

Scientific Writing

MIÉRCOLES, 25 DE ENERO DE 2012

1:00 A 3:30PM

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A black and white photograph showing a close-up of a hand holding a pen, writing on a document. The background is blurred, focusing attention on the writing process.

What is scientific writing?

The **reporting of original research** in journals or more broadly to encompass other ways that scientists share research information with one another, including review articles, posters and slide-based presentations.

**Scientific writing
IS NOT
science writing.**

**To research is to reach past our own
knowledge and experience to:**

- seek out
- investigate
- use materials



Research is to go beyond personal resources in three ways:

- It may be the study of a subject through firsthand observation or investigation.
- It may be the examination of studies that other researchers have done.
- It may be an amalgamation of the previous two.

Scientific papers are comprised by the following sections:

Title

Abstract

Introduction

Materials and Methods

Results

Discussions

Conclusions



What are the first operations?

- Planning
- Documentation
- Organization

The first step towards successful scientific writing is to establish constraints:

- Anticipate audience
- Determine format
- Consider politics
- Polish mechanics



**Research is not completed
until it is made public.**

Vehicles for making communication effective:

- Structure
- Language
- Illustration





Three ideas to keep in mind:

- Organizing ideas is the task of writing.
- The backbone of all writing is its structure.
- Strategy and purpose lead the reader into understanding.

There are two major ways to organize your material

- Topic Outline
- Sentence Outline



TOPIC OUTLINE

Choices in College and After

Thesis: The decisions I have to make in choosing college courses, depend on larger questions I am beginning to ask myself about my life's work.

I. Two decisions described

A. Art history or chemistry

1. Professional considerations
2. Personal considerations

B. A third year of French?

1. Practical advantages of knowing a foreign language
2. Intellectual advantages
3. The issue of necessity

II. Definition of the problem

A. Decisions about occupation

B. Decisions about a kind of life to lead



II. Definition of the problem

A. To hold open a professional possibility:
chemistry

B. To take advantage of cultural gains already
made: French



SENTENCE OUTLINE

Choices in College and After

Thesis: The decisions I have to make in choosing college courses, depend on larger questions I am beginning to ask myself about my life's work.

I.

I have two decisions to make with respect to choosing college courses in the immediate future.

A. One is whether to elect a course in art history or in chemistry.

1. One time in my life, I planned to be a chemical engineer professionally.
2. On the other hand, I enjoy art and plan to travel and see more of it.

B. The second decision is whether to continue a third year of French beyond the basic college requirement.

1. French might be useful both in engineering and travel.
2. Furthermore, I am eager to read good books which are written in French.
3. How necessary are these considerations in the light of other courses I might take instead?

II. My problem can be put in the form of a dilemma involving larger questions about my whole future.

- A. On the one hand I want to hold a highly-trained position in a lucrative profession.
- B. On the other hand I want to lead a certain kind of life, with capacities for values not connected with the making of money.

III. I will have to make a decision balancing the conflicting needs I have described.

A. I will hold open the professional possibilities by electing chemistry.

B. I will improve and solidify what cultural proficiency in another language I have already gained, by electing French.

The different kinds of writing:

- Expository
- Persuasive
- Descriptive
- Narrative

**Writing is an organic
process, where separate
sections converge in one
unitary task:
to transmit an idea.**

What is needed to begin an argument?

Your argument should be presented to the reader in one sentence which is called the thesis statement or “claim”

- it must always be defined and stated clearly.
- it is an interpretation of the subject matter under discussion.
- it tells the reader what to expect.
- makes a claim that others might dispute.

The basic unit of a composition is the paragraph

- a. Topic sentence
- b. Warrants or supporting details
- c. Clincher or transitional sentence.



Writing Workshop Session

Conclusions

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