RMLW - (A)

Research Problem/Hypothesis, Literature Review, and an Annotated Bibliography of Research Papers

Introduction

Research is a systematic investigative process employed to increase or revise current knowledge by discovering new facts. It can be divided into two general categories: (1) Basic research, which is inquiry aimed at increasing scientific knowledge, and (2) Applied research, which is effort aimed at using basic research for solving problems or developing new processes, products, or techniques.

A statement of the problem is used in research work as a claim that outlines the problem addressed by a study. The statement of the problem briefly addresses the question: What is the problem that the research will address?

Formulation of a research problem refers to state the problem in a researchable manner. It means to portray the topic in a way that it becomes ready for scientific investigation. A research problem is simply research topic. The researcher needs to refine the topic and clearly state what is intended to explore about the topic. Formulation of the research problem basically includes narrowing down the research area and formulating the objectives. Once the

research problem is formulated, the topic becomes ready to undergo a scientific inquiry – the research.

The formulation of a research problem consists of the following steps:

- 1. Identify a broad research area of your interests
- 2. Dissect the broad area in to sub-areas
- 3. Select one of the sub-areas
- 4. Raise research questions
- 5. Formulate the objectives

A research always starts with identifying a broad research area depending on his interest, knowledge, specialty, expertise and profession. Hence, we should first select a major area which we want to investigate. Such an area must have a wide significance and must be according to our interest, knowledge and specialty.

Research Hypothesis

The research hypothesis is central to all research endeavors, whether qualitative or quantitative, exploratory or explanatory. At its most basic, the research hypothesis states what the researcher expects to find – it is the tentative answer to the research question that guides

the entire study. A research hypothesis is a statement of expectation or prediction that will be tested by research before formulating our research hypothesis. A hypothesis is a statement that introduces a research question and proposes an expected result. It is an integral part of the scientific method that forms the basis of scientific experiments. A research hypothesis is a specific, clear, and testable proposition or predictive statement about the possible outcome of a scientific research study based on a particular property of a population, such as presumed differences between groups on a particular variable or relationships between variables. Specifying the research hypotheses is one of the most important steps in planning a scientific quantitative research study. A quantitative researcher usually states an a priori expectation about the results of the study in one or more research hypotheses before conducting the study, because the design of the research study and the planned research design often is determined by the stated hypotheses.

Literature Review

A literature review or narrative review is a type of review article. A literature review is a scholarly paper that presents the current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources and do not report new or original experimental work. Most often associated with

academic-oriented literature, such reviews are found in academic journals and are not to be confused with book reviews, which may also appear in the same publication. Literature reviews are a basis for research in nearly every academic field. A narrow-scope literature review may be included as part of a peer-reviewed journal article presenting new research, serving to situate the current study within the body of the relevant literature and to provide context for the reader. In such a case, the review usually precedes the methodology and results sections of the work.

Writing a literature review involves finding relevant publications (such as books and journal articles), critically analyzing them, and explaining what we found. There are five key steps:

- **1.** Search for relevant literature
- **2.** Evaluate sources
- **3.** Identify themes, debates and gaps
- **4.** Outline the structure
- **5.** Write literature review

Annotated bibliography of a research paper

An annotated bibliography provides a brief account of the available research on a given topic. It is a list of research sources that includes concise descriptions and evaluations of each source. An

annotated bibliography is a list of citations to books, articles, and documents. Each citation is followed by a brief descriptive and evaluative paragraph, the annotation. The purpose of the annotation is to inform the reader of the relevance, accuracy, and quality of the sources cited. An annotated bibliography provides a brief account of the available research on a given topic. It is a list of research sources that includes concise descriptions and evaluations of each source. An annotated bibliography may be a component of a larger project or it may be a stand-alone assignment.

Purpose of an annotated bibliography

When set as an assignment, an annotated bibliography allows us to get acquainted with the material available on a particular topic.

Depending on our specific assignment, an annotated bibliography might:

- review the literature of a particular subject;
- demonstrate the quality and depth of reading that you have done;
- exemplify the scope of sources available—such as journals,
 books, web sites and magazine articles;
- highlight sources that may be of interest to other readers and researchers;
- Explore and organise sources for further research.

Contents of an annotated bibliography

An annotation may contain all or part of the following elements depending on the word limit and the content of the sources we are examining.

- Provide the full bibliographic citation.
- Indicate the background of the author(s).
- Indicate the content or scope of the text.
- Outline the main argument.
- Indicate the intended audience.
- Identify the research methods if applicable.
- Identify any conclusions made by the author/s.
- Discuss the reliability of the text.
- Highlight any special features of the text that were unique or helpful e.g. charts, graphs etc.
- Discuss the relevance or usefulness of the text for your research.
- Point out in what way the text relates to themes or concepts in your course.
- State the strengths and limitations of the text.
- Present your view or reaction to the text.

Bibliography for Research/Books

We should use the core elements to create works cited entries in MLA 8 style. We should follow the punctuation as shown in the list. For example, author and title of source are separated by periods. The rest of the elements are separated by commas.

- 1. Author.
- 2. Title of source.
- 3. Title of container,
- 4. Other contributors,
- 5. Version,
- 6. Number,
- 7. Publisher,
- 8. Publication date,
- 9. Location.

The citation goes first and is followed by the annotation as in the bibliography example below:

Smith, John Jacob Jingleheimer. Wu Xia and the Art of Scooter Maintenance. Springer, 2003.

Books With Multiple Authors

Should the source have more than one author, our citation should appear as follows:

Smith, John Jacob Jingleheimer, and Cindy Lu. Wu Xia and the Art of Scooter Maintenance. Springer, 2003.

If there are more than two authors for our source, we should note our citation as follows;

Smith, John Jacob Jingleheimer et al. Wu Xia and the Art of Scooter Maintenance. Springer, 2003.

Conclusion

A research paper is an academic writing that provides analysis, interpretation, and argument based on in-depth independent research. Research papers take a lot of different steps to format our outline and discuss where our sources came from. Writing a research paper requires to demonstrate a strong knowledge of our topic, engage with a variety of sources, and make an original contribution to the debate. Every paper ends with a citation page or bibliography. The type of bibliography formats we use depends on your research and subject matter. Before we even get into the steps of creating our bibliography, we need to understand specifically what a bibliography is and the best style bibliography formats to use for our paper.

Sanjay Sarraf