

## Doing Science

### Design, Analysis and Communication of Scientific Research

I. Valiela 2001  
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THE growing number of people interested in science has created a need for an introductory book linking the actual research with the communication of the results. *Doing Science* is a book that attempts to do this without losing the essentials of each stage of the scientific method. It aims to show that these stages are not separate topics, but a combined unit setting the framework for scientific work.

Scientific research is a complicated matter. In fact most scientists, particularly the less experienced repeatedly face the problem of how best to approach a specific question and then how to proceed with the analyses and presentation. For scientists and students, *Doing Science* is a book that presents a concise and interesting introduction to the main concerns in scientific practise. It supplies the reader with adequate advice and guidance for conducting research. The entire spectra of scientific practise is covered, from how to approach your research and gather information, to the analysis, interpretation and presentation of results. The book focuses on scientific reasoning, while detailed information on methods and practicalities of science are briefly overviewed or provided via references. In contrast to many similar books it includes a review of some important statistical analyses used in science.

However, emphasis has been placed on the communication of scientific information and the majority of the book is dedicated to this topic. The book identifies and discusses of how to best present scientific work and it concludes by highlighting the importance of viewing your own and other scientific work with a critical but open mind.

From my perspective, *Doing Science* is a great overview of applied science. It gently leads you through all stages of research and helps you avoid the common pitfalls associated with scientific work. By combining explanations and a mix of historical and contemporary examples, the reader is guided through the labyrinth of science and provided with the fundamentals of doing research. This unconventional method of presenting important topics makes the reading stimulating and educative. One negative aspect is that the initial sections of this book are based only on biological research. Naturally, certain rules apply to all sorts of research, but the reasoning and methods of biology are not always applicable in other scientific fields. However, the sections about the communication of research do apply to all fields of science and the author has succeeded in his intention to construct an introduction to scientific practice and link it with the informative stage of research.

The importance of proper communication of scientific results cannot be emphasized enough. I therefore recommend this book to all scientists who wish to improve their communication skills.