of time available.

Abstracts that area most useful to scholars are those that serve as complete summaries of your article. This means that all the most pertinent information is succinctly delivered. A formula derived from longstanding and widely regarded recommendations by Kelsky (2015, Chp. 51) prescribe:

- A broad statement alerting the reader's attention to the specific domain of research
- A specific statement about what is known and what is not yet known highlighting a gaping hole in the literature that needs to be filled
- The specific research question the article addresses in response to the deficit in the scholarly knowledge base
- A long statement listing the research design, the number and brief demographics of participants, and the research method used
- A brief sentence listing some illustrative results, including pretest and posttest scores if used
- A conclusion directly related to the research question and the identified hole in the literature
- Bread crumbs for a call to action or importance of next-steps future research needed to be taken the research community, if space allows

A comprehensive abstract such as this telegraphs to would be readers that your research writing is succinct, that methods and results are clearly presented, and that your research report is complete and worthy of citing in other's papers. Perhaps most often overlooked is a description of the sample of study-participants (Slater, Slater, Heyer, & Bailey, 2015, p. 49). This information is critical for other scholars to know up front so that they can discern whether

or not your article is relevant to their work.

Timothy F. Slater, Ph.D. Editor-in-Chief

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