Writing Scientific Papers

Free Sample

Tim North

Scribe Consulting

Writing Scientific Papers

Free Sample

This free sample may be distributed freely as long as it is not charged for or altered in any way.

The complete work is available from:

www.betterwritingskills.com

or

www.scribe.com.au

© 2001 Tim North, Scribe Consulting
All rights reserved worldwide.
ISBN 0-9578426-2-7

First edition.
Document last modified on 9 July, 2003.

Set in Georgia and Verdana.

This work is copyrighted. No part may be reproduced by any process, nor may any other exclusive right be exercised, without the written permission of its author:

Tim North
Scribe Consulting
1, 66 Park St
Como Perth WA
Australia 6152

AUTHOR'S INTRODUCTION

Welcome.

The extract that follows is chapter 2 of *Writing Scientific Papers*. It should give you a "feel" for the book and, I hope, will be useful in its own right.

Please feel free to distribute this document as long as no changes are made and it is not charged for.

The full version of *E-writing and Editing* comes with a 30-day money-back guarantee and is available for only US$12.95.

Secure online ordering is available, or you can order by phone or fax.

Further information can be found here:

www.BetterWritingSkills.com

Regards,

Tim North

info@BetterWritingSkills.com

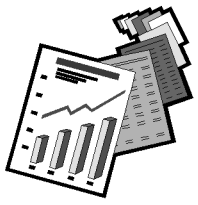
2. SCIENTIFIC PAPERS AND REPORTS

2.1 The overall structure

The exact structure of a scientific paper or report will vary, but the broad structure listed here is widely applicable.

1. The cover and title pages
2. The table of contents
3. Tables of symbols or nomenclature
4. The main body of your work, consisting of these sections:
   - Abstract
   - Introduction
   - Methods
   - Results
   - Discussion
   - Conclusions and recommendations
5. The reference list or bibliography
6. Appendices

The material that follows provides guidelines for writing the content of each of these sections.



2.2 Choosing the title

Titles distinguish the mediocre, embarrass the superior and are disgraced by the inferior.

George Bernard Shaw, *Man and Superman,* 1903

It may seem trivial to tell people how to choose a title, but the importance of this task should not be underestimated. A good title may be the difference between a reader choosing to look at your work or passing over it.

Many readers will learn of your work while surrounded by other documents that are competing for their attention. For example, they may see it while:

- scanning the printed reports on a bookshelf;
- looking through the titles in a printed index;
- looking at a bound collection of reports;
- using an on-line search engine at a library; or
- searching the Internet.

A good title can help your work to stand out from the crowd. Here then are some guidelines for choosing a good title.

TITLE GUIDELINE ONE

Use the fewest number of words that express what you wish to say.

When choosing a title, avoid generic phrases like '*An investigation of…', 'A study into…'* and *'Observations on…'*. These are implied anyway and add little value.

This guideline is really just a restatement of the keep-it-simple principle we covered in the previous chapter. We have established that titles are very important in gaining the reader's attention, and it follows that good titles are more likely to succeed at this than bad ones. Compare these two titles:

> A study of the effects of chaos as a source of complexity and diversity in evolutionary processes
>
> Chaos as a source of complexity and diversity in evolution

The first title takes seventeen words, the second one ten. The first one contains extra words that convey slightly more information (*study, effects* and *processes*) but at the cost of making the title notably longer and less memorable.

Here is another example:

> A description of a variety of different tools for creating an interactive virtual-cinema environment
>
> Tools for interactive virtual cinema

The first title clearly employs more words than are needed (fourteen versus five). It does contain more information, but at the cost of being wordier, harder to remember and burying the key words at the end of the sentence.

Indeed, in the first title, the key word *virtual-cinema* is the thirteenth word in the sentence, You have to read almost the entire title before finding out what the paper is about. This leads us to our next guideline …

TITLE GUIDELINE TWO

Put your topic words near the start of the title.

Titles may contain several key words or key phrases (see guideline three), but one of these words or phrases will usually be more significant than the others. Let's call these the *topic words*.

Putting the topic words near the start of the title makes it easier for the reader to decide what your document is about and if it should be read.

Consider the following titles in which the topic words are shown in italics. In all cases the topic words comes near the start of the title.

> *Chaos* as a Source Of Complexity and Diversity in Evolution
>
> The *USC Brain Project:* Confronting Models With Data
>
> *VLSI Neural Networks:* Design Challenges and Opportunities
>
> Low-level *Vision In Insects* and Applications to Robot Navigation

TITLE GUIDELINE THREE

Include searchable key words in your title.

Reports, journal articles and conference proceedings are usually indexed by key words. Traditionally, libraries have stocked paper-based indices that allow articles to be located from key words. Today, indexing is increasingly done electronically. It is common to come away from a conference with a CD ROM containing all the presented papers.

Frequently, particularly with web-based search engines, the key words are taken from the document's title. It follows that people will be more likely to find your work if its title contains the significant key words.

Compare these two titles:

> An Interim Report from the Myers Project
>
> The Myers Project Interim Report into the Effects of Sleep Deprivation on Memory Retention

Not only does the second title bring the topic phrase ('the Myers Project') to the start of the title, but it also includes additional key words: *sleep deprivation* and *memory retention*. Readers searching using these terms will have an increased chance of finding the document.

Note that this guideline is somewhat at odds with guideline one: use the fewest number of words. Clearly a balance needs to be found between titles that are brief and titles that contain a suitable number of key words.

TITLE GUIDELINE FOUR

Suit the title to your audience.

An article written for accountants, managers and bankers clearly needs to employ a different language than one written for specialists working in the same field as yourself. Choose your language appropriately.

A title like *Fat Rats: What Makes Them Eat?* may be judged appropriate for a non-technical audience but too informal for an audience of your peers. It also lacks any technical key words that would make it easily retrievable.

On the other hand, *The Relationship of Luteinising Hormone to Obesity in the Zucker Rat* is probably too technical for a general audience. (U. Wisconsin 1998)

Exercises

1. Consider the following document titles. Use the guidelines above to rewrite them if you judge that they can be improved. (You can assume that guideline four is already met.)

   (a) Some Requirements and Approaches for Natural Language in a Believable Agent

   _____

   _____

   (b) Statistical and Information-Geometrical Aspects of Neural Learning

   _____

   _____

   (c) An Investigation of Various Evaluation Methodologies for Post-Graduate Research Students

   _____

   _____

2. Recall the titles from one or more articles that you have written or are planning to write. Rewrite them (if necessary) in light of our guidelines.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

2.3 The abstract

The abstract is a very short summary of your paper. Abstracts are usually only a few paragraphs in length and rarely more than half a page. The abstract should stand on its own and not be overly technical.

The abstract should address what the article is about, whom it targets and what key goals have been reached. Above all, it must be concise and readable. In essence the abstract is a very brief version of the introduction that follows it.

Here are some guidelines for creating a good abstract.

ABSTRACT GUIDELINE ONE
*Very briefly say **what** you did, **why** you did it and **whom** you wrote the article for (if appropriate).*

These three questions — *what, why* and *whom* — put your article in context. They quickly identify the key aspects of your work and let the reader decide if he or she wishes to read further.

Saying what you did identifies the area to which the article pertains and helps identify its readership.

Saying why you wrote your article and, if appropriate, for whom indicates the motivation for the work. Were you writing in response to a brief from a client? Were you trying to make a process more cost efficient? Are you a doctoral student writing an article to publicise your PhD work?

Tell people why you wrote your article, don't make them guess.

Here are some example statements that answer some of the *what*, *why* and *whom* questions.

> This report is submitted in part requirement of a Masters degree.
> *(why; whom is implied)*

> A process control model of the circuit for the four-hole pressure probe has been commissioned by the client XYZ Industries.
> (*what and whom)*

> This report is published in order to describe the properties of a new data structure called the *skip list.* The skip list …
>
> (*why and what)*

> The concentration of impurities in samples taken from leach pad two are unacceptably high. This report was commissioned by the client to investigate the cause of this situation and what remedial action may be taken to rectify it.
>
> (*what, why and whom)*

ABSTRACT GUIDELINE TWO

Very briefly identify the major methods you used.

Since methods vary so widely from discipline to discipline and experiment to experiment, this guideline is necessarily broad. Nonetheless, you should briefly identify at least the *type* of methods you employed while doing your work. For example, you might say:

> The research used X-ray diffraction techniques to …

> The study involved an ethnographic survey of eighteen individuals within the …

> A one-tenth scale model of the process was used to study …

ABSTRACT GUIDELINE THREE

Very briefly state your major results.

Stating your major results should not be confused with stating your conclusions. (See guideline four.) Your results are what you observed while conducting your experiments. Your conclusions are your extrapolations as to what your results *mean*. Here are some sample results:

> 47% of the sample group expressed a strong or moderate liking for the product.

> All pHs were in the range 7.9–8.5.

> No increase in reproductive rate was observed in any of the cell cultures.

> Thyroid activity increased in the study group by an average of 12%.

ABSTRACT GUIDELINE FOUR

Very briefly state your major conclusions.

As indicated above, the conclusions are your extrapolations regarding what significance of your results. You are going beyond the *value* of the data to synthesise the *meaning* of the data. For example, here are some conclusions:

> The results support the conclusion that the leach pad has become contaminated by significant amounts of air-borne organic matter from nearby fields.
>
> We conclude from these results that there is no significant difference between the three sample groups.
>
> If the pH is reduced below 8.6 these cost savings will be more than offset by increased cyanide consumption.

It is a measure of the importance of your conclusions that the major ones should appear in no less that *three* places in your report: the abstract, the introduction and the discussion.

The amount of detail given varies between these sections, of course. In the abstract, it is enough to simply state your major conclusions or results without discussion or detail.

Exercises

Here is a sample abstract:

> A process control model of the circuit for the pressure probe is needed for an integrated operation. This report provides a mathematical model of the circuit, allowing for variations of the process parameters.
>
> The client has an extensive database of bench and pilot scale results which have been used to validate the model.
>
> This report is of particular interest to those involved in designing and developing a full scale circuit.

Analyse this abstract in terms of our guidelines.

1. Does the abstract state *what* the report investigated? If so, what was it?

   _____

   _____

2. Does the abstract state *why* the report was conducted? If so, why was it?

   _____

   _____

3. Does the abstract state *whom* the report was conducted for? If so, whom was it conducted for?

   _____

   _____

4. Does the abstract briefly state the methods that were used? If so, what were they?

   _____

   _____

   _____

5. Does the abstract briefly state the report's major results? If so, what were they?

   _____

   _____

   _____

6. Does the abstract briefly state the report's major conclusions? If so, what were they?

   _____

   _____

   _____

2.4 The introduction

Your introduction is basically a summing-up of your entire paper. In more detail than the abstract, it identifies what you did, why, for whom, the literature, your methods, results, conclusions and recommendations.

Remember that many people will read your abstract and your introduction then stop reading. Write the introduction under the assumption that the reader might not read anything else. (But write it in such a compelling way that they *want* to read your whole report!)

The guidelines below are based on those of Wisconsin (1996) and Bishop (1996).

INTRODUCTION GUIDELINE ONE

Describe the nature and scope of the problem.

This involves expanding upon some of the material presented in the abstract:[1]

- What was the problem that you investigated?
- Who did you do the work for? Was it a client?, an internal project?

The amount of detail presented should be sufficient to allow the reader to understand the problem.

INTRODUCTION GUIDELINE TWO

Explain why the work was important.

- Why was it important or necessary to do this work?
- What problems does it solve? What questions does it answer? What processes does it improve? What conclusions does it contradict? What conclusions does it support?

1 In practice, you may find it easier to write the introduction first then extract the abstract from it.

- Say for whom the work is significant.[2] For example, does the work have relevance to all engineers (for example), or only those working in a specific area?

- If you are debating the number of angels that can dance on the head of a pin say so. Don't inflate the significance of your work. Your readers will resent the waste of their time, and you will diminish your own reputation.

INTRODUCTION GUIDELINE THREE

Review the relevant literature

Summarising the relevant research permits the reader to understand the context of your work together with any specialised terminology or methodology.

Reviewing the literature also helps to establish a rationale for your work by relating it to existing unsolved problems, difficulties and questions. Thus a review of the literature helps satisfy both guidelines one and two.

Day (1979) cautions that a common mistake is to introduce authors and their areas of study in general terms without mention of their major findings. For example:

> Parmenter (1976) and Chessman (1978) studied the diet of *Chelodina longicollis* at various latitudes and Legler (1978) and Chessman (1983) conducted a similar study on *Chelodina expansa.*

… compares poorly with:

> Within the confines of carnivory, *Chelodina expansa* is a selective and specialised predator feeding upon highly motile prey such as decapod crustaceans, aquatic bugs and small fish (Legler, 1978; Chessman, 1984), whereas *C. longicollis* is reported to have a diverse and opportunistic diet (Parmenter, 1976; Chessman, 1984).

Clearly the later quotation provides the reader with more information and gives them a better grounding in the literature.

2 Of course this may already be clear from the title of the document or the nature of the journal in which it is published.

INTRODUCTION GUIDELINE FOUR

Briefly describe the experimental methods you employed and, if necessary, justify your choice of methods.

This guideline expands upon the mention of methods that was made in your abstract. It is not necessary to provide a step-by-step description of your methods in the introduction as more detail will be provided in the methods section that follows. Nonetheless, your introduction should describe at least the *type* of methods you employed while doing your work.

If there were several different methods that could have been employed, this is the place where you should justify your choice. This will necessarily involve a discussion of the relative strengths and weaknesses of the competing methods.

If you chose a particular method for pragmatic reasons (e.g. if you don't have the equipment or budget to do it any other way) be honest enough to say so. This is better than leaving the reader wondering why you chose a method that was suboptimal.

INTRODUCTION GUIDELINE FIVE

State the major results and conclusions of your work.

Your work is not a detective novel — don't feel the need to save the exciting bits for the last chapter. Provide the major results and conclusions of your work in the introduction.

The amount of detail provided in the introduction should be greater than the sparse coverage provided in the abstract, but less than that provided later in the results and conclusions sections.

Exercises

Here is an edited introduction copied (with permission) from a published paper.

Introduction

XYZ's circuits consume approximately x,000 t, or $x million of lime per year (Bloggs 1997). A previous report to XYZ showed that the majority of the lime added was consumed in precipitating magnesium from the process water (Bloggs and Bloggs 1997). This enabled the report to conclude that by pumping preferentially from those borefields with low magnesium, lime consumption may be reduced by up to $x million pa.

The report also suggested that the lime consumption would be reduced further if XYZ lowered its leach pH. The magnesium buffering curve (Figure 1) shows that a slight reduction in pH will significantly reduce the lime consumption. Unfortunately, lowering the leach pH increases the risk of losing cyanide as $HCN_{(g)}$.

[Table 1 and Figure 1 deleted]

Both XYZ and [ourselves] recognise that increasing $HCN_{(g)}$ concentration above the leaching circuit to unsafe levels must be avoided. Under no circumstances should the leach pH be lowered to the point where the safety of XYZ staff is placed at risk.

It is also recognised that $HCN_{(g)}$ loss could increase to the extent that it would significantly increase the cyanide consumption, offsetting any savings in lime. Changing the pH also changes the proportion of cyanide as $HCN_{(aq)}$ Since cyanide is dosed to a set concentration of ionic cyanide, decreasing the pH increases the cyanide dosing rate.

Unfortunately there is little information in the literature that relates the amount of cyanide lost as $HCN_{(g)}$ to the leach pH. However, since some CIP circuits operate as low as pH 8.8, while others operate as high as pH 10.5, it appears that there is considerable scope for pH adjustment without jeopardising safety

There are many factors that affect the amount of cyanide lost as $HCN_{(g)}$. For example: x, x, x, x, x and x. Consequently, a detailed study of $HCN_{(g)}$ loss was required to assure XYZ staff that lowering the leach pH at x would be both economically rewarding and safe.

$HCN_{(g)}$ loss in a CIP circuit has traditionally been measured indirectly. Bloggs *et al* (1991) measured the amount of cyanide and cyanide derivatives in the feed and compared this to the amount in the tail. The deficiency in the tail samples was attributed to $HCN_{(g)}$ loss. This method suffers from the disadvantage of attributing what can not be measured to $HCN_{(g)}$.

This project has used both the indirect method and direct measurement of $HCN_{(g)}$ to calculate $HCN_{(g)}$ loss. Direct measurement and quantification of $HCN_{(g)}$ loss is not reported in the literature, however expertise within [our] team has allowed the development of suitable methodology.

The aim of this project was to measure the effect of changing the leach pH on the lime consumption and rate of $HCN_{(g)}$ loss. Lime consumption was measured using a method developed previously (Bloggs and Bloggs 1997). This method follows both the calcium and hydroxide moieties of the lime through the circuit and compares them to the measured lime dosing rate. Cyanide speciation and $HCN_{(g)}$ loss were measured through the circuit and compared to the dosing rate to calculate a cyanide balance.

As the pH is reduced the lime savings will be gradually offset by increased cyanide consumption. By quantifying both of these variables with changes in pH it is possible to calculate an optimum leach pH while still maintaining the safety of XYZ staff.

Your task is to analyse this introduction in terms of the guidelines presented earlier.

1. Does the introduction state the nature and scope of the problem? If so, what was it? (Be brief.)

   _____

   _____

   _____

2. Does the introduction explain why the work was important? If so, why was it?

   _____

   _____

   _____

3. Does the introduction review the literature in a useful way? If so, is the review sufficiently comprehensive for the intended audience? (You may need to speculate to answer this.)

   _____

   _____

   _____

   _____

4. Does the introduction briefly describe the experimental methods that were employed? If so what were they?

   _____

   _____

   _____

5. Does the introduction present its major results? If so what were they?

_____

_____

_____

6. Does the introduction present its major conclusions? If so what were they?

_____

_____

_____

2.5 Methods

The methods section serves two main purposes. It is where you describe what *materials* you used and also what *methods* you used. For this reason it is frequently also called the 'materials and methods' section.

METHODS GUIDELINE ONE
Say how you did the work and what you used to do it.

Bishop (1996) provides a nice summary of what should be in the methods section:

> The Materials and Methods section should provide enough detail that a competent worker can repeat the experiments.
>
> Careful writing of this section is important because the cornerstone of the scientific method requires that your results must be reproducible; and, for the results to be reproducible, you must provide the basis for repetition of the experiments by others.

There is, of course, always the question of how much detail needs to be presented when describing your methods. If your methods are new, or involve significant new or unusual elements, it is necessary to describe them in step-by-step detail. (Enough detail that they can be reproduced.)

If, on the other hand, you employ a method that is considered 'standard' (i.e. it has been described in a major journal), it is usually enough to refer to the method by name and provide a reference. For example:

> Cyanate was determined by measuring the ammonia concentration with an ammonia electrode before and after acid hydrolysis (Greenberg 1992).
>
> Using the Fear, Uncertainty and Doubt technique (Gates 1995), individuals in sample one …

Note also that the methods section is used to describe the methods that you *actually* used. A discussion of the relative strengths of alternative methods (that you ended up *not* using for one reason or another) is probably better placed in the introduction or discussion sections.

METHODS GUIDELINE TWO

Use the past tense.

Because the methods section is describing things that you have already done, it is written in the past tense.

METHODS GUIDELINE THREE

Don't describe your results.

Remember that the methods section is intended to tell people *how* you did your work. Avoid the temptation to intersperse this with a discussion of your results or their significance.

METHODS GUIDELINE FOUR

Show your method section to colleagues. Ask them if they could use it to reproduce your results.

This simple guideline can often be a very fast and effective way of identifying inadequacies in your writing. Things that you might consider second nature may be foreign to others.

METHODS GUIDELINE FIVE

Be precise when describing quantities.

If I can be allowed a cooking metaphor here, don't you hate recipes that contain vague advice like 'add a generous quantity', 'place in a moderate oven', 'use a pinch of', or 'add to taste'?

These type of phrases are ambiguous and are usually unsuited to technical writing. So be careful when using phrases like 'an elevated level' or 'an increased concentration'. Ask yourself 'Would this be better with a more accurate measurement'?

2.6 Results

Most of the great results of history are brought about by discreditable means.

Emerson, The Conduct of Life, 1860.

In the results section you present the findings of your work.

RESULTS GUIDELINE ONE

Present your findings clearly.

The data should be presented in a clear, readable form. Often this will involve the use of one or more tables.

Depending upon the audience for your article, it may be more appropriate to present only a *summary* of your data in the results section. In this case, the full data set can be relegated to one or more appendices.

RESULTS GUIDELINE TWO

Use the past tense.

Because the results section is describing findings that you have already made, it is written in the past tense.

RESULTS GUIDELINE THREE

Don't interpret your results.

Remember that the results section is intended to present your findings. Avoid the temptation to intersperse this with a discussion of their significance.

2.7 Discussion

Having presented your results in the previous section, now it is time to discuss what they mean.

DISCUSSION GUIDELINE ONE
Discuss the meaning of individual results in this section, but wait until the conclusions to tie everything together.

Because most reports include both a discussion section *and* a conclusions section, there is a certain ambiguity in deciding where to place your conclusions. Should you present the conclusions while discussing your results, or should you discuss your results and leave your conclusions to later?

To some degree your choice depends upon the nature of the report, but as a guideline, it is generally preferable to discuss the *individual results* in this section and wait until the conclusions section to 'pull it all together' and present your conclusions and recommendations.

DISCUSSION GUIDELINE TWO
Say what your results mean.

It is not enough to simply present your data (you have already done that), you must now discuss their significance. Here are some of the issues that may need discussion:

- Were the results consistent with your expectations?
- Does experimental error account for any deviations between the results and your expectations?
- What underlying patterns or relationships exist in your results?
- Do these results support the hypothesis that you were testing?
- Do these results support the predictions in the literature?

DISCUSSION GUIDELINE THREE

Don't try to gloss over problems in your results.

If your results show a smooth curve with an unexpected dip in the middle, avoid the temptation to gloss over the unexpected deviation. Who knows, it may turn out to be the most important part of your data.

If you believe that it is due to experimental error (e.g. a leaking vessel) then *say so*. All practicing experimentalists will have encountered similar problems in their own work. If you're up front about it, most will allow you one or two imperfections in yours.

Exercises

1. The following statements are too vague to be part of well written results or discussions. Rewrite them in a more suitable form. (Make up any details you need.)

   (a) The weight of sample one was somewhat lower than that of sample two.

   _____

   _____

   (b) There was an extremely strong correlation between the two data sets.

   _____

   _____

   (c) There was a dramatic puff of smoke after we did this!

   _____

   _____

2.8 Conclusions and recommendations

Having presented your results and discussed them, it is now time to present the conclusions that you have drawn from the results. These conclusions may lead you to certain recommendations and, if so, these should also be presented here.

CONCLUSIONS GUIDELINE ONE
Synthesise your discussion into one or more conclusions.

In the discussion section you will have discussed the meaning of the individual results. Now it is time to bring these discussions together into one or more conclusions.

While the conclusions that you draw will be entirely dependent upon your work, here are some questions that suggest the type of issues you may be considering:

- If your results were consistent with your expectations, what conclusion can you make?
- If your results differed from your expectations, can you provide a plausible explanation for this?
- What theoretical implications do your results have?
- What practical applications might flow from your work?
- Can you generalise from your area of study to a wider field?
- Do your results suggest a need for further work?

CONCLUSIONS GUIDELINE TWO
Don't be afraid to make negative conclusions.

It is human nature to want to present positive, exciting conclusions. Deep down, most of us would rather report that we *have* found a causal link between X and Y, rather than reporting that we could find no causal link.

Nonetheless, presenting negative conclusions contributes just as much — and should be seen as just as worthwhile — as presenting positive conclusions. Your conclusion that X and Y are *not* related may be just as significant, or more so, than the conclusion that they are.

CONCLUSIONS GUIDELINE THREE

Examine each of your conclusions in turn, and ask yourself if it leads to a specific recommendation.

Work is rarely done for its own sake, particularly in a privately funded organisation. Your work will normally lead to one or more specific recommendations, even if this is only a recommendation for further work.

TABLE OF CONTENTS

I hope that you've enjoyed this extract from *Writing Scientific Papers*. Being only a single chapter, this sample is, of course, quite narrowly focused. The complete work, however, covers a much wider range of topics.

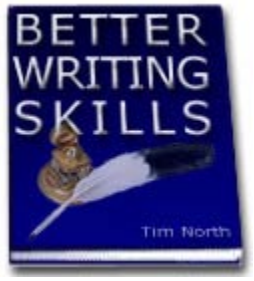
Here is the table of contents of the complete edition, which you can obtain from:

www.betterwritingskills.com

Regards,

Tim North

OTHER WORKS BY SCRIBE CONSULTING



Better Writing Skills

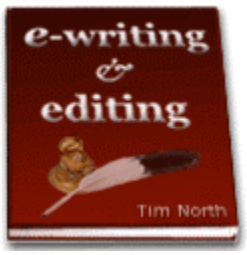
Better Writing Skills is an easy-to-understand, jargon-free downloadable book that will make you a better writer — guaranteed.

Better Writing Skills provides over 220 pages of clearly presented information to help you with business, thesis, technical and creative writing.

Business Proposal Writing Made Easy

You put your credibility and reputation on the line every time you sit down to write.

In *Business Proposal Writing Made Easy* you'll discover how to write proposals that not only succeed but which will build you a reputation as a credible and trusted colleague.



E-writing and Editing

E-writing and Editing is an easy-to-follow manual aimed at anyone who needs to create or edit electronic content that will be published on the web, on an intranet or by e-mail.

You'll discover how to create clear, concise content that is tailored to the specific (and rather demanding) needs of online readers. You will learn the critical differences between online and print materials, how to structure online content, when to use multimedia, how and why to edit, and much more.

www.BetterWritingSkills.com

All of Scribe's e-books come with a no-questions-asked, money-back guarantee.