ENGLISH FOR ACADEMIC RESEARCH

Adrian Wallwork

English for Writing Research Papers

Second Edition

Springer

English for Academic Research

Series editor
Adrian Wallwork
Pisa
Italy

This series aims to help non-native, English-speaking researchers communicate in English. The books in this series are designed like manuals or user guides to help readers find relevant information quickly, and assimilate it rapidly and effectively. The author has divided each book into short subsections of short paragraphs with many bullet points.

More information about this series at http://www.springer.com/series/13913

Adrian Wallwork

English for Writing Research Papers

Second Edition

Springer

Adrian Wallwork
English for Academics
Pisa
Italy

English for Academic Research
ISBN 978-3-319-26092-1 ISBN 978-3-319-26094-5 (eBook)
DOI 10.1007/978-3-319-26094-5

Library of Congress Control Number: 2016933455

Springer Cham Heidelberg New York Dordrecht London

Printed on acid-free paper

Springer International Publishing AG Switzerland is part of Springer Science+Business Media (www.springer.com)

Preface

Who is this book for?

This book is part of the *English for Research* series of guides for academics of all disciplines who work in an international field. This volume focuses on how to write a research paper in English, though the majority of guidelines given would be appropriate for any language.

It is designed both for inexperienced and experienced authors.

EAP trainers can use this book in conjunction with: *English for Academic Research: A Guide for Teachers.*

How is this book organized? How should I read it?

The book is divided into two parts and the full contents can be seen in the Contents on page ix. This Contents page also acts as a mini summary of the entire book.

Part 1: Guidelines on how to improve your writing skills and level of readability.

Part 2: Guidelines about what to write in each section (Abstract, Introduction, Methodology etc.) and what tenses to use. Of course, not all disciplines use the same section headings, but most papers nevertheless tend to cover similar areas.

I recommend you read all of Part 1 before you start writing your paper. Then refer to specific chapters in Part 2 when you write the various sections of your paper.

Chapter 20 concludes the book and contains a checklist of things to consider before sending your manuscript to the journal.

How are the chapters organized?

Each chapter has the following three-part format:

1) FACTOIDS/WHAT THE EXPERTS SAY
In most cases, this section is a brief introduction to the topic of the chapter. Occasionally, the factoids are simply interesting in themselves and have no particular relevance to the chapter in question. However, they can be used by EAP teachers as warm-ups for their lessons. All the statistics and quotations are genuine, though in some cases I have been unable to verify the original source.

2) WHAT'S THE BUZZ?
This is designed to get you thinking about the topic, through a variety of useful but entertaining exercises. These exercises are designed to be done in class with an EAP (English for Academic Purposes) teacher/trainer, who will provide you with the keys to the exercises. The final part of each *What's the buzz*? section is a brief outline of the contents of the chapter.

3) The rest of each chapter is divided up into short subsections in answer to specific questions. These are either instructions (in Part 1) or in the form of FAQs (in Part 2). Each chapter ends with a summary.

I am a trainer in EAP and EFL. Should I read this book?

If you are a teacher of English for Academic Purposes or English as a Foreign Language, you will learn about all the typical problems that non-native researchers have in the world of academia. You will be able to give your students advice on writing quality research papers and getting referees and editors to accept their papers. In addition, you will generate a lot of stimulating and fun discussions by using the factoids and quotations, along with the *What's the buzz?* exercises.

You can also use the three exercise books (writing, grammar, vocabulary) that are part of this *English for Academic Research* series, plus the teacher's book that contains notes on how to exploit all the books: *English for Academic Research: A Guide for Teachers.* This guide contains keys to the exercises in the What's the buzz? sections.

I edit research papers. Can this book help me?

Certainly. It should clear up a lot of your doubts and also enable you to be a bolder and better editor!

Are the extracts in this book taken from real papers?

Most of the examples are taken from real published papers. In some cases the names of the authors and titles of the papers, plus where they can be downloaded, can be found in the Links and References section at the back of the book. Some examples are fictitious (and are indicated as such), but nevertheless not far from reality!

How do I know if the examples given are good or bad examples?

Example sentences are preceded by an S, e.g. S1, S2. If they contain an asterisk (e.g. S1*), then they are examples of sentences that either contain incorrect English or are not recommended for some other reason. Longer examples are contained in a table. This table contains the original version (OV, sometimes labeled *No!*) and the revised version (RV, sometimes labeled *Yes*). Unless otherwise specified, the OVs and sentences labeled *No!* are all examples of how not to write.

Useful phrases

A list of useful phrases that you can use in your paper can be downloaded free of charge at: http://www.springer.com/us/book/9783319260921.

Differences from the first edition

Each chapter now begins with Factoids and a *What's the buzz?* section. There is a new chapter (Chapter 9 Discussing Your Limitations) and around 50 new sections spread over a 100 new pages - particularly in the chapters on: *Highlighting Your Findings, Abstracts, Introduction, Discussion*, and *Conclusions*. The chapter on *Useful Phrases* is now a free download (see above).

The author

Since 1984 Adrian Wallwork has been editing and revising scientific papers, as well as teaching English as a foreign language. In 2000 he began specializing in training PhD students from all over the world in how to write and present their research in English. He is the author of over 30 textbooks for Springer Science + Business Media, Cambridge University Press, Oxford University Press, the BBC, and many other publishers.

Other books in this series

This book is part of a series of books to help non-native English-speaking researchers to communicate in English. The other titles are:

English for Academic Research: A Guide for Teachers

English for Presentations at International Conferences

English for Academic Correspondence

English for Interacting on Campus

English for Academic Research: Grammar, Usage and Style

English for Academic Research: Grammar Exercises

English for Academic Research: Vocabulary Exercises

English for Academic Research: Writing Exercises

Contents

Part I
Writing Skills

Chapter 1

Planning and Preparation

Factoids

Every day 7000 scientific papers are written, but not necessarily accepted for publication.

*****

At least two thirds of published scientific papers are written by researchers whose first language is not English.

*****

Approximately 20% of the comments referees make when reviewing papers for possible publication in international journals regard English language issues.

*****

A much disputed report drafted by the Organization for Economic Cooperation and Development found that only 12% of Italian and Spanish university graduates reached the top two levels on a standard literacy test, whereas around 13% of high school students reached these levels in Japan and the Netherlands.

*****

In the EU alone there are over 250,000 PhD students.

*****

China has nearly one million researchers, Japan 675,000, the Russian Federation 500,000.

A. Wallwork, *English for Writing Research Papers*,
English for Academic Research, DOI 10.1007/978-3-319-26094-5_1

1.1 What's the buzz?

Think of three good reasons for publishing your research in an international journal. The three quotations below should help you.

> *From note taking to publishing to teaching, language is the tool that gives sense to scientific activity. Whatever scientists do or observe, everything they come to know or to hypothesize, is mediated through language.*
>
> Robert Goldbort, Writing for Science

> *The writing of an accurate, understandable paper is just as important as the research itself.*
>
> Robert A Day, How to Write and Publish a Scientific Paper

> *Writing helps you to learn. Writing is not simply a task to be done once research or other preparation is completed - it can be an integral part of the work progress.*
>
> Nicholas Highman, Handbook of Writing for the Mathematical Sciences

****

This chapter analyses the benefits for you of publishing your research, and suggests various approaches for

- choosing the right journal and understanding what the editor expects from a paper in terms of content, style and structure
- deciding the order in which to write the various sections (Introduction, Methods, etc.)
- keeping the referees happy

1.2 Why should I publish? How do I know whether my research is worth publishing?

You will be more motivated to write a good paper, if you have thought about exactly why you want to have your research published. One of your reasons will probably be because you believe you can make a contribution to a gap in the current knowledge base of your field. It helps if you can write down concisely what this contribution is, and then double check that your proposed contribution really is original.

One of my students received the following comment by a referee as a justification for rejecting her paper:

> *Not acceptable. No new knowledge, science or discovery is presented.*

This kind of comment may reach you even six months after you have sent your paper for review. For you, it represents a considerable waste in time and energy spent on a paper.

So, before you start writing you need to have an absolutely clear idea of:

- what your research goal was
- what your most important findings are and how you can demonstrate that they are true
- how these findings differ from, and add to, previous knowledge

You know implicitly what the importance of your findings are – after all, you may have been working for months and years on the project.

But the reader does not know.

You must give the reader a clear message.

Discussing and presenting your findings to colleagues should help you to identify what your key findings are.

Make a list of your key findings and choose the most important ones to fit the space you have available (i.e. the total word count allowed by your chosen journal). For each key finding decide if there is another possible explanation for what you have found. You can do this by looking in the literature again. Make sure you have not inserted any bias in your explanation of your findings. Next, write an explanation saying why you think each key finding is true. However, write your explanation in a way that shows you are open to other interpretations.

The above suggestions should also help you to decide whether your planned paper really will have a contribution to make.

1.3 Which journal should I choose?

If you have never written a paper before and your supervisor has not indicated a specific journal where he/she would like you to publish, it is a good idea to ask colleagues in your research group what they read and what sort of publications they aspire to publish in.

Even if you are writing a paper for the first time, it does not mean that it will only be suitable for a marginal or not very well known journal. Your progress in academia very much depends on your ability to publish in journals that have a high impact factor.

An impact factor is a measure of how prestigious a journal is. The higher the impact factor, the more widely read the journal is, and the more likely other researchers will cite your paper. Tables of impact factors which rank all the peer-reviewed journals in the world are available on the Net, you can use Google Scholar to help you find them.

However, given the difficulties of getting published in a high impact journal (20.13), you might consider opting for a short article or a 'letter'. A literature review or a methodological text is often publishable. For instance, if you are studying medicine, you could consider writing a clinical review – a 2,500 word article which is essentially a review of the management of important and common problems. Many disciplines have such an equivalent.

When you have chosen three or four possible journals, look at their styles and think about their audience – what do the editors and readers expect from the articles (see Sect. 1.7)?

You could try to insert your paper into an ongoing discussion that is currently being covered in the journal. This approach may increase the chances of getting your paper approved by the editor.

The topic you choose to write about is obviously related to the journal where you want to publish. Occasionally it may be worth choosing the journal first (rather than your exact topic), and then deciding which angle of your research to focus on so that it will match the expectations of your chosen journal.

Note there are many online journals that advertise their services by sending emails to unsuspecting researchers – do not submit to such journals as either they are scams or at the very best have no impact factor.

1.4 How can I know exactly what the editor is looking for?

Read as many papers as you can from your chosen journal. This should help you to gain a clearer picture of what the editors of the journal are looking for to enable them to keep their readership levels high. Below are some of the typical things that editors hope to find in manuscripts.

TYPE OF PAPER	Original research, or a systematic review, or a position paper etc. (for more on the various types of paper consult Google Scholar or Wikipedia)
SUBJECT	Hot topic (contemporary issues), original and innovative; or controversial; or classic
AIM	Clarity of purpose, i.e. the research objectives are clear
RESEARCH	Well conducted, methodology clear, ethical, reproducible, no bias, limitations admitted
RESULTS	In line with research objective; entirely new or confirmation of other results already published in the same journal; not too broad as to be meaningless; can be generalized outside a very specific field
LENGTH OF PAPER	Short or long
STYLE	Personal (*we*, *I*), or impersonal (exclusively passive form), or mix (personal and impersonal)

Sometimes journals have themed or special issues on specific topics. These special issues are announced many months in advance of publication. Keep a look out for an issue that covers your specific area – it may be the perfect opportunity for you.

1.5 What preparation do I need to do?

Once you have chosen your journal, look at the most frequently cited papers to see how the authors rationalize the various steps of their research. Try to use papers that you will probably quote in your section on the review of the literature, and which are highly relevant to your topic and/or classic papers in your general field.

For example, you could create a table with some or all of the following headings:

- problem that the research addresses
- background information and relevant references
- elements that validate the level of innovation of the research

- conceptual model, methodology or procedure that the research takes into consideration
- materials, equipment and software used
- method used and the operational steps that the author carried out
- results achieved
- analysis and interpretation of these results
- strengths and weaknesses of the research, the insights demonstrated
- implications for further research

Then you can fill in your table with brief notes for each of the papers you have analyzed. This analysis should help you to:

1. write your own literature review, because after this analysis you will be very familiar with the literature
2. identify the differences in other researchers' approaches and results compared to your research
3. note down the strengths and weaknesses (including possible bias) in the work of others

These three points should enable you to understand in what ways your research is unique, innovative, interesting and useful, and how it extends what is already in the literature. Your aim is to find a knowledge gap to fill.

If you have done a very thorough literature search, then another publishing opportunity for you is to write a literature review.

1.6 How can I create a template?

Choose one paper that is close to your topic, that is written by a native English speaker, and that you enjoyed reading. Use this paper as a model into which you can 'paste' your own research.

Notice how your model paper is structured:

- how does the author begin?
- what points does s/he make in each section?
- how does s/he link paragraphs together?
- how does s/he connect the Results with the Discussion?
- how does s/he present the Conclusions?

As you read your model paper, note down some useful English phrases that the author uses. Such phrases will help to increase the readability of your text, as they will be familiar to your readers.

1.7 In what order should I write the various sections?

There is no standard order in which you should write the various sections of your paper. You should choose the order that suits you best. This may involve writing several sections simultaneously.

Many authors start with the Methods, which is often the easiest section to write because this is the part that will usually be clearest in your mind. Beginning with the Methods will also give you the confidence and impetus you need to move on to the other sections of the paper.

In reality, it is best to start with the Abstract as this will help you to focus / orient your ideas on what are the key aspects of your research. In any case, if you are going to present your work at a conference, the organizers will ask you to submit an abstract before you write the related paper – you can still change the Abstract when you have finished writing the actual paper.

You might find it useful to look at the scientific study protocol that you wrote when you outlined the aims of your research at the beginning of your PhD or before you began your current project. Here you should have written out your goals very clearly, and this will help you to write your Abstract.

The hardest part for most authors is the Discussion where you have to interpret your results and compare them with other authors' results. While you are writing the Discussion, you may find it useful to draft the Introduction, as some of the authors you mention will appear both in the Introduction and the Discussion.

A typical order for writing the various sections is thus:

Abstract (very rough draft)

Methods

Results

Discussion

Introduction

Conclusions

Abstract (final version)

It is a good idea to write the Results and Discussion before the Introduction. This is because you will only truly understand the significance of what you have done after you have written these two sections. Laying the background foundations on which you can highlight the significance of your research is a major part of the Introduction.

1.8 Should I write the initial draft in my own language before writing it in English?

Write directly in English rather than in your native language. This may be hard at the beginning. But with a model paper written by a native English-speaker in front of you, which you can follow step by step, it should be quicker than translating from your own language. From an English point of view, it should also be more reliable and accurate because you will be using some standard phrases that you have lifted directly or adapted from your model English paper.

Some researchers find it much easier to write a paper if they have already written notes in English throughout the research project. This means that you will already have much of the content you need when you finally start writing your manuscript. It also means that you will get a lot of practice in writing in English and may help you to discover any gaps in your understanding of your topic.

It might also be worth finding a native speaker to correct your written English for you whenever you write notes during the research. This might be a useful alternative to following a general English language course as it will be much more focused and also tailored to your particular needs. However, if your department or institute offers writing courses these are obviously well worth attending.