## Tim Skern

## **Writing Scientific English**

## A Workbook

2<sup>nd</sup> edition

Contents 9

Chap	ter 1	
An in	troduction to scientific English	13
1.1	Advantages and disadvantages of English	13
1.1.1	British or American?	17
1.2	Formal English, the language of science	19
1.2.1	Complete sentences	19
1.2.2	Punctuation marks	20
1.2.3	Write out all verb forms	23
1.2.4	Avoid starting sentences with "and", "but", "because" or "so"	23
1.2.5	Avoid ending sentences with "too", "also", "though" or "yet"	24
1.2.6	Avoid "get"	25
1.2.7	Avoid vagueness, sensationalism and exaggeration	25
1.2.8	Using "the" and "a"	26
1.3	Words for writing scientific English	29
1.4	Take-home messages from Chapter 1	32
1.5	References	32
1.6	Improvements to exercises	32
Chap	ter 2	
Writin	ng clear scientific English	35
2.1	Eight guidelines for improving your writing technique	35
2.1.1	Make a plan	35
2.1.2	Use a clean and legible layout	36
2.1.3	Use paragraphs	37
2.1.4	Write simple sentences	37
2.1.5	Write positive sentences	39
2.1.6	Write active sentences	40
2.1.7	Omit needless words	41
2.1.8	Read and think about your work	42
2.2	Just to make you feel better	43
2.3	Take-home messages from Chapter 2	46
2.4	References	46
2.5	Improvements to exercises	46

10 <b>Chapte</b>	:Г	3
------------------	----	---

Applying the fundamentals		49
3.1	Summarising the text "Fighting for Breath"	49
3.2	Improving four summaries of "Fighting for Breath"	52
3.3	Writing abstracts for scientific presentations	61
3.4	Improving four abstracts	62
3.5	What is science?	67
3.6	Improving four texts on "What is science?"	71
3.7	Take-home messages from Chapter 3	79
3.8	References	80
Chap	ter 4	
Const	tructing a scientific manuscript	81
4.1	The process of publishing original data	
	in a scientific manuscript	81
4.2	Planning a scientific manuscript	86
4.3	Writing a scientific manuscript	92
4.3.1	Prepare the figures and tables	92
4.3.2	Describe the figures and tables	96
4.3.3	Write a first draft of the "results"	97
4.3.4	Write a first draft of the "discussion"	100
4-3-5	What about writing a combined section entitled "results	
	and discussion"?	102
4.3.6	Write a first draft of the "introduction"	105
4.3.7	Write a first draft of the "title", the "abstract"	
	and the "keywords"	106
4.3.8	Write a first draft of "materials and methods"	109
4.3.9	List and sort the references	111
4.3.10	Write the "acknowledgements"	113
4.3.11	Write the "abbreviations"	113
4.4	Assembling and improving the model manuscript	114
4.4.1	First draft of the model manuscript	116
4.5	Editing and refining a scientific manuscript	121
4.5.1	Improved model manuscript	122
4.6	Take-home messages from Chapter 4	126
4.7	References	127

Chapter 5	11

Ona	prof 0	
Practising writing and improving scientific manuscripts		129
5.1	Improving the quality of bread	129
5.2	Your views on human activity and global warming	135
5.3	Measuring biodiversity	139
5.4	Stereotypic Man	145
5.5	Searching for the best firewood to reduce global warming	150
5.6	Is there a connection between eating organic food and	
	cigarette smoking?	156
5.7	Take-home messages from Chapter 5	162
5.8	References	163
	pter 6 ng the pain: writing whilst researching	165
Cha	pter 7	
On y	our own	169
7.1	Resources	172
7.2	A reading list to improve your vocabulary and your	
	scientific writing	175
7.3	References	184
Cha	pter 8	
The	scientific vocabulary of this book	185
8.1	Linking words	185
8.2	Words from the basic scientific lexicon	186
8.3	Words that extend the basic scientific lexicon	188

189

8.4

Words that you wish to add

## 12 List of boxes

1.1	Terminating difficulties in English spelling	16
1.2	Fooling a spellchecker	17
1.3	Names of musical notes	19
1.4	Words for linking sentences in scientific writing	24
1.5	Guidelines for using "a" and "the"	27
1.6	Practising the use of the articles "the" and "a" in English	28
1.7	A basic lexicon for scientific writing	30
2.1	Shortening sentences by splitting them into two	39
2.2	Positive and negative sentences	40
2.3	Omit needless wordst	42
2.4	The editor of "Nature" has an off-day	44
3.1	Summarise the text "Fighting for breath"	50
3.2	Identifying problems in written work	53
3.3	Who takes part in a clinical study or trial?	67
3.4	"What is science?" Answer this question in less than 300 words	68
3.5	Scientists on science	69
3.6	Using the words "prove" and "disprove"	71
4,1	The steps in constructing and publishing a scientific manuscript	85
4.2	What is an impact factor and how is it calculated?	86
4.3	Sections of a scientific manuscript and the information they contain	87
4,4	A manuscript without sections	90
4.5	Suggested order for planning and writing the sections of a	
	scientific manuscript	91
4.6	Figures 1 and 2 for the model manuscript	95
4.7	Figure legends	97
4.8	Results	99
4.9	Arranging the figures, figure legends and results for cohesive writing	100
4.10	Discussion	102
4.11	Results and discussion	104
4.12	Introduction	106
4.13	Two versions of the abstract	108
4.14	Title and keywords	109
4.15	Materials and methods	110
5.1	Stereotypic man	145
6.1	Explaining an experimental problem to a colleague	166
7.1	Words from Shakespeare for use in scientific writing	171