

KEY POINTS FOR ACADEMIC AND SCIENTIFIC WRITING FOR QUALITY RESEARCH ARTICLES

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Abstract - A journal can be a collection of research articles. These articles are written by the research scholars or experts. Experts or research scholar read these articles in order to enhance their skills or ideas. Articles published in Journals can be written by anyone who wants to share their ideas and information to others in the same discipline. A submitted article in journal follows a review process. This review process consists of experts in the field of study. Members of review committee have proven themselves as expert after publishing so many quality articles in good journals. The review committee decides whether the submitted article can be published, or need some major or minor revisions. They can reject article if they do not found article up a predefined level of satisfaction. In this paper some key points has been explained which should be in mind of author while writing quality research article.

Key Words: Proofreading and sharing, Plagiarism, Paraphrasing, Citation, Manuscript

1. INTRODUCTION

These days journals are freely accessible on net. There are some journals that demand some cash to publish analysis articles, in alternative subscription is needed to access these journals. Universities across the planet give facility to their worker and student to access different kinds of journals accessible in their libraries. Student/Teachers will found journals electronically over the internet or in text formats. In 1665 Philosophical Transactions of the academy became the primary revealed journal of science. Articles that are revealed in journal are categorized as: enquiry articles, literature reviews, case studies, technical articles, theoretical articles, method articles, book reviews, and letters. Among of these on top of varieties enquiry article is commonest. A submitted article in journal follows a review method. This review method consists of consultants within the field of study. The review committee decides whether or not the submitted article may be revealed, or would like some major or minor revisions. They'll reject article if they do not found article up to a predefined level of satisfaction. For inexperienced author it's terribly troublesome to begin article publishing. Publication article in quality journal is incredibly essential to the researchers so as to require masters or academic degree. There are also many reasons for publication articles in journals like rising your skilled opportunities, influencing individuals, money rewards, and

personal rewards. Any article published in journal may be helpful to others if it's original, fascinating, and useful. Journals can be helpful for researchers if they contain properly written articles with their specifications. In writing or publication article reading may be an elementary task. An honest article is one on that alternative researches will depends. All sources of knowledge aren't continuously trustworthy. If the paper is extremely cited in others it suggests that the standard of paper is nice and it contains helpful and reliable info. To gather info for paper it's best to require info from websites created for presidency, web site of state universities, and journals that are index with refereed journal. A refereed journal may be a specific kind of bookish journal during which every article is judged or refereed by consultants within the field.

2. STRUCTURE OF RESEARCH ARTICLE

Following are the essential structure of any research article:

1. **Abstract:** It is a summary of one paragraph having 300 words approximately. Abstract presents problems in research, design of the study, major findings of results and brief summary of conclusion of our research.
2. **Introduction:** Introduction can typically have 3 primary functions:
 - A discussion of analysis space by referring the prevailing literature;
 - This section describes objective of current study, main findings.
3. **Literature Review:** It is the study of past contribution of researchers in the field of research. Their facts, finding and result.
4. **Methodology section:** This Section provides description concerning however the analysis was conducted.
5. **Results:** Results can illuminate key findings.
6. **A Discussion/Conclusion**
 - This section describes issues or limitations.
 - A comparative analysis with similar studies.Conclusion explains implications of the findings and recommends future work to boost the scope of analysis.
7. **References:** References in the article helps researchers to trace the articles used in the research ideas. Using references in the article ensures that author is using ideas of others and it can avoid charges of plagiarism. Different journals specify their own reference formatting style.

3. KEY ELEMENTS TO ANALYSE RESEARCH ARTICLE

For effective writing reader should apprehend answer of some specific question associated with every section of paper. The list of queries for every section is given below.

1. Introduction:

- How will this study relate to the literature?
- In what sense the study is helpful, necessary or interesting?
- Goal of study?

2. Methodology:

- How was the information collected?
- How were the information analyzed?

3. Results:

- What did the analysis reveal?

4. Discussion:

- Was the analysis question answered? What was the answer?
- Did the investigator have any problems?
- How do the findings relate to different studies that are done?
- How and why the findings area important?
- Are there suggestions for any research?

4. USE OF TEXT MINING IN RESEARCH ARTICLE

For being a stronger author text mining is helpful which implies use existing text. Here are some expressions that area unit usually utilized in papers.

- Previous studies in ... have shown...
- This paper addresses the problems of...
- This study includes the...
- This study used each primary and secondary data...

5. USEFUL WORD AND PHRASE IN RESEARCH ARTICLE

In researcher paper writing certain words and phrases are used regularly. Use of these words and phrases can improve academic writing skills. Strong vocabulary is most significant a part of paper writing. The list of educational vocabulary was steered by Coxhead, in this list Coxhead used 3 million words which can be used for academic writing.

6. TRANSITIONS AND SIGNPOST

In order to know whether or not writing is connected or not transitions and signposts square measure helpful. If reader

understand means of transition and signpost it'll be easier to reader to know sophisticated writing of author.

• Latin

Latin was the language of ancient Rome. English is currently international language in philosophy and science. Bound words and phrases in Latin square measure still common in analysis writing.

Table -2: Latin word and their meaning

Latin	Meaning
i.e.	In other word
vs.	Versus
et al.	and the rest
e.g.	for example
etc.	and so on
ibid.	the same as the previous reference
per se	through itself / of itself
de facto	by fact, not by right
per capita	for each person

7. MAIN STAGES IN WRITING RESEARCH ARTICLE

Each researcher/writer will follow completely different strategies of writing. The main stages of writing articles are given below.

- 1. Planning:** In this stage author must know how to organize information in the research paper. Information included in the paper must be according to specification of journal.
- 2. Writing:** Content of paper can be changed later in order to do better research. Writing your ideas when they come in mind is a better way of doing research.
- 3. Proofreading and sharing:** Sometimes journals reject the article due to use of low standard english and risk of plagiarism. Following things should be in mind while submitted article in journal for publishing.
 - Share writing with another person to visualize contents of paper.
 - Recursively check everything once more and once more (spelling, grammar, punctuation, and layout).
- 4. Revision and piece of writing:** Good writers review their article so many times before submitting it in order to refine its quality. In paper reviewing process author tries to find out that section of paper where there is need of refinement. Even a small change in paper can change whole structure of paper.

8. SOURCES AND REFERENCING IN RESEARCH ARTICLE

To avoid plagiarism author should cite their sources. Plagiarism means theft of words or concepts of others. Words, phrase from different should be properly cited. By supplying citation within the paper author shows that data within the paper is reliable. Parenthetical citation is widely used. Some points must be in mind of author while citation. If there's one author use surname of author and year separated by a comma. For example: (Garg, 1998) or (Negi, 1997). If there are more than five authors write their name separated by comma and use punctuation mark before the surname then year separated by comma. For example: (Garg & Negi, 1993) (Garg, Negi, Agrawal & Latwal, 1994). To represent 5 authors will use 1st surname of author and "et al." For example: (Garg, et al., 1992). If there are 2 references by constant author(s) for constant year, author will use letters once the year: (Walt, 1995b). To specify the paging for citation, paging is additional once the year. (Garg, 1998, pp. 36-49). If author embrace author's name in any sentence of paper, then name of author is eliminated from the parentheses as follows: "Garg (1998) includes some precious index to"

Citation of reportage verbs shows that author is relating another publication. Below are the samples of reportage verbs.

Ashish (1994) found that... building
(1997) according that... [A]K
Ankit (2001) notes...
Akshat et al. (1997) show that...

When author needs to reference text in paper suppose in paper1 that is documented in paper two. Same text in Paper 2 documented to 3rd paper. Author should avoid secondary citation. By exploitation this kind of citation author will created mistake and should commit plagiarism. Following are the samples of primary and secondary citations.

- Primary citation

Literature review is very important (Ashish & Ankit, 2010, p.94).

- Secondary citation 1

According to Ashish Negi & Ankit, Literature review is an important part of quality articles (2010; cited in Ashish Negi, 2011).

- Secondary citation 2

Ankit Garg (2011) cites Ashish Negi (2010) Shows that literature review is necessary a part of analysis.

9. PARAPHRASING AND SUMMARISING

By exploitation paraphrasing and summarizing author will convey plan and data of others in own words.

1. Paraphrasing

Jordan (1999) provides United States with the subsequent urged techniques to assist once writing a paraphrase.

- **Use synonyms:**

Original: The staff became tired by frequent amendment in call.

Paraphrase: The staff became tired by perennial changes in call.

- **Change the verb form:**

Original: The staff became tired by frequent amendment in call.

Paraphrase: The staff becomes bored by frequent amendment in call.

- **Change the elements of speech:**

Original: The staff became tired by frequent amendment in call.

Paraphrase: The high frequency of amendment in call staff has become bored.

After ever-changing lines in paragraph an author could accuse of plagiarism so high variation in writing is needed.

Original: the staff became pissed off with frequent amendment in call.

Paraphrase: Regular changes in call makes worker pissed off.

2. Summarizing

- In addition to the on top of suggestions Jordan (1999) provides tips for summarizing, including:
Text skimming so as to urge higher understanding of main idea.
- Careful reading is needed to urge main key points.
- Author should use own words the maximum amount as potential, use direct quotations meagerly.
- Examples and different supporting details should be avoided.

10. USE OF DIRECT QUOTATION IN ARTICLE

To express diction of original author direct quotes ought to be used.

1. Direct quotes ought to typically not be entire sentences.

OK: Ashish (2001) found that complicated objects in nature are generated by "Iterated function system".

Not OK: Ashish (2001) reports that, "Iterated perform system is used to generate complicated objects in nature."

2. Author should use single quotes for original text and double quote for writers own text.

Example: Akshat (2001) cites Ram's (1999) reports that "Some times production is augmented with the utilization of 'focused avoidance' staff United Nations agency have spent long-standing in organization".

Tiny changes in direct quotes are ineluctable. it's sensible to use paraphrasing if important changes are needed.

3. In order to get rid of text from original text ellipsis (...) is use.

Quote: Ankit (2001) indicates that, "Regular hikes in pay on ... makes worker happy". To feature own text in original text continually use sq. brackets ([]).

Quote: Ashish (2001) reports that, "it was found that [considering project from outside] typically not well for monetary growth of organization."

11. REFERENCE LIST IN MANUSCRIPT

Every entry in reference list should have a corresponding entry in article. The fashion of reference list will vary per specification of journal. To make article higher reference list should contain as several references as potential. Use of such a lot of citation build article tough to browse. Careful use of citation in analysis article in needed.

12. SECTIONS OF PAPER

This section describes the way to how to write necessary sections within the paper. Typically it's sensible for the writes to start out their work once together with heading. Begin writing once together with heading typically provides a way that job of writing paper has already begun.

1. Title

Researchers counsel that heading of any article is most significant a part of article. If the heading or title of article isn't informative it's going to be potential that your paper is also unnoticed. For no-hit submission of article in journal title should be clear and informative.

- Title should be clear and curt.
- In order to relinquish additional clarity uses a subtitle to relinquish detail. Author should use subtitle once necessary.
- Always avoid use of abbreviations. Some abbreviations like PhD, DNA, and RNA is also accepted by some journals.
- Always use key words at the beginning.
- Avoid use of titles ending with I, II, II, your paper ought to be self-contained.
- Before begin writing continually check the rules of journal within which author goes to submit.
- Use of running headline is nice if main title is simply too long.

Example 4:

(Ankit Garg, Ashish Negi, Akshat Agrawal, 2010)

An approach towards line detection and preservation in content aware media retargeting techniques.

Running title: line detection and preservation

2. Abstract

As abstract is tiny description of entire manuscript. Abstract is most significant a part of any paper. The length of abstract could two hundred words long. Tiny description of entire abstract provides fast gist of the whole work. The standard of abstract determined whether or not paper is appropriate or not. Associate in nursing abstract has four parts: downside statement, methodology, main findings, and conclusion.

➤ Four a part of Abstract

- **Problem statement:** Objective, or motivation.
- **Methodology:** Methodology section explains basic indication of however the info was gathered.
- **Main findings:** embrace solely results that associated with the most objective of analysis.
- **Conclusion:** stress most significant drawbacks and suggestion on main findings.

Main points to recollect whereas writing the abstract are:

- If expression in abstract isn't long and don't use often times, use of abbreviations ought to be avoided.
- Citation shouldn't be used unless necessary.
- Information that isn't enclosed within the article should not be enclosed in abstract.
- Use the past for the bulk.

3. Introduction

In this section of analysis paper author tries to tell the explanation behind the work. In introduction author tries to justify why work planned within the paper is crucial element of analysis. Introduction ought to be curt however in contrast to abstract it doesn't have word limit. Some researchers continually write this section at the top of paper, making certain that each one the key points are extra within the paper. Introduction has to a small degree completely different problems from the abstract.

Introduction provides transient introduction on topic of paper, analysis downside and hypothesis. This section tells to the reader however will analysis downside is resolved. Following are the key points which might build introduction effective.

- Significance of the study
- Defend the model – here investigators provide detail why did researcher use system? Blessings of system?

Investigator provides some discuss quality of model in just from a theoretical purpose however additionally sensible purpose of read.

- It provides a principle.

Style:

- Use past to refer facts that have been established.
- Include concepts in organized manner. In every new paragraph one major purpose ought to be mentioned.

- Use background info to support investigator own plan.
- State the hypothesis/objective exactly
- Correctness of spellings and clarity in sentences and phrases is extremely fascinating.

4. Literature Review

This section of paper is survey of literature conferred by the researches on a selected topic. An efficient literature review analyzes and synthesizes info regarding key themes or problems. A decent literature review provides reader a handy orient a selected topic and analysis queries. If researchers have restricted time to be concerned in research, literature reviews will provide a summary regarding what has been done and what's to be done on a selected topic. Literature review keeps Researcher up to now within the field of research. An efficient literature review emphasizes the data and quality of the author on a selected filed. Comprehensive data of the literature of the sector is important to most analysis papers. Literature review is beneficial to grasp the connection of various views of researchers on a selected topic, contradictions, and verify gaps or unreciprocated queries

4.1 Goals of a literature review

- A review establishes the quality among readers and researchers. Review tells the reader that investigator encompasses a good data a couple of specific field of analysis. A decent review additionally improves reader's confidence in skilled background and skill of researcher's.
- A decent literature review tells to the reader regarding numerous conflicts within the space of analysis and additionally tells the key points of debate that still must be mentioned and investigated. A decent review provides the direction for future analysis.
- **A literature review ought to contain:** Associate in Nursing introduction, a middle (body) and conclusion.
- **In the Introduction**
 - This section provides Associate in nursing applicable context for reviewing the literature
 - Explain why author wish to review the literature.
 - Explain sequence of review.
 - Explain scope of literature review
- **In the Body**
 - Group all the literature that has same themes
 - Give relationship between central topic and a bigger space.
- **In the Conclusion**
 - summarizes major contributions of the literature
 - This section ought to embrace flaws in analysis

5. Methodology

This section is one amongst the most a part of any analysis paper. This section is very important as a result of this section is beneficial to gauge validity of writer's study.

This section answers 2 main questions:

- How did you collect or generate the data?
- How did you analyze the data?

Writer should use past whereas putting this on ink section. Author should be clear and precise. Add additional and additional info so readers will decide results and conclusions within the paper are valid or not. Readers continually wish to grasp whether or not the collections and analysis of information gift within the paper are correct or not. Readers additionally wish to grasp why author opt for a selected technique or procedure rather than others. Researchers ought to embrace sufficient info of all the experimental information and method so readers will replicate writers study.

While writing methodology section author ought to answer following queries.

- How author gathered the samples
- How all the measurements had been created within the different words what are the calculations author had been made?
- All the materials and equipments employed in the analysis ought to be delineated.
- Writer should tell regarding applied math techniques that are used on the info.

6. Result

Result in paper may be a simple statement regarding what the investigator has been determined and located.

➤ Tips for writing results

It is the most effective to use tables, figures, and graphs within the paper to point out most relevant information. This stuff can support the correctness of authors finding and prove that each one the findings are relevant and authors original work. It's continually sensible to feature a brief discussion of result at the top of paper. To jot down a decent result section includes negative results. Putting this on ink result section while not negative results not solely invalidate the paper, however additionally it not sensible from science purpose of read. Light negative result and their handling continually provide the good discussion section.

7. Discussion

This section is incredibly vital section of analysis paper. Discussion is crucial for victorious analysis writing. During this discussion section author conclude that why all findings bestowed within the paper are vital. A while might its going to it should be doable that reader may skip the Literature Review, Methodology, and Results and may move on to the discussion section. Invariably use the sentence that states correctness of findings.

8. Appendix

This section of analysis paper includes supporting materials. Author writes supporting material within the variety of tables and figures. Data during this section is particular to the journal. While it's going to be doable that journal accepts articles while not appendices any.

9. Conclusion

Conclusions will be a most troublesome a part of analysis paper. Author ought to embrace data during this section in such the simplest way that a reader remembers best once golf stroke analysis paper down. The conclusion ought to be the most effective a part of a research paper.

A good conclusion ought to have following properties

- Conclusion should emphasize the importance of the thesis statement
- It ought to provides a sense of completeness
- A smart conclusion leaves a sway within the mind of reader.

Suggestions to form conclusion effective

- Always show readers that your paper is vital and able to offer helpful data on a particular filed of analysis topic.
- Don't embrace data once more that you have got enclosed within the paper. However attempt to support major points, ways and example written within the paper.

10. Acknowledgements

In this section author invariably pay impart to person or organization that created a contribution in paper writing. Contributions in paper writing could also be within the variety of cash, data, mentoring and technical support. Acknowledgement section will be as long or as shot in line with author. Name of supervisor and coauthors should return at the start World Health Organization contributes such a lot input in finishing paper.

11. Reference List

Reference list is that the assortment of paper that author has scan in collection data to begin writing. This list ought to be appeared at the top of paper. This list offers data to the reader regarding the supply that author has cited within the text of paper. Every text that write have cited should have correspondence entry in reference list. Every journal has their own specifications to jot down reference list. If the text in paper are rigorously cited it helps you stop plagiarism. The references ought to be alphabetic by the author's surname. Use the year of publication if author cite over one paper of same author.

➤ Format of Author, Date, and Title

Author. (Date). Title.

- Start reference with author's surname, followed by the initials. If a reference contain 2 author name for same paper separate their names with "and". Author will embrace name of organization or any agency if author name isn't given. **Example:**

- Garg, Ankit.
- Negi, Ashish and Garg, Ankit.
- Negi, Ashish, Garg, Ankit and Agrawal Akshat.
- Amity University Haryana.

- Always enclose date in parentheses. In date author will mentioned date, month and year of publication within the following format.

For example:

(1995).

(1992, January).

(1995, June 30).

- For article title use the regular font and for title of a book create it italic. Initial letter of initial word ought to be capital.
- It is required to write name of journal, magazine in italic.
- Always write volume range in italics, issue range in parentheses and also the page number(s). If article is in magazine write number with "p" or "pp". If article is on single page write "p" otherwise "pp".

For example:

Communications of the ACM, 27(5), 145-199.

Journal of production analysis, 34, 47-56.

Time, 156, pp. 45-49.

- Many sources are obtainable in electronic kind like CDROM or obtainable on internet. To cite associate electronic file, author will use term "[Online]" or "[CDROM]".
 - [Online]. Available: email: listy@ncsu.c.cs Message: Get PCS TDA.
 - [Online] Available: FTP: ftp.Cio.indian.edu, Location: /usenet/computer science, File: 9514.newop.
 - [CDROM]. Available: SGK File: Production Periodicals Ondisk Item 81-11401.

13. CONCLUSION

A journal refuses to publish analysis articles that aren't up to fascinating moral normal. Ethics in publication is concern with experiment and written communication in paper. Publisher invariably wishes to grasp that the scientist failed to treat persons. Publisher conjointly ensures that everyone the written communication by scientist should be truthful and reliable. Finally, authors got to follow high normal of ethics to abstain from plagiarism.

REFERENCES

- [1] American Psychological Association., *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: American Psychological Association, 2001.
- [2] Bailey, S. *Academic writing: A practical guide for students*. New York: RoutledgeFalmer, 2003.

- [3] Bem, D. J. Writing the empirical journal article. In Darley, J. M., Zanna, M. P., & Roediger III, H. L. (Eds.), *The compleat academic: A practical guide for the beginning social scientist*. Washington, DC: American Psychological Association, 2003, pp. 171-201.
- [4] Bhatia, V.K., *Analysing genre: Language use in professional settings*. New York; Longman 1993.
- [5] Brooks, A. & Grundy, P. *Writing for study purposes: A teacher's guide to developing individual writing skills*. Cambridge: Cambridge University Press, 1990.
- [6] Cargill, M. & O'Connor, P. *Writing scientific research articles: Strategy and steps*. West Sussex: Wiley-Blackwell, 2009.
- [7] Chen, Q., & Ge, G, A corpus-based lexical study on frequency and distribution of Coxhead's AWL Word families in medical research articles (RAs). *English for Specific Purposes*, 26, 2007, pp. 502-514.
- [8] Committee on Science, Engineering, and Public Policy. *on being a scientist: A guide to responsible conduct in research* (3rd ed.). Washington: The National Academies Press, 2009.
- [9] G.W., Evidence and a computational explanation of cultural differences in facial expression recognition. In press, *Emotion*, 2010.
- [10] Day, R.A., *How to write and publish a scientific paper* (3rd ed.). Cambridge: Cambridge University Press , 1998.
- [11] Derntl, M., Basics of research paper writing and publishing. Technical report, Department of Computer Science and Business Informatics, University of Vienna, 2003.