Title: Describe your take home message in 12 words or fewer.

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*[Note*: If you’re in my class, you don’t need an author note for your lab report.]

Author Note

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Abstract

The abstract for this “paper” is very brief: Nate summarizes the formatting and content of each section of a psychology paper following the guidelines of the 6th edition of the APA Manual. The abstract should be a concise summary of your paper. In about 150 words or less, it should cover some or all of the following elements, not necessarily in this order: What the question/hypothesis is; why it matters; key aspects of the method; what you found; and your conclusions/what your findings mean. Be specific (here and throughout the paper) when possible; for example, “participants learned significantly more when they studied trivia questions under water than on land” is better than “participants’ learning was significantly affected by where they studied.”

Keywords: Up to five keywords (e.g., Learning, Memory, Bias, Heuristic)

-- Insert title (again) here --

Your introduction goes here. The big task of the introduction is to explain the issue/problem you’re addressing, and explain why it matters. In other words, explain why the reader should care about the study you did. For this class it should probably be a maximum of about two pages.

A big part of an effective introduction is explaining previous scholarship—that is, explain whatever background your reader needs to know in order to understand your research. In describing previous scholarship, you’ll be citing references. The references should be in APA format. Please refrain from including background if it is only tangentially related to the issues in your paper.

Use an ampersand to cite a reference inside parentheses (Allen, Mahler, & Estes, 1969; Baron-Cohen, 1995) but use “and” if you want to cite something outside of parentheses, such as Baker and Brown (1984).

In the course of your introduction, you’ll naturally want to talk about the question(s) you asked in your research. In many (but not all) cases, you will have a hypothesis or set of hypotheses instead of a question or set of questions. The only difference between a question and a hypothesis you have a question and an educated guess about the answer.

The second time you cite something with more than two authors, just use the first author’s name followed by et al. For example, here is how our three articles from above would now be cited (Allen et al., 1969; Baker & Brown, 1984; Baron-Cohen, 1995).

When you write about your hypotheses (or, in the absence of hypotheses, your questions), explain what they were, and also *why* you think they make sense. In other words, explain your predictions and the reasoning behind them. Your reasons will probably be based on a mix of previous research and intuition.

At the end of the introduction (or in the first paragraph of the method), try to summarize your method in one paragraph. Only include the key elements.

Here and throughout the paper, write as if your reader is an intelligent person who knows basic psychology terms and basic statistics but doesn't know anything about the research you did or the background literature.

A few miscellaneous notes: Write in the past tense (e.g., “the results showed”) Work with other students (do analyses, read drafts for each other, etc.) but write your own paper. And do not plagiarize.

Formatting notes: According to the APA manual, 6th edition, there are multiple levels of headings within the body of the text. The highest level is bold and centered on its own line (see below). Also, notice that there are no page breaks between introduction, method, results, and discussion. And notice that everything is double-spaced.

Method

The first level of heading (Method, above) should be centered in bold.

The method section should describe what you did. For this class it should probably be a maximum of about two pages. Be concrete and precise. After reading your method, your reader should be able to replicate your study at another college or university. Sometimes the first paragraph of the method section is a summary of the method (in which case you obviously shouldn’t include a summary at the end of the introduction), but sometimes you go straight to the participants heading (see below).

Participants

The second level of subheading should be left justified, bold, and it’s own paragraph. There should not be a period. (Pro tip: any section with one subheading should have a minimum of two.)

Describe your sample—number of participants, average age, breakdown by gender, and possibly by race and/or ethnicity. Include other pertinent info as appropriate. Also, talk about how your sample was recruited and compensated here (or sometimes in the procedure).

Materials

In some papers it’s appropriate to describe your stimuli/materials (e.g., what the participants read, heard, looked at, etc.). When describing materials, examples always help. As always in the method section, be concrete and precise.

Design

In some papers it’s appropriate to describe your design. For example, you could say you conducted a 2x2 experiment in which you investigated the effects of treatment (therapy versus control) and participant gender (male or female) on happiness ratings. This section generally contains information like what your variables were, how many levels they had, and whether they were within or between. If it isn’t obvious what your dependent variables were you can cover them here too. You probably don’t need this section for your first lab report.

Procedure

Describe what the *participants* did in sufficient detail that someone could replicate the study. Go through it step by step and be clear and thorough. You don’t have to talk about the steps the *experimenter* went through. You may want to include the instructions we used, what the participants did during a given trial, the order of presentation (if relevant), etc. You might want to have subsections in the procedure, such as the ones that follow.

Session 1. The third level of heading is bold with a period. It’s not a separate paragraph. For example, you might talk about what happened in the first session.

Session 2. Then you’d talk about session 2 (in this example). There are additional levels of headings (fourth, etc.), but you’ll have to look those up if you want to use them.

Results

The most important thing to do in results is: Present data that answer the questions and/or address the hypotheses from your intro. (Failing to address one’s hypotheses is one of the most common pitfalls in psych 201.) For this class it should probably be a maximum of about two pages and it might be less than a single page.

Think about what your hypotheses/questions were, and what the reader needs to know to answer them. Make sure you address them in the results section. Do this even if you aren’t required to write an introduction.

Remember to *talk about* the findings in the results section; don't just stick a bunch of numbers in there. On the other hand, you don't want to elaborately spell out everything you're going to say in the discussion. There’s a balance to be struck between talking about what the data show and going into detail about what they mean.

When you present the results of any inferential statistics (e.g., t-tests, correlations, ANOVAs), make sure to report the relevant means and SDs. Also, always make clear the direction of an effect (e.g., saying two means were different isn’t as good as saying one was higher than the other). Means should always be accompanied by standard deviations.

Here’s an example. Assume we did an experiment to test the prediction that people can read concrete nouns (e.g., “potato”) more quickly than abstract nouns (e.g., “liberty”). Suppose we do a within-participant experiment with 12 participants and find that people are faster on the concrete nouns than the abstract nouns, and a t-test shows that the difference is statistically significant. We could report the result as follows: “It took participants fewer seconds to name concrete words (*M* = .664, *SD* = 109) than abstract words (*M* = .689, *SD* = 113). This difference was significant: *t*(11) = 2.29, *p* < .05.” The APA Manual strongly suggests reporting confidence intervals or effect size but doing so is not necessary for psych 201 lab reports.

You can also present your data using a table or graph. If you do, make sure to use correct APA formatting (for example, the graph/table comes at the end of the paper).

Discussion

The discussion should address the issues raised in your introduction. For this class it should probably be a maximum of about two pages. You might want to include some or all of the following.

Summarize your findings. Were your hypotheses supported?

Talk about why you found what you found. Why were/weren’t your hypotheses supported? This might involve some reiteration of the introduction, especially for hypotheses that were supported. It might also involve some discussion of problems with the study for hypotheses that weren’t supported. But talking about why can also involve other things (e.g., maybe the hypothesis really was wrong).

Talk about implications of your study for a) the real world or b) psychological theory. In this class, there might not be much to say about theory, but we’ll see.

You might propose future research, although doing so is not always useful.

References

Allen, G. A., Mahler, W. A., & Estes, W. K. (1969). Effects of recall tests on long-term retention of paired associates. *Journal of Verbal Learning and Verbal Behavior, 8,* 463-470.

Baker, L. & Brown, A.L. (1984). Metacognitive skills and reading. In P. David Pearson (Ed.), *Handbook of reading research*. New York: Longman.

Baron-Cohen, S. (1995). *Mindblindness: an essay on autism and theory of mind*. Boston: MIT Press/Bradford Books.

[NOTE: Make sure you write your references in APA style. These are examples of citing a journal article, a chapter in a book, and a book, respectively. There is a different format for each of these and for dozens of other types of publication. The Williams College library has a helpful set of examples of how to do APA references: http://library.williams.edu/citing/styles/apa.php. (There’s also this thing called Google that can be handy sometimes.) ]

Footnotes

[NOTE: If you have footnotes they go here. If not delete this page.]

Table 1

*Describe the table, for example: Mean correlations in each of the three conditions of Experiment 1*

[Put table right here.]

*Note.* Put a note here if necessary (with the word note italicized). For example: Mean correlations were calculated by computing a correlation for each participant and then averaging across participants.

[NOTE: If you have a table it goes on this page. If you have more than one, each gets it’s own page. There are specific rules for formatting tables; see APA manual.]

[Put the figure right here.]

*Figure 1.* Write the caption here.

[NOTE: If you have a figure it goes here. If you have more than one, each gets it’s own page. There are specific rules for formatting figures; see APA manual.]