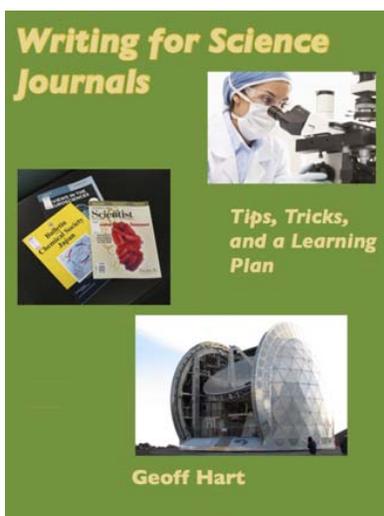# Writing for Science Journals by Geoff Hart

Book review by Dave Gardiner

Geoff Hart has edited over 6000 journal articles, written more than 400 of his own papers, and is a Fellow of the Society for Technical Communication. At 600 pages, his new book is packed with invaluable tips and 'dirty secrets' to put the scientific researcher in the best position to be published.

Starting with ethics, the discussion covers how the researcher maintains the integrity of information in research and analysis, how to ensure quality assurance so others can use the results, and the responsibilities of reviewers.

Choosing a journal looks at matching the research topic with the journal's subject matter, and the chapter on outlining shows how mapping out topic headings can reveal missing information. It also helps with the logical sequence of thoughts when presenting a paper. The provided checklists of issues for introduction and method is also handy.

Using your word processor has good tips for setting up templates and styles, shortcuts for Windows and Mac, and using different view modes, but this could perhaps be better placed before the chapter on outlining.

Structure and format of a journal manuscript sets the scene for laying out the paper. In *First pages*, Geoff shows how much impact a well-crafted title and abstract has on a paper being selected for publication. It is good to see occasional tips on 'dirty secrets' – advice on what happens behind the scenes with journal publishers so you can gain advantage to be accepted for publication.

In *Methods and materials*, there is a great deal of detail about scientific research methods and analyses, and not just how to write about methods; this is a good reality check for early-career researchers to ensure that their methods are appropriate.

The book wanders further into scientific methods with a chapter about experimental design and statistics – this fills a gap in researchers' knowledge about how to apply statistical tests to tease out significant results; it's a useful 'cross-over' between using the correct methods and presenting them in writing.

The *Results* chapter lets you know what to leave out of a paper as well as what to put in, whilst "Don't ignore results that undermine, contradict or fail to support your argument" is poignant advice in the *Discussion* chapter.

In *References and citations* there is generic advice on where to cite papers and how to deal with problem citations.

There is a good treatment of preparing online supplementary material to accompany journal papers, including databases, images, animations and audio-visual material. This gives the reader various possibilities to consider in preparing their material for publishing, rather than being prescriptive about it.

I was pleasantly surprised to see a chapter about *English difficulties* – how to write for non-English readers. This acts like an English usage style guide and grammar refresher; much of the discussion of words (adjectives, articles) could have been improved by providing examples rather than relying on awkward grammatical definitions.

What happens behind the scenes once you have submitted a paper for publication is nicely encapsulated in chapters on *Preparing for peer review* and *The review process*. What comes from these chapters is how to best position yourself to have your paper reviewed. They equip you with some arguments and actions if your paper needs major revision or is rejected.

To top off the book, the chapter on *Useful software* has links to free and commercial tools that researchers can add to their toolkit.

This book is packed with not only writing tips, but also includes advice about the scientific methods and analyses so that researchers can follow up on other books and validate their procedures as they write.

It's heavy reading with only a few key visuals to illustrate points, but it's a good read for both scientific researchers and editors.

This book was donated for review by Geoff Hart.

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