

21 世纪高等院校选用教材

English for Technical Communication

段 平 顾维萍 马跃珂 主编

A Course of Advanced College English

大学高级英语教程

专业交际 英语



科学出版社

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内 容 简 介

专业交际英语是以应用语言学的专用英语研究理论为基础,把各专业英语(科技英语、外贸英语等)的语言特点与写作编辑技巧和电脑操作技术结合为一体的一门新型课程。本教材是汲取了美国大学专业交际学课程的先进经验,并结合中国学生特点而编写的大学高级英语教材,旨在提高学生的专业英语应用能力,加强专业素质教育以弥补基础阶段应试教育的不足。内容包括专业阅读、专业写作、专业文件设计、专业文件类型和口头交际。

本教材可作为非英语专业研究生的高级英语阅读与写作教材,也可作为理工和医科大学高年级的后续英语教材和英语专业学生的科技英语教材。

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前 言

全国高等院校非英语专业大学英语教学大纲(1998年修订本)把培养学生用英语进行信息交流的能力放在了重要位置。为达到这一目的,大纲把大学英语教学分为基础阶段和应用提高阶段。在应用提高阶段如何提高学生,特别是研究生,用英语进行专业信息交流的能力,以弥补基础阶段应试教育的不足,提高专业素质教育的含量,是目前各高校正在探索的一个重要课题。《专业交际英语》(English for Technical Communication)正是为配合这一教学改革而推出的新型大学高级英语教材。

专业交际英语是以应用语言学的专用英语(English for specific purpose)研究理论为基础,把各专业英语(科技英语、外贸英语、医学英语等)的语言特点与写作编辑技巧和电脑操作技术结合为一体的一门新型交叉学科课程。我们知道,尽管不同行业的专业内容千差万别,但它们使用的文件类型是相对统一的,主要包括信件、营销文件、报告书、建议书、说明书等几种形式。专业交际学以语言共核教学思想为指导,对各类专业文件进行综合性比较分析,发现其具有共性的语言特点,并以此为基础来制定专业交际英语的教学大纲,指导学生掌握各种专业文件的基本语言特点与写作技巧,从而打破了专业领域的界限,使学生能够较快地适应任何学科的专业性交际,起到了事半功倍的效果。20世纪80年代以来,专业交际学在美国高校得到了迅速发展,培养出大批能够利用电脑技术进行高效信息交流的各种专业技术人员。该教程是在专业交际学研究的基础上而编写的适合中国学生特点的专业交际英语教程,旨在提高学生的专业英语应用能力。其基本内容包括:

(1) 专业阅读 介绍信息的查阅、搜集方式和专业文件的阅读技巧。

(2) 专业写作 介绍写作技巧,使语言规范化,结构合理化,包括:①专业术语定义;②专业程序描述;③专业论文摘要;④专业性分析;⑤专业性辩论。

(3) 专业文件设计 介绍利用电脑进行文件编辑设计的技巧,使文件格式更加标准化,包括:①文件设计原则;②设计的视觉效果;③图表、颜色和图标的使用等。

(4) 专业文件类型 介绍各类专业文件的文体结构和语言特点,包括:①研究报告;②说明书;③合同书;④业务信件与备忘录;⑤电子文件;⑥个人简历和求职申请。

(5) 口头交际 介绍专业口头交际的目的、对象、需求和对策等,包括:①口头交际的形式;②业务接待;③专业会议报告;④演讲技巧(发言稿的准备、影像辅助设备的使用、演讲的仪表和风度);⑤求职面试策略。

教材的每一章分为两个部分,第一部分为语言部分,介绍专业文件的语言特点和写作、交际技巧;第二部分为阅读部分,文章取材广泛,内容新颖,所选文章体裁

和内容与该章所讲的语言交际技巧保持一致,起到了理论与实践结合的作用。各部分均配有实践性练习。教师在教学中可进行有选择讲授。该书也可作为学生在以后的写作实践中进行查阅的工具书。

该教程取材广泛,使用面广。主要作为非英语专业研究生的高级英语阅读与写作教材,也可作为理工和医科大学高年级的后续英语教材和英语专业学生的科技英语教材。

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由于作者水平有限,教材中难免有不足之处,欢迎广大读者批评指正。

编 者
于首都医科大学
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Section One

Basic Principles and Concepts

1

Introduction of Technical Communication

What do the moons of Jupiter, in vitro fertilization, silicon chips, wetland conservation, soybean crops, pianos, and foals have in common? All are subjects in technical communication. What do astrophysicists, obstetricians, electrical engineers, ecologists, farmers, musicians, and veterinarians have in common? All read and write technical documents. Technical communication is a broad field that touches nearly every subject and profession since it connects ideas, practices, and people. Technical communication defines, describes, and directs activities in business and industry, government and research institutions, hospitals and farms.

Although certain professions such as engineering have traditionally been associated with technical communication, nearly every discipline and profession has technical documents, visuals, and oral presentations. For example, detailed information about sound formation is important for both a speech pathologist and a computer engineer designing a voice synthesizer. Knowledge about muscle conditioning is equally relevant to physical therapists, ballet dancers, and veterinarians. Data about weather changes are crucial to both the meteorologist and the commercial fisher.

I . Importance of Effective Communication

Technical professionals who communicate effectively—regardless of their areas of expertise—usually achieve more career success and have greater job satisfaction than those without the skills to communicate their technical knowledge. Technical experts who cannot communicate effectively are not an asset to any organization. Successful professionals see writing and reading as integral parts of their job , not as something

extra that they have to fit in. They assume responsibility for their own writing—from organizing ideas to final proofreading of documents.

People's reputations may be built largely on their communication. Although good communication skills are essential for all technical professionals, the higher a person is promoted, the more writing and public speaking are required. You gain tremendous professional advantages if you write and speak effectively. Your communication needs to be technically complete and accurate, logically organized for the audience, visually appealing, and interesting; it also needs to be mechanically and grammatically conventional, and to say something worthwhile.

II . Defining Technical Communication

Although technical communication has existed as long as people have recorded information, technical communication as a profession has evolved tremendously during the second half of the twentieth century. Technical communication was defined initially as writing that dealt primarily with scientific and technical fields, but subject matter—though certainly relevant—is no longer sufficient to define technical communication.

More recent definitions of technical communication focus on the collective characteristics of technical discourse—characteristics such as purpose, subject matter, approach, and audience. With minor adjustments, these characteristics apply to all modes of technical communication—whether oral presentations, paper or electronic texts, or visuals. Table 1-1 summarizes the cluster of characteristics that define technical communication. The following scenario about Jon Baliene, a manufacturing supervisor, illustrates these characteristics in a workplace situation. Jon's situation is typical professional's.

Table 1-1 Characteristics of Technical Communication

Characteristic	Explanation
Purpose	Informs and persuades
Audience	Addresses identified readers, listeners, or viewers who often have multiple needs
Need	Fulfills specific, identified needs; material and approach adjusted to audience needs and expectations
Interpretation	Recognizes that multiple interpretations of text, oral presentation, or graphic are possible
Subject matter	Conveys technical aspects of any field; adjusts technical content to the audience
Timeliness	Becomes easily dated

(To be continued)

Characteristic	Explanation
Approach	Attempts to be straightforward; differentiates opinions from verifiable information
Visuals	Often conveys content through graphics (rather than text) that aid understanding and decision-making
Format	Uses clear and direct language without unnecessary complexity; often uses short-to-medium-length sentences, subject-verb-object word order; stylistically varied but simple
Design	Designs documents to contribute to the accuracy and speed of comprehension and recall of information

Division manager Sandy Schaeffer asks her manufacturing supervisor, Jon Baliene, to prepare a report that recommends solutions to the production problems in his department. Although Jon presents verifiable information about the factors contributing to the problem, he also wants to persuade Sandy to accept his analysis. Because Sandy's background is in business, Jon adjusts the technical material by adding explanations of the highly specialized information. In addition, Jon includes an appendix with calculations and specifications appropriate for secondary readers who have more technical experience than his manager.

Beyond identifying and analyzing the problems, Jon includes recommendations, which, he stresses, are based on current projects and costs; in six months, he would have to write a different report. He hopes the background information along with his persuasive arguments convince Sandy to accept these recommendations. However, even though Jon has worked hard to prepare an effective report, he can't guarantee the way that Sandy Schaeffer will interpret the information and the argument. Jon checks the text as well as the visuals to make sure nothing is ambiguous or confusing.

PURPOSE
inform and persuade

NEED
identified needs;
material and approach adjusted to audience needs

SUBJECT MATTER
technical content adjusted to audience
AUDIENCE
identified readers with multiple needs

TIMELINESS
current; easily outdated

INTERPRETATION
multiple interpretations possible

APPROACH
straightforward

FORMAT

standard report format

Because he knows that information can get muddled if presented only in a narrative style, Jon uses the report format recommended in his company's style guide. He uses his software to organize a great deal of numerical data into a table and to create a graph that shows the trends he has identified from the data. He places these visuals in the text immediately following his references to them.

VISUALS

convey content; integrated with text

STYLE

clear and direct without unnecessary complexity

Despite Jon's enthusiasm for his recommendations and his recognition that he has a definite bias, he clearly and directly explains the problems and proposes his recommended solution. He realizes that although his primary reader (Sandy Schaeffer) and possible secondary readers (others in management and manufacturing) are intelligent, well educated, and well informed, they have little time to read unnecessarily complex material, so he checks his sentences for length and clarity and uses his computer's style option to set headings and subheadings that signal divisions in the report.

DESIGN

headings and subheadings ease reading

III . Contexts for Constructing Meaning

Jon's goal was to prepare a report for Sandy Schaeffer recommending solutions to production problems in his department. In preparing his report, Jon considered the situation that stimulated Sandy's request. In other words, he considered the overall context—social and political factors in the organization as well as the professional expectations and constraints of the organization—that could influence what he would say and how Sandy might interpret it. He selected his information and organized it based on his reader's needs.

Like Jon, your goal should be to create reader-based documents that consider the reader's needs and reactions and that organize information for reader's understanding. Creating reader-based documents requires awareness of the situation in which documents are generated and used. The context influences the meaning you get from the documents you read. As a reader, you construct meaning from the documents. You are, of course, influenced by the actual words on the page, but these words carry slightly different meanings for each reader.

Words themselves, whether spoken or written, are only part of what contribute to the understanding. Your understanding is influenced by your attitudes, values, ed-