

WRITING CENTER BRIEF GUIDE SERIES

A Brief Guide to Writing the Psychology Paper

The Challenges of Writing in Psychology

Psychology writing, like writing in the other sciences, is meant to inform the reader about a new idea, theory or experiment. Toward this end, academic psychologists emphasize the importance of clarity and brevity in writing while minimizing descriptive language and complex sentence structure. The best writers of psychology have the ability to make complex ideas understandable to people outside of their area of expertise.

When you write a psychology paper, you are, above all, writing to convey factual knowledge that is supported by research. You are striving to be precise, and thus you should expect every word you write to be read literally. Psychology writing can be very dense, with many references to previous research. Writers of psychology almost never directly quote a source. Instead, they distill the essence of the idea or finding, and cite the appropriate source. In the humanities, writers may repeat words or phrases for emphasis; in psychology writers rarely repeat words and phrases, and when they do so it is only to aid in clarity.

Common Types of Psychology Papers

Research psychologists engage in a variety of kinds of writing, including grant proposals, research applications and renewals, review articles, research articles, and textbooks.

As a student, you are most likely to be asked to write one of two types of papers, either a report of your own actual

or predicted data, which we call an empirical paper, or a summary of other people's research, which we call a literature review. These two types of papers follow the same writing conventions, though their format is slightly different. For both types of papers it is useful to think of Daryl Bem's (2003) metaphor of an hourglass—you start out with a broad introduction, then you narrow your focus so that it gets closer and closer to your specific topic and point, and then toward the end you start to broaden the paper again to focus on the big picture. This structure allows the writer to provide context for the paper's central point. Remember: You need both a topic and a point; even in a literature review, it's not enough simply to reiterate what you've read – you need to add something of your own, some insight or perspective. The context should allow the reader both to understand why what you write is important and to understand your contribution. If you aren't sure how much context is appropriate to offer in your introduction, you should ask your instructor.

Research Summary/Literature Review

The primary goal of a research summary or literature review paper is to synthesize research on a topic in psychology while also shedding a new light on that topic. Writing a literature review paper involves first doing substantial research both online and in the library. The goal of your research should be not just to find all of the relevant articles on the topic, but also to evaluate those sources. Reliable sources in psychology are generally those that have been peer-reviewed by other experts in the field prior to publication. (see Sources section below)

for more information). When you are writing a literature review, you should not rely on other research summaries; rather you should go to original sources. Original sources are empirical sources—those that report research findings for the first time.

After reviewing the research on your topic, you will want to come up with a thesis statement for your paper. Your thesis statement should present some conclusion about the research on that topic—a statement that summarizes, integrates, or reinterprets the data. Your thesis may be, for example, a theory that explains why two sets of research seem contradictory or a theory of how two seemingly disparate research traditions are relevant to one another.

Literature reviews are not divided into a fixed set of specific sections, but you should use sub-headings when introducing new topic areas within a paper. At the very least a good research summary should include a clear introduction, a body in which the evidence is presented, and a discussion. Here are some questions to consider as you draft your research summary:

- **Introduction** Why is this topic important? What is the history of this topic? What are the related theories or findings? What is your claim or thesis statement?
- **Body** What is the evidence that supports your claim? What evidence runs contrary to your claim and how do you reconcile that with your claim? The body of your paper should describe the research that has previously been done on this topic, as well as any controversies or alternate opinions. At each stage of your discussion, you should relate the evidence you present to the major conclusions you are trying to make.
- **Discussion/Conclusion/Implications** – What is your final conclusion? What questions remain? What does your conclusion mean for other people's theories or explanations? In this final section you will want to synthesize the findings you described in the body into a succinct summary. You should return to the issues that you raised in the introduction, and close the loop. You should also discuss the possible implications of your argument for existing theories and for everyday life.

Empirical Paper or Research Proposal

An empirical paper or proposal should describe a proposed or completed study in enough detail to demonstrate what question the research was designed to answer, what else is known about the topic (which makes it clear why your study is needed and important), exactly what was done or will be done in the experiment, and what the findings do or will mean to the field. Your senior thesis will be an empirical paper; in some courses you will be asked to design a research study but not to conduct the research. This is a research proposal. This type of paper tends to be

divided into six parts, indicated by subheadings:

- **Abstract** The abstract is a summary (usually 150 words or fewer) that provides the reader a framework for what is to come. The abstract should appear on a separate page and should summarize each of the paper's sections in a sentence or two. The abstract should be comprehensible even if the reader never actually reads the full paper.
- **Introduction** The introduction should begin on the page after the abstract, and should not be labeled with a subheading. In the introduction you provide your reader with information about what question you have tackled (or plan to tackle) and how that question relates to other work in the field. You should focus on explaining why the question is important, summarizing the history of the question, and describing previous theories and data that are relevant to the study you will describe. Finally, you should present the hypothesis that you have tested (or will test) in your study. You should also note alternative possible answers to the question you raise, and indicate how your study will allow you to garner support for the hypothesis and at the same time rule out the alternative possibilities. A study that will produce results that are consistent with all possible hypotheses is of no interest.
- **Method** The method section explains how the study was conducted (or how it will be conducted). This section details the study's participants, the materials used in the study, and the procedure the participants followed (or will follow) in the study. The format for the method section is specified in the APA style guide. You should include enough details so that another person could replicate your study precisely, without consulting you.
- **Results/Predicted Results** What did the study find or what do you expect it will find? In this section your job is to provide the evidence that psychologists like best—data. In addition to detailing the results of the study, you will need to describe any steps you took in cleaning up the data (e.g., removing outliers, computing composite variables), the analyses used, and the results of those analyses. For a proposal you still need to describe how you will clean the data and what analyses you will conduct. Sometimes, for proposals, professors will want you to speculate about what the results will look like. Present first the results that bear directly on your hypothesis, and always present the descriptive statistics (typically means and standard errors of the mean, often in a graph) along with the inferential statistics (such as tests of an analysis of variance).
- **Discussion** In the discussion section, your main job is to synthesize the results and offer your conclusions. What do these results mean? How do these findings

relate to the research you discussed in the introduction? Do they support your hypothesis and rule out the other alternative answers to the question you asked? How do you explain any discrepancies between your predictions and your findings? What are the implications of your findings? How does what you found support or contradict established or provisional theories? What are the real world implications for your findings?

- **References** Your reference section should begin on a new page after the discussion section. The format for your reference page is laid out by the American Psychological Association (APA). You should consult the APA style manual for specific guidelines.

A Psychologist's Use of Evidence

In psychology, evidence for one's conclusions should rely on data, rather than people's opinions. For example, in order to conclude that Americans' attitudes toward gay rights have become more liberal, you would have to rely on empirical demonstrations of the liberalization of attitudes. You might say something like "Previous research has demonstrated that attitudes toward gay rights have become more liberal over the last two decades (Jones, 2006; Smith, 1999)" or "In a 30-year longitudinal survey, Smith (1999) found that attitudes toward gay rights became more liberal." On the other hand, a statement like "Smith argues that 'attitudes toward gay rights have liberalized over the last two decades'" would not be considered evidence in a psychology paper because psychologists do not consider opinions or direct quotations to constitute evidence unless they are accompanied by substantial empirical evidence. It is certainly acceptable to cite an opinion as a starting point for a discussion or as a claim that requires further examination; however, it is not acceptable to use opinions as evidence. For example, a philosopher may have argued that morality is innate. You could cite this argument even if the philosopher did not have data to back up the claim as long as you make it clear that you are citing an opinion (e.g., you could state "Smith (2004) argues that morality is innate, which raises a question for further research" but you could not state "Morality is innate (Smith, 2004).") .

Similarly, statements such as "Hurricane Katrina was a disaster" should not be stated as facts in a research paper. Ideally, such statements would be more specific (e.g., "Hurricane Katrina resulted in thousands of deaths, which researchers have attributed to the ineffective response by the U.S. government (Anderson, 2007; Williams, 2006)."). Even if the statement is something you (and your professor) personally believe, you cannot state it as fact unless there are data to serve as evidence.

Sources used by Psychologists

Most of your sources for psychology papers will be empirical reports found in journals, though you may also cite literature reviews, chapters, or books from time to time. If you look at the reference section of your paper and the majority of your references are secondary reports of data, such as chapters and books, you will probably need to find more original empirical papers. It is important to rely directly on empirical papers because when you cite from other authors' summaries, you are asking your reader to gamble that the person whom you are citing understood and correctly represented the finding in question. On rare occasions it is not possible to find an original source, and in these rare occasions you will have to cite the secondary source. But in general, overuse of secondary sources is considered sloppy scholarship.

One way to locate primary or empirical sources is to look up some of the empirical papers that your summary papers cite as a starting point. Whenever possible, you should cite articles from peer-reviewed journals. "Peer-reviewed" means that a journal requires that an article be reviewed by experts in the field before it is published. Findings that have not been published in peer-reviewed journals run a risk of having flawed methods, statistics, or conclusions. You will likely search for articles either on PsycINFO or Google Scholar. Both search engines provide information on how many times an article has been cited by other scholars. In general, an article that has been cited many times will be considered more central to the field than one that has not been cited. Of course, if a paper has only been published recently, it will not yet have been cited multiple times.

The citation of sources is very important in psychology. For all papers you will write for courses, you will use APA style. The best way to learn APA style is to buy the latest edition of the Publication Manual of the American Psychological Association. This book is updated every few years with guidelines for how to cite papers. Some websites also describe APA format, but these websites may not be updated when new editions of the APA manual are published.

CONVENTIONS OF WRITING IN PSYCHOLOGY

Although psychologists will generally agree on the writing conventions below, it is always a good idea to check with your instructor about expectations for a specific assignment.

- **Avoid surprises.** Psychologists like to be led through a paper without major surprises along the way. This means being very clear about what points you're trying to make and always showing how new evidence or theories relate to the bigger point of a paper. One easy way to remember this is to think that your reader wants to know where you're going in the intro, where you are during your presentation of evidence and where you've been in your discussion.

- **Avoid direct quotations.** Psychologists seldom use direct quotes. Rather, they distill the essence (not paraphrase, in the sense of just re-arranging the words) the statements of other researchers and cite those researchers' work.

For example, *Frank (1982) demonstrates that peer evaluations and performance in school are the main contributors*

to adolescent self-esteem is preferable to Frank wrote, "Our results indicate that adolescent self-esteem is directly attributable to peer evaluations and scholastic achievement."

- **Use bias-free language.** Psychologists use bias-free language, which typically means that they refer to people as those people refer to themselves (for more information see the APA Publication Guide). For example,
 - Do not use the male pronoun as a generic. Use he or she, his or hers, etc.
 - Use phrases such as "people with autism" rather than "autistics"
 - Use the phrases "gay men and lesbians" rather than "homosexuals"
 - Don't define people by what they aren't. For example, don't say non-White. Instead, say what people are--, e.g., "Asian" or "African American." Keep in mind that not all people of African heritage are Americans and thus African-American is not a synonym for Black.

- Avoid jargon or overly unusual words except when it is absolutely necessary.
- Be succinct and avoid wordiness.
- Use headings and subheadings.
- Always include a title for your paper.
- The words "I" and "We" should always refer to the authors of a paper and not to people in general. You should check with your instructor if you have questions about using the first person as use of the first person is not encouraged in APA style.
- Use active rather than passive voice.
- Use the word "participants" rather than "subjects"
- The word data is a plural word (e.g., The data were...). Datum is the singular form of data.

FOR FURTHER READING

- Bem, Daryl J. (2003). Writing the empirical journal article. In J. Darley, M. Zanna, & H. Roediger, III (Eds.), *The Compleat Academic: A career guide* (2nd ed.) (pp. 185-219). Washington, DC: American Psychological Association.
(also available at http://dbem.ws/online_pubs.html#writing)
- American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.) Washington, DC: APA.