

6. How to Read Empirical Journal Articles

Published journal articles in psychology have a particular format that allows readers to find the information they are looking for and makes the study report clearer to the readers. Most articles will follow APA (American Psychological Association) style guidelines, organizing the paper into the following major sections:

- Abstract
- Introduction
- Method
- Results
- Discussion
- References

We'll discuss each of the sections to familiarize you with the information you can expect to find in these sections.

Abstract

An Abstract is a concise summary of the study that includes the purpose, method, main results, and conclusions of the study. The Abstract must be short (under 120 words for APA style), because the Abstract will be entered into the PsycINFO database to provide researchers with enough information to decide if the article is relevant to their interests. The Abstract is usually the first (and possibly the only) portion of the article that a reader will encounter. It is printed at the top of the first page of the article.

Introduction

The Introduction contains a lot of important information about the background and motivation for the study. A well-written Introduction will begin by introducing the general topic of the study (i.e., the research question) and defining any specialized terms. The author(s) will then review what is already known about the research question by discussing past studies conducted in the area, the results found, and the relevance of each study to the current study described in the article. The author(s) will also describe the purpose/motivation for the current study, explaining why it was done and how the design used allowed them to answer the research question. In most cases, hypotheses will also be stated according to the specific results that were expected for the study.

A well-written Introduction will make a clear argument for why the study is important. A reader should be able to find the argument for the study's purpose and the support provided by the author(s) in the form of a research question that has not yet been fully addressed by past studies in the topic area.

Method

The Method section is a detailed description of the design and methodology of the study. It is divided into four main subsections: Participants, Design, Materials or Apparatus, and Procedure. Some articles may combine some of these subsections into a single section (e.g., Design and Materials as one section). The goal of the Method section is to allow someone to replicate the important elements of the study if they wish to do so.

Participants—This section describes the important characteristics of the participants in the study. The information should include the number of participants, important demographic information, number of participants per condition, where participants were sampled from, and compensation provided for the participants.

Design—If a separate Design section is included, it will describe the variables that were manipulated and/or measured in the study. If the study is an experiment, level of the independent variables will be described and how the variables were manipulated will also be included (e.g., within-subjects, between-subjects).

Materials or Apparatus—The Materials or Apparatus section will describe the relevant materials or apparatus used for the study. Examples include specialized apparatus used for the study, computers used to present stimuli or collect responses, stimuli presented to the participants and how they were developed, questionnaires given to participants and relevant information about them, and so on. Sometimes the actual items used will be presented in an Appendix that is referred to in the Materials section.

Procedure—The Procedure section should provide a chronological ordering of what the participants experienced during the study, including instructions for the tasks, what they saw or read, timing of presentation or task completion, what task they performed, what responses were collected from them, different conditions of the study and how participants were assigned to the conditions, and so on.

Results

The Results section will include an objective report of the results found in the study. This section should include a description of the data collected and the statistical tests used to analyze the data. Summary information about the data will also be included either within the text or in Tables/Graphs that are referred to in the Results section. Statistical test results and values will also be included in the text.

Discussion

The Discussion section should review hypotheses (if they were stated in the Introduction) and discuss the results in reference to the original research question. It should be clear from the Discussion section what answer to the research question was provided by the study. A comparison with results of past studies will also be included and possible explanations for discrepant or unexpected results should be provided by the author(s). The author(s) may also suggest directions for future studies in the topic area.

References

Every past study cited in the paper should be included in the References section of the article in alphabetical order. If you are researching studies in a particular area, the References section can be useful in providing leads to other relevant articles in a particular topic area. Each reference will include the authors' last names and initials in the order of authorship on the paper (this order is important—it usually indicates the order of contribution to the published article), the year the article was published, the title of the article, the journal it was published in, and the volume and page numbers of the journal.

Multiple Study/Experiment Articles

Many articles published in psychology contain more than one study or experiment. For those articles, you are likely to see a separate Method and Results section for each article, but just one Introduction and one General Discussion section that tie the whole article together.