

HOW TO WRITE THE SCIENTIFIC AND TECHNOLOGICAL ARTICLES IN ENGLISH

英语科技文写作



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前 言

写作是表达一个人的思维能力及语言组织能力的主要表现形式之一,它要求所写的文章应切题,能够正确表达思想,意思完整、具体、充实,语言简洁并具有极好的连贯性。从近几年的教学及各类考试中的趋势来看,一般性的写作(如叙事性等文章)逐渐减少,而实用性的科技类写作内容的比例在增加(这一点在“雅思”和“托福”考试中尤为明显)。从这个现象中我们不难看出,写作在考试中不仅仅是作为考查考生语言表达能力的手段,也从一个侧面检验考生的知识面及对事物理解的深度和广度。在我国的教育体制中,往往将科技英语单列出来,作为一个专门学科。然而随着现代科学的发展,科技英语与公共英语的界限已经十分模糊,尤其是在现代化企业中更是如此。遗憾的是,这些巨大的变化在我们日常教学中仍不能体现出来,一直在沿袭多年来的教学模式(甚至教材内容几经改变,也没有脱离这个模式),这也是造成我国学生高分低能现象的原因之一。针对这种现象,我们一直在探索。作为教学一线的教师,我们力求将公共英语与科技英语有机联系起来,逐渐淡化它们之间的界限,使学习公共英语的学生在达到《大学英语教学大纲》要求的前提下,更注重科技文章的学习,更注重实用性。这也是我们编著此书的目的之一。从此书开始编写至今已有四年多的时间,我们有意识地在日常教学中应用本书一些内容,取得了显著效果,并受到学生的欢迎。

在本书的九章中,我们在精讲写作基础知识和写作技巧的同时,列举了大量的范文,基本取材于现今英美国家的教材和报刊,所以语言十分地道,有很强的时代感。每章后有大量练习,但考虑到练习的伸缩性很强,表达方式很多,没有附答案。在全书编写过程中,我们力求用英语表达,除个别稍

难理解的单词和词组外，没有附汉语翻译，这更有利于培养学生的英语思维方式。

本书的阅读对象为具有大学英语四级水平的英语学习者，难度适当，易于理解和掌握，是一本有价值的英语写作辅导书，同时也可作为英语写作的双语教学教材。

在本书写作过程中，我们得到了来自各方面的帮助和支持，美籍专家 Laurens 不仅多次审读，而且也给我们提供了许多价值极高的参考书及资料；天津市易文图文设计有限公司对本书进行了版式设计，使本书更具特色和观赏性。在此，我们一并表示衷心感谢。

由于我们的知识水平有限，书中难免有错误之处，敬请广大读者和专家批评指正。

编 者

2003 年 6 月

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第

1

章

说明与过程

(Instructions & Process)

本章学习目的

- ┆ 理解说明的定义;
- ┆ 如何进行分类说明;
- ┆ 如何对不同读者群进行描述;
- ┆ 理解草拟和写出说明的关系;
- ┆ 理解过程的定义;
- ┆ 理解说明和过程描述的区别;
- ┆ 如何对不同读者群进行过程描述。

Introduction

Practically from the beginning of your life, you have been a giver and receiver of instructions. As a child, you were told how to drink from a cup, how to tie your shoes, how to tell time, and so on. As you matured, you became involved with more complex instructions: how to parallel (v. 使平行, 与……平行) park an automobile, how to throw a block in football, how to tune an electric guitar, how to stock grocery shelves. Since entering college, you have been confronted with (面临) even more complex and confusing instructions: how to register as an incoming freshman, how to write an effective report, how to get along with a roommate, how to spend money wisely, and how to study.

Since all aspects of life are affected by instructions, every person needs to be able to give and to follow instructions satisfactorily. Frequently, clear, accurate, complete instructions save the reader time, help do a job faster and more satisfactorily, or help get better service from a product. Being able to give and to follow instructions is essential for any employee. Certainly, in order for technicians to advance to supervisory positions, they must be able to give intelligent, authoritative (*adj.* 有权威的, 可相信的), specific, accurate instructions; and they must be able to follow the instructions of their superiors.

第一节 分类说明(Classifying Instruction)

Giving instructions seems much simpler than following them. Telling someone how to study for a test, for instance, appears to be much easier than studying for it. But giving instructions — telling someone how to get somewhere or how to perform a particular operation — is deceptively(*adv.* 靠不住的, 容易让人误解的) simple.

一、位置说明 (Locational Instructions)

Locational instructions, as the term suggests, help you locate a person, a place, or a thing. These instructions should clearly identify the starting point and the destination, the distance between the two, and the general direction. As with all instructions, giving them can be deceptively simple. Which-ever of us at one time or another has not experienced the confusion of the delivery boy in the following dialogue.

DELIVERY BOY: Could you tell me where Mr. Sam Smith lives so I can deliver this load of fertilizer(*n.* 化肥)?

LOCAL INHABITANT: Go down the road a piece and turn left at the mailbox—the one just on this side of Mr. Jenkins's house. After you leave the main road and pass that bad curve, you should see the house you're looking for, not too far off up the road to the right.

The delivery boy receiving these instructions may have difficulty in reaching his destination. Obviously, “down the road a piece” and “not too far” are, at best, indefinite; the inquirer has no idea where Mr. Jenkins lives; and what might be a “bad curve” to one person might not be to someone else. These instructions might have been more accurately and more clearly stated as follows:

LOCAL INHABITANT: Continue down this highway for about two miles. When you come to the second gravel road, turn left onto it. At this intersection(*n.* 十字街口), there is a large mailbox on a white wooden frame. When you take the gravel road, you will be about a half mile from where Mr. Smith lives. His house is the second one on the right, the one that has a white paling fence around it.

In contrast to the lack of clarity(*n.* 清楚, 明晰) and accuracy in the first instructions given to the delivery boy, consider these instructions given to the driver of a moving van in an unfamiliar city:

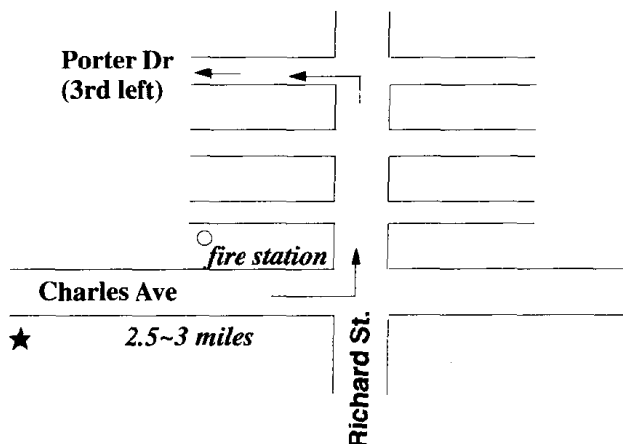
DRIVER: After I took Exit 53 off the Interstate, I got balled up(被弄糊涂) somehow, and I can't seem to find Porter Drive, much less 4437 Porter Drive. It's supposed to be around here somewhere.

SERVICE STATION ATTENDANT: You took the right exit OK. As a matter of fact, you're only about three or four miles due south from where you want to be. If you knew where you were going and how to get there, it would take you ten minutes or less. Got a piece of paper to jot this down(*v.* 草草记下) on? Now this street you are on, Charles Avenue, comes within three blocks of Porter Drive. Stay on

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Charles for about two-and-one-half or three miles until you get to Richard Street. You will turn left onto Richard. And Richard Street comes up just after you pass a fire station on the left. Got that? After you turn left on Richard from Charles, go three blocks. You run right into Porter Drive, which intersects(v. 相交, 交叉) with Richard Street. The address you are looking for is a few blocks on your left.

DRIVER: I think maybe I can find it now. Does this map I've sketched(v. 绘草图) look right?



SERVICE STATIONS ATTENDANT: That looks perfect. Remember—just stay on this street till after you pass a fire station on your left, a couple of miles from here. Turn left onto Richard. Go three blocks. Take a left onto Porter.

Those directions are clear and easy to follow.

Or perhaps you have been in a situation similar to the following:

LOCKSMITH: I'm Jack Jones from National Lock and Key Company. I'm supposed to change a lock on Ms. Grady's desk.

RECEPTIONIST: Yes, I've been expecting you. Ms. Grady's office is on the third floor, Office 301. You'll notice identifying numbers over the door. After you enter the office, go to the desk on the left. As you face the desk, the drawer on the right is the one that needs to have the lock replaced.

Those directions are also clear and easy to follow.

二、操作说明 (Operational Instructions)

Operational instructions tell how to carry out a procedure or an operation, for example, how to put a child's outdoor gym set together, how to run a lathe(*n.* 车床), how to prepare a blood smear(*n.* 涂片), how to fill out an accident report, how to rescue a person from the tenth floor of a burning building, or any number of other “how to's”.