



**In the Bookstores . . .
A New Resource for Teachers of Scientific
Writing: Turning Data into Manuscripts**

by Karen Shashok

F. Peter Woodford, with the collaboration of Maureen E. Goode and Barbara Gastel. How to teach scientific communication. Reston, Virginia: Council of Biology Editors, 1999. ISBN 0 914 34011 5.

This book, intended for the instructor as a guide for teaching scientific communication, is a completely rewritten and updated version of the well-known *Scientific Writing for Graduate Students*, first published in 1968 by the Council of Biology Editors (now known as the Council of Science Editors). The first section devotes nine chapters to the writing of journal articles, and the second section contains separate chapters on teaching how to prepare conference posters and their abstracts, scientific talks, dissertations, research grant proposals, and presentations to the lay public.

Each chapter is organised around a specific goal (for example, deciding whether the author is ready to publish, choosing the target journal, designing tables and figures, editing the text, final submission, and responding to the journal editor). To help the instructor (especially the less experienced one) get down to business, each chapter begins with a clear statement of the objectives, recommended background reading for the instructor, material to be handed out to students, assignments, and approximate timing. At the end of each chapter (which represents a single "lesson" in the course structure) is a list of references relevant to the specific topic, and a useful summary of the points that ideally will have been dealt with. This last element is a great practical aid in evaluating the effectiveness of the course.

The usefulness of the book is enhanced by the inclusion of a full suite of back matter. There are four appendices dealing with style guidelines, editing assignments for students to complete, warning words and phrases, and points of grammar and punctuation. In addition, there is an annotated bibliography, a subject index and an author index.

In his preface, the main author provides practical guidelines on how the book can best be used. He recommends that the class consist of 12 to 20 students, because of "the efficiency of teaching more than one person at a time and because the interaction with other members of the class as well as the instructor is stimulating". He assumes that students will be active scientists who have produced some research results they wish to publish. Ideally, the major assignment for the course built around this teacher's guide should be to prepare a journal article or conference poster based on each scientist's own findings. However, alternative assignments are also described for those students who may not have publishable data in hand yet when they enrol in the course.

As for the instructor, Woodford believes that the course should be taught by working scientists because of their familiarity with "the problems and pitfalls not only of publishing but of doing research". Nonetheless, he also considers this instructor's manual suitable for "those with a scientific background who are not ... in active research but are in frequent contact with scientists and scientific publishing". He clarifies that "the subject is most effectively taught by focusing on science, not language: on the scientific qualities of logic, precision, and clarity of reasoning, not on skill in turning a neat or elegant phrase". Further to this, he emphasises that the book's "major concern is not with weak style or even bad grammar, but with sound logic, good structure, and honesty. ... The book's major purpose is to help scientists strengthen their mental powers by preparing their publications in a strictly logical fashion, expressing themselves straightforwardly, and working ethically".

These values are an excellent basis for teaching scientific writing, but also assume that the students who will be taught with the help of this book are from an English-speaking cultural background. What scientists with English as their first language will consider sound logic, straightforward structure and honesty may differ from how colleagues from a different cultural background see language as a tool to communicate science. Accordingly, writing instructors who work with researchers from different cultural backgrounds will need to make selective use of the lessons, exercises and recommendations laid out so clearly in this book, and adapt them to the needs and expectations of their own students. Colleagues with a background in applied linguistics as it pertains to science writing, may disagree with some recommendations on the "marshalling of facts and ideas into section files" (chapter 3), "topic and sentence outlines" (chapter 5), and the process of revising successive drafts, but of course, experienced writing instructors will know where to mine this and other resources to extract practical solutions.

How to teach scientific communication is a valuable addition to the stock of resources writing instructors use to prepare their courses. Its strong points are excellent organisation and generous complementary information provided in the appendices and bibliography. Its only weak point as a teaching aid is chapter 9, titled "Responding to the journal editor", which is somewhat short and superficial, and includes no assignments or practical exercises. This was probably intentional, as the students are assumed to be at a stage where they are just beginning to prepare their first real manuscript, and have not yet reached the stage in their publication career where they are asked to respond to the reviewers' and editor's suggestions for revision. In fact, an entire book could probably be written on strategies for responding to these requests, and it would perhaps not have been practical to lengthen this chapter any further.

By the way, the title of this section of TWS notwithstanding, this excellent book is not available "in the bookstores", but can be ordered direct from the Council of Science Editors (see advertisement in this issue). Check their new homepage for details (www.councilscienceeditors.org), or email them at cbehdqts@aol.com.

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