**APA-Style Instructions for Writing Your Thesis**

**(updated for 7th edition of APA Publication Manual)**

Your thesis will include the following sections: title page (a special one that will become the cover of your bound thesis), acknowledgements, abstract, introduction, method, results, discussion, references, and appendices. Tables and figures will be incorporated directly into the relevant sections, rather than relegated to the end. For the fall semester, you will submit only the introduction, method, references, and any appendices for stimuli/measures. Different types of information about your study are addressed in each of the sections, as described below.

**General formatting rules and verb tense:**

* Do not put page breaks in between the introduction, method, results, and discussion sections.
* The title page, acknowledgements, abstract, references, and appendices should be on their own pages. Force a page break between these sections by going to “Insert,” “Break,” “Page break” so that you don’t have to reformat every time you make edits to your paper.
* The paper should be written in 12-point font, double-spaced, with 1-inch margins all around.
* All headers should appear in bold font.
* The intro should be in the past tense when describing results of previous research and present tense when describing theories and your hypotheses. The method and results sections should be in the past tense. In the discussion, describe your results and limitations in the past tense, implications in the present tense, and future research in the future tense.

**Special thesis title page (will become the cover of your bound thesis; see** [**example on Psych web page**](https://academics.hamilton.edu/psychology/sptitlepage)**)**

* Title should summarize main idea of the paper in a succinct but engaging way. Should identify the variables under study and the expected relationship between them.
* Title (bold) should be in all upper case, centered, positioned in the upper half of the title page. If it takes up more than one line, double-space the lines.
* Your full name (bold, upper- and lower-case) should appear centered beneath the title (leave two double-spaced lines in between).
* Three double-spaced lines below your name, center the following text on two double-spaced lines: “Thesis Submitted in Partial Fulfillment of the Requirements for the Bachelor of Arts Degree at Hamilton College”
* Two double-spaced lines beneath that, centered, write the due date of the final thesis: May 11, 2021
* At the bottom of the page, flush right, write “Advisor: Jennifer Borton”

**Acknowledgements** (labeled, centered bold)

Include a paragraph thanking people/groups for their help or support (e.g., any confederates, any Psych 198 students who helped run your study, someone who gave you technical assistance, your fellow thesis group members, your thesis advisor, the Psychology Department if you received money to pay participants or purchase software).

**Abstract** (labeled, centered, bold)

* No more than 250 words, one paragraph, block format (i.e., don’t indent), double-spaced.

• State topic, preferably in one sentence. Include (approximately) one-sentence descriptions of introduction, proposed method, proposed results, and discussion.

**Introduction** (Do not label as “Introduction.” Title of paper goes at the top of the page in bold)

The introduction of an APA-style paper is the most difficult to write. A good introduction will summarize, integrate, and critically evaluate the empirical knowledge in the relevant area(s) in a way that sets the stage for your proposed study and why you would want to conduct it. The introduction starts out broad (but not too broad!) and gets more focused toward the end. Here are some guidelines for constructing a good introduction:

* Don’t put your readers to sleep by beginning your paper with the time-worn sentence, “Past research has shown....(blah blah blah)” They’ll be snoring within a paragraph! Try to draw your reader in by saying something interesting or thought-provoking right off the bat. Take a look at articles you’ve read. Which ones captured your attention right away? Why? Which ones didn’t? Why not? See if you can use articles you liked as a model. One way to begin (but not the only way) is to provide an example, anecdote, or news story illustrative of your topic area.
* Although you won’t go into the details of your proposed study and hypotheses until the end of the intro, you should foreshadow your study a bit at the end of the first paragraph by stating your purposes briefly, to give your reader a schema for all the information you will present next.
* Your intro should be a logical flow of ideas that leads up to your hypothesis. Try to organize it in terms of the ideas rather than who did what when. In other words, your intro shouldn’t read like a story of “Schmirdley did such-and-such in 2015. Then Gurglehoff did something-or-other in 2018. Then....(etc.)” First, brainstorm all of the ideas you think are necessary to include in your paper. Next, decide which ideas make sense to present first, second, third, and so forth, and think about how you want to transition between ideas. Ideally, you have already done this when you created your outline, so now you just need to “put flesh on the bones,” so to speak. I highly recommend that you include subheadings in your introduction that correspond to the major sections of your outline. (See new APA-style heading formats on last page of this document.) Subheadings will make your organization more apparent to your reader.
* Lead off sentences with the ideas rather than authors’ names; relegate authors’ names to parentheses as much as possible. When incorporating references into your intro, you do not necessarily need to describe every single study in complete detail, particularly if different studies use similar methodologies. Certainly you want to briefly summarize key articles, though, and point out differences in methods or findings of relevant studies when necessary. Don’t make a mistake typical of a novice APA-paper writer by stating overtly why you’re including a particular article (e.g., “This article is relevant to my study because…”). It should be obvious to the reader why you’re including a reference without your explicitly saying so.
* Be careful about citing your sources (see APA-style handout on this topic). Make sure there is a one-to-one correspondence between the articles you’ve cited in your intro and the articles listed in your reference section. If you are using RefWorks, this will happen automatically! Whenever you are quoting a source directly, you need to enclose the quotation in quotation marks and cite the page number of the source. However, paraphrasing is always preferable to quoting directly. Please avoid using direct quotations. Beware of plagiarism! Just changing a couple words in a sentence or substituting a synonym for a word does not constitute paraphrasing. To avoid plagiarism (an extremely serious offense), make sure that you are not looking at your articles while writing the paper. Put them down and write from your notes or memory.
* When an idea is complex, don’t be afraid to use a real-life example to clarify it for your reader.
* End your introduction with a subsection titled **Overview of the Current Study** (or something similar). Here you can briefly bring the reader up to speed on how your study goes beyond what’s been done before to fill a gap in the literature. You will provide a brief description of your study’s method and end with your specific hypotheses. The hypotheses should flow logically out of everything that’s been presented, so that the reader has the sense of, “Of course. This hypothesis makes perfect sense, given all the other research that was presented.” Your reader should never be surprised by your hypotheses!
* Remember that your reader is the broader scientific community, not just me. Assume your reader has a basic understanding of psychology, but you need to provide them with the complete information necessary for understanding the research you are presenting.

**Method** (labeled, centered, bold)

The Method section of an APA-style paper is the most straightforward to write, but requires precision. Your goal is to describe the details of your study in such a way that another researcher could duplicate your methods exactly. The Method section typically includes Participants, Materials and/or Apparatus, and Procedure sections. If the design is particularly complicated (multiple IVs in a factorial experiment, for example), you might also include a separate Design subsection or have a “Design and Procedure” section. Note that in some studies (e.g., questionnaire studies in which there are many measures to describe but the procedure is brief), it may be more useful to present the Procedure section prior to the Materials section rather than after it.

You will be writing your Method before you conduct your study, but just go ahead and write it in the past tense so you won’t have to change it later. Just leave blanks for information you don’t yet have (e.g., number of participants).

**Participants** (labeled, flush left, bold)

* Total number of participants (# women, # men), approximate age range, racial/ethnic composition, population type (e.g., college students, MTurkers). If you are using a specialized population, explain.
* State how you chose the number of participants. Did you conduct a power analysis? Did you use an *a priori* decision rule such as, “As many participants as could be run before March 15?”
* Explain how participants were recruited and compensated.
* Remember to write numbers out when they begin a sentence; otherwise, use numerals throughout Method & Results.

**Materials**(labeled, flush left, bold; can be called **Measures** if you are only describing dependent variables)

Carefully describe any stimuli, questionnaires, and so forth. If you plan to present participants with various word lists to remember or stimuli to judge (e.g., videos, pictures, vignettes), you should describe those in detail here. If you are planning to use a computerized measure of any sort (e.g., an IAT), describe it in detail here. It is unnecessary to mention details such as the paper and pencil used to record the responses, the data recording sheet, the computer that ran the data analysis, the color of the computer, and so forth. Try to mention stimuli/measures in the order in which they appear in your study.

If you have a number of different stimuli or measures, I recommend you use a separate subheading for each (this would be a 3rd level subheading, so flush left, bold italics, text begins in new paragraph). For instance, Self-Monitoring might be the subheading, and then you can explain that participants completed Snyder’s (1974) Self-Monitoring Scale. Describe each measure in detail. For instance, note how many items were on the questionnaire, the response format (e.g., a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree)), how many items were reverse-worded, whether the measure has subscales, and so forth. Provide a sample item or two for your reader; if a scale has several subscales, provide a sample item for each. If you have created a new instrument, describe it in detail and attach it as an Appendix. You don’t need to mention your demographic items here unless they were more than the usual gender, age, race/ethnicity (you can just mention in your Procedure section that participants indicated their gender, age, and race/ethnicity).

**Procedure**(labeled, flush left, bold)

In this section, walk the reader through your study. Exactly what did participants do, and in what order? For online questionnaire studies, this section is pretty straightforward (it’s more complicated for laboratory experiments). When you list a control variable (e.g., “Participants will sit two feet from the experimenter.”), explain WHY you included it. In other words, what nuisance variable were you be controlling for? If you randomly assigned participants to condition, be sure to say so. In general, your procedure section should include enough information that someone could precisely replicate your study after having read it. That said, however, you should try to be as concise as possible. Read through it. Did you repeat yourself anywhere? If so, how can you rearrange to avoid redundancy? Don’t forget to include brief statements about informed consent and debriefing.

**Apparatus**(labeled, flush left, bold)

Include an apparatus section if you used specialized equipment for your study (e.g., cold-pressor apparatus) and need to describe it in detail.

**Results** (labeled, centered, bold)

* Break the Results section down into separate subsections to guide the reader through what you did. The subsections should correspond to your different hypotheses. Be sure to give each subsection a descriptive label that states what’s being tested (rather than the statistical test you used to test it). These could be worded as questions if you like (e.g., “Did Self-Compassion Moderate the Relation Between….?”).
* Start with a preliminary paragraph in which you provide some descriptive statistics. If relevant, note that you reverse-scored the reverse-worded items on all your measures and computed Cronbach’s  to determine the internal reliability of each scale. Explain how you created the composite for each measure (e.g., by taking the mean of all items). If relevant, report the bivariate correlations between all pairs of measures and provide the means, SDs, correlations, and alphas in a table. Use the format of a basic correlation table, but put the alphas along the diagonal and have a column of means and a column of SDs as the two right-most columns. Refer the reader to Table 1 and describe the pattern of findings, making sure your text is not completely redundant with the table.
* For each subsection that corresponds to a hypothesis you’re testing, begin that section with a sentence reminding readers of the hypothesis. Report the findings of your statistical tests; use your yellow book from Stats or notes from your lab class for guidance. Be sure to include the test statistic, df, *p* value, effect size, and confidence intervals. Remember to report exact *p* values to two or three decimal places (except that *p* values lower than .001 are reported as *p* < .001). Remember that if a finding has a *p* value greater than .05, it is “nonsignificant,” not “insignificant.” Have no fear: If you are testing complicated moderation or mediation models using PROCESS, I will help you!
* Follow up each statistical test by stating the finding in words. Be sure to note whether or not your supported your hypothesis. Remember not to *interpret* the finding here; save that for the Discussion.
* Because your thesis will be bound like a book, include tables and figures directly into this section on the appropriate page rather than sticking them at the end, and be sure to refer to them in the text (e.g., “As illustrated in Figure 1…”). Describe the figures and summarize the content of the tables. Remember not to repeat numbers presented in a table in the text. **NOTE: As per the 7th edition of the APA *Publication Manual*, the table number now appears in bold, and figures now have numbers and titles above the figure (like tables) instead of figure captions below the figure. See additional handouts on how to format tables and figures.**

**Discussion** (labeled, centered, bold)

The goal of the discussion section is to interpret your findings and place them into the broader context of the literature in the area. A discussion section is like the reverse of the introduction, in that you begin with the specifics and work toward the more general (*funnel out)*. Some points to consider:

* Begin with a brief restatement of your main findings. Did they support the hypotheses or not? If so, what does that mean? If not, why not, do you think? How do your findings tie into the existing literature on the topic, or extend previous research? Bring back some of the literature you discussed in the Introduction, and show how your results fit in (or don’t fit in, as the case may be). Don’t, however, rehash all the same studies you discussed in the Introduction (don’t describe them with the same level of detail as you did before.) If you have surprising findings, you might discuss other theories that can help to explain them.
* Regardless of whether or not you supported your hypotheses, you should discuss one or two limitations of your research. Don’t go on for pages and pages detailing all the problems with your study, but do provide a few thoughts about how the study could have been strengthened. Really be thoughtful here; don’t just say that you could have run more participants. Do you think your study suffered from low internal or external validity? Were the manipulations strong enough? Were there any variables you should have controlled for, but didn’t?
* What additional questions did your study generate? What further research should be conducted on the topic? If you have future research ideas that directly address limitations of the current study, be sure to present these together rather than in different paragraphs of your discussion. However, your future research ideas should go beyond merely addressing limitations of the current study. What gaps are there in the current body of research? Whenever you present an idea for a future research study, be sure to explain why you think that particular study should be conducted. What new knowledge would be gained from it? Don’t just say, “I think it would be interesting to re-run the study on a different college campus” or “It would be better to run the study again with more participants.” **Really put some thought into what extensions of the research might be interesting/informative, and why.**
* What are the theoretical and/or practical implications of your findings? How do these results relate to larger issues of human thoughts, feelings, and behavior? Give your readers “the big picture.” Try to answer the question, “So what?”
* Final paragraph: Be sure to sum up your paper with a final concluding statement. Don’t just trail off with an idea for a future study. End on a positive note by reminding your reader why your study was important and what it added to the literature.

**References** (labeled, centered, bold)

Follow the format outlined in the “Citing sources in APA style” document. Remember that references are listed alphabetically by author’s last name. Use the authors’ first INITIALS only. Use the “&” sign (not the word “and”) before the last author’s name. In journal article titles, only the first letter of the first word and the first letter of the first word following a colon are capitalized. Italicize journal and book names (and journal volume numbers). Don’t forget the DOI (digital object identifier). Double-space everything. Indent the second line of each reference using a hanging indent (drag the bottom triangle on the ruler ½” to the right so this will occur automatically for all references). Even if you are using RefWorks to format your references, you need to check through them for accuracy.

**Appendix (or Appendices, if more than one;** labeled, centered, bold)

* Include in an appendix any measures you created (if they are too long to include in the text of the Materials section), visual stimuli, transcripts of vignettes participants read, etc.
* If you have more than one appendix, label the appendices Appendix A, Appendix B, etc. If there is just one, it is simply labeled Appendix.

**A note about in-text citations** (see handout on citing sources for more information)

When citing sources in your paper, you need to include the authors’ names and publication date. You should use the following formats:

When including the citation as part of the sentence, use AND: “According to Shelton and Richeson (2015), the…”

When the citation appears in parentheses, use “&”: “Stereotype threat has been shown to affect performance in a variety of domains (Croizet & Claire, 1998; Steele & Aronson, 1995).” If you cite more than one study in the same set of parentheses, order them alphabetically by the first author’s last name and separate the different studies by a semi-colon.

If you are quoting directly (which you should avoid), you also need to include the page number.

For sources with three or more authors, you may write “et al.” instead of listing the second, third, etc. authors, even the very first time you cite the paper. For example: “Shapiro et al. (2013) found that….” For sources with two authors, both authors must be included every time the source is cited.

**Secondary Sources**

“Secondary source” is the term used to describe material that is cited in another source. If in his article entitled “Behavioral Study of Obedience” (1963), Stanley Milgram makes reference to the ideas of Snow (1961), then Snow (1961) is the primary source, and Milgram (1963) is the secondary source. Try to avoid using secondary sources in your papers; in other words, try to find the primary source and read it before citing it in your own work. If you must use a secondary source, however, you should cite it in the following way:

Snow (1961, as cited in Milgram, 1963) argued that, historically, the cause of most criminal acts...

The reference for the Milgram article (but not the Snow reference) should then appear in the reference list at the end of your paper.

**Changes in APA style headings for the 7th edition:**

|  |  |
| --- | --- |
| Heading Level | Heading Format |
| 1 | **Centered, Bold Face, Title Case Heading**  Text starts a new paragraph. |
| 2 | **Flush Left, Bold Face, Title Case Heading**  Text starts a new paragraph. |
| 3 | ***Flush Left, Bold Face Italic, Title Case Heading***  Text starts a new paragraph. |
| 4 | **Indented, Boldface Title Case Heading Ending With a Period.** Paragraph text continues on the same line. |
| 5 | ***Indented, Boldface Italic Title Case Heading Ending With a Period.*** Paragraph text continues on the same line. |