

The reviewer is an assistant professor of English and technical and professional writing in the School of Humanities at Penn State Harrisburg, Middletown, PA 17057 USA (email: trk82@psu.edu)

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## **Book Review**

**Scott A. Mogull**

### ***Scientific and Medical Communication: A Guide for Effective Practice***

—Reviewed by

RUSSELL KIRKSCEY

***Index terms***—*Academic writing, medical communication, pedagogy, research methods, scientific communication.*

*Scientific and Medical Communication: A Guide for Effective Practice* serves as a comprehensive resource for readers who want practical information about writing and publishing in two related academic fields. Scott Mogull, an associate professor of scientific and technical communication at Texas State University, combines studies in scientific and medical communication (SMC), interviews with journal editors, and information from journal websites to create an inclusive view of the process. Mogull's audience is novice scientific and medical researchers, so the tone and information are well suited for undergraduate and introductory graduate research methods courses. More experienced researchers may also find the volume

useful as a handbook filled with reminders and checklists that their teams can use to ensure effective communication of their research.

Mogull describes theoretical approaches and specific examples drawn from recent journal articles and his own writing experience. This strategy creates a practical, genre-based approach to SMC research and writing methods. He also provides effective exercises that help beginning researchers to convert research data into appropriate genres. Style discussions throughout the text follow analyses of different discourse communities, including an examination of suitable uses for passive and active voice. An outstanding feature of the book is the large number of visual elements. Tables, graphs, and illustrations enhance and extend the textual information. Segments of journal articles and screenshots of web pages are overlaid with information boxes that highlight and describe the parts. Cartoons add humor with a message.

The volume follows chronological order from the beginning steps of writing in SMC to the final documents ready for submission to journals, conferences, and the media. It is divided into four sections: “Foundations,” “Writing Journal Articles,” “Presenting Research at Conferences,” and “Communicating Research Findings with the Public and News Media.” Within the sections, each chapter begins with a bulleted list of learning objectives to guide readers.

Section One begins with a chapter that emphasizes the significance of—and need for—technical communication education. Instructors in science and medical courses consistently observe that their students find writing about research a challenging task. Journal editors and manuscript reviewers often make acceptance decisions based as much on the communication competencies of the authors as on their research findings. Poor writing may cost time, money, and lives if results are not clearly articulated. Chapters 2 and 3 begin to address these challenges with an

introduction to audiences, genres, scope, and research databases. The chapter on databases provides specific strategies for creating effective and inclusive searches, cross-referencing, and keeping records of search terms.

Section Two comprises the majority of the volume and focuses on a detailed discussion of composing a journal article. Chapters are devoted to each segment of the IMRAD genre (Introduction, Methods, Results, and Discussion) and include explanations about the order in which segments should be written. Woven throughout this section is useful advice on incorporating the appropriate amount of previous research to contextualize arguments in different segments of the article. Noteworthy in Chapter 5, which considers introductions, is a discussion of the CARS model (Create a Research Space) to assist authors in defining the gap that their research fills. Chapter 6 describes the methods section and provides several examples of techniques that the authors of published articles have used to describe experiment procedures, including how to write about standard and novel processes.

In Chapter 7, Mogull emphasizes that writing about experimental results “is the core of a scientific article because this is the section that provides evidence to answer the research question” (p. 132). He provides a review of experimental versus exploratory research and a description of Consolidated Standards of Reporting Trials (CONSORT) guidelines for describing and selecting participants in randomized testing, which is the basis for much SMC research. Chapter 8 divides the discussion section of a journal article into four rhetorical moves: “Present the Principal Claim,” “Contextualize Research Findings,” “Analyze the Research Approach,” and “Conclusions.”

The last two chapters in the section discuss the final tasks of the writing and submission process that may be discounted by authors and their teams as they rush toward deadlines. Chapter 9 attends to composing the abstract and title. Using examples from his own writing process, Mogull offers excellent systematic exercises detailing how to summarize a lengthy text and create an informative title. Chapter 10 addresses the many pragmatic issues related to the submission process, including writing cover letters, publication ethics, and the peer review process.

Section Three moves to chapters about giving research talks and creating visual displays for scholarly conferences. Chapter 11 briefly introduces conference timelines and submission processes. Novice presenters will find especially helpful the passages discriminating journal abstracts from conference program abstracts. Chapter 12 provides valuable information on the visual rhetoric of scientific posters, including size, layout, color, graphics, and typography considerations.

Section Four addresses transforming academic writing into public-facing documents such as press releases. Chapter 13 considers scientific literacy and media relations, and provides checklists to ensure that the research results are released at the appropriate time. Chapter 14 teaches researchers how to write and distribute their own press releases.

The volume also includes four useful appendixes that novice and experienced authors should appreciate: “Typesetting Greek letters and Other Symbols in Microsoft Word,” “General Formatting Requirements for Research Manuscripts,” “Glossary of Terms to Describe Medical Research Studies,” and “Creating Tables in Microsoft Word.”

*Scientific and Medical Communication* is an outstanding contribution to research methods pedagogy. Mogull effectively combines scholarly research, recent examples, and personal experience to create a volume that should support the needs of students and instructors alike.