

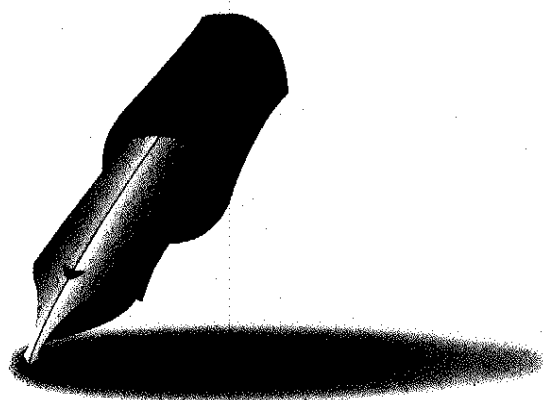
China Medical Board

Biomedical Writing Course

Table of Contents and Other Introductory Material

生物医学英语写作教程

董哲 编著



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BIOMEDICAL WRITING COURSE

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The idea of starting a biomedical writing and editing program in China was initiated by Dr. Zhe Dong, who has made tremendous effort to organize the program. Dr. Barbara Gastel is another key figure in the establishment of this program, who has offered her expertise in biomedical writing and served as an invaluable resource person. Their efforts resulted in the first electronic course of biomedical writing in China, serving medical researchers in 11 Chinese medical institutions. The course content was designed by an expert team including Dr. Zhe Dong, Dr. Barbara Gastel, Mrs. Elizabeth Whalen and Dr. Rebecca Bartow. Elizabeth Whalen prepared the major part of the primary version of this textbook, and each of the other three of the expert team made his or her contribution. With the help of Ms. Yun-e Tu, Ms. Qiu-dan Sun and Ms. Jian Zhang, Dr. Dong edited the final version of this textbook. The copyright of this textbook is in a public domain.

Preface

In December, 1995, China Medical Board of New York decided to sponsor a biomedical writing and edition program in China to improve the chances of international publication of research papers written by Chinese medical researchers. This textbook is one of the outcomes of this CMB program and was prepared initially for medical workers and researchers in 11 medical institutes in China, namely, Beijing Medical University, Peking Union Medical College, Shanghai Medical University, China Medical University, West China Medical University, Dr. Sun Yat-sen's Medical University, Hunan Medical University, Xi-an Medical University, Zhejiang Medical University, Jiujiang Medical School and Tibet Medical School. After one year of experimental use of this textbook, we put it into publication in the hope that more Chinese medical researchers may enjoy this very practical performance-based English course.

I believe the reasons for providing a medical writing course to Chinese medical professionals are especially convincing today. Biomedical scientists in China now do considerable amounts of international-quality research. However, relatively little of this research is reported in the international literature. A major reason for this discrepancy, which also exists in other fields of science and other developing countries, is the researchers' limited ability to prepare scientific papers meeting international standards. To achieve greater publication in international journals, Chinese biomedical researchers need greater command of standard international formats for publication, greater skill in pertinent aspects of writing English, greater familiarity with the publication process at international journals, and greater access to skilled editorial assistance.

The heart of the course will be a series of lessons via Internet. These lessons will be prepared mainly by an American experienced in both biomedical editing and teaching. One lesson, including an exercise to submit, will be given each week throughout the school year. Participants can complete the lesson any time during the week. The electronic lessons will be supplemented by a packet of course materials, such as sample writings, and a textbook. Fallback mechanisms, such as use of mail or fax, will be available in case of temporary difficulty with the network.

This writing course provides a highly individualized learning environment.

The goal of study is to complete, within one year, a research paper that is up to international publication standards. The on-line lessons available will lead the participants to go through the entire process of scientific paper preparation and publication. Participants can complete this process at their own pace. However, they do need to find a local instructor or resource person in addition to following the on-line instructions. If more help is needed, they have to contact the writing course headquarters at Beijing Medical University. In such cases, registration at the beginning of each school year is required. The local instructor's roles include providing face-to-face tutoring, participating in the correction of exercises, helping to identify areas requiring additional attention in the course, and otherwise participating in the course's delivery and ongoing development.

Writing is a hard job. This is particularly true when you endeavour to write a paper in a language other than your mother tongue. In this textbook, we have brought down the complete scientific paper writing process into small but concrete segments. If a participant follows our instructions and completes assignments in time, he or she will surely master the crucial skills in writing scientific papers.

This textbook is only part of the needed materials for the writing course. A participant needs to have a copy of *How to Write and Publish a Scientific Paper* by Robert A. Day. Some of the reference readings recommended in the textbook may not be available to many Chinese learners. We have, therefore, prepared a Supplementary Reading Packet. For questions related to this textbook, you may write us at <tu@mail.bjmu.edu.cn>. The Web site for the writing program is: <www.bjmu.edu.cn/edu/english>.

Zhe Dong, Ph.D
Program Director

Lesson One

Introduction to the Biomedical Writing Course

OBJECTIVES OF LESSON ONE

1. You will receive an overview of the entire course, including the course objectives, the background of the principal instructor, the development of the course, the role of the local instructors, the books for the course, the course packet, and the course's weekly activities.
2. You will enhance your knowledge of the principles and background of scientific writing.
3. Your teacher will learn more about what type of research you are doing.

OVERVIEW OF THE BIOMEDICAL WRITING COURSE

Objectives of the Course

1. By the end of the course, you will have written one research paper. The paper will be edited by a Chinese biomedical editor and an American expert editor. You will revise the paper according to the editors' suggestions and then submit it to a specific English-language scientific journal.
2. By the end of the course, you will have gained an increased knowledge of the requirements for successfully writing and submitting future articles to English-language journals, including the understanding of how local instructors can facilitate this process.
3. By the end of the course, you will have become more familiar with the main principles of some other types of scientific writing, including proposals and grant applications, conference reports and poster sessions, review papers, letters to the editor, and case reports and/or dissertations.

Organization of the Course

This course will be offered on Beijing Medical University Homepage. Your local instructor will guide you through the course. Furthermore, you will also have a contact person in the United States, who will grade your homework, give you feedback and answer your questions via e-mail. If questions arise that cannot be resolved by you, your local instructor or your contact person, you can always send those questions to us by e-mail at biomed@mail.bjmu.edu.cn, and we will answer them as soon as possible.

The Table of Contents in the front of this Course Packet gives you an idea of the content of the course. As you can see, we have a lot of material to cover, but we hope you will find it all interesting and informative.

You will have opportunities to formally evaluate the course once or twice each semester.

However, your comments are important to us throughout the course, so please feel free to e-mail us with suggestions. This allows you to participate in the development of the course as it progresses. Although we can't promise to make every change suggested, we do promise to respond to the comments to let you know if we can implement your suggestion at that point in the course.

The Local Instructors

The person who is serving as your local instructor for this course has been carefully chosen from many candidates. The local instructors have already completed an intensive, 7-week training course to prepare them for this role; they studied, among other topics, the following general areas:

- Standard style manuals and medical dictionaries used as references for scientific papers
- Cooperation between editors and authors
- Editing of scientific papers
- All phases of submitting scientific papers to English-language journal (from first draft to acceptance and publication)
- The scientific method, study design, and norms
- Biostatistics for editors
- Problems such as plagiarism, data trimming, fraud, unfounded authorship credits, and copyright infringement
- Editing case reports and grant applications
- Some important aspects of English grammar
- Preparation for their role in this course

Moreover, the local instructors are continuing to work to develop their editorial skills. They are reading and working with a comprehensive training book, *Essentials of Writing Biomedical Papers* by M. Zeiger, and they are receiving feedback from American editors on relevant, practical exercises. At some point, each of them will participate in three months of field practice in the United States, to help them understand better how American editors effectively work with authors on manuscripts.

The Course Books

This course is based on a classic book that is very well-known in the United States: *How to Write & Publish a Scientific Paper* by Robert Day. As Professor of English, Mr. Day teaches undergraduate and graduate courses in scientific writing at the University of Delaware. He also has much experience at scientific journals; he directed the publishing program at the American Society of Microbiology for 19 years, serving as Managing Editor for 9 journals, including the *Journal of Bacteriology*. This book provides much good advice on the best method by which to write a research paper that will be accepted by an American scientific journal. Occasionally, there will be jokes or American idiomatic comments whose meaning may not be immediately clear. In this Course Packet, we will explain how to deal with these idiomatic passages.

An important principle of the course is expressed on p. ix in the Preface to Day's book: "**The goal of scientific research is publication. . . . A scientific experiment, no matter how spectacular the results, is not completed until the results are published.**" That provides

the reason for which you are spending the time and the effort to complete this course; your research is not finished until it is published. This course has been developed on the principle that your research will reach more of the interested readers in your area of research if it is published in an English-language journal.

You will also have a copy of a booklet by Robert Iles, which will help you with some of the specific subjects during the course. Other reference books are available to you and your local instructor.

This Course Packet

This Course Packet contains detailed instructions and explanations, samples, and exercises. It can also serve as your entire lesson guide during weeks in which we cannot send e-mail because of technical problems.

For most weeks (when the computer network is working), you will read the Course Packet materials for the week *after* you have read the online material. The first section of each lesson will list the objectives for that lesson. The objectives will be followed by the week's assignment, printed in bold type so it can be easily found. Before you do the assignment, however, you need to finish reading the Course Packet materials for that week. These materials will introduce the assignment and explain it in the context of this course, define any material that can be skipped in the pages assigned, provide examples that will clarify the assigned readings, supplement the book readings with content relevant to this course, and sometimes contain exercises to facilitate practice. After you have gone through the materials (which I will try to limit to an average of 10 pages/week), go back to the assignment set forth in bold type and follow those instructions.

Weekly Activities of the Course

During this course, your weekly activities will usually consist of the following tasks:

1. Check the appropriate CMINET site on or after Monday of each week for any feedback or answers from us and for an introduction to that week's lesson.
2. Read the material for that week in the Course Packet.
3. Read the assigned pages in Day's book and in any other materials provided for you.
4. Do the assignment as described in bold type in the Course Packet. If you have questions about the assignment, ask your local instructor. Depending on the instructions you have been given, you will give your assignment to the local instructor for feedback, send it to me via CMINET for feedback, or both.
5. If you must miss a week's work, let the local instructor know as soon as you can so that you can plan the best way to work ahead or to catch up.

Now--let's get started!

DEFINITION AND HISTORY OF SCIENTIFIC WRITING

OBJECTIVES

1. By the end of this lesson, you will enhance your knowledge of the principles and background of scientific writing.
2. By the end of this lesson, the principal instructor will learn more about what type of research you are doing.

ASSIGNMENTS FOR LESSON ONE

1. Read the material below, which introduces this week's topic.
2. Read Chapters 1 and 2 ("What Is Scientific Writing?" and "Origins of Scientific Writing") in Day's book.
3. Read pages 1-6 and 25 in Iles's booklet ("What You Can Get from This Booklet" and "The Six Root Causes of Poor Writing").
4. As will be discussed later in this lesson, **submit a one-paragraph (≤ 250 words) describing your current research or recent past research on which you wish to write a paper.** Send this paragraph online to the principal instructor and on paper to the local instructor by Thursday of this week.

NOTES ON LESSON ONE ASSIGNMENT

Chapters in Day's Book

You will find the first 2 chapters in Day's book very interesting. In Chapter 1, "What Is Scientific Writing," he discusses what makes scientific writing different from literary writing. He emphasizes that clarity is the key, both in the use of simple rather than flowery language and in the use of correct English (for English-language journals). In this course, we will be working toward the goals of clarity and correctness of expression. Day states clearly why clarity is so important in science writing: "A scientific experiment is not complete until the results have been published *and understood*." If you write clearly, your readers will understand your message quickly.

The second chapter, "Origins of Scientific Writing," is a brief look at the history of written communication. (You will note that China is given credit for inventing both paper and movable type!) The chapter specifically discusses the reasons for and the development of the current standard organization for the research paper: Introduction, Methods, Results, and Discussion. Among scientific writers, this is known as an acronym: IMRAD.

Below are some hints that we hope will help to avoid any misunderstandings in Chapters 1 and 2:

1. Chapter 1, Page 2, Paragraph 1, Last sentence: This is a play on words meaning that too many scientific papers never achieve their goals either because they are not published or because they are not understood by the readers. Clearly written articles are published more quickly and are more easily understood by the readers.

2. Chapter 1, Page 3, Lines 2-4: In this quote from David B. Truman, "menace" is probably an overly harsh word. I think what he is trying to convey is that communication that is misunderstood--especially in science--can be worse than no communication at all.

3. Chapter 1, Page 3, Paragraph 2, Last Sentence: Although this sentence contains an important idea, Day has deliberately used humorous exaggeration to get his point across. The point is this: Too many scientists will work very hard to be exact in every aspect of the research itself but will not pay close enough attention to the details of the paper written about the research. Thus, they may miss some mistakes that are introduced by others, and the resulting publication may contain serious errors.

4. Chapter 2, Page 5, Line 2: "They have enough troubles with a ½-ounce letter" is a little joke about the U.S. mail service, which actually takes care of the mail quite efficiently.

Although they are not required, you may, if you wish, read the Acknowledgments and Preface in Day's book. Much of the material in the Preface is humorous in tone, so it may seem strange on first reading. For example, in the last sentence of the Preface, the author says "I'm not as big a fool as I used to be; I've been on a diet." This is a joke: He is indicating that he has learned much from all his teaching and writing; "I've been on a diet" is a pun on the American idiom "I'm not as big [a fool] as I used to be."

Readings in Iles's Booklet

On page 1 of *Selected Tips & Techniques: How to Write & Publish More Journal Articles*, you will find a brief description of the purpose and contents of the booklet. Pages 2-6 give you some specific suggestions for making writing an easier process. Iles's list of the "six root causes of poor writing" on page 25 is brief but to the point. In this course, we will work specifically with 3 of those causes: make sure your paper is submitted to the journal that is most likely to publish it (i.e., that is most interested in your topic), provide enough time to write so that you can do your best work, and present some tips about writing scientific articles in the most correct English.

The Writing Assignment

In the assignments listed in bold on a previous page, we asked you to write a paragraph of no more than 250 words and to tell us in that paragraph about the research project on which you wish to write a paper. Do not worry about making the English perfect. Instead, concentrate on trying to explain clearly to us:

1. Why you are doing the research
2. What you have done to conduct the research
3. What preliminary results (if any) you have obtained
4. How your project fits in with other research

AN ENDING NOTE: Please feel free to contact your local instructor with questions about this lesson or assignment.