

Scholarly Research Process

by Sophia Tutorial



WHAT'S COVERED

After experimentation results are achieved, the next step is to publish those results. It's important for other scientists to review them to see if the experimental results measure what they intended to measure. This tutorial will discuss:

1. What are Scholarly Sources?
2. What Makes Academic Journals Different?
 - a. Style
 - b. Citations
 - c. Peer Review
3. What Is the Structure of an Academic Paper?
 - a. Abstract
 - b. Introduction
 - c. Methods
 - d. Analysis
 - e. Discussion/Conclusion

1. What are Scholarly Sources?

What makes scientific research writing and articles different from what is printed in consumer magazines? Well, it has to do with the elements of the publication process and structure of the papers.

Scholarly sources are any academic writing, particularly scientific or psychological articles. They are published in academic journals such as the American Journal of Psychology, in order to report new research and findings.

All areas of psychology have at least one academic journal (but usually more than one) dedicated specifically to that particular area of psychology.

2. What Makes Academic Journals Different?

There are several aspects of academic journals that differentiate them from other types of writing:

- Style
- Citations
- Peer Review

2a. Style

First, the style of an academic research article tends to be very direct. It's less descriptive than a lot of other magazine articles, like those in Time or Newsweek. This explains why academic writing is accused of being a bit dry.

It's important to keep in mind, though, that the purpose of academic writing is to be scientific--to be descriptive in a way that people can replicate in later studies, or understand the methods in the best possible way. Therefore, this kind of writing style prevents any kinds of errors or misinterpretations by the audience. Note that academic writing can often use words that are very specific to its content area, and can also be somewhat difficult to understand from a layperson's point of view.

2b. Citations

Secondly, research journal articles use citations, since a lot of the research that's being done builds on the work of other people, expanding that greater body of knowledge about whatever subject is being investigated. Academic papers often refer to previous articles, especially in their introduction. Authors must provide references, or citations, to those previous works that are referenced.

In addition, there are specific formats that guide how those citations should be written. Formats, such as APA or MLA, exist to make sure that people are recognized for their previous work.

2c. Peer Review

Academic research journals are **peer reviewed**, which is a process in which new research or articles must first be read and examined by other experts within the field, before they can be published.

After an individual completes their research, they would write the article and submit it to a journal for possible publication. The selected journal review board would then provide the submitted article to a group of expert psychologists, for instance, who would look it over for any errors or mistakes in the writing, and also in the research that has been conducted.



HINT

Keep in mind that the peer review process is going to be different for various publication journals. In other words, their processes are specific to the subject areas as well as the specific journals themselves.

Overall, the purpose of this peer review is to maintain academic standards and the credibility of the journal itself, because their reputation is at stake in the scientific community. So, with that in mind, they want to make sure that the research is being done in the correct way and that it also keeps the research scientific and doesn't veer too far off the beaten path.



TERM TO KNOW

Peer Review

Review of the article prior to publication by accepted experts in the field

3. What Is the Structure of an Academic Paper?

Outside of the actual process of publishing a research article, there are specific structures within the papers themselves. This is to make sure that the process of writing and recording of research is followed in the right way. Remember, this specifically refers to a scientific article, so the following key parts need to be included:

- Abstract
- Introduction
- Methods
- Analysis
- Discussion/Conclusion

3a. Abstract

Suppose you're writing a paper on the effects of soda on children. The first section is the **abstract**. An abstract is a special structure; it's unique to scholarly research articles. Essentially, it is a short summary, generally about one paragraph long, that briefly explains what the entire article is about. It includes information such as what is being studied in the article, the different variables that researchers are looking at, the methods that they, and the general conclusions that they come to as a result of their research.

Variables would also be defined within the abstract. In this example, variables may be soda and its effect on children. An outline of the experiments and a statement saying that it caused certain problems would also be included.

This is generally displayed at the very beginning of the article. If you access a scholarly research article online, this is usually the first thing you see, even if you can't necessarily view the entire article.



TERM TO KNOW

Abstract

A special section in scholarly articles that provides a short summary of the entire article, including what variables are being studied, the methods, and the general conclusions

3b. Introduction

Next, the introduction provides the background information on the topic being researched; this is where citations come into play. Researchers will discuss what happened before the article was written, and different areas that may have been researched, but not necessarily in the way the experimenter or researcher has done.

For instance, researchers might include information about previous research on sugar's effects on children, as well as caffeine's effects on children (but not both of them together), because that is what is unique to this your study--soda and its effect on children.

3c. Methods

The methods section follows next and it explains how the research was conducted. It includes information

such as who or what was being researched, characteristics about participants, what was used to analyze them, and what measurements were used.

Conditions of the research are also important because if you recall, the purpose of this is to make sure that the experiment is replicable. Researchers want others to perform the study and essentially get the same results.

For example, you might say that the kids were broken into two different groups; one group was given colored water that looked like soda and the other one was given actual soda, and subsequently they were tested in various ways. Perhaps they were given tests, like spatial tests, where they had to do things with manipulatives, or with their hands. They may have had IQ tests, to see how smart they were, as well as emotional tests. This is the kind of information that would be included in the methods section.

3d. Analysis

The analysis section is where you report the findings and the data from the actual experiment. You examine the data and explain, in very specific detail, what you found.

Perhaps the data showed that kids drinking soda performed worse on some of the tests--such as the emotional tests and spatial tests--but in other tests, there weren't any changes noted. Perhaps, for instance, the IQ test was the same for both groups.

3e. Discussion/Conclusion

The conclusion section may be called something other than "conclusion section," but it comes at the end of the article where you relate the data found in the methods and analysis section back to the previous research and detail exactly what you found that was new or interesting.

This is where you generalize it, and explain what the results say about human behavior as a whole. You might, for instance, explain how soda can affect the development of children as they grow up, so a recommendation might be to not give your children soda, especially when they are young.



SUMMARY

This tutorial discussed **scholarly sources** and explained that they are published in academic journals such as the American Journal of Psychology. Style and citations **make academic journals different** than magazines, and you learned that the **structure of an academic paper** includes an abstract, which is a short summary of the entire article.

Good luck!

Source: this work is adapted by sophia author erick taggart.



TERMS TO KNOW

Abstract

A special section in scholarly articles that provides a short summary of the entire article, including what variables are being studied, the methods, and the general conclusions.

Peer Review

Review of the article prior to publication by accepted experts in the field.