Writing Articles for Journal Publication

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Introduction

• Writing papers is an essential task for researchers, academic scholars and young postgraduate/PhD students who are seeking an academic career in higher educational institutions.

• Publishing is central to academic work.

• Prolific publishing ensures that academics are recognised internationally, acknowledged and often promoted.

• Publishing ensures growth of an academic and leads to promotion and often academic acceleration.

• Frequent citation of an author leads to further recognition and establishes their reputation as a scholar nationally and internationally.

• Wide dissemination of the publication is critical for recognition, citation and benefits associated with both.

• Institutional status building is enhanced at a national and international level through research publication.

• Furthermore, publishing in reputable journals provides self-learning and contribution to knowledge creation.
What is scientific research?

Application of scientific method to the investigation of relationships among natural phenomenon, or to solve a medical or technical problem (Online Business Dictionary, 2014).

Dictionaries may include more than one definition, making a distinction between:

• (1) a detailed study aimed at creation or discovery, and,
• (2) the simple task of looking up information.
What are journal articles?

- Journals are composed of collections of academic articles, which are written by scholars and are usually read by other experts in the discipline. Journal articles can be written by anyone who has something to contribute to the field, and the type of article written will depend on the kind of information the writer wishes to share.

- Journal articles are often categorised as: empirical research articles, literature reviews, case studies, technical articles, theoretical articles, methodological articles, book reviews, or letters.

- The most common of these is the empirical research article.
Origins of Scientific Writing

- Knowledge is lost without written records
- Cave paintings and inscriptions were the first attempts to leave records
- About 2000 BC, Papyrus paper was used as a medium of communication
- In 190 BC, parchment made from animal skin came into use
- In 105 AD, the Chinese invented paper
- Knowledge could not be widely circulated with no effective duplication
- In 1100 AD, the Chinese invented movable type
- In 1455 AD, Gutenberg printed his 42-line Bible from movable type on a printing press
- By the year 1500 thousands of copies of hundreds of books (called “incunabula”) were printed
- In 1665, the first scientific journals were published- *Philosophical Transactions of the Royal Society*
IMRAD Story
(Introduction, Methods, Results and Discussion)

• Early journals published descriptive papers (still used in case reports, geological surveys etc.)
• By the second half of the 19th century, reproducibility of experiments became a fundamental principle of the philosophy of science.
• The methods section became all important since Louis Pasteur in 1860s confirmed the germ theory of disease.
• IMRAD organisation of a scientific paper started to develop
• IMRAD format slowly progressed in the latter half of the 19th century
IMRAD Format

- **I** = Introduction, what question (problem) was studied
- **M** = Methods, how was the problem studied
- **R** = Results, what are the findings
- **A** = and
- **D** = Discussion, what do these findings mean
Some Important Language Points

• Poor experimentation cannot be masked by brilliant writing; however, poor writing can mask brilliant experimentation

• Avoid complex sentence structure

• Use simple and clear English

• Always keep in mind that the paragraph is the essential unit of thought
Before Starting to Write the Paper

• Record your readings (results)
• Make tables
• Draw graphs
• Keep file to record summaries of results and any observation however insignificant
• Date the files
• Revise your readings, you may need to repeat an experiment while you still have the materials.
• Write ideas whenever they come to you
Essential Parts of a Scientific Paper

- **Title**: Describe concisely the core contents of the paper
- **Abstract**: Summarise the major elements of the paper
- **Introduction**: provide context and rationale for the study
- **Materials**: Describe the experimental design so it is reproducible
- **Methods**: Describe the experimental procedures
- **Results**: Summarise the findings without interpretation
- **Discussion**: Interpret the findings of the study
- **Summary**: Summarise the findings
- **Acknowledgement**: Give credit to those who helped you
- **References**: List all scientific papers, books and websites that you cited
The Title

• A good title is defined as the fewest possible words that adequately describe the contents of the paper.

• The title is extremely important and must be chosen with great care as it will be read by thousands, whereas few will read the entire paper.

• Indexing and abstracting of the paper depends on the accuracy of the title. An improperly titled paper will get lost and will never be read.
The Title

- Titles should neither be too short nor too long as to be meaningless.
- Waste words (studies on, investigations on, a, an, the etc) should not be used.
- Syntax (word order) must be very carefully considered.
- It should contain the keywords that reflect the contents of the paper.
- It should be meaningful and not general.
- It should be concise, specific and informative.
- It should capture the fundamental nature of the experiments and findings.
- It usually written near the end of the process, the title of a research article requires great consideration.
Examples

Action of Antibiotics on Bacteria
  • Action: should be defined
  • Antibiotics: should be listed
  • Bacteria: should be listed

• Effect of Management System on Productivity

• Effect of QMS and TQM on Productivity
Before and After: Empirical Evidence from the South African Auto Component Industry
How to Prepare the Title

• Make a list of the most important keywords
• Think of a title that contains these words
• The title could state the conclusion of the paper
• The title **NEVER** contains abbreviations, chemical formulas, proprietary names or jargon
• Think, rethink of the title before submitting the paper
• Be very careful of the grammatical errors due to faulty word order
• Avoid the use of the word “using”
The Abstract

- An abstract can be defined as a summary of the information in a document.

- It is of fundamental importance that the abstract be written clearly and simply, as it is the first and sometimes the only part of the manuscript read.

- It should provide a brief summary of each of the main sections (IMRAD) of the paper:
  1. State the principal objective and scope of the investigation
  2. Describe the methods used
  3. Summarise the results, and
  4. State the principal conclusions

- It is easier to write the abstract after completion of the paper.
Criteria of the Abstract

• It should not exceed 250 words
• It should be written in one paragraph.
• It should be written in the past tense as it refers to work done.
• Long words should be followed by its abbreviation which would be used throughout the abstract and paper.
• It should not cite any references (except in rare cases)
• It should never give any information or conclusion that is not stated in the paper
• Must be accurate with respect to figures quoted in the main text.
The Introduction

The introduction should answer the following questions:

1. What was I studying?
2. Why was this an important question?
3. What did I know about this topic before I did this study?
4. What model was I testing? and
5. What approach did I take in this study?
Useful rules for a good Introduction:

• It should present the nature and scope of the problem investigated
• Review the pertinent literature
• State the method of investigation
• State the principal results of the investigation
• State the principal conclusion(s) suggested by the results
Other general rules

• Use the present tense when referring to work that has already been published, but past tense when referring to your own study.

• Use the active voice as much as possible

• Avoid lengthy or unfocused reviews of previous research.

• Cite peer-reviewed scientific literature or scholarly reviews. Avoid general reference works such as textbooks.

• Define any specialised terms or abbreviations
Materials

• Must identify accurately experimental animals, plants, and microorganisms used by genus, species and strain

• The source of subjects studied, number of individuals in each group used, their sex, age, and weight must be clearly stated

• If human subjects are used, the criteria for selection should be described, and consent

• For chemicals used, include exact technical specifications and source or method of preparation.

• Avoid the use of trade names of chemicals, generic or chemical names are preferred.
Methods

• This section must be clear, precise and concise so that it can be reproducible

• If the method is new, all details must be provided

• If the method has been previously published in a scientific journal, only the reference should be given with some identification:
  e.g. “cells were broken by ultrasonic treatment as previously described by …”. Preferable than “cells were broken as previously described by ….”

• Questions such as “how” or “how much” must be answered and not left to be puzzled over

• Methods used for statistical analyses must be mentioned; ordinary ones without comments, but advanced or unusual ones require literature citation
How to write the Results

• Results section is written in the past tense.
• It is the core or heart of the paper.
• It needs to be clearly and simply stated since it constitutes the new knowledge contributed to the world.
• The purpose of this section is to summarise and illustrate the findings in an orderly and logical sequence, without interpretation.
• The text should guide the reader through the findings, stressing the major points.
• Do not describe methods that have already been described in the M&M section or that have been inadvertently omitted.
Methods of presenting the data

1. Directly in the text
2. In a table
3. In a figure
   • All figures and tables **MUST** be accompanied by a textual presentation of the key findings
   • Never have a table or figure that is not mentioned in the text
Tables and Figures

• Tables are appropriate for large or complicated data sets that would be difficult to explain clearly in text.

• Figures are appropriate for data sets that exhibit trends, patterns, or relationships that are best conveyed visually.

• Any table or figure must be sufficiently described by its title and caption or legend, to be understandable without reading the main text of the results section.

• Do not include both a table and a figure showing the same information
How to Write the Discussion

- It is the hardest section to write.
- Its primary purpose is to show the relationships among observed facts.
- It should end with a short summary or conclusion regarding the significance of the work.
Components of the Discussion

• Try to present the principles, relationships, and generalisations shown by the Results

• Point out any exceptions or any lack of correlation and define unsettled points

• Show how your results and interpretations agree or contrast with previously published work

• Discuss the theoretical implications of your work, and any possible practical applications.

• State your conclusions as clearly as possible

• Summarise your evidence for each conclusion
Acknowledgements

• It is a matter of basic courtesy to thank any person or organization that has made a contribution to your finished paper.

• It is not necessary to use titles, however, full names and a description of the contribution should be given.

• Before publication, you must obtain permission from the individuals. This suggestion is due to the fact that contributors might not agree with your description of their contribution, or even that they object to something inside your paper!
How to State the Acknowledgments

- You should acknowledge:
  1. Any significant technical help that you have received from any individual in your lab or elsewhere.
  2. The source of special equipment, cultures, or any other material.
  3. Any outside financial assistance, such as grants, contracts or fellowships

- Do not use the word “wish”, simply write “I thank ….” and **NOT** “I wish to thank…”

- Show the proposed wording of the Acknowledgement to the person whose help you are acknowledging.
Examples

• We gratefully acknowledge the financial support provided by ....

We also acknowledge the support provided by ........of the Nepal Forest Resources and Institutions research programme. We thank Drs Harini Nagendra and George Varughese and the anonymous referees for their useful comments on earlier drafts of this paper. Special thanks to the villagers and committee members from the seven CFUGs.

• We thank XXX University Hospital for the images used in these experiments, and we thank XXX University medical doctors for providing ground truth data. This research was supported by the XXXXX National Electronics and Computer Technology Center (NECTEC) and by XXXXX Research Fund grant MRG4780209 to MND.
References

What is referencing?

• Referencing is a standardised way of acknowledging the sources of information and ideas that you have used in your document.

• A list of ALL the references used in the text must be written.

• Reference format varies widely:
  – Harvard format (the name and year system) is the most widely used
  – Alphabet-Number system is a modification of name and year system
  – Citation order system
In-text citations

In name and year system:
• Citation in the text is followed by the author’s last name and year of publication between parentheses.
  • If they were two authors then both last names are written.
  • If more than two then the only first author’s name is written followed by the abbreviation *et al*.

• If a single statement requires more than one citation then the references are arranged chronologically from oldest to more recent, separated by semicolons.
  • If more than one reference share the same year then they are arranged alphabetically within the year.

In alphabet-number system:
• Citation by number from an alphabetically arranged numbered reference list.

In citation order system:
• The references are numbered in the order they are mentioned in the text.
Reference List

• Any papers not cited in the text should not be included.

• Reference lists allow readers to investigate the subject in greater depth.

• A reference list contains only the books, articles, and web pages etc that are cited in the text of the document. A bibliography includes all sources consulted for background or further reading.
Ethics, Rights and Permissions

• Beware of originality and copyrights of others.

• Do not copy anything without giving the credit to the owner by referencing it.

• In some cases permissions are needed.

• Repetitive publication of the same data is considered plagiarism.
Understanding the Publishing Process

There are two major parts of the publishing process: writing (before submission) and revision (after submission).

1. The writing process includes collecting ideas, deciding on research topics, defining research objectives; creating an abstract; writing the first draft.

2. The revision process includes: analysing reviewers’ comments and key points; revising relevant chapters / contents; writing a cover letter explaining where changes are made and/or areas remain unchanged.
Publishing Process Flow Chart

New Research Project

Existing Research Project

Writing Process

Journal Editors

Review Process

Outcome

Reject with comments
Accept with revisions (minor/major)
Accept without revision

Submit to other journals

Rewriting Process
Publishing Plan

It usually takes one or two years to have a paper accepted by a reputable journal and get published, as the editors of these journals may receive many papers around the world every day.

It is always wise to have a publishing plan for yourself including the following:

- **How long will I spend on writing?**
- **When will I send the paper to the targeted journal?**
- **When should I do if I don’t receive a reply?**
- **If the paper is accepted with (minor/major) revisions, how long will I spend on revision?**
- **If the paper is rejected, will I continue submitting to the same journal (after rewriting), or target other journals?**
Selecting Relevant Journals

- Carry out an initial search by broadly reviewing the titles of journals – this usually gives an idea of the areas of topics/themes/specialists covered by the journal.

- The ISI listed journals are regarded as reputable and popular journals with possibility of worldwide accessibility and impact – See the Internet for detail list of ISI journals.

- After selecting a number of journals that are broadly within your research interests, you need to read through in detail about the journal content and article style as well as the target themes sought by the Editors of the journals.
Selecting Relevant Journals

When looking for the most suitable journals, the following questions need to be considered:

1. **Who are the authors?**
2. **What are the key research methodologies?** – qualitative or quantitative or case studies?
3. **What are the key areas of argument/debate?**
4. **Are the papers based on empirical data or theoretical opinion?**
5. **What are the key conclusions drawn from these papers?**
6. **What are the messages from the Editor in special issues (usually within the Editorial section)?**
Paper Authorship

The decision whether to take on single authorship or collaborate with other academic colleagues lies with the researchers.

Single Authorship

You will be responsible for the whole research project, from conducting research to writing up.

You are the owner of the intellectual property and the knowledge generated from the research.

However, in addition, research is a process of reconstruction of existing theories and practice through critical and systematic thinking – innovative ideas are more likely to be generated through peer reviews, feedback and continuous interactions between academics.
Paper Authorship²

Joint Authorship

The challenges of collaborative research may be varied; however, the fundamental issues facing the collaborative partners are based around trust and responsibility. When engaging in collaborative research,

- Be clear regarding who is doing what and reach an early agreement
- Negotiate and agree on the working timetable including task/deadline
- Be prepared to listen and accept different opinions
- Be straightforward with your own thoughts with reasonable justification
- Be strict on meeting deadlines
- Do not be over-sensitive
Manuscript Requirements

The manuscript requirements vary from one journal to another, however, the following items are very common to most journals:

- Length of the article – usually between 4,000-9,000 words
- Font: 12 font with double line spacing and 25mm margins
- A brief autobiographical note including full name, affiliation, email address and full international contact details
- Article title
- Author names and affiliations
- Abstract (250-300 words)
- Format of body text
- Reference style
- Appendices
- Tables/figures.

(Some sample illustrations – during presentation)
Submitting an Academic Paper

- Send your final copy of the paper with all required documents to the Editor, along with an e-mail requesting a notification of receipt. Most Editors will reply to your e-mail in one or two days.

- Usually it takes two to three weeks (sometimes even longer, depending on the academic responsibilities of the Editors) for the Editors themselves to review your paper and provide initial feedback.

- Journal Editors are responsible for deciding and maintaining the quality of editorial content in the journal.
Submitting an Academic Paper

The suggestions could be one of the following:

• Thanks for your contribution to the Journal. However, your research topic does not fit in the scope of our Journal, so we therefore recommend that you submit your paper to other journals.

• Thanks for submitting your research paper. Having reviewed your work, we felt that the paper needs to be further developed in the following areas. We therefore would recommend you to revise the paper and submit again, once it is completed.

• Thanks for submitting your work. Your paper will be passed on to our Journal reviewers. We shall get in touch with you again, once we receive the comments from the reviewer.

The review process can take between one and three months. However, Editors will usually set up deadlines for receiving feedback from reviewers. If you do not receive a reply within three months, do request an update.
Role of Reviewers

All high quality journals adopt a double-blind review process to provide authors with an independent and fair assessment on the intellectual merits of the work. In general, reviewers seek the following areas when considering whether the paper is publishable:

- **Relevance of the themes**: is the content of the paper relevant to the editorial aims and scope?

- **Originality and contribution**: does the paper demonstrate originality of theory, practice, viewpoints?

- **Clarity of thematic focus**: is the research clearly focused? Does the paper address the key research issues cohesively and systematically?

- **Understanding of relevant literature**: does the paper demonstrate sufficient understanding of the existing theories and conduct critical analysis of the key argument?

- **Research design and data**: does the author explain clearly the research design, research strategies adopted and data collection techniques?

- **Clarity of conclusions**: are the conclusions of the paper clearly stated and synthesised?

- **Policy implications**: does the paper have practical value and implications for decision makers, and/or business practitioners?

- **Attraction to international audiences**: will the statement/argument presented in this paper attract international audiences? Does the paper have values that are recognised widely?

- **Quality, style and presentation**: does the paper have a sound writing style with a high standard of English language and well-organised structure?
Responding to Reviewers and Resubmission

The decision received from the Editors (and reviewers) is usually in two categories: **Accept (or with minor/major corrections)** and **Reject**. Whether the decision is positive or negative, *there is always something which can be learned from the comments provided by reviewers*. If you have received a **positive decision**, it will increase the likelihood and speed of publication if you follow the steps below:

1. Thank the Editor, expressing your appreciation of their effort and assistance.
2. Set yourself a deadline for resubmission of the revised paper.
3. Read through the comments from the reviewer carefully and check each point against the relevant part of the paper. Make the amendments and then review again the points which you do not intend to change.
4. In a cover letter, list all the changes you have made and note where they appear in the revised paper. If you have decided not to follow the reviewer’s point, explain why.
5. Making changes according to the reviewers’ comments is important; however, you do need to keep the balance between improving the quality of the paper and changing the paper to a different one in order to satisfy the reviewers.
Other issues

If your title is long, then a shorter running title may be required as well. This will be used at the top of every page, as opposed to the full title which will only appear at the beginning.

Example 3:
• Women's involvement in small-scale aquaculture in Northeast Thailand
• *Running title:* Women’s involvement in small-scale aquaculture

Example 4:
• Evidence and a Computational Explanation of Cultural Differences in Facial Expression Recognition
• *Running title:* Cultural differences in facial expression
How to write a submission cover letter

This is pretty straightforward. Assuming there are no instructions, the following is common:

• The letter should be on letterhead if it is available for your use.

• The letter will typically be just one page long. It will have proper letter heading material, ie, the date and the address of the recipient at the top left, under the letterhead.

• It will address the editor by name, if the name is known.

• It will then have four short paragraphs. The first introduces the writer, and follows the basic format of the intro para of the job cover letter. It then states that the writer is submitting a manuscript for review.
How to write a submission cover letter

- The second paragraph covers the topic of the manuscript. This will be a crisp 4-5 sentences that will give a title and describe the topic, the specific material/data covered, the theoretical orientation or approach, any special issues of methodology if important, and, most importantly, the core argument.

- The third paragraph will be shorter, and will take about 2-3 sentences to describe the manuscript’s contribution to the field and the suitability of the manuscript to this particular journal based on topic, theme, or methodological or theoretical approach, with reference to other work recently published in the journal.

- The final paragraph will list 2-3 possible reviewers for the manuscript, and will thank the editor for considering the manuscript for publication. Contact info can be added here.

- Sign off, “Sincerely, XXX.”
Accredited Publications

Journal Publications

• DHET
• ISI
• IBSS—International Bibliography of Social Sciences (ProQuest)
• ...

Conference Proceedings

• Nationally and Internationally recognised, e.g. IEEE Conferences
• MUST be peer-reviewed
References

• Book

• Journal or Magazine Article (with volume numbers)

• Newspaper, Magazine or Journal Article (without volume numbers)
  5. Burrows, T. Writing research articles for publication. Unpublished manuscript, the Asian Institute of Technology Language Center, Khlong Luang, Thailand. 2011

• Encyclopedia Article
THANK YOU!

ANY QUESTIONS?