

Guide for Writing a Research Report in Psychology: Essentials of APA Style, 6th Edition¹

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Author Note

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(Although not officially APA format, put this at the bottom of your title page.)

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Abstract

This paper presents guidelines for writing American Psychological Association (APA)-style reports of a research study. It describes the content of each section of the report: Title Page, Abstract Page, Introduction, Method [Participants, Materials (perhaps Apparatus), Procedure], Results, Discussion, References, Footnotes, Tables, Figures and Appendices. The most important guideline is that the report must be precise and clear, but sufficiently detailed to allow replication of the study by an independent investigator.

Keywords: research report, APA format

Guide for Writing a Research Report in Psychology

To facilitate communication, the American Psychological Association (2010) has provided detailed guidelines on format and style. These are followed by nearly all English-language psychology journals and by many other social science journals. The present guide describes the main features of APA format for a research report, and includes some information about writing style. Further details can be found in the APA Manual (2010) and in any good research methods textbook, which often have a model manuscript (although not always strictly accurate!). A model manuscript will also be made available to you in your course drive. In addition, you can go the APA website for a style guide: <http://www.apastyle.org/apa-style-help.aspx>

When writing the report of a research study², it is necessary to include background to the research (a summary of relevant past work, including theory and empirical results), and to mention the published sources used. Furthermore, the report should clearly describe how your study was conducted, i.e., how variables were manipulated and measured. The most important guideline is that you should provide sufficient detail so that someone else could duplicate the essential features of the study, i.e., replicate it. The report must also provide the results and the author's interpretation of them.

A research report normally contains a number of sections, although certain ones (e.g., Apparatus) may not always be required. Writing should be succinct and clear. Examination of articles in top-quality journals (e.g., *The Canadian Journal of Experimental Psychology*, *Journal of Social Behavior and Personality*) will provide examples of the APA format and style. You should write for anyone who might be

interested in the study and not simply for a select few who already know about it. Because the report should be relatively timeless, avoid such phrases as "a few months ago" or "last week". Also, do not include personal information (e.g., interest in the problem from childhood, desire for promotion or grades) that others cannot evaluate; readers only wish to know the potential contribution to knowledge. The report is written mostly in the third person using the past tense, although the first person may occasionally be employed to emphasize an important personal observation and the present tense may be appropriate at some points in the paper. Finally, double space all lines throughout the manuscript, with the following exceptions: there is more space on the title page between the institutional affiliation and Author Note and you have the option of using single spacing in tables. Finally, insert two spaces after the period at the end of each sentence.

Sections of the Report

See Appendix A for a summary of the sections of a report.

Title Page (cover page, numbered 1)

In the header of each page of the manuscript, starting flush on the left, is a "running head", which is a short title in BLOCK LETTERS covering up to 50 spaces. The running head is a *meaningful contraction* of the full title. Although we show it flush left in the manuscript, it actually appears at the top centre of every page in the published paper. Also in the header of each page is the page number. This appears flush right (see present document).

However, **in the title page only**, you precede this short title with the actual words "Running head:" (see present document; note that the quotation marks here do not appear

on the title page). On all subsequent pages, only the short title appears (as described above; see this page, for example).

The title of the report appears in the top half of the title page. It is centered in capital and lowercase letters (no bold, no italics) and should normally contain the important variables. If the study is a true experiment, these will be the independent and dependent variables (e.g., The Effect of X on Y). If the study is not a true experiment, the relationship between variables should be mentioned (e.g., The Relationship between X and Y). The title might also indicate the main finding.

Underneath the title is the author's (your) name and institutional affiliation. Your name usually consists of first name, usually one middle initial and last name.

Lower down, starting around the middle of the page is a section entitled "Author Note". This is used to acknowledge help or to designate the address of the author to whom correspondence should be sent. If you think acknowledgement is appropriate, give it in a separate paragraph. Finally, for the purpose of our course, you should also state why your paper was written. So, in PSY213b (Research Methods I), take another paragraph and **please write this**: Paper submitted in partial fulfilment of the requirements for PSY213b, Month, Date, Year.

Abstract (second page, i.e., page 2)

Although this section appears early in the report, it is usually written last. The label "Abstract" appears in the top centre of the page (*not in bold*). The format is like the label in the previous sentence (without the quotation marks). See also the abstract on p. 2 in the present document. The abstract consists of a 100- to 120-word one-paragraph (*not indented*) summary of the main points of the report. Normally, it includes a one-sentence

description of the research problem, and brief descriptions of the participants (number and who they were), procedure, results and conclusion. All material in the abstract later appears in the body of the report. As the psychological literature grows at an accelerated pace, it is crucial that the abstract accurately reflects the study. A clear summary permits readers to quickly determine whether the work is relevant to their interests.

At the end of the abstract, indent on the next line, enter the heading “*Keywords*” in italics and write a few of the most important terms in the paper.

Body of the Paper (*do not use this heading: I use it here for the purposes of this document*) (Introduction, Method, Results, Discussion)

Introduction (new page, numbered 3). Although the paper begins with an introduction, this section is *not* labelled "Introduction". Rather, you repeat the full title of the report in the centre of the first line, identical in content and format to the one on the cover page. See p. 3 here.

The introduction begins with a statement of what led up to the study and then presents the purpose of the investigation. It starts with background material to place the research question (hypothesis) in its proper setting. The problem may have arisen from various sources: it may follow directly as the next logical question from a *body of previous research*, it may be a deduction from a *theory*, it may represent a *practical problem that requires an intervention* or it may have suggested itself as an interesting phenomenon from observation of *everyday life*.

The introduction is "funnel-shaped" (▼) in that it goes from *broad to narrow* in content. It should begin with a general statement of the problem and/or of previous relevant findings, then proceed to a more precise description of the specific background

from which the research question emerged. Previous relevant work should be carefully referenced (surname of author and date of publication, with the full reference in the special section later) so that the reader may consult it. If you read an original study from a *primary* source, cite that source and reference. For example, if you read a study by Smith (2000), give the name and date like this in your introduction. If you must read about a study from a *secondary* source (which you should normally avoid), indicate clearly that this is the case. For example, if you read about Smith's study in a paper or book by someone else (say, Jones, 2003), state something like this: "In a study by Smith (2000; cited in Jones, 2003)..." or "Jones (2003) describes a study by Smith (2000)..." For more information about citation, see the Psychology Department guide to academic honesty (McKelvie, Black, & Standing, 2004).

After covering the background, the introduction should then explain the purpose and rationale of the research that will later be described. This should include all hypotheses or predictions that are justified by being clearly linked to the background from which they emerged. If some parts of the research question are speculative, this should also be made clear. You might have to make a statement like "If A is true then I expect X but if B is true then I expect Y".

It is very important that it is clear to the reader what the source of your work is (e.g., past research, theory, practical intervention, everyday life) and that your predictions are justified. It may occasionally be the case that you do not have a specific prediction. There may be a number of possibilities that could be justified and the purpose of the research is to distinguish them (see example of the speculation above).

Thus, we have: (1) General statement of background to the problem

(2) More specific relevant ideas and previous results

(3) Hypotheses and their rationale

Method (continued on same page). Here, you describe the procedures by which the investigation was conducted. The most important characteristic of the method section is that it should provide *sufficient information to permit another independent investigator to replicate the essential aspects of the study and to evaluate your procedures. However, if your study is a replication, methodological details that have been* described by previous workers need not usually be given in full, although references to the previous sources should be cited. The method section itself is usually divided into three parts: Participants, Materials (and/or Apparatus) and Procedure and perhaps a separate section labeled Design. For a research report of a single study, the “**Method**” heading appears *in the centre of the page in boldface*. The headings for the three subsections (“**Participants**”, “**Materials**”, “**Procedure**”) each appear *flush left in boldface*. (like “**Body of Paper**” above). They are in a different format below because this guide requires a number of different levels of heading.

Participants. The sample of people who took part should be described as follows: total number, who they were (population, including other characteristics such as age, gender), how they were selected from the population (e.g., random sampling, volunteers, coercion), how members of the sample were allocated/assigned to conditions (e.g., randomly; matching on a subject variable) and the number in each condition. Mention should be made of any special features such as dropout rates or payments made. In addition, if you have information about how the sample size was determined (e.g., with a power analysis), it should be given.

Materials (and/or Apparatus). Describe the stimuli, equipment, questionnaires or other measuring devices. Understanding will be aided by placing a copy of materials in the Appendix, to which you should refer the reader. However, do not substitute this for describing the major features of the materials. Include the consent form in your description of materials.

Procedure. The procedure summarizes each step that actually took place in the execution of the study; for example, obtaining consent, instructions given to participants, what they were required to do and the order in which conditions were administered (if they took part in more than one – a repeated-measures design). You should have already described how the groups were assigned to conditions in the “**Participants**” section. The nature of the research design should be stated (e.g., between groups, repeated measures) and perhaps given a separate section (“**Design**”) after the procedure section. Again, the key consideration here is that the study can be replicated by an independent investigator.

Although published reports assume considerable technical knowledge on the part of the reader, you may wish to explain why particular procedures were used. Indeed, if this information is important and/or detailed, it may justify inclusion in the introduction.

Results (continued on same page). This heading (“**Results**”) appears *in the centre of the page in boldface*. Two kinds of statistic will usually be reported: descriptive and inferential.

Descriptive statistics. You may have to describe how the raw data were scored. However, you must present both descriptive and inferential statistics and verbally describe them. Examples of descriptive statistics are means, medians, standard deviations and effect sizes and examples of inferential statistics are *t*-tests and *F*-tests. A

figure is vital to portray the data (see Appendices B, C and D for examples), but the **basic descriptive statistics** [measures of central tendency (usually *means*) and variation (usually *standard deviations*)], and corresponding sample sizes **must** be also be shown **for each condition** in a table. Note the distinction between raw data and descriptive statistics. *Raw data* are the original scores for each participant in each condition and are rarely given in a formal APA-style report that is intended for publication; however, for our purposes, they should be placed in an Appendix for reference. Descriptive statistics are calculated from the raw data.

Information in figures and tables should be concise and clear and must be accompanied by a *caption* that *clearly specifies the content* (e.g., *Means and Standard Deviations of Recall Scores for Masses and Distributed Practice*). Avoid repeating information in the text that is in a table. Means and standard deviations are usually *reported to one or two decimal figures more than the raw data*. Proportions are usually reported to two decimal places. However, correlation coefficients are sometimes reported to three places. Figures and tables are numbered consecutively and are always placed at the end of the report (see below). In the text, they are referred to by number at the appropriate place (e.g., see Table 1). **Do not put tables or figures in the body of the results section.** Observe also that tables and figures are *not* considered part of the Appendix. Examples of what a table should look like in APA format is shown in Appendix E.

Inferential statistics. In addition to giving descriptive statistics in numerical form, **you must state the salient points in words.** The judgment of *what* is salient is made on the basis of **the research hypotheses in conjunction with the patterns of significance**

(or, possibly, nonsignificance if that is important) revealed by the inferential statistical tests. The *results* of these tests are also given in the text but formulae, calculations, analyses of variance tables or computer printouts are relegated to an Appendix (like the raw data).

It is not easy to communicate results in a clear fashion using the appropriate format, and students frequently run into difficulties here. **Follow these guidelines when reporting results:** Cite the *numerical outcomes* of statistical tests *then give a verbal statement of what each one means*. Often only significant effects are described in detail, but nonsignificant ones may be interesting. Do not discriminate between results that do or do not support your hypotheses. Both kinds should be presented. Here is the recommended APA format for the inferential statistics:

Statistical test (degrees of freedom) = value obtained, probability of that value under Ho.

Examples:

$t(14) = 2.58, p = .041$ (*t*-test)

$X^2(3, N = 40) = 4.10, p = .22$ (chi square)

$F(2, 10) = 8.25, p = .008$ (*F*-test, usually from ANOVA)

$r(20) = .71, p = .007$ (Pearson correlation coefficient)

or $r(N = 22) = .71, p = .007$ (putting sample size rather than df)

As you can see, *the precise p-values are given (exact p procedure)*. Note that the name of the statistic, the sample size, and *p* are in italics. Also, report inferential statistics to *two* decimal places and *p*-values to *three* decimal places.

Although APA recommends the exact p procedure, you will often see less exact values cited (the *inequality procedure*), like this. (They were used in the past because statistical tables only give critical values for certain values of alpha.)

$$t(14) = 2.58, p < .05 \quad (t\text{-test})$$

$$X^2(3, N = 40) = 4.10, p > .05 \quad (\text{chi square})$$

$$F(2, 10) = 8.25, p < .01 \quad (F\text{-test, usually from ANOVA})$$

$$r(20) = .71, p < .01 \quad (\text{Pearson correlation coefficient})$$

I am presenting these here for your information only. Use the exact- p procedure.

Summary of reporting with the exact p procedure. APA guidelines state that because computer packages like SPSS provide *exact values* of p (not just $<$, $>$.05, for example), these **exact values should be reported instead of the inexact, $p < .05$ or $p < .01$ or $p > .15$.** However, **at the beginning of your results section**, you should also **clearly state the level of alpha that you have adopted.** This practice provides all the important information: level of alpha, exact p and of course tells us whether or not the p is less than alpha or greater than alpha.

For each salient feature of the data, state the result of the inferential statistic as shown above for the exact p procedure, then follow it with a verbal statement of what the analysis shows. We are *not* concerned here with *interpreting* the result in terms of the research hypothesis, but with **describing directional effects of variables.** Here are some appropriate statements:

Alpha was set at .05.

Example 1:

“For gender, the independent-groups t -test on mean recall scores was significant, $t(14) = 2.58, p = .041$. Table 1 shows that women remembered more words than men.” Or a neater and more succinct description would be “Women remembered more words than men, $t(14) = 2.58, p = .041$ (see Table 1).”

Example 2:

“The independent-groups t -test between the mean recall scores for men and women was not significant, $t(14) = 0.62, p = .74$.” Or “Mean scores did not differ between men and women, $t(14) = 0.62, p = .74$.”

In Example 1, note that the sentence describing the significant effect indicates the **direction of the difference**, so that the reader clearly understands what was found. It is *not* sufficient to only state that the effect *was significant* or that there *was a significant difference* between the groups.

Additional comments. To report the results of post hoc tests after a significant effect from ANOVA, state what test was conducted (e.g., Tukey HSD, Newman-Keuls, Scheffé), then state the significant effects, giving the direction of the results. If you are using the SPSS printout, you might also give the numerical difference between means for each comparison.

Observe that, for numbers less than 1, put a zero (0) before the point, but *only* if that number could be greater than 1: $t(14) = 0.62$; but $p > .05$. Values of t may exceed 1, but probabilities cannot.

To be clear about the distinction between *describing* and *discussing* results, describing means to state whether there was a significant effect or not and, if so, to state its direction. *Avoid* terms such as “As expected”, “Consistent with the hypothesis”,

“Unexpectedly”, “It was predicted that”. Keep these for the discussion section.

Discussion means that you refer back to the predictions and interpret the results.

Effect size. APA also recommends that you provide a measure of effect size, such as d , which is the standardized difference between means $[(M_1 - M_2)/s]$. Your inferential statistic tells you whether or not the results is statistically significant and the effect size tells you how large any difference or relationship is. Present the effect size information immediately after your statement about the direction of the effect.

Alpha was set at .05.

Example 1:

"For gender, the independent-groups t -test on mean recall scores was significant, $t(14) = 2.58, p = .041$. Table 1 shows that women remembered more words than men, standardized effect size $d = 0.80$."

You might also present d after p as follows.

For gender, the independent-groups t -test on mean recall scores was significant, $t(14) = 2.58, p = .041, d = 0.80$. Table 1 shows that women remembered more words than men. Or, “As shown in Table 1, women remembered more words than men, $t(14) = 2.58, p = .041, d = 0.80$.”

Note that effect sizes should always be given for both significant results and for major non-significant results. The reason for this is that the technique of meta-analysis is being used more frequently than in the past, and it requires that all effect sizes be reported. If you do not give the effect size for nonsignificant results, make absolutely sure that you have provided the means and standard deviations for the conditions that were compared. In addition, if the specific value of a mean is of interest, and particularly

if you are estimating a parameter, a confidence interval should be provided (95% or whatever probability level you choose).

Finally, note that the judgment of whether standardized d effect size is small (0.20), medium (0.50) or large (0.80) should be kept for the Discussion section later.

Summarizing: (1) Provide tables and/or figures, with the former showing sample sizes, measure of central tendency (probably mean) and measure of variation (probably standard deviation) in each condition.

(2) Give the *significant* numerical results of the inferential statistical analyses *with a verbal description of the direction of the effects*. Give nonsignificant numerical results if relevant to the research hypothesis.

(3) But: **do not interpret or comment here on the significant and nonsignificant effects or on effect sizes**. Keep this for the discussion.

Discussion (continued on same page). The “**Discussion**” heading, like “**Method**” and “**Results**”, appears in the centre of the page in boldface. In this section, you are now free to interpret the results and discuss their implications for the initial hypotheses. You are even permitted the luxury of speculation! Discuss the meaning of each statistically-analyzed and described result *in light of the research hypotheses that were given in the introduction*. Take each finding in turn and (a) remind the reader what it was, (b) relate it to the introduction (research hypothesis, past research, theory or whatever the basis of the study was), and (c) comment on it.

Questions to consider are: Were the research hypotheses or predictions confirmed or not? If yes, how do the results bear on prior theory or research or whatever stimulated the study? If not, why not? Is previous research or theory faulty? Was there are error in

your logic in deriving the hypotheses? Or could there be something amiss with your study? It is very important to be self-critical. However, in considering the adequacy of your study as a test of the hypothesis, it is *not* sufficient to state simply that certain variables were uncontrolled. Your objections must be justified. In particular, you must *specify logical ways in which these uncontrolled variables could have affected the results*. An important part of your interpretation rests on whether or not your study was a true experiment. If it was, you may draw a conclusion about cause and effect if you have statistical significance. If it was not a true experiment, you can only say that the variables were related (associated). Of course, it is also appropriate to draw the reader's attention to strengths of your study, particularly if the method was an improvement on previous research.

Finally, you might indicate practical implications of your results and you should indicate the implications of your findings for future research: What should be done next?

Thus, for each finding:

(1) Summarize it.

(2) Interpret it in light of the hypotheses, and background literature.

(3) Comment critically on it, considering alternative explanations of the results. Point out strengths and weaknesses in the study and offer advice for future research.

References (*take a new page*). The "References" heading appears in the centre at the top of the page. It is formatted like this (not bold; without the quotation marks). See the References page in the present document for a model. When you refer to an existing work in the body of the report, do so by citing the author's name and by giving the date of

publication for the source that you read (e.g., McBurney & White, 2010), then list it in this section of the report. Remember to make clear in the text, a whether this is a primary or secondary source (see earlier in this guide). *All references are presented in alphabetical order by author surname.* Use the APA format for all references such as books, journal articles and internet sources. Here are the guidelines:

When listing references, carefully follow these formats. The book format is:
Author Surname, Initials. (Year of publication). *Title of book*. Place of publication: Name of Publisher.

For example, here is the reference to McBurney and White (2010):

McBurney, D. H., & White, T. L. (2010). *Research methods* (8th ed.). Belmont, CA: Wadsworth.

Here is an example of citing a chapter from an edited text:

Bjork, R. A. (1989). Retrieval inhibition as an adaptive mechanism in human memory. In H. L. Roediger III & F. I. M. Craik (Eds.), *Varieties of memory & consciousness* (pp. 309-330). Hillsdale, NJ: Erlbaum.

Journal article:

Author Surname, Initials. (Year of publication). Title of article. *Title of Journal, Volume number*, Page numbers. doi: numbers

“doi” stands for digital object identifier and if a journal article has it, it will appear at the top right of the first page of the article.

Here is a journal example taken from the APA manual itself (p. 198):

Herbst-Damm, K. L., & Kulik, J. A. (2005). Volunteer support, marital status, and the survival times of terminally ill patients. *Health Psychology, 45*, 225-229. doi: 10.1037/0278-6133.24.2.225

Finally, *internet* sources should contain the author name, title of piece, the date that you retrieved the information and the web address. If you view an article on-line that is an exact duplicate of the printer version, you may wish to add "Electronic version", although since the information is identical to the printed version this is probably unnecessary.

Klimoski, R., & Palmer, S. (1993). The ADA and the hiring process in organizations [Electronic version]. *Consulting Psychology Journal: Practice and Research, 45*, 10-36.

For an internet-only journal:

Mullane, J., & McKelvie, S. J. (2001). Effects of removing the time limit on first and second language intelligence test performance. *Practical Assessment, Research & Evaluation, 7*(23). Retrieved from <http://ericae.net/pare/getvn.asp?v=7&n=23>

For an online newspaper article or nonperiodical:

Sleek, S. (1996, January). Psychologists build a culture of peace. *APA Monitor*, pp. 1, 33 [Newspaper, selected stories on line]. Retrieved from: <http://www.apa.org/journals/ab1.html>.

Note the APA distinction between "References" and "Bibliography." References include those articles, books, and other literature that you have consulted and have cited in the text. Any source that you have examined but not cited should technically be listed

in a bibliography (and not just books). However, APA discourages bibliographies and published journal articles do not contain one.

Footnotes (*take a new page*). The “Footnotes” heading appears in the centre at the top of the new page. It is formatted like this (without quotation marks) and like the “References” heading. See also the “Footnotes” page in the present document. Any special comments are numbered with a superscript in the report then listed here (e.g., see pages 1 and 3 of this handout for examples). However, this practice is rare in psychology, so *use footnotes sparingly, if at all*. Also, **never use the footnote system for references**.

Tables. Present each table on a separate new page. Include a table number and accurate caption. See Appendix E for an example of the format. Note that, as an exception to the rule that all lines are double-spaced, APA permits single-spacing in tables if you think it is appropriate for a clear presentation.

Figures. Present each figure on a separate new page. Include a figure number and accurate caption. See Appendices B, C and D for an example of the format.

Appendices (*take a new page*). For your reports in this course, include a copy of the materials if they are provided, computer printouts (and perhaps raw data), and a copy of calculations that you performed. Note again that tables and figures are not part of the appendices. Each Appendix begins on a new page with the title “Appendix” in the centre at the top. On the next line in the centre is the title of the Appendix. See examples below in the present document.

Evaluation of the Report

My marking scheme in Appendix F reflects this guide. Marks are allocated by content and format and, within the latter, to writing style. Unless the report is well written, it is impossible to judge the quality of the ideas (content).

Finally, express all sections of the report *in your own words* (i.e., not just the abstract, introduction, and discussion, but also the method and results). This applies even if your method involves replication. Never copy out any part of another researcher's method section. Of course, there are occasions where you may wish to quote an author. Do this in the manner prescribed in the separate handout on academic honesty. It is assumed that you are thoroughly familiar with these guidelines on plagiarism, violation of which will be treated as a serious offence.

References

- American Psychological Association (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.
- McBurney, D. H., & White, T. L. (2010). *Research methods* (8th ed.). Belmont, CA: Wadsworth.
- McKelvie, S. J., Black, S.L., & Standing, L.G. (2004). *Guide to academic honesty for the Department of Psychology, Bishop's University (Revised Version, 2004)*.

Footnotes

¹APA specifies five levels of headings (see Appendix G). This is the standard one for the title.

²Writers sometime use the term "experiment" when describing the research report, but the same guidelines apply to studies that are nonexperimental. The term "study" is neutral and covers both kinds of research method.

Appendix A

General Format for a Report

Paper with a Single Study

	Title Page
Take a new page now	
	Abstract
Take a new page now	
	Title
Start writing.....	
	Method
Participants	
Start writing.....	
Materials	
Start writing.....	
Procedure	
Start writing.....	
	Results
Start writing.....	
	Discussion
Start writing.....	
Take a new page now.	
	References
Start writing.....	

Paper with More than One Study

	Title Page
Take a new page now	
	Abstract
Take a new page now	
	Title
Start writing.....	
	Study 1
Method	
Participants. Start writing....	
Materials. Start writing.....	
Procedure. Start writing....	
Results	
Start writing.....	
Discussion	
Start writing.....	
	Study 2
Method	
Participants. Start writing....	
Materials. Start writing.....	
Procedure. Start writing....	
Results	
Start writing.....	
Discussion	

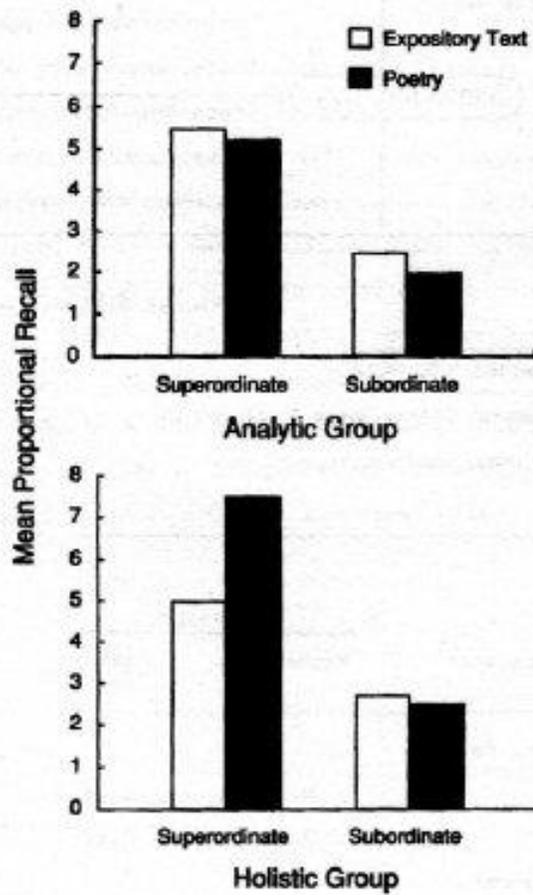
Start writing.....

Take a new page now.

References

Appendix B

Example of a Figure in APA Format



Appendix C

Example of a Figure in APA Format

Figure Example 3. Sample bar graph.²

- Bars are easy to differentiate by fill pattern.
- Zero point is indicated on ordinate axis.
- Axes are labeled with legible type; ordinate axis indicates unit of measure.
- Legend appears within dimensions of the graph.
- Axes are just long enough to accommodate bar length.
- Caption explains error bars and sample sizes.

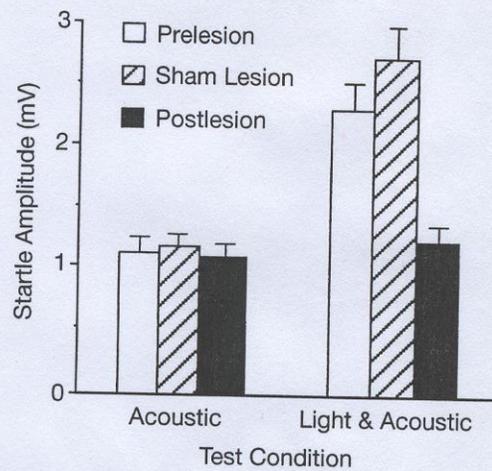


Figure X. Mean amplitude startle response (+SE) for prelesion ($n = 4$), sham lesion ($n = 2$), and postlesion ($n = 2$) groups in acoustic and light-and-acoustic test conditions.

[List captions together on a separate page.]

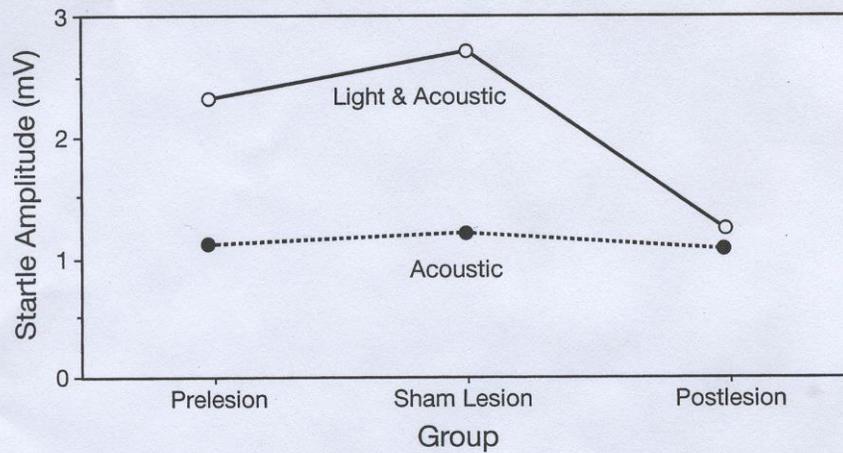
²From "Amygdala Efferents Mediating Electrically Evoked Startle-Like Responses and Fear Potentiation of Acoustic Startle," by J. S. Yeomans and B. A. Pollard, 1993, *Behavioral Neuroscience*, 107, p. 606. Copyright 1993 by the American Psychological Association. Adapted with permission of the author.

Appendix D

Example of a Figure in APA Format

Figure Example 4. A line graph as an alternative to a bar graph.

- Figure is simpler.
- More than one comparison at a time can be perceived.



Appendix E

Example of a Table in APA Format

Table 1

General Recognition Memory: Corrected Responses (Two-high-threshold Measure of Sensitivity)

Measure	Hits			False Recognitions		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Prior Activity						
Recall	33	.69	.14	33	.54	.18
Arithmetic	14	.51	.16	14	.53	.13
No Activity	171	.60	.20	17	.38	.21
Age of Participant						
Younger	44	.72	.12	44	.34	.23
Older	44	.63	.15	44	.41	.20

Appendix F

Stuart McKelvie's Marking Scheme for Research Reports in Psychology

Marking Scheme for Research Reports in PsychologyInstructor: Stuart McKelvie

Student: _____

Date: _____

Course: _____

Project No.: _____

<u>Section</u>	<u>Format</u>	<u>Content</u>	
Title page	-2		- 2
Abstract	-1		- 3
Introduction	-1		- 9
		Background	-6
		Purpose/Hypotheses	-3
Method -1	- 4		-10
Participants	-1	Participants	-2
Materials	-1	Materials	-2
Procedure	-1	Procedure	-6
Results	- 4		- 35
Tables/Figures	-3	Descriptive statistics	-10
Verbal	-1	Inferential statistics	-15
		Verbal description	-10
Discussion	- 1		-11
References	- 2		- 1
Writing skills			-11
		Grammar, spelling, paragraphing, punctuation, vocabulary	- 6
		Organization, precision, style and interest of expression	- 5
Appendix	- 1		- 2
Totals	-16	-100	- 84

Comments

Appendix G

Levels of Heading (APA, 2010)

Within the text of a document, there are five levels of heading, described and formatted as follows. Note that the first four levels are used in the present document.

Level 1

Centred, Boldface, Uppercase and Lowercase Heading

Start writing here.

Level 2

Flush Left, Boldface, Uppercase and Lowercase Heading

Start writing here.

Level 3

Indented, boldface, lowercase paragraph heading ending with a period. Start writing here.

Level 4

Indented, boldface, italicized, lowercase paragraph heading ending with a period. Start writing here.

Level 5

Indented, italicized, lowercase paragraph heading ending with a period. Start writing here.

Appendix G (continued)

From <http://blog.apastyle.org/>

APA Style Headings: 6th Edition

Level	Format
1	Centered, Boldface, Uppercase and Lowercase Heading Then your paragraph begins below, indented like a regular paragraph.
2	Flush Left, Boldface, Uppercase, and Lowercase Heading Then your paragraph begins below, indented like a regular paragraph.
3	Indented, boldface, lowercase paragraph heading ending with a period. Your paragraph begins right here, in line with the heading. ^a
4	<i>Indented, boldface, italicized, lowercase paragraph heading ending with a period.</i> Your paragraph begins right here, in line with the heading.
5	<i>Indented, italicized, lowercase paragraph heading ending with a period.</i> Your paragraph begins right here, in line with the heading.

^aFor headings at Levels 3–5, the first letter of the first word in the heading is uppercase, and the remaining words are lowercase (except for proper nouns and the first word to follow a colon).