

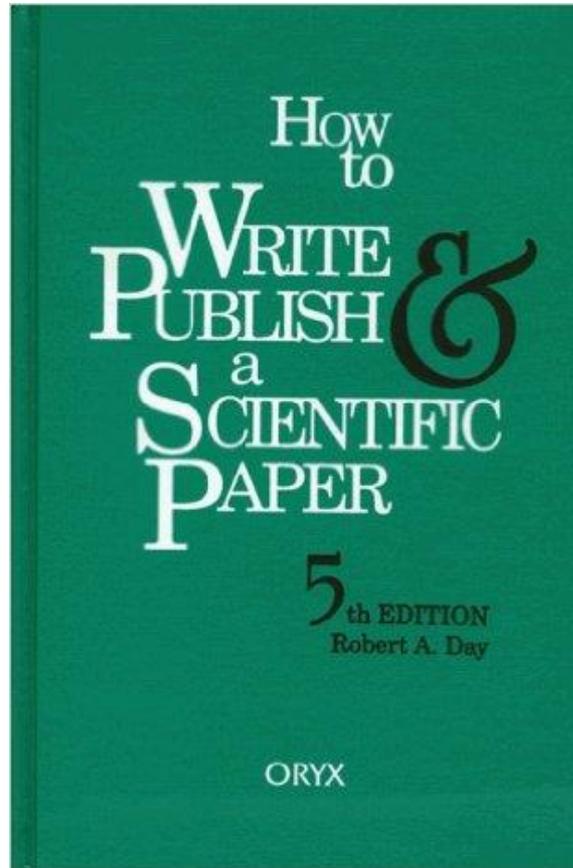
Have you ever
written/publish
A Scientific Paper?

Would you like to know?

From Writing To Publishing

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**HOW TO WRITE AND PUBLISH A
SCIENTIFIC PAPER**

Robert A. Day

- Scientific Writing
- Scientific Paper
- Preparing the Title
- Preparing the Abstract
- Writing Materials and Methods
- Writing Results and Discussion
- Publishing process

What Is Scientific Writing?

State your facts as simply as possible

No flowers or ornaments in a research
article

—R. B. McKerrow

What Is the purpose of Scientific Writing?

to communicate new scientific findings

Scientific Writing

Clarity

Clarity

Clarity

Scientific writing is the
transmission of a **clear**
signal to a recipient

The Signal
should be
Understood

For Who?

- **Peers** of the author,
- **Students** just embarking on their careers,
- **Scientists** reading outside their own narrow discipline,
- **Readers** (the majority of readers today) whose **native language is other than English.**

Language of Scientific Writing:
the best English is that which gives the
sense in the fewest short words

Scientific writing should be as **clear** and **simple** as possible, and gives the sense in the **fewest short words**.

What Is a Scientific Paper?

"Without publication, science is dead"
—Gerard Piel

A scientific paper is a
written and published report
describing original research
results

Components of scientific paper

IMRAD

The most common labeling of the component parts, in the basic sciences, is **I**ntroduction, **M**ethods, **R**esults, and **D**iscussion

Title

Title

First impressions are strong impressions;
a title ought therefore to be well studied,
and to give, so far as its limits permit, a
definite and concise indication of what is
to come.

—T. Clifford Allbutt

Title will be read by thousands of people.

Therefore, all words in the title should be chosen with great care, and their association with one another must be carefully managed.

Length of the Title

titles are too short.

"Studies on *Brucella*" !!!

Titles should be Specific

**"Action of Antibiotics on Bacteria"
Is it a good title?**

Titles

Short and **Specific**

Abstract

The Abstract

should provide a *brief* summary of each of the main sections of the paper: Introduction, Materials and Methods, Results, and Discussion

The Abstract should

- (1) state the principal objectives and scope of the investigation,
- (2) describe the methods employed,
- (3) summarize the results, and
- (4) state the principal conclusions.

The importance of the **conclusions** is indicated by the fact that they are often given 3 times: once in the **Abstract**, again in the **Introduction**, and again (in more detail probably) in the **Discussion**.

Abstract should be

1- written in the **past tense**, because it refers to work done.

2- never give any information or conclusion that is **not** stated in the paper.

3- **References** to the literature must **not** be cited in the Abstract (except in rare instances, such as modification of a previously published method).

Materials and Methods

you must give the full details

Reproducing the same or similar results must exist,
or your paper does not represent good science.

you must provide the
basis for repetition of
the experiments by
others

Results

There are **2** ingredients of the Results section.

First, you should give some kind of overall description of the experiments, providing the "big picture," **without**, however, **repeating the experimental details** previously provided in Materials and Methods.

Second, you should present the data

Discussion

What are the essential features of a good Discussion?

1. Try to present the **principles, relationships, and generalizations** shown by the Results.
2. Point out any **exceptions** or any lack of correlation and define unsettled points.
3. Show how your results and interpretations **agree** (or **contrast**) with **previously** published work.
4. **Don't be shy**; discuss the theoretical implications of your work, as well as any possible practical applications.
5. State your **conclusions** as clearly as possible.
6. Summarize your evidence for *each* conclusion.

Publishing

Where to publish?

your choice depends on the nature of your work; you must identify those journals that publish **in your subject area.**

Where to publish?

**Prestigious Journals
High Impact factor**

To be Continued.....



PSM is a **non-profit** organization dedicated to research and teaching awareness about scientific knowledge and technology in its **social** context.

Founded by
Dr. Muhammad Naeem Iqbal
in January 2015



Pakistan Science Mission (PSM)

PSM Objectives

- To promote student interest and strengthen interdisciplinary research.
- Enhance **communication** among scientists, researchers, teachers, students and public.
- To provide an avenue to **young researchers** for high quality publications.
- To provide resources for young researchers to pursue opportunities.
- To conserve the environment and nature on which all life depends.
- To create lasting solutions to poverty, illness, and social injustice.

Pakistan Science Mission (PSM)

Vision: Advancing science and technology by providing a platform for **collaboration** of young researchers to promote science culture through **publications** and work to establish a **peaceful and unified society**.

Pakistan Science Mission (PSM)

Mission: Research and teaching awareness about scientific knowledge and technology in its **social context** and address the socio-economic and political empowerment of the community **to serve society.**

PSM works to raise awareness about science labs at school level in rural areas and organizing science competitions, seminars, symposiums and conferences.

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- If you want a rapid publishing
- If you care about spreading the scientific culture in society
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Thank You