

# **The Notes of UCAS “Scientific Writing in English”**

## **Lecture—20150925**

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## **MODULE 1**

**(模块 1-主要学习安排)**

**Writing your first draft**

**(开始写你的第一份草稿)**

**Editing your first draft**

**(编辑你的第一份草稿)**

## Summary last Lectures

（对上次课进行总结）

Before writing a manuscript: （在写草稿之前）

1、Forget everything your English teacher told you about BEAUTIFUL writing （忘记你英语老师教给你的那些漂亮的写作）老师上课举了一个例子,意思是说如果你用 beautiful writing 写你的 paper, 那么基本上会被拒稿。

2、Start reading published papers with focus in GRAMMAR （开始阅读已经发表的文章，并且关注语法）

3、Start writing in English, 5 min a day （开始英语写作，每天 5min）

4、While Writing a manuscript: （当你在写你的草稿时）

\* Write your results + discussion first （先写你的结果和讨论部分）

\* Edit for clarity and precision AFTER, not while writing first draft （之后再清晰、准确的编辑，而不是在写第一次草稿时）

\* Multitask at your peril! （不要在写作时进行多项任务）

## PART 3: Writing the First Draft

Before you start writing: （在你开始写之前）

\* Writing is part of your scientific inquiry (写作是你科研探索的一部分)

\* Working on your writing is working on your thoughts (基于你的想法写作)

\* Good writing alone is not sufficient – only meaningful results can be turned into meaningful writing (at least in the Experimental Sciences) (只有良好的写作是不够的一有意义的结果才能转变为有意义的写作 (至少在实验性科学里是这样的))

\* Find yourself a quiet spot (让自己处于安静的地方, 可以不被打扰)

\* Be clear what journal to submit your work to (清楚你的论文是要提交到哪个杂志)

\* Have a copy of the instructions to the author ready (准备好一份作者须知 (写作的时候要按照你要投稿的杂志要求写, 所以你得下载相应杂志的投稿须知))

1. Have you completed your research (experiments etc.)? (你已经完成你的研究 (实验等)?)

2. Are all main figures prepared? (所有的图表都准备好了吗)

3. Have you updated your literature review? (你更新你的文献综述了吗)

4. Have you collected all materials and methods? (你收集了所有的材料和方法吗)

-> Now its all about communication! (OK, 现在开始交流吧)

**Communication ... the imparting or exchanging of information or news** (交流。。。最新信息或者新闻的传授和交流)

5. Banned in academic writing: (在科研写作中需要禁止的)

- \* vague, atmospheric language (模糊、大气的语言)

- \* obscure terms (模糊的术语)

- \* expressions of emotional feelings (情感的表达)

- \* hear-say, rumors and alike (听说, 谣传, 好像)

- \* idiomatic expressions (习惯用语)

- \* informal language (非正式用语)

To achieve: Precision, Logic, Accuracy, Flow of your ideas!

要实现的是: 精确的、符合逻辑的、准确的、流动的想法!

6. what to use: Pen & paper, or keyboard & screen?

(使用什么来写作: 纸和笔或者键盘和屏幕?)

- \* really a question of how to minimize the myriads of distractions around you (怎样将那些让你分心的事情最小化)

- \* p&p have no boot-up time, no spell-checking, no wechat,

no QQ option! (纸笔写作没有启动时间, 没有拼写检查, 没有微信, 没有 QQ)

\* p&p allows you to go to places where no wifi can ever reach you, and no shortage of power affect your creative flows (纸笔写作允许你去没有 wifi 的地方, 在那里你可以让你创造性的思绪迸发出来)

6. Order of Publishing versus Writing (论文发表与写作的顺序)

\* usually, a paper PUBLISHED in this sequence: (通常, 一篇文章按下面的顺序发表)

Title & Abstract (标题和摘要)

Introduction (前言)

Methods (方法)

Results and Discussion (结果和讨论)

? Social science articles? depending on research area?

(不清楚社科类的文章是否也是按照这样的顺序发表, 可能取决于研究领域吧)

对比文章出版顺序和写作顺序

\* The better WRITING sequence(I.C. Bruce):R&D、M、I+A

较好的写作顺序:结果和讨论、方法、引言或摘要

\* The sequence suggested by Torsten: M、R&D、I、A、T

Torsten 推荐的写作顺序: 方法、结果和讨论、引言、摘要、  
题目

①Methods: How did you do your experiments/research?

方法: 怎样做实验或研究?

\* best prepare while doing experiments: 实验期间最好做好准备

\*convert lab protocols to proper sentences: 实验协议转换为合适的  
的语言

\* write down all instruments' details: 记下所用工具的详细信息

\* tables with materials and reagents' details:图表详细列出所用  
材料试剂

\* a shared file that contains all methods :建立一包含所有方法的  
共享文件

-> add all changes according to your own procedures: 依据自身  
作出调整

PS:Figures and Legends 数据和图例

\* upon completion of your experiments: 完成你的实验所得

\* basis of your R+D draft -> logic!:是结果与讨论部分的根  
基 -> 文章合理性

- \* prepare a template for your figures: 分析实验数据时先准备一件样板

- \* make your main message is highlighted:使主要信息突出鲜明

- \* ppt figures different format to paper figures: 制作不同的论文数据格式

-> consult instruction to authors!咨询指导作者

- \* short introduction into figure upon request: 依据要求简要介绍所备数据

## ② R & D – What did you find, and what does it mean?

结果和讨论：你发现了什么？你的发现有何意义？

- \* written according to your figures and tables: 按你的数据和图表来写

- \* ensure figures in a logical and new order :保证数据的逻辑顺序

- \* separated in most journals:结果和讨论在大多数文章中是分开的

- \* first draft together (sensibly): 二者更应该一同起草

- \* start with Fig. 1:以图表一作为开始

1. what is the main message? draft Figure title (conclusion or description style)[主要信息是什么，用总结性或描述性语言起草图表标题]

2. describe what the reader is looking at[语言描述读者所看到的东西]

## CHAPTER 2: WRITING THE FIRST DRAFT 初稿

3. draw attention to the important facts shown in the figure

(注意数据中的重要事实。)

- increase or decrease? absent or present? positive or negative?

(增加或减少？是否缺失？正相关还是负相关？)

4. start writing down all ideas popping up in your brain NOW!!!

(立马写下出现在你脑袋中所有的灵感)

- A increased because.../B is absent due to.../C is brighter than

如： A 增加是因为.../B 缺失是由于...

-> repeat for each figure (重复看每个数据.)

-> treat each figure as a mini-unit (把每个数字当作一个小单位.)

### **Introduction – Why did you do your study?**

文章的介绍部分：为什么你要做这个研究？

\* the 'white lie' phenomenon (一般会出现善意的谎言现象)



Why did you do this project? (为什么你要做这个项目)

a) because my supervisor told me so (因为我的导师要我做)

b) because none of the other projects worked out (因为没有其他的项目被做出)

c) because I want to win the Lasker price (因为我想得诺贝尔奖)

-> your readers NOT interested in this, are they?! 读者对此并不感兴趣!

\* what is the current state of knowledge in your field?

(你所在领域知识的当前状态是什么?)

-> literature review 查阅文献

-> idea: to use instead of proposal 要点: 应用而不是建议

\* what previous studies are your experiments based on?

(以前的研究是基于什么?)

**Abstract – How to say it 'in a nutshell', and still get the reader excited about your results**

摘要: 简而言之, 让读者继续对你的结果感兴趣!

How to summarize your findings and present them in the context of the existing knowledge framework

(如何总结你的发现, 并在上下文中呈现它们现有知识框架。)

\* most difficult part, especially because of word limit imposed

(最困难的部分是字数的限制。)

\* keep to the end, because

- your draft will need to be edited first, probably many times

- the focus of your manuscript might change radically,

depending on how many new/crazy ideas your supervisor

has left! 1、你的手稿将要花大量的时间编辑 2、你手稿的焦点

可能会从根本上改变，取决于你的导师有多少新的/疯狂的想法

已离开！**所以要坚持到底！**

\* plan ahead: literature review and figures + legends

(提前准备：查阅文献和数据+文献)

\* find a space away from all sources of distraction

(找到一个远离所有干扰源的空间)

\* do not worry about spelling, grammar, elegance

(不要担心用词的拼写，语法，精致)

- describe each method used to obtain results (manuscript format!)

描述用于获得结果的每一种方法（手稿格式）

- use your pre-written literature review to provide background

(用你的预先写好的文献回顾来提供背景)

**Knowledge**

- describe each result and discuss its meaning, one result at a time

(描述每个结果并讨论其含义，一次一个结果)

WRITING first draft focused on information, NOT language or organization

(写作要点是信息，而不是语言或组织.)

\* EDITING first draft all about

logic, clarity, order, precision

(编辑初稿要注意逻辑，清晰，有序，精度)

(length: journal-dependent) 长度取决于杂志

### **Results – What did you find?**

结果：你发现了什么？

\* cut+paste all statements in your first draft not DIRECTLY

describing your results into a separate discussion section

(不要直接把你的第一手稿的结果复制剪贴描述成一个单独的讨论区.)

\* DESCRIBE only, do not INTERPRET (仅描述，不要解释.)

(although: end of each section usually has a line: 'Together, these results suggest/indicate...A,B,C'; not a real discussion, just a summary without referral to the wider literature)

尽管每个部分都有：“这些结果表明了...” 但这不是真正的讨论是只是一个不要提及到更广泛的文献的总结.

\* do NOT repeat information found in tables, especially long rows of numbers  
do NOT repeat information found in tables, especially long rows of numbers

(不要重复在表格中找到的信息，特别是长排数字)

### **Discussion – What does it all mean?**

讨论：这一切意味着什么？

\* shortly summarize your main findings – do NOT repeat

(简要总结你主要的发现- 不要重复)

describing every single result, including referring to specific

Figures! (描叙每一个结果，包括具体的数据.)

\* do NOT repeat introduction! (不要重复介绍)

## **PART 4: EDITING THE FIRST DRAFT(编辑你的初稿)**

### **2. Discussion – What does it all mean?**

(讨论：这一切意味着什么？)

\* relate results to what is known from the literature(从大家众所周知的文献中查找到相关结果)

\* interpret results according to your hypothesis(introduction)

(根据你的假说来解释实验结果)

- \* summarize the minor findings(总结微小的发现)
- \* explain inconsistencies: between results, and with literature  
(解释已知结果和文献之间的不一致性)
- \* self-criticism? can work both ways, but adds to credibility of  
your work(自我评价? 可以通过两种不同的方法, 但是能够增加你工作的可信度) (老师上课说自我批评很重要!!!)

Methods – how did you do it? (方法: 你是怎样做的)

- \* sequence, sequence, sequence! (按顺序、顺序、顺序排好! )  
(别人能够重复你的实验!!!)

- \* common sentence: '...was performed as described earlier (Ref).

In brief...' (常识: ...如前所述执行。简言之...)

- \* include all info on model system, participants, animals, conditions, modifications to standard protocols, suppliers of reagents, manufacturers. (包括所有的信息系统模型、实验参与者、实验体、实验条件、标准协议的修订、试剂供应商和制造商)

-> other scientists should be able to repeat your experiments

according to your instructions! (其他科学家根据你的说明应该能够重复你的实验!)

- \* important: Ethics approval BEFORE start of experiments!!!

(more on ethics later) (重要:在开始实验之前一定要在道德上获得批准!!! 稍后将会详细介绍道德层面上的)

(老师上课举例: 在美国, 即使实验准确, 但是不符合道德层面的要求也会被拒搞的!!! )—克隆人的实验

- \* statistics: reviewers pay much attention to this, so should YOU!

(数据: 评审家最关注的, 所以你也应该关注)

- \* use standard phrases commonly used in your field

(在你研究的领域中使用标准的常用的术语)

- \* pay attention to rules for units, i.e. 50 mM solution, but 37°C

(注意标准单位的使用, 比如: 50 mM 的溶液, 37°C)

Introduction – Why did you do it?

(前言– 你为什么要做这个实验)

- \* literature review good starting point – document in progress! (文献综述是一个好的起点—文献资料在不断地更新中)

- \* however: introduction NOT a review of everything since

creation of the term 'Environmental Sciences'! (但是: 自“环境科学”一词诞生后前言就不是所有内容的综述!)

- \* focus on the background information required to understand

why your study is important, and what was known before

your study, and what was not known yet. (深入理解背景信息需要你做到:为什么你的研究是很重要的,在你开展研究之前你了解多少、不了解多少)

\* bone of contention: repeat of your results at the end of the Introduction. (争论的焦点: 在前言最后重复你的实验结果)

- some journals do NOT allow it! (某些期刊可能会拒搞!)

- some journals request it! (某些期刊可能会接收!)

-> solution? Instruction for authors!

(解决方法? 对作者的指导!)

\* final paragraph: 'Therefore, we set out to...' (最后一段: 因此, 我们应该...)

'Thus, the aim of this study was...' (因此, 这项研究的目的是...)

general comment: (一般性地总结)

**'WE!', not 'I'!**

(unless you are the sole author of the manuscript)

(语气是我们而不是我!!!) —除非你是一个人单独完成了初稿!!!

Title & Abstract: My findings in a nutshell

(标题&摘要: 概括一下我的研究发现)

\* this is what most people will ever look at!

(这是大部分人们最关注的部分)—标题是大家对文章了解的关键！！！！

\* challenge: to be both precise AND concise

(挑战：既精确又简洁)

-> solution: PRACTISE, PRACTISE, PRACTISE!!!

(解决方法：练习，练习，练习！！！！)—practice makes perfect!!!

Title: what are the keywords? delete all else if possible

(标题：关键词是什么？如果可以的话尽量删除其他的非关键词)  
—关键词要精简！

\* mini paper – same structure: IMRAD

(用一张小纸条写下相同的结构：论文主体)

Why did you do this study? (你为什么做这项研究？)

(How did you do this study?) (你是怎样做这项研究的？)

What did you find? (你发现了什么？)

What do the findings mean? (这些发现有什么意义？)