

Enhancement of Research Publication in Effective Manner

(Basic Ideas Behind to Write the Research Article)

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Abstract:- This article discusses strategies to enhance the publication of research topics effectively. It covers the significance of research, methodologies, outcome-based research methods, findings, and future research scope. An abstract is a concise summary of a research paper or thesis and is crucial for promoting the work. Writing a well-crafted abstract is essential for submitting articles to journals, applying for research grants, completing theses, and proposing conference papers. The format of an abstract varies by discipline but generally includes:

➤ **Reason for Writing:**

Explains the research's importance and why a reader would be interested.

➤ **Problem:**

Describes the issue the research addresses, its scope, and the main argument or thesis.

➤ **Methodology:**

Details specific models or approaches used, or the types of evidence in the research.

➤ **Results:**

Presents specific data or general findings from the research.

➤ **State of the Art:**

Explains how the research adds to the existing body of knowledge, its practical or theoretical applications, and implications for future research.

Abstracts can be informative or descriptive. Descriptive abstracts outline the work being summarized, while informative abstracts serve as substitutes for the actual paper by presenting key arguments, conclusions, context, and importance. Abstracts provide a summary and preview of academic work, setting expectations and helping readers understand what to expect.

Keywords:- Analysing Topic, Research Methodology, Techniques, Specific Research Outcome.

I. INTRODUCTION

Following the title and abstract, the introduction is the next section the audience will read, making it crucial to start strongly. The introduction is the opportunity to demonstrate to readers and reviewers why the research topic is worth their attention. It should clearly present the topic and explain its significance. This is often achieved with a compelling opening hook. Introductions are always positioned at the beginning of a paper and serve to guide the reader from a broad subject area to the specific topic being addressed.

A well-crafted introduction summarizes the key insights that the research provides. It plays a vital role in establishing the writing style, the quality of the research, and the author's credibility as a scholar. This section is the first chance to make a positive impression on the reader by providing essential background and context, thereby highlighting the importance of the research.



Fig 1 Structure of Research Article



Fig 2 Problem Statement

➤ *Background of the Research:*

Background and historical context are essential in explaining the significance of the research to the reader. The type of information shared will vary by discipline, but as the introduction progresses, historical details and key concepts should begin to clarify what the reader needs to know about the topic and the research. This may include outlining the focus and scope of the study, presenting the problem statement, and specifying the research question(s), hypotheses, or objectives. The information selected for sharing will depend on the particular field of study.

The introduction serves multiple purposes: it presents the background to the study, introduces the topic and aims, and provides an overview of the paper.

➤ *Existing Research Work:*

Avoid overloading a single point with too many citations. If the introduction becomes too lengthy or citation-heavy, a useful strategy is to cite review articles instead of numerous individual articles that have already been summarized in those reviews. This helps maintain a concise and readable introduction while still providing a comprehensive overview of the existing research.

➤ *Problem Statement:*

In empirical sciences, stating a hypothesis can effectively frame the research. For instance, instead of saying, "In this study, we show that X is related to Y by method A," you could say, "In this study, we hypothesize that X is related to Y, and we use method A to test this hypothesis." This approach clearly defines the research focus and guides the reader through the investigative process.

II. LITERATURE REVIEW

Literature reviews serve to identify gaps in existing research on a topic, which can then be addressed through further analysis. The scope and format of dissertation literature reviews can vary significantly, often causing confusion about their requirements. While some literature reviews simply summarize important sources, most necessitate critical engagement with the texts to develop well-rounded opinions.

They may offer new insights into classic research papers or combine both old and new perspectives, identifying research gaps. Literature reviews provide a thorough and critical overview of major, and sometimes controversial, debates within a field. Additionally, they inform readers about a source's validity, pertinence, and relevance to their research.



Fig 3 Literature Review

It is common to confuse literature reviews with academic papers, but they are not the same. Literature reviews are generally included in academic papers as part of the objective to present new research material on a particular topic. The literature review forms the foundation of the research paper by identifying research gaps that support the new argument or insight the researcher intends to present. Typically, a literature review summarizes and critically analyzes the research arguments found in the readings without offering any original contributions.

A literature review critically evaluates existing research in detail, summarizing and synthesizing important articles. It discusses subtopics thoroughly, which may be organized chronologically, thematically, or methodologically. The literature review often follows immediately after the introduction.

➤ *Overview of the Paper:*

An organizational overview is more common in some fields than others, particularly prevalent in technology but less so in medicine. If appropriate for the field, consider providing a section-by-section overview of the paper in the last paragraph of the introduction. For example:

"In Section II, we describe our analysis methods and the datasets we used. In Section III, we present the results. In Section IV, we discuss the results and compare our findings with those in the literature. In Section V, we state our conclusions and suggest possible topics for future research."



Fig 4 Overview of Research

The introduction should be one of the first elements to plan. Serving as the roadmap for the paper, it clearly states the study's background, aims, and hypothesis/research question, guiding the writing of the rest of the paper. Because it sets the scene for everything that follows, many authors choose to write the methods, results, and discussion sections in full before completing the introduction.

III. RESEARCH METHODOLOGY

Research Methodology is an essential component of presenting research findings. The methodology provides a detailed description of the research process used to support the findings and explains the techniques employed, creating a roadmap for how the conclusions were reached. A well-written methodology not only describes the tactics used but also justifies the choice of methods. It discusses and explains the data collection and analysis methods utilized in the research. The methodology chapter outlines what was done and how it was done, allowing readers to evaluate the reliability and validity of the research and the dissertation topic.



Fig 5 Improvements of using Recent Techniques

The methodology section begins by restating the research problem under investigation. It details any experiments conducted, including the experimental design, how variables were measured, and the tools required for the experiment. The section also identifies potential weaknesses in the methodology, supporting these with evidence that justifies the chosen approaches. Furthermore, it briefly evaluates alternative methodologies that could have been selected.

Obstacles encountered during the research are described along with strategies employed to overcome them. Methodology encompasses the overarching strategy of the research, while methods pertain to specific procedures such as surveys and experiments used for data collection and analysis.

The conclusion of the methodology section references the sources that informed the chosen methodology, thereby bolstering the validity of the research.

IV. RESULTS AND DISCUSSION

The Results section of a scientific research paper presents the core findings derived from the methods used to gather and analyze information. It is essential that this section communicates the findings in a systematic and objective manner, without bias or interpretation. Findings should be presented in a logical sequence, reflecting actions that have already been completed and observations or measurements that have been made. Therefore, the results section should always be written in the past tense.



Fig 6 Comparative Characteristics of Outcome based Research

Presenting results visually through graphs, tables, and figures can effectively illustrate the findings of a paper, especially when conveying a large amount of data. For statistical data, it is important to highlight the tests performed and explain their results clearly.

The results section of a research paper typically receives significant attention as it directly presents the outcomes of the study. Regardless of the research topic, a well-written results section has the potential to generate interest and emphasize the significance of the research findings.

V. CONCLUSION

The conclusion of a research paper is typically the final section where ideas are summarized, leaving a lasting impression on the reader. It provides a concise overview of the study's significance and findings. In the conclusion, it's important to address any limitations encountered during the study and to further emphasize the importance of the research within a broader context. Suggestions for future studies that build upon the current research can also be offered, but it's essential not to introduce new information.

A well-written conclusion provides several opportunities to demonstrate a thorough understanding of the research problem. It serves as a platform to convincingly and concisely restate the research problem, summarizing all relevant information about the topic.

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