

How Are Research Reports Organized?

Peer reviewed research reports often follow a standard format. Each section serves a specific purpose and includes a different type of information.

Journal Name, Volume, Issue Number

ARTICLE TITLE

AUTHORS

The order of the names matters. The senior author is often listed first, second or last.

ABSTRACT

The abstract briefly summarizes the purpose of the study and its main findings. It helps you decide if the article is relevant and whether or not you want to continue reading.

RESULTS

This section reports what the researchers found as a result of the methods they used. It usually includes data in the form of tables, graphs, charts or diagrams. Pay close attention to this content – it is essential to understanding the article.

INTRODUCTION

The introduction provides the context for the study. It includes a description of the research question(s) the authors are investigating, their hypothesis(es), and citations to previous studies that bear on the present research.

DISCUSSION/CONCLUSION

In the discussion or conclusion section, the authors share their interpretation of the results and explain how the data addressed their research question(s). The authors may also highlight unexpected results, discuss the implications of their findings, or identify areas in need of further study.

METHODS

The methods section explains how the authors set up their study. It can be quite detailed – the reason for this is so the experiment(s) being reported could be replicated by a different scientists. The key points to pay attention to are the overall design, who is being studied (subjects) and what is being tested or measured.

ACKNOWLEDGEMENTS

This section often includes details about the source of the funding for the research. Consider how the source of funding may impact how the experimental results are reported.

REFERENCES

This is the bibliography, or the list of articles, books, and other sources that the authors referenced in the article. It provides a trail of previously published research about the topic - use it as a tool to lead you to more information.

Strategies for Reading Scholarly Articles

At least initially, don't worry about reading the articles in a linear way from start to finish - in fact, we'd recommend against this! While there is no single "correct" way to approach reading scholarly articles, we've included some tips below that you may find helpful.

Keep in mind that your reason for reading the article will impact your strategy. If you are simply looking for information (i.e., for a term paper) you may not need to read the entire paper, just the portion that is relevant for your topic.

Step 1: Read the Abstract

This will provide you with a succinct summary of the study design, major results and primary conclusion.

Step 2: Preview the Article

Scroll or page through the article to get a quick overview of the study. Does it have a long Methods section? Look at the figures and tables in the Results. Are you able to understand and interpret them? The length of the Methods section and the number of figures and tables in the Results may provide information about the size and complexity of the study.

Step 3: Read Further

- If you are not familiar with the topic, make sure to read the Introduction in its entirety to understand the rationale for completing the study.
- When reading the Methods section, don't focus too much on the method details. Instead, try to summarize the design of the study and the primary outcomes/variables measured.
- It may be helpful to read the Discussion before looking closely at the Results, so that you know the major outcomes that the authors have chosen to highlight.
- When you examine the Results, consider whether the authors' conclusions are clearly supported by the data in the tables and figures. Are they a slam dunk or are the authors trying to get maximum mileage out of small differences?

Step 4: Take Notes/Write Down Questions

Now that you've dug a little deeper, start writing down important points and noting any unfamiliar terms or concepts. As you analyze the article, try to answer these questions:

- a. What is the main hypothesis?
- b. Why is this research important?
- c. What were the variables in the study?
- d. What was the key finding of the research?
- e. Do the findings justify the author's conclusions?