

# *Technical Reading & Writing*

*How to Write Technical English*

*A Lecture for Master Course*

*Prof. M. R. Asharif*

*Department of Information Engineering*

*Faculty of Engineering*

*University of the Ryukyus*

# How to Write Technical English

To write technical papers, we have to consider the following items:

1- Who are the readers of this report?

**‘audience’**: The **Complexity** of writing must be decided after determining your **readers**.

2- Outline the major ideas or concepts of the paper. In your paper, what do you want to say?

# How to Write Technical English

## (Cont.) Outline & Title

- The outline can be revised to put these concepts in a natural order.
- After the outline is completed, you can begin the actual writing. This is a good time to choose a title.
- A report title briefly tells the reader what to expect for the topic of the report.
- In the body of paper, use titles and sub-titles to make pleasing visual appearance.

# How to Write Technical English (Cont.) Introduction

## 3- Write an introduction:

In **introduction**, you should follow the following items:

- a) **Problem definition: definition of terms.**
- b) **The methodology to solve the problem until now [1], [2] with giving credit to past works.**

# How to Write Technical English (Cont.) Introduction

- c) What was the **problem (drawback)** with the previous method(s)?
- d) In this paper, what is going to be presented (said)? What is your own **original** work?
- e) At last part of **introduction**, explain about the **coming chapters**: in this paper, the following sections will be presented. **In section 1)...., 2)....**

# How to Write Technical English (Cont.) Introduction & Conclusion

**Introduction** is a good place to define the **necessary terms**.

**4- Conclusion:** in conclusion you should **conclude** (summarize) the job in order to **close discussion naturally**. Do not re-state what you have already written.

- **Conform to the style of the magazine.**

**Some requirements are mechanical:**

# **How to Write Technical English (Cont.) Style & Format**

- **Single-or-double spacing**
- **Single-or-double column**
- **Margin width**
- **Length of the paper**
- **The use of titles and subtitles (**headings**)**
- **Refer to the style manual**

# How to Write Technical English (Cont.)

- 5- **Avoid** the use of first and second person pronouns (**I, you, we, us**).
- Sometimes **we** is allowed. Then, the paper has a formal tone. With formal tone, the paper sounds more scholarly.
  - Writing should be **simple and direct**.
  - Do not try to write **elegantly**. Then, your readers will be confused.



# How to Write Technical English (Cont.) References

- 6- **Document** you paper. That is, give **credit** to others for earlier, but similar work.
- **Include reference** to the **source** ( books, papers etc.).
- **Failure** to give credit to others' work, will bring you **discredit**.

# How to Write Technical English (Cont.) Graphics

7- Use **graphics** as much as possible.

- **Graphics:** Charts, Figures, Block Diagram, Tables, Photographs, Pictures, schematics etc.

- **Graphics explain your idea visually.**

**A picture is worth a thousand words.**

- **Words alone fail to convey an idea.**

- **Graphics make the concept more clear.**

# How to Write Technical English (Cont.) Abbreviation

- 8- Use the **long version** for all technical **abbreviations** (LMS Least Mean Square) **And acronyms** (MITI for Ministry of Trade and Industry) **In the first appearance.**
- Sometimes it is acceptable to use **common abbreviations** (e.g. km/hr).
- If you are not sure, **spell it out** in first place.

# How to Write Technical English (Cont.) No Slang

**9- No slang, please.**

**Avoid everyday idioms of English.**

**If they are commonly understood and have a non-slang tone, it is possible to use.**

**10-Use correct technical words. Ask some knowledgeable friend to read your paper.**

**Two minds are better than one**

# **How to Write Technical English (Cont.) Revision**

## **11- Revise your paper.**

**Write your paper, put it aside until the next day (sleep on it).**

**Then have a fresh look to it.**

**The following day is the time to make your revision.**

# How to Write Technical English (Cont.) Proof read

## 12- Proofread, Proofread, Proofread.

- Save yourself from **embarrassment**.
- Check your writing by **proofreading several times**.
- Ask **your friend** to help you to read it.

# How to Write Technical English

## (Cont.) Abstract

13- After writing paper, prepare an **abstract**.

- **An Abstract is a brief, but concise.**
- **Abstract consists of one or two short paragraphs.**
- **Abstract will appear at the beginning of your paper.**
- **A busy reader from abstract can find whether it is of interest to him or not.**

# How to Write Technical English

## (Cont.) Paragraph

**14-Each paragraph has only one main message in it.**

- **Paragraph is made up of several sentences.**
- **Each sentence should flow in logical order.**
- **Paragraph are organized in a logical flow into a section.**
- **It is suggested to change sentence structure grammatically. Normally, it is :  
Subject-Verb-Object structure. Change its**



# How to Write Technical English (Cont.)

grammatical structure to keep the reader alert.

- **Do not try to write elegant.**
- **Do not make your reader to confuse to understand by writing elegantly.**
- **Simply vary the sentence grammatical structure.**

# **How to Write Technical English (Cont.) Physical Appearance**

**Make the physical appearance of the  
paper to be pleasant to the reader.**

# **How to Write Technical English (Cont.) Components**

## **Components of a Report:**

- 1- Letter of Transmittal to Magazine.**
- 2- Title Page: The title, authors names, affiliations, addresses, the date of preparation etc.**
- 3- Copyright: Notification that you have copyrighted.**

# **How to Write Technical English (Cont.) Components**

- 4- Disclaimer: Warns the reader about possible problems with the report.**
- 5- Preface: Information about the history or structure of the report.**
- 6- Acknowledgements: Thanks to people or organizations which assisted, directly or indirectly, with the report.**
- 7- Table of Contents: A list of the sections (e.g. chapters) of the report and their page numbers.**

# **How to Write Technical English (Cont.) Components**

**8- List of Graphics: The number and title of each graphic and their page numbers.**

**This list is sorted by type of graphic.**

**9- Abstract: A short summary of the report.**

**10- Body of the Report: The major required components.**

**It includes the introduction, conclusion, and the necessary sections between them.**

# **How to Write Technical English (Cont.) Components**

- 11- List of References: The ordered list of other reports, books, or publications from which material or ideas have been taken.**
- 12- Appendix: Written information which supports the report, but which is not essential to the Body of the Report.**
- 13- Glossary: An ordered list of new terms or terms unfamiliar to the reader.**

# **How to Write Technical English (Cont.) Components**

**14- Index: An ordered list of important subjects or concepts in the report and their page numbers.**

# **How to Write Technical English**

*End of Part (2)*

*Thank you*