剑 桥 科 技 英 语 丛 书

Study Writing

写作

A course in
written English
for academic
and professional
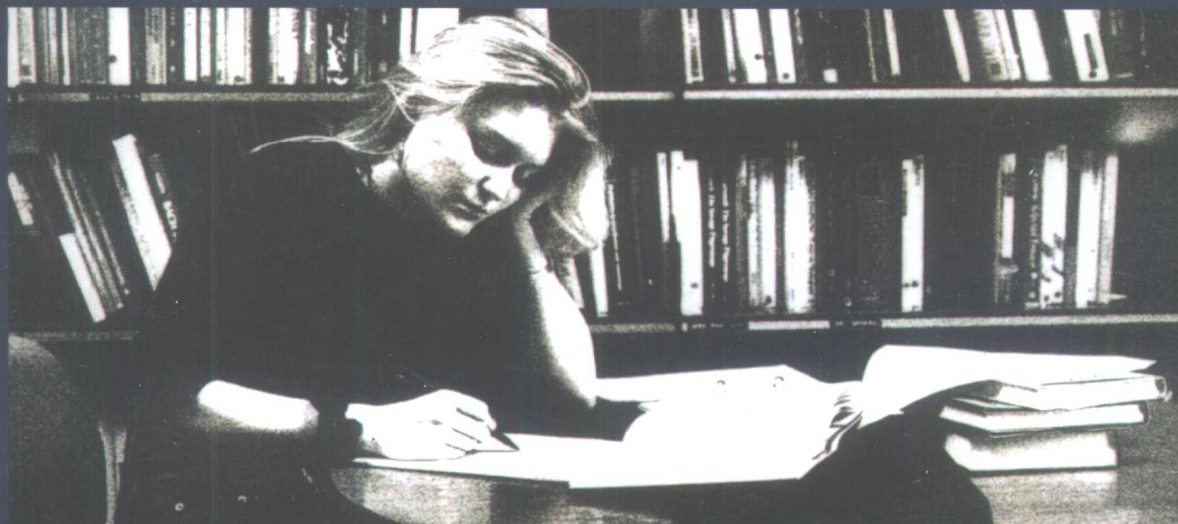purposes

原 著 *Liz Hamp-Lyons*

Ben Heasley

编 译 杨福玲

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《剑桥科技英语丛书》简介

  《剑桥科技英语丛书》是专门为理工类院校学生用英语学习专业课程、科研工作者用英语从事学术交流而奠定专业英语基础编写的一套丛书。

  随着国际间科学技术交流的日益频繁和普遍，能更早、更直接地获取世界范围内的科技尖端信息往往成为个人发展和事业成功的关键。但是面对大量的英语科技专业文章，许多理工类院校学生和科研工作者会觉得一筹莫展，从而影响了学习和工作的效率。为此，我们特别引进推出了《剑桥科技英语丛书》。

  《剑桥科技英语丛书》包括四个分册，分别对目前国际科学技术领域内流行使用的科技英语的听、说、读、写四项基本技能进行了逐一讲述和探讨，由浅入深，编排合理。丛书包含了大量英语理工教材和英语科技文章的实例和相关练习，为读者营造了一种用英语进行科技交流的纯正语言环境，从而能够尽快提高自身的科技英语水平，达到事半功倍的学习效果。为帮助我国读者更好地学习和使用本丛书，我们特别邀请了多年从事科技英语教学和研究的专家、教授对本丛书进行了适当的讲解和注释。

  本丛书原文版由英国剑桥大学出版社出版，已多次再版，深获好评，长销不衰，并被收入大英图书馆书目，成为学习科技专业英语的经典读本。

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编者

2001 年 3 月

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Thanks

Study Writing results from a long process of in-house materials development at the Institute for Applied Language Studies of the University of Edinburgh. An earlier writing course was developed by Gill Schärer and Ben Heasley as a pre-intermediate textbook presented in the form of a self-study programme. The evident need for material to help adult learners of English to write led Ben Heasley and Liz Hamp-Lyons to write a course commencing at post-intermediate level and intended for classroom use. The course was piloted at the IALS and revised as a result; it was piloted again at the IALS and elsewhere (a period during which Ben Heasley moved on to Ain Shams University, Egypt, and was able to bring a further dimension of experience to the book). This final version has, therefore, been extensively tried out.

We would like to record our debt of gratitude to Gill Schärer for her involvement in the early stages and for the use of several texts and tasks. Thanks are also due to:
- Clive Criper, Director of the Institute for Applied Language Studies, for his support of the project through all its stages;
- colleagues at the IALS, especially Tony Lynch, who oversaw the piloting with several generations of EAP students;
- colleagues at the Universities of Aston, Warwick and Essex who piloted later versions and provided feedback;
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- Margaret Love, who has typed each version so patiently and excellently;
- Peter Donovan, Annemarie Young and Alison Baxter at CUP for their tremendous support and constructive advice throughout the project.

But thanks are due most of all to our families: Mike Lyons (and Christopher, who arrived on the scene between versions!); Hilda Heasley, Yana, Myles and Cian. Without their patience and the happiness they gave us we could never have persevered to this outcome.

An overview of unit contents

PART II

Unit			
10	Deciding how to organize the whole text	Text structure: Situation → Problem → Solution → Evaluation	Writer–reader relationship: the four co-operative principles
11	Developing text within an S→P→S→E framework	Text-based tasks focusing on:	situation problem solution evaluation
12	Text-based tasks without guidance		

Contents 目录

Part I

Unit 1 Spatial relationships 8 空间关系

写作时我们常需要描述某处的位置、某地的布局或一连串的东西如何连接在一起（如实验设备）。在这一章中，我们将讨论描述空间关系的方法。在描述空间关系时常采用示意图、地图、图表等视觉手段。

Unit 2 Class relationships (1) Classification 20 等级关系（1）分类

人们总是想把这个世界进行有机的分类，其中的方法之一就是寻找事物或思想之间的关系，再按照它们的异同把它们分成不同的部分。

Unit 3 Class relationships (2) Definition 26 等级关系（2）定义

我们写作时应考虑到有时读者不能完全理解我们使用的专用词语，如果我们也认为如此，就应该为读者给这些词语下定义。

Unit 4 Organizing texts (1) General-specific 35 组织文章（1）概括—具体

到目前为止，我们已经讨论了一些写作所涉及的问题，仔细考察了如定义、描述空间关系等一些说明性文章的功能，练习了在表达这类思想时特别有用的一些文章的组织和语法的使用。在本单元内，我们将研究多用途的说明性文章的组织原则，即概括—具体模式。概括在写作中非常重要。你刚才读的这句话就是一个概括，同时验证了概括的一个重要功能：它们在段落或文章开头十分有用。

Unit 5 Class relationships (3) Comparison/contrast 46 等级关系（3）比较/对比

我们已经了解到当我们写作消息类（说明性）文章时，需要对提到的概念和事物进行分类和下定义。分类和定义都以我们对事物和概念之异同的认识为前提。当我们描述或讨论事物的相同点时，我们在做**比较**；而当我们描述或讨论它们的不同点时，我们在做**对比**。

有时每个作者都需要按时间顺序来写作，当然历史学家更常如此。然而，无论你是否是历史学家，偶尔你也需要按时间顺序来描述事件。时间顺序可以用不同的方式来表达。在西方文化中，我们通常认为时间是以直线的形式前进的，预计的时间顺序也按这种观点来表达。

过程和时间顺序一样包含线性关系。我们认为一个过程是按照某个有逻辑性的、一步一步的顺序向前发展的。

在上个单元你学习了如何写作一个线性的过程，即一个由多个阶段构成、有开头和结尾的过程。一个自然的过程往往更多的时候不是线性的，而是循环的。在循环的过程中，没有清楚的开头或结尾，过程循环往复。循环过程与线性过程的描写方式非常一致，其不同点在于循环的起点不明确。

任何科学原理的核心都是去分析事物的因果关系。这也是我们日常生活中关心的问题。我们通常看到的是结果，原因却不得而知。父母努力寻找孩子们行为（结果）的原因；政治和经济专家在思考失业的原因；非洲的干旱无人不知，但专家们对其原因的意见却有分歧。

因果关系是一种线性关系：在日常生活中原因先于结果。

Part II

在第一部分中我们已经研究了对过程等的分类和描述等组织信息的方法。虽然所有这些信息都很重要，但它们经常用在较大篇幅的文章中，而不是为完整的文章打基础。大多数文章都含有定义、分类、对比等的结构，但这些内容都是全文的成分，起说明的作用，为文章的整体服务。一篇完整的文章如何组织要看文章的整体目标、作者对读者能力和知识的判断和要写作的具体题目。

在第 10 单元你已经通过分析和重新组织一些文章学习了非常有用的情况→问题→解决方法→评估（S→P→S→E）结构。你在学习的同时可能已经发现了一些共同点：

1. 各成分的长度很可能不同：一个很短的情况很可能跟随着很长的问题讨论，或正好相反等等。

2. 有时一个成分被省略或只是暗示：现实原则可能告诉作者不必进行评价；作者只需描写情况和问题，然后让读者自己去思考可能的解决方法等。

3. 这些成分可能以不同的顺序出现：常常是在描述问题时先介绍出现问题的情况，但其它的过程也可能出现。

要牢记的重要一点是文如其人：每个人都不同于其他的人，但所有的人又都有共同点。

作者的工作就是要控制共同点，创造出独特的、受读者欢迎的文章。

　　本单元你将沿着这条思路继续前进，通过研究在 S→P→S→E 框架中未完成的文章，将它们变成令自己和读者满意的文章。

Unit 12　Organizing texts (4) Creating texts　119　组织文章（4）创作文章

　　在这最后一个单元中，你会看到一些文章、图片和练习，但没有怎样完成练习的指导，你自己来决定怎样写文章。

　　你可能会想和一个或几个同学一起来讨论。和别人分享一些想法往往会帮助你弄清楚你自己的观点；和别人一起讨论初稿常常是有益的：在你把文章交给老师之前已经给一个读者看过了。你的同学会给你指出你在结构或论点上的缺陷，哪些地方讲得太多或太少，影响表达的语言错误等等。以这种方式交换初稿可以使得你的第二稿写得更容易或更好。

　　如果老师还没有给你提出具体的要求，我们建议你按部就班地完成所有的练习，如果你想有所选择，不做所有的练习，我们建议你不要连续跳过两个活动，因为随着课文的深入，它们设计得一个比一个难。

Teacher's guide

To the teacher

Study Writing is designed for students of English as a foreign or second language at post-intermediate and advanced levels of proficiency in English. It is intended for anyone who wishes to learn English for academic or professional reasons. It has been trialled with students ranging in age from 17 to 50 from many different backgrounds.

Timing

The course provides about 40–60 hours of classwork. Not all students, however, will need to do every exercise of every unit. It is also assumed that some writing tasks will be assigned for homework. In general, we have erred on the side of providing too many rather than too few tasks, giving teachers considerable flexibility regarding the number of hours they will take to complete the course, depending on the exact needs of their own students. (See *Teacher's guide A (1)*.)

General principles

The course is based on an approach which emphasizes the discoursal and cognitive aspects of writing. Essentially we see writing as a form of problem-solving in which the writer faces two main tasks: (a) generating ideas in language, and (b) composing these ideas into a written structure adapted to the needs of the reader and the goals of the writer. This is why we ask students to think about different kinds of information and different ways of organizing writing. We believe that writing and reading are closely associated, and that a developing writer can learn a great deal from the study of sample texts from the writer's point of view. (See *Teacher's guide C.*)

Because we wish to emphasize the cognitive and discoursal aspects, we pay rather less attention to grammar, discussing only selected topics which experience suggests cause particular problems. This does *not* mean we think grammar is unimportant. On the contrary, without a solid basis of grammatical control, the student cannot hope to develop into an effective writer. But it is our view that error-free writing is less important than writing which addresses the topic clearly, develops it in a rational and relevant way, and takes account of the needs of the reader. Our experience agrees with the findings of many research studies: that once students are writing fluently and confidently, they will be more inclined and more able to write accurately.

Course organization

In Part I of the course, Units 1–9, a range of writing types are introduced and practised. In Part II we explore a framework for handling complete expository texts, both as reader and as writer. The final unit offers students the opportunity to think about writing in general as a creative process, and to explore some of the ways this process develops.

Units 1–9 have three main sections: *About writing* explores the principles of writing; *Using grammar in writing* focuses on aspects of grammar which are particularly critical for writing expository texts; and *Consolidation* gives students the opportunity to write long stretches of text under fewer constraints, applying what they have learned in the unit, and exercising their developing skill as a whole. The units in Part II, because they are dealing with the structure of whole texts, are not so readily divisible, and are structured differently from unit to unit.

General advice on teaching procedure

We do not believe that there is a 'right way' to teach writing, and we do believe that individual teachers should be allowed the freedom of making their own decisions. Nevertheless, the writers of a book always have certain ideas and assumptions which necessarily affect the book they write, so that it is easier to use the materials in some ways than others. We state our general views here in the hope that they will be helpful to the teacher seeking to understand why we have done this-or-that, and how *we* might teach it: this is not intended as a prescription of how any other teacher should do it.

Writing is clearly a complex process, and competent writing is frequently accepted as being the last language skill to be acquired (for native speakers of the language as well as for foreign/second language learners). Few people write spontaneously, and few feel comfortable with a formal writing task intended for the eyes of someone else. When the 'someone else' is a teacher, whose eye may be critical, and who indeed may assign a formal assessment to the written product, most people feel uncomfortable. It makes sense, then, that the atmosphere of the writing classroom should be warm and supportive, and non-threatening. It helps if teachers show willingness to write too, and to offer their attempts for class discussion along with those of the students; it helps if students can work together, assisting each other, pointing out strengths and weaknesses without taking or giving offence. Many of our tasks suggest working with a partner or in groups, and we see this work as very important: not only does it make the task livelier and more enjoyable, but it makes sure that students see that writing really is co-operative, a relationship between writer and reader. Usually the writer has to imagine a reader, but co-operative writing provides each writer with a reader and makes the writing task more realistic and more interactive.

Writing is commonly seen as a three-stage process: pre-writing, writing and rewriting. Although this is very much an oversimplification, it is a helpful one. In the past teachers concentrated on the end of the second stage, i.e. after the writing had been done. They did not see how they could intervene at the pre-

writing and writing stages, and rewriting was seen only as 'correcting the mistakes'. We now understand the importance of all three stages as part of the writing process, and try to help students master the *process* by participating in it with them, rather than contenting ourselves with criticizing the *product*, i.e. the composition, without knowing much about how it was arrived at.

We have included a *Teacher's guide* at the back of the book, for those teachers who would like more detailed guidance on how to use the book, or/and about the teaching of writing in general. The topics covered in the guide are listed on the Contents page. There are also teaching notes on each unit (and on the *To the student* introduction) at the end of the guide.

To the student

About *Study Writing*

Before you begin to work with *Study Writing*, you probably have some
questions you would like to ask about the course. Some of the questions
students most often ask have been answered below. Of course, you will learn
many more answers yourself as you study the course.

Q: Who is this course for?
A: It's for anyone who wants to study English seriously, who is adult (over
about 17), and who is already able to write reasonably correct sentences in
English but wants to be able to write longer pieces, paragraphs and
complete texts, which are not only grammatically correct but also well-
organized and informative. Most people who use this book will either be
going to follow a course of study at a college or university which uses
English, or planning to take an advanced examination in English.

Q: How will this course help me?
A: Firstly, it will give you practice in using many common ways of organizing
texts as a whole (i.e. complete pieces of writing), and of organizing
information within texts. Secondly, it will provide you with plenty of
examples of different types of texts which other writers have produced and
will help you to see the principles on which the organization of these texts is
based. Thirdly, it will point out some of the most common grammatical
difficulties which can prevent non-native writers of English from producing
acceptable texts.

Q: Is learning to write English as difficult as it seems?
A: Well – it is very difficult to write like a Shakespeare or a D.H. Lawrence in a
language which is not your own. But you are not aiming at great literature:
you simply need to be able to write clear, accurate English which has a
central idea and other related information and gets the meaning across to
your readers. Because this type of English writing is highly structured and
operates by rules or expectations which can be explained to you, and which
you can see in example texts, it is much easier to learn than so-called
'creative writing' like novels, poetry and plays. Of course, information-
based writing (usually called 'expository writing') is creative too: you take
the ideas and information, apply the conventional patterns to them, but in
your own way, so that you create a text which is unique to you.

Q: How is this course organized?

A: The course has two main Parts. In Part I, the main functional types of writing are introduced and practised. In Part II you will study the organization of texts in a different way, which will enable you to see each one more as a whole with parts than as a range of parts. Each Part is divided into several units, and there is a particular aspect of writing for you to concentrate on in each unit. You will also get opportunities to write whole texts throughout the course, so that you don't forget that the aspects you study are only parts of the whole skill of writing, and not the complete answer. The tasks you have to do become more difficult as the book progresses, until at the end you should be able to produce your own original text without any supports. The units in Part I have three main divisions: *About writing* tries to give you some insights into the process and structure of writing, and helps you to organize your own writing; *Using grammar in writing* focuses on one aspect of English grammar which is particularly helpful for writing expository texts; *Consolidation* provides the opportunity to put together everything you have learned in the unit, together with your other knowledge of writing in English, and allows you to show your skill in creating a short text of your own.

Q: Do I need to do anything else, apart from studying this course, in order to improve my writing ability?

A: While we sincerely believe that this course will help you become a competent writer, we are the first to acknowledge that there are limits to what any course can achieve. This limitation results from the fact that writing is such a complex activity that it cannot easily be broken down into a series of skills and subskills for teaching. While no course can ever teach you everything you need in order to become a competent writer, there is no reason why you cannot learn all there is to know about *effective* writing. To help you do just this, we include a *Study writing yourself* section in this introduction.

Study writing yourself

In this section we will concentrate on two ways in which you can help yourself learn to be a better writer.

1 One not so obvious approach to writing is through wide reading. Reading is essentially an attempt to find out why the writer bothered to write in the first place, i.e. to discover the writer's goal. To help readers achieve an understanding of her or his goal a writer must use some general framework to support whatever point she or he is trying to make. You will meet these frameworks in *Study Writing*. However, you can best appreciate how they can be varied to achieve different goals by studying other people's writings. In addition, you can best evaluate their relative effectiveness by examining how other writers use them. For example, if you want to compare two opposing viewpoints, do you present the one you favour first or last? The best way to answer this question is to examine what other competent writers do and then make up your own mind.

We could go on at great length about the advantages of wide reading and show how useful it is for learning grammar and vocabulary among other things. However, to do so would make this introduction unnecessarily long. We hope that what we have pointed out will convince you of the necessity of reading widely.

2 The most obvious way you can help yourself become a good writer is by writing. We strongly suggest that in addition to completing the tasks in *Study Writing* you also keep your own personal journal. Buy yourself an extra notebook, and try to write down some ideas every day, in English, about anything that interests you. Write down your opinions on life, love, the writing class, whatever interests you. As you write do not worry too much about putting your ideas in order, just let them flow; you will be surprised at what you will learn about your own thoughts, attitudes, feelings, etc. Neither should you worry about length; just keep going until the ideas stop. In some cases you may not produce more than a set of key-words, in others a set of notes, while, occasionally, you will surprise yourself by producing pages and pages of writing. The main purpose of this stage is to find out what you know/feel/etc. about the topic in hand.

The second stage is more difficult. Once a week, reread your journal, select one topic and rewrite it for a particular reader. This may be your teacher, a fellow student, or the whole class. You will need to think carefully about how to present your topic in such a way that your reader(s) can follow it. Instead of asking as you did in the first stage, 'What do I know about topic X?' you will have to ask yourself, 'What does my reader need to know about topic X?'

The transition from 'What do I know about X?' to 'What does my reader need to know?' is not an easy one to make, though it is a very necessary one. However, as with most things in life, once you begin to approach the problem, you will find a way through it.

Conclusion: How do you think you can become a 'good' writer of English?

So far, in this introduction, we have talked mainly about how *we* think you can become a 'good' writer of English. The time has now come for *you* to say how *you* think you can improve *your* writing.

Task

As your first attempt at keeping a journal we would like you to consider the following question:

What do I think will help me become a 'good' writer of English?

To start you off you might consider the following statements:

1 The most important thing for me is to study more grammar.
2 The most important thing for me is to have a good teacher.
3 The most important thing for me is to memorize useful expressions and sentences.
4 The most important thing for me is to read more.

5 The most important thing for me is to have a lot of practice in writing.
6 The most important thing for me is study more vocabulary.
7 The most important thing for me is to think about what makes writing effective.

When you have written up your journal, bring it to the next class and in groups of three or four discuss your beliefs. After the discussion, elect a spokesperson who will communicate your shared ideas to the class.