Managing Technical Documentation

Journal articles – structure and organization

Purpose:

1) An argument of fact

2) An argument of policy

Article sections

1. Introduction
2. Materials and method(s)
3. Results
4. Discussion
5. Conclusion

Introduction

~ introduce a problem, identify a strategy to address problem, announce purpose of text~

Possible structure:

- ❑ **Establishing the field**
- ❑ **Summarizing previous research**
- ❑ **Preparing for present research**
- ❑ **Introducing present research**

2.Materials and methods

~describes how research arrived at results;

provides means for repeating & verifying research

- ❑ identifying materials used
- ❑ identifying special conditions of conducting res.
- ❑ identifying criteria to select materials
- ❑ justifying method used
- ❑ justifying choices of criteria, materials, methods(s) or conditions

3. Results

~ describes what was discovered,

major findings, including a compact presentation of data

and

major generalizations to be drawn ~

4. Discussion

~analyzes the importance of the results and their implication(s) ~

- ❑ if expected results (if not, why not)
- ❑ Generalizations based on results
- ❑ If results suggest other research
- ❑ If results support existing theory
- ❑ If results suggest modifications of existing theory
- ❑ Practical applications following from results

Reading a technical article

Reading levels:

- ❑ **Elementary reading – basic reading, learning to recognize individual words on page**
- ❑ **Inspectional reading – get the most of an article in a given time**
- ❑ **Analytical reading – get the most in unlimited time**
- ❑ **Syntopical reading – reading sets of articles to extract information**

Inspectional reading

~ **general understanding of main points (systematic skimming)~**

✓ **first study title**

✓ **Read abstract**

✓ **Read introduction**

✓ **Read conclusion**

✓ **Read introductory text in each section**

!!! Essential: understand organizational framework quickly, then fit details into framework

Analytical reading

~ state clearly the problem the author tried to solve~

What is the article about as a whole?

What is said in detail and how?

Is the article true ? (whole/part)

How does the author's conclusions relate to your work?

Writing an article

- Title page (title : specific)

- Abstract (primary emphasis on results and conclusions)

- Introduction (state hypothesis and/or objectives;

  indicate purpose of experiments & appropriate background

- Methods (document all methods performed; effective: present methods under headings devoted to specific (groups of) procedures

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Writing an article-continued

Results (analyze data, do not include raw data; describe relationship of each section of converted data to the overall study)

Discussion (interpret data in your discussion,explain all observations, focusing on mechanisms)

!!! Best studies open up new avenues to research

Literature cited (literature citations in parentheses: author's name and date)

!!! List all literature in alphabetical order by last name

Definition

An abstract is a condensed version of a longer piece of writing that highlights the major points covered, concisely describes the content and scope of the writing, and reviews the writing's contents in an abbreviated form

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Types of abstracts

Typical types of abstracts

➢ Descriptive abstracts
➢ Informative abstracts

Descriptive abstracts

- ✓ **Tell readers what information the article contains**
- ✓ **Include the purpose, methods, and scope of the article**
- ✓ **Do not provide results, conclusions or recommendations**
- ✓ **Are always very short, usually under 100 words**
- ✓ **Introduce the subject to readers, who must then read the article to find out the author's results, conclusions, recommendations**

Informative abstracts

- ✓ **Communicate specific information from the article**
- ✓ **Include the purpose, methods and scope of the article**
- ✓ **Provide the article's results, conclusions, and recommendations**
- ✓ **Are short (from a paragraph to a page or two), depending on the length of the original being abstracted ; usually 10% or less of the length of the original piece**
- ✓ **Allow readers to decide if they want to read the article**

Qualities of a good abstract

- ✓ **Uses one or more well developed paragraphs (unified, coherent, concise)**
- ✓ **Uses an introduction/body/conclusion structure which presents the article's purpose, results, conclusions and recommendations**
- ✓ **Follows strictly the chronology of the article**
- ✓ **Provides logical connections between the info. included**
- ✓ **Adds no new information, but simply summarizes**
- ✓ **Is understandable to a wide audience**

Effective abstracts - steps

➢ Reread the article with the goal of abstracting in mind

➢ Write a rough draft

➢ Revise your rough draft

➢ Print your final copy and read it again