

HOW TO WRITE RESEARCH ARTICLE FOR A JOURNAL: TECHNIQUES AND RULES

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Received: 28 Oct 2018

Accepted: 03 Nov 2018

Published: 13 Nov 2018

ABSTRACT

The tendency of writing article and paper for both printed and online journals and books increases rapidly. The present paper discusses about the techniques of writing good research article. The author has traced the procedures and rule of making abstract of an article. The steps needed to make a good article have been analyzed. Research methodology based on analysis of review of literature and secondary sources have been adopted. The signification of the use of keywords in an abstract is traded under the study. The paper finds out that there are various methods of citing sources and each method has its own procedures for incorporating data in the references. The paper concludes that every good article must be free from plagiarism and if any portion of an intellectual thought is copied then that must be mentioned by sources of references.

KEYWORDS: *Online Journals and Books, Research Methodology, Literature, and Secondary Sources*

INTRODUCTION

The Information and Communication Technology with its day by day changing mode of production of documents have ushered in a new era in the educational system. This leads to the development of research in the country and consequently, the volume of literature also increases enormously. The tendency of writing article and paper for both printed and online journals and books increases rapidly. It has become a more common scenario in the field of Education. There is a multitude of different types of articles, including news stories, features, editorial, profiles, instructional (how-to) articles, and so on. While each has specific qualities that are unique to its type, all articles share some common characteristics. From forming and researching the author's idea of writing and editing his/her work, writing articles can give him a chance to share compelling and important information with readers. So the research scholars and academicians should think about the type of article that will best suit the points that they want to convey.

The scholar must do an in-depth, balanced review of the primary research literature relevant to the study chosen prior to designing and carrying out the experiments. This review helps the scholars to learn what is known about the topic that is being investigated and may avoid unnecessarily repeating work done by others. The primary and secondary sources are the heart of any research article. The scholars and academicians very much depend on journals, books (monographs, classic), research report, govt. publication, abstracts, and indexes and so on before writing any research article for a journal. Experience shows that many scholars copy big volume of a particular content at the time of writing a research paper. They are not aware of the plagiarism. Even they use quotations and thought content but they fail to use footnotes and endnotes, may be due to the lack of in-depth knowledge of using them. The author must have a strategy and plan before writing research article on a particular topic; *what is the purpose, whether the selected journal has an impact factor*

and even if so have then what is the impact factor, etc. The present paper looks forward to the detailed outline of writing a good research article for journals in Education with critical analysis of the use of various ingredients like the use of footnotes, endnotes, the significance of citation analysis and keywords, etc.

OBJECTIVES

The main objective of this review article is to make the scholars being informed about how to write a research article for a journal in the field of Education. The other objectives are as follow:

- To know the outline of the steps of writing a good research article
- To gather knowledge of techniques in writing paper or research article
- To aware of the plagiarism
- To gather an idea about how to cite the sources of information for a particular article
- To know the significance of the use of abstract and keywords

TECHNIQUES OF WRITING GOOD RESEARCH ARTICLE

Many authors do not follow any standard norms in writing good research article due to their ignorance of the rules and techniques. The authors/scholars should know the avenues of writing such an article. The general techniques are:

Address the Audience's Needs or Target Group

The scholar should imagine the readers of this article. Should think about who is going to read his article. He needs to take into account the reading level, interests, expectations, and so on. It must know whether it is published as an article in a journal or magazine, or newspaper, or Chapter in an edited book, etc. For example, in writing this article, the scholar first thought about the target group that is teacher pupils' needs.

Selection of the Title

After selecting the audience's needs the second step is to select the title of the article or paper. Important steps are to be followed:

- Always keep the title of your article short. It should not be such a long string of words which a search engine is unlikely to pick up. So try to compose the title that is simple, attractive and accurately reflects the investigation.
- To make this as catchy as possible because your reader will read this first then decide if he or she will continue reading the rest of the article
- Even a single catchy word can sometimes be more effective than a title with multiple words.
- Avoid Acronyms that are known only to the specialized community.

There are three rules when it comes to selecting on the title: make it concise, accurate and informative. The title always consists of significant terms on the basis of which one can search these words online that is relevant to the field. So title must be specific and those words are included that readers might be searching for. Try to make it understandable to a reader outside the relevant field.

Introduction

An introduction is the first ingredient of the text of an article. This is moreover most important in Social Sciences and it starts with the background of the study and ends with the Review of the literature. Proper context must be given initially.

Background of the Study

The readers of the topic are not supposed to know as much about the given topic as the author does. So should think about the kinds of background information that the reader needs in order to understand the topic. Depending on the type of article the author might give a paragraph with background information before proceeding into his supporting evidence where the broadest part at the top of the section represents the most general information and focuses down to the specific problem of study. In other words, the scholars have to organize the information to present the more general aspects of the topic early in the Introduction, then have to narrow toward the more specific topical information that provides context; finally, they arrive at the statement of purpose and rationale.

Statement of the Problem

The statement of the problem traces the actual reasons for doing the research work. In other words, on the basis of the problem, the total research is carried on. Many scholars are not able to indicate the actual problem of the study although they carry on the work. In this case, they follow the average ideas for stating the problem. But actually, the title of the work/study itself incorporates the problem. The scholars should provide a clear statement of the rationale for their approach to the problem studied. This will usually follow the statement of purpose in the last paragraph of the Introduction. Many questions arise and be solved like- what is the actual problem? Why did you choose this kind of experiment or experimental design? What advantages does it confer in answering the particular question(s) you are posing, etc.

Statement of the Purpose

The scholar must be sure to clearly state the purpose and /or hypothesis that they investigated. It is most usual to place the statement of purpose near the end of the Introduction, often as the topic sentence of the final paragraph. The scholars should provide a clear statement of the rationale for their approach to the problem studied.

Review of Primary Research Literature

Prior to designing and carrying out the experiments, the scholars should do an in-depth and balanced review of the primary research literature and development of the subject field concern relevant to their study questions. The scholar will learn while studying the review about the topic he is investigating and may let him avoid unnecessarily repeating work done by others experts and scholars. Always should focus the author's efforts on the *primary research journals* - the journals that publish original research articles. Although he may read some general background references like encyclopedias, textbooks, lab manuals, and handbooks, etc. to get himself acquainted with the subject area. The foremost task of the scholar at this moment is to find the experts' opinion and experiment in compared to his own research work and what area is not covered but there is a huge scope for further research

Materials and Methods, Measurement and Data Analysis

This section is called Methods or methodology of the study. Give a description of how data was gathered and analyzed. This section should typically include something about the *participants or texts* (number, type, manner of selection), *data collection* (be as specific as possible, perhaps with key details, e.g., "elements of Strauss and Corbin's grounded theory"), and *data analysis* (method of unitizing or categorizing, any specific elements of method that are appropriate.). Because the focus of the article is to evaluate the method of the study, this section might be a bit longer than it would be for abstracts in other courses

In this section, the researcher will explain clearly how the study is carried out that is what is a method of doing the work or what method is to be applied to collect the data and what is the limitation. There are certain steps to be followed:

- Where and when the study was carried out that is location and time is important factors in doing a research survey especially in the field of Social Sciences.
- If a researcher carries out through a field study, must provide a description of the study site, including the significant physical and biological features, and the precise location with latitude and longitude, map, etc;
- The scholar will design questionnaire according to the objectives framed by the researcher and plan of collecting data. For example, how the experiment or study was structured, what variable(s) were measured, how many samples were collected, the final form of the data, etc.;
- How the primary data will be organized with the help of both qualitative analyses and/or statistical procedures to determine significance, data transformations used, what statistical techniques will be used to test the significance, etc.
- In this section, the Scholar will organize his presentation in such a way that the reader will understand the logical flow of the experiment(s). Each experiment or procedure should be presented as a unit, even if it was broken up over time. The experimental design and procedure are sometimes most efficiently presented as an integrated unit because otherwise, it would be difficult to split them up. The scholar should also indicate the statistical tools used to analyze the results of the work, including the probability level to determine the significance.

How to Write Result Section

This section is the soul of the research work because here the scholar has to satisfy the readers about the actual experiments. Every scholar should remember that this section has both text and illustrative materials by presenting the fact via tables and figures. The text component must be used to guide the reader through those results which answer the question(s) the researcher investigated. He must reveal the output of his work. Once the data are collected, the researcher should analyze and interpret the results. An analysis will be made by the application of various statistical tools like means, standard deviation, variances, etc and statistical tests to verify conclusions drawn lastly. Many researchers lay out their tables and figures upon completion of the data analysis before writing the Result Section. Lastly, the scholars will sequence and number the Tables and Figures in the order which best enables the reader to reach their findings. But the experiences show that most of the scholars do not know how to interpret the results. They use both tables and figures for a particular attribute. For examples for a particular attribute of a topic named as *Gender wise distribution of awareness*

score regarding sustainable development is to be interpreted or analyzed either with the help of a table or a figure. But most of the scholars use both figure and table to determine the significance. So some problems should be avoided for writing the Result section:

- Do not reiterate each value from a Figure or Table - only the key result or trends that each conveys.
- Do not present the same data in both a Table and a Figure - this is considered superfluous and readers will think it a waste of time and energy. So sincerely decide which format best suits for the result and go with accordingly.
- Do not present raw data values when they can be summarized as means, percents, etc.

Structure and Style of Format of the Sentences in the Results Section

Every author/researcher should write the text of the Results section concisely and objectively. The passive voice is likely to dominate here, but one should use the active voice as much as possible with the past tense. Past tense is used when the sentence focuses on the completed study, e. g, what was done and found. Present tense is also used to describe an “always true” situation; and when the sentence focuses on the document, which will always be there. Repetitive paragraph structures must be avoided. Use the heading just above the table and source under the figure.

How to Write the Discussion Section

The Discussion Section is used to interpret the results in light of what was already known about the subject of the investigation, and to explain a new understanding of the problem after taking the results into consideration. The scholars will summarize the most important findings and, if applicable, accept or reject the proposed hypothesis. Next, the authors will identify the most interesting, significant, remarkable findings that were presented in the Results section, and contrast these findings in light of other studies reported in the literature. Finally, at the end of the Discussion section, the other works in the literature are considered that address this topic and how this work contributes to the overall field of study.

CONCLUSIONS

This should include a brief summary of your article and a call for the reader to take action. Include major findings followed by a brief discussion on future perspectives and/or application of present work to other disciplines.

Acknowledgments

The scholar should provide a brief statement of acknowledging the efforts of any participants or consultants who are not included as authors of the manuscript. He should remember to thank the funding agency and colleagues or scientists and technicians who might have provided assistance.

USE OF ABSTRACT

An abstract is nothing but the summary of the work. So, it is written after the completion of writing the article and put this under the Title of the paper/article. The abstract is the mirror of the research work. It serves those readers who either may not read or may not have easy access to the original paper.

Types of Abstract

An abstract is of different types- Informative or Comprehensive, Indicative or Descriptive, Annotated, Slanted, Auto, Telegraphic and Graphic. But in case of a research article or paper three most used are: descriptive, informative, and structured. Generally, the above abstracts include 100 to 300 words in length.

- Descriptive abstracts, usually used in the social sciences and humanities, the author should not give specific information about methods and results.
- Informative abstracts are commonly used in the sciences and present information on the Background, Aim, Methods, Results, and Conclusions.
- Structured abstracts are essentially informative abstracts divided into a series of headings (e.g., Objective, Method, Results and Conclusion) and are typically found in medical literature and clinical trial reports.
- But experiences show that almost all the publishers, as well as, authors do not maintain this rule due to their ignorance and lack of expertise in the field.

Objectives of Abstract

The primary objectives of the abstract are as follows. Through doing abstract, students should be able to:

- Decide whether the contents of the article/paper are readable in full.
- Summarize these key points in their own words, yet maintaining the precision of Original ideas
- Determine whether or not the user really wants the article, report, book, and so on.

An additional, immeasurable objective is for students to see what they like and do not like in the doing and writing of qualitative research in order to improve their own final data-driven projects.

USE OF KEYWORDS

Once the author has framed his article it's the first and foremost duty is to sort some friendly search engine words. The text of the article will attract high readership via search engines if one uses good keywords and highlights these words in bold. However, note that the author should not overdo it. He should put only 3 to 5 words in bold for a lengthy article.

Most academic journals, search engines, and indexing and abstracting services classify papers using keywords. Choosing the right keywords will help make the paper searchable, thus other researchers find paper when they are conducting a search on the same topic.

There are some journals which specify that the keywords should not overlap with the title. However, if the journal has no such specifications, there is no harm in using relevant words or phrases from the title that can help to increase his paper visibility in article searches due to the algorithm used by many search engines.

Some Tips are Given Here for Putting Useful and Relevant Keywords for An Article⁵

- The scholar should think first from the point of view of the readers that what kind of keywords would they search that help to retrieve the article.

- Keywords are better effective if used phrases of 2-4 words. But if single word keywords are used they may create many mismatches.
- Keywords should contain both words and phrases that suggest what the topic is about. So it is recommended that words and phrases both include which are closely related to the topic. For example, if the topic is about Globalisation and Education then privatization, universalization, higher education, etc should be used.
- Also, the author has to use variant terms of phrases that are likely to use. For example, if the paper is about Birds, ontology is also used.
- An acronym, short form, and abbreviation should never be used because it creates ambiguous to the readers. For example, if D.L. is used in abstract then it may mean Digital Library, District Library or Distance Learning. So full form is always used in the paper.

USE OF SOURCES

The scholar must mention the information from which it is got so that he can cite the sources. Typically, the bibliographic data for a source includes the author's name, article title, publisher's name, year, volume and issue number and page number. But these data should be written in a standard style/format. There are many citation formats enumerated by different organizations/ institutions. These are:

- MLA-
- APA- American Psychological Association
- Chicago Manual of Style
- CGOS style- Columbia Guide to Online Style
- CBE Style- Council of Biology Editors
- Harvard Style
- Turabian Style
- IS: 2378- Indian Standard Bibliographic Descriptions

What format would one accept that depends on the guidelines of the concerned publisher. In case of humanities, MLA style is preferred and justified whereas for social sciences it is strongly recommended to arrange citation according to the APA style. Whatever may be the style of using the sources of information the scholars/authors should mention the sources by three ways- Footnotes, Endnotes and Parenthetical References of the three ways to document sources, the simplest is using Parenthetical References, sometimes referred to as Parenthetical Documentation or Parenthetical Citations. If one uses Parenthetical References he only needs to put a short reference enclosed in parentheses immediately after the citation, then he should list the sources cited in the Bibliography, Works Cited or References page at the end of the paper.

Footnote references are put at the bottom/foot of the same page where the citations are located, although the author has to add a Bibliography, Works Cited, or References page at the end of his paper.

If Endnote references are used, the citation within the text of the paper is the same as the Footnote citation, but the scholar/author must list his Endnote references at the end of his paper in superscripted numerical order on a separate page entitled *Endnotes*. But in that case, also the scholar must add a Bibliography, Works Cited or References page after his Endnotes page. In Reference section sometimes *ibid.* and *op. cit.* are used. *Ibid.* comes from the Latin word *ibidem* meaning “in the same place” and *op. cit.* also comes from the Latin word *opera citato* meaning “in the work cited.” But the use of these two words as reference sources is meagre. For Footnote or Endnote citations, if the scholar should see the term *ibid.* being used, it just means that the citation is for the second mention of the same work with no intervening entries: **Ibid. 12-15**. More commonly, author and page number or numbers are now used instead of *ibid.*, e.g.: **Dewey, 12-15**. For the second or later mention of the same work with intervening entries, where previously *op. cit.* was used, now only the author and page number or numbers are used.

The main difference between Footnotes and Endnotes is that Footnotes are placed numerically at the foot or bottom of the very same page where direct references are made with bibliographic descriptions, while Endnotes are placed numerically at the end of the quotation or essay. The scholar should write either Bibliography or References. But in case of an article, Reference is used and for paper or chapter in an edited book, Bibliography is used. So the scholar must have a clear idea about the difference between these two concepts.

HOW TO AVOID PLAGIARISM

According to the definition given in the 1997 New Webster’s Encyclopedic Dictionary of the English Language, *plagiarism* is “the unauthorized use of the language and thoughts of another author and the representation of them as one’s own”.

When looking at other sources, the scholar must be careful about how does he compile information. Sometimes, scholars copy text into a single document to use as notes for their article. But in doing so, they risk potential plagiarism because the copied text gets mixed up in their own written work. No one should copy any text or content directly from another source. Every author always should paraphrase this text instead, and include a citation. To incorporate another writer’s ideas into article or paper, everyone should use quoting, paraphrasing and summarizing.

All scholars must document sources properly using Footnotes, Endnotes, or Parenthetical References, and must compose a Bibliography, References or Works Cited page and place it at the end of the research article or paper to list the sources used in a systematic order.

FINALISATION OF WRITING OF THE ARTICLE

The author of the article should devote some time to edit and check his article. If time permits, he has to wait for a day or two before editing. Then he will be able to view his article with a fresh mind and eyes. He has to check for accuracy of figures and captions and whether the figures are correctly referred to in the text?

The author has to look closely at the central argument or point he is trying to make. Does he have a paragraph that is unrelated? If so, this paragraph should be eliminated or reframed in such a way that supports the main argument. Eliminate any ambiguous information in the article. He should check whether heading and sub-headings have been arranged properly, whether the copied text has been mentioned by citation.

RULES FOR SELECTION CRITERIA OF A JOURNAL

When the article is once completed, the scholar or author should select the best-suited journal in which the article will be sent for acceptance by the Editorial Committee of the Journal concerned. It is utmost important to know about the status of the journals in which the scholar intend to publish his article/ research paper. Some criteria should be followed:

- First and most important is to know whether the journal does belong to the Gold path or Yellow or Green path. Because nowadays many publishers publish articles taking money as processing fees. They do not the main standard although they have impact factor and they reveal that the journal is Peer Reviewed or Refereed. Maximum scholars do not know or want to know what the impact factor is and what is the measurement of the impact?
- Whether the journal is Peer Reviewed or and Refereed;
- Has it impact factor and if so, then what is the impact factor

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