

“ 双 一 流 ” 研 究 生 教 学 用 书 系 列

管 博 主 编

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学术英语写作

Academic Writing in English: A Practical Guide to Graduate Research

 华东理工大学出版社
EAST CHINA UNIVERSITY OF SCIENCE AND TECHNOLOGY PRESS

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· 上海 ·

图书在版编目(CIP)数据

学术英语写作 / 管博主编. —上海: 华东理工大学出版社, 2020. 1

“双一流”研究生教学用书系列

ISBN 978-7-5628-6110-2

I. ①学… II. ①管… III. ①英语—写作—研究生—教材 IV. ①H319.36

中国版本图书馆 CIP 数据核字(2020)第 010445 号

项目统筹 / 牛 东

责任编辑 / 侯涪丽

装帧设计 / 徐 蓉

出版发行 / 华东理工大学出版社有限公司

地址: 上海市梅陇路 130 号, 200237

电话: 021-64250306

网址: www.ecustpress.cn

邮箱: zongbianban@ecustpress.cn

印 刷 / 北京虎彩文化传播有限公司

开 本 / 787 mm×1092 mm 1/16

印 张 / 8

字 数 / 166 千字

版 次 / 2020 年 1 月第 1 版

印 次 / 2020 年 1 月第 1 次

定 价 / 39.80 元

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前 言

自 2008 年开始讲授学术英语写作课程以来,本人发现适合非英语专业研究生的学术英语写作方面的教材较少,所以一直在考虑编写一本结合理论与研究生的写作需求和实践的、适合教学的、可操作性强的教材,希望从学生的常见问题和需求出发,系统讲解学术英语写作,尤其是学术英语论文的基本内容、过程、规范、技能、语言,并通过具体翔实的实例、练习和任务提高学生的学术写作技能和基本语言能力。

基于上述目的,并结合多年来在学术英语写作课程中的教学经验,本教材终于付梓,希望能够为研究生提供一些切实的学术英语写作方面的指导。本教材有以下特色:

1) 有机结合学术英语写作技能、常用构式和语言基本功的训练

本教材根据学术论文各部分的特点和在教学中发现的常见问题,安排各部分的内容,将论文结构与学术英语写作技能、学术词汇、构式、语言基本功训练有机结合起来。系统、具体地对各部分相关技能、词汇、构式和语言基本功进行有针对性的训练,有助于学生理解各种学术写作技能对论文写作的实际意义,并通过练习切实掌握技能、提高语言基本功和学术词汇及构式的实际运用能力。

2) 结合授课模式设计教材内容,操作性强,练习多

本教材设定的授课模式是操作性较强的“实例分析—练—讲—练”的模式,因此教材以练习为主,各单元的讲述部分主要以项目符号加要点的形式呈现,避免冗长讲述和深奥术语。第二单元至第七单元每单元都先给出论文节选和任务,教师可通过课堂启发、比较等方法引导学生发现并分析论文各组成部分的结构特点、内容要求。后续技能和语言部分也以练习为主,讲述为辅,以期通过练习和练后讲评,使学生真正理解和掌握论文写作中的基本技能,并学会使用恰当的词汇、构式和搭配。

3) 按学生论文写作过程来安排单元顺序

本教材打破了按论文组成部分的顺序来安排单元的惯例,按学生的实际写作过程安排单元顺序,更符合学生的写作习惯,有利于学生边学习边实践。教师授课时各部分衔接也更自然,便于教学操作。

4) 结合软件、网络资源、语料库,帮助学生进行数字时代的学术英语写作

本教材利用学术英语语料库研究的成果设计练习,帮助学生了解和掌握论文各部分的常用构式。为保证材料真实,并贴近学生论文的写作需求,各部分练习所用句子大多改编自学术英语语料库。本教材还提供了学术写作资源链接,鼓励和帮助学生进行自主学习和课下练习,储备自己的学术英语写作语料库,进行数字时代的学术英语写作。书中所有习题答案可登录华东理工大学出版社有限公司官网下载:<http://www.ecustpress.cn>。

在本教材的编写过程中,本人得到了教研室同仁的大力帮助和支持。吴建伟、王捷、施敏、王琦老师等参与了本教材的编写,在此谨向他们表示诚挚的感谢!由于编写仓促,编者水平有限,本教材难免存在错漏及不当之处,切望各位专家同仁及广大读者不吝赐教,予以批评指正。

编者

2019年12月

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Unit 1

A Brief Overview

Academic writing in English covers many kinds of texts. Common types of academic writing include:

- Research papers/Journal articles
- Essays
- Lab/Project reports
- Research proposal/Grant writing
- Book reviews
- Term papers
- Presentation writing
- Poster/Conference papers
- Dissertation
- Reflective writing
- Case studies

However, the types of academic writing that Chinese students and researchers need to write in English are most probably research papers and essays, especially the former. Therefore, this book mainly focuses on research papers. However, you can still find most of what you need for essay writing discussed in detail in this book as the most essential skills required for it are also the common core of paper writing.

1.1 Writing Papers in English: How to Get over Procrastination

Writing a research paper is a long and painful process for many students and researchers. It is thus often put off, but the delay makes it harder to write day by day.

However, writing a research paper is not as difficult as you thought. In fact, it is in some sense like blank-filling. The real difficulty lies in doing your research, not writing. Therefore, stop putting off writing your paper if you have already started doing research. Here are some ways to help you get over your procrastination.

- **Start from the easier part** (for example, the Methods section)
- **Ignore grammar and details at the beginning** (just get something written done first)
- **List your research questions** (this can help you structure your ideas)
- **Outline each section by categorizing literature or findings** (to keep the paper on track and well-organized)
- **Consider the guidelines and the audience of your target journal**

The guidelines generally outline specific requirements for your paper. Knowing your audience helps you decide the levels of details for your paper.

- **Read, read and read**

Only by reading can one learn how to write. Read the relevant research papers that have been published in your target journal, especially those with similar topics, methods, or results to your study because they not only provide you with adequate background knowledge but also sound examples of successful writing.

- **Use available academic corpora and create your personal corpus**

A corpus is “a collection of machine-readable authentic texts which is sampled to be representative of a particular language, a language variety or a text type” (McEnery, Xiao and Tono, 2006, p. 5). Using available academic corpora allows you to learn from great amount of good academic writing and discover academic writing format, patterns, collocations and usage. Building your own corpus of papers helps you discover the academic norms specified in your field and store the most relevant vocabulary, patterns and collocations. Here are links to some well-known academic writing corpora.

British Academic Written English Corpus: <http://ota.ahds.ac.uk/headers/2539.xml> or <https://www.sketchengine.eu/bawe-corpus/>

Michigan Corpus of Upper-Level Student Papers: <http://micusp.elicorpora.info/>

- **Use online writing help**

The Internet offers enormous resources which you can employ to help with your writing. Here are some useful websites offering help in academic vocabulary, patterns, collocations and overall academic writing.

Purdue Online Writing Lab: <https://owl.purdue.edu/>

Academic Phrasebank: <http://www.phrasebank.manchester.ac.uk/>

Academic Word List:

<https://www.victoria.ac.nz/lals/resources/academicwordlist/information>

<http://www.englishvocabularyexercises.com/AWL/id26.htm>

Online OXFORD Collocation Dictionary: <http://www.freecollocation.com/>

Collocation in Sketch Engine for Language Learning: <https://skell.sketchengine.co.uk/run.cgi/skell>

Academic Collocation List: <https://pearsonpte.com/organizations/researchers/academic-collocation-list/>

1.2 The Process of Writing

Generally, academic writing involves:

- Searching (search and research, use citation index/abstract and specify your key words to find relevant literature)
- Reading literature
- Brainstorming, sorting out ideas and narrowing down the topic (to get your research questions)
- Assembling a working bibliography
- Reading the literature critically
- Taking notes and summarizing the information (to write literature review)
- Designing the research (to collect and analyse data)
- Outlining the paper
- Drafting the paper
- Revising the drafts

The process of writing a research paper is actually not a simple and linear one as shown above. Instead, it is a long and cyclical process of reading, thinking and writing, with each step feeding each other and some steps going on simultaneously sometimes. The simplest version is as follows:

Reading—brainstorming—outlining—drafting—further reading—further brainstorming—outlining—drafting—proofreading

We don't bother to present a complicated figure here for the reason that a simpler flow chart seems to highlight the essential elements of successful academic writing better, and the point here is to help you understand the non-linear nature of the writing process.

1.3 Features of Research Paper Sections

A research paper usually consists of the following parts:

- Title
- Abstract (and Keywords)
- Introduction
- Methods
- Results
- Discussion (and Conclusion)
- References

Each of these parts has different functions and therefore differs from one another linguistically. The following table (Table 1.1) shows some linguistic characteristics of four major research paper sections by presenting the frequencies of their use of tenses, voices, citations and hedges.

Table 1.1 Frequencies of Selected Features in Research Paper Sections

	Introduction	Methods	Results	Discussion
Present tense	high	low	low	high
Past tense	mid	high	high	mid
Present perfect	mid	low	low	mid
Passive	low	high	variable	variable
Citations	high	low	variable	high
Hedges	mid	low	mid	high

Note. Adapted from Swales & Feak, 2012, p. 287

Exercise 1

Here are eight sentences from different sections of a research paper. Can you guess from which of the four sections (Introduction, Methods, Results and Discussion) they come on the basis of what you have learned from Table 1.1? There are two sentences from each section.

1. As shown in Table 1, no significant relationship was found between the fluency sub-scores and the flexibility sub-scores on the haiku task.

2. Participants were presented with 57 word trios and given 7 minutes to complete the trios with a fourth word that could be related to the previous three.
3. Our findings suggest that one of the main forces behind creativity could be the factor of “originality”.
4. Creativity has been described as “one of the most enigmatic subjects in cognitive psychology” (Kim, Cramond, & Bandalos, 2006).
5. There were mixed results on the relationship between fluency and previous achievements.
6. This suggests that divergent thinking alone probably cannot account for creative end-products.
7. The tasks were administered and timed by the principal investigator, and the entire session lasted approximately 1 hour.
8. Because these measures test different abilities, it is difficult to make connections between separate studies in order to draw conclusions about what types of creative processes might relate to realistic creative output and lifetime achievement.

(Source: MICUSP, PSY. G0. 18. 1)

1.4 Academic Style

Academic style is in fact very hard to pin down as different kinds of academic settings or writings have different requirements for what is academically acceptable. Besides, what is considered academic may differ from one discipline to another, and students are often encouraged to find their own style (Bailey, 2011). However, in general, a research paper tends to be:

- Formal
- Concise
- Objective
- Informative

Each of these stylistic features is often shown by the use or avoidance of certain lexical items or structures listed below.

- Objectivity: passive voice, impersonal subjects, qualified claims
- Informativeness: long complex sentences, nominalization
- Formality: avoidance of colloquial language. . .
- Conciseness: avoidance of redundancy. . .

In this section, we only expound on formality and conciseness. The first two features will be discussed in section 5.4 and section 6.4.

Formality

In journal articles of most fields, for formality, the avoidance of the following expressions and structures is common (Swales and Feak, 2012; Chang & Swales, 1999).

- Contraction*
- Vague words (e. g. thing, good and so on)
- You*
- I*
- Direct questions
- Colloquial words and expressions (e. g. a lot of, sort of, like)
- Bullet points
- Listing expressions (e. g. etc.)
- Phrasal verbs

*Please note that what is considered informal or less acceptable may vary with discipline or setting and is changing over time. For example, contractions and direct questions seem to be more tolerable today across disciplines (Hyland & Jiang, 2017). Second person is often acceptable in instructional materials and oral presentations. First person plural *we* seems to become common in co-authored papers in many disciplines, but first person singular *I* is more rarely used (Swales & Feak, 2012; Hyland & Jiang, 2017). Therefore, apart from following the above-mentioned general rules for formality, observe the practice of your field and target journal for different formality requirements.

Compare the following examples (the first one in each pair is considered less formal):

- 1A. The alternative hypothesis states that the data **doesn't** follow normal distribution.
- 1B. The alternative hypothesis states that the data **does not** follow normal distribution.

- 2A. The transition to turbulent, is not the only **thing** which determines flow speed.
- 2B. The transition to turbulent, is not the only **factor** which determines flow speed.

- 3A. So there is no guarantee that the HRS measure is **very good**.
- 3B. So there is no guarantee that the HRS measure is **accurate/effective**.

- 4A. **As you can see**, copper still wins on conductivity.
- 4B. **As can be seen**, copper still wins on conductivity.

- 5A. **How can** different concentrations of sodium bicarbonate increase the rate of oxygen produced?
- 5B. **It would be interesting to further explore how** different concentrations of sodium bicarbonate can increase the rate of oxygen produced.
- 6A. This will **cut down** the amount of drug required and so the cost of treatment.
- 6B. This will **reduce** the amount of drug required and so the cost of treatment.

Apart from avoiding using the above-mentioned expressions and structures, it is common to:

- Use more appropriate formal negations
- Place adverbs in the mid-position

Compare the following examples (the first one in each pair is considered less formal):

- 1A. There are **not many** options available.
- 1B. There are **few** options available.
- 2A. **Then**, the process was repeated so that the following test tube had a concentration of 0.075 mol/L.
- 2B. The process was **then** repeated so that the following test tube had a concentration of 0.075 mol/L.

Exercise 2

Make the following sentences more formal.

1. Technology has caused really bad environmental damage.
2. From this model you can see that intensity should have no part in the determination of the stopping voltage.
3. This method can save a lot of time in designing similar parts over again.
4. The whole system can be supported into a stationary position by the wheels or some similar stuff.
5. Unfortunately, since there are so many possible explanations, the correct one is most difficult to find out.
6. Telegraph, radio, telephone, etc. make our life much more convenient.
7. The reaction to the discussions was pretty good and has resulted in everyone getting on better at work.
8. Modern houses have so many labour-saving things.