

WRITING EXPERIMENTAL RESEARCH REPORTS (APA Style 5th ed.)

Parts of an article:

1. TITLE AND AUTHOR(S)

- The manuscript page header is the first thing that appears on the title page. It consists of the first two or three words of the title and is followed by the page number. It is used by the editors and reviewers to identify the pages of the manuscript. It is placed in the upper right hand corner of all pages of the manuscript (except for any figures). Thus, the manuscript page header should appear as the first line of the title page, right justified with the number '1' either double spaced below it or 5 spaces to the right of it. If you are using a word processor, you can have it put this manuscript page header on all pages automatically.
- The running head comes next and is no more than 50 characters (including punctuation and spaces). It typically consists of a couple of key words from the title. Type this running head flush left and in all capital letters. For example, Running head:
ABORTION ATTITUDES IN COLLEGE STUDENTS (note that the 'R' in running is capitalized, but the 'h' in head is not).
- Choosing a title. The title should summarize the main idea of the paper in 10-12 words. A good recipe to work with when reporting the results of an experiment is (Dependent Variable) as a Function of (Independent Variable) or The Effects of (Independent Variable) on (Dependent Variable). With other types of research you should try to include the variables of interest in the title (and be careful not to imply causality). Also, it is a good idea to include the species if you're working with animals or some details about the type of population if you're working with humans.
- When typing the title, center it on the page and capitalize only the first letter of important words. On the next double spaced line is the author's name and on the next double spaced line is the institutional affiliation, both centered on the page.

2. ABSTRACT

- The abstract page is Page 2.
- Center the word Abstract on this page, then begin typing on the very next double-spaced line (i.e., do not insert any extra blank lines here).
- Type this section as a single (double spaced) paragraph in block format.
- The purpose of this section is to provide a brief (100-120 words, 960 characters with spaces), comprehensive summary of the study. It is very important because it is all that many people will read.
- It should include a brief description of the problem being investigated, the methods and procedures used, the results, conclusions and their implications.
- It is a good idea to write this section last (after all of the other sections are written). You might try taking the lead sentence or two from the introduction, method, results, and discussion sections and integrate them to form the abstract.
- Avoid citing references in the abstract.

3. INTRODUCTION

- The introduction begins on Page 3.

- Start this page by retyping your title (centered), then begin typing the section (on the next double spaced line) using normal (5 space indented) paragraphs. Do not type the word Introduction.
- The main purpose of this section is to tell the reader why you performed the study. In other words, you have to inform the reader of the research question and indicate why it is important, and how it is unique when compared to previous studies.
- It starts out broad and becomes more and more specific. For example, you might begin by defining any relevant terms. Then go on to review the relevant literature. Avoid an exhaustive and historical review. Then go on to make clear the connection between previous research and the present work.
- You might include any hypotheses and the rationale for them.
- The final paragraph usually contains a statement which clearly and explicitly states why the study was performed, such as *The purpose of this study was to...* or *The present study was designed to investigate the...* Be especially careful **not** to use a sentence of this type earlier in your introduction.
- Thus, this section should contain an absolute minimum of four paragraphs: the general introduction, the literature review, the connection of the present study to the literature and the explicit statement of purpose.

4. METHOD

- Do not purposely start a new page for this section. Simply center the word Method and continue typing on the very next double-spaced line (i.e., do not insert any extra blank lines here).
- The purpose of this section is to describe in detail how you performed the study. Someone should be able to replicate your study based on the information you provide in this section.
- Make it sound professional, that is, do not make it sound like a class project. Assume you are writing for submission to a scientific journal.
- Avoid unnecessary details like the data were displayed on the computer screen and recorded on the data sheet(s).
- For an experiment, this section is typically divided into four subsections: subjects, apparatus, design, and procedure. The order of design followed by procedure is arbitrary. In other words, you could have the procedure come before the design. Sometimes researchers combine the design and procedure sections, however, in an experimental psychology or research methods class, a separate design section is typically required.
- For a survey study (i.e., one in which the participants are simply asked a set of questions), the design section is not necessary (and the survey itself may be included as an appendix).

Subjects/Participants

- This section is labeled as *Subjects* or *Participants* depending on whether animals or humans are used in the study. If animals are used, use the term subjects. If humans are used, use the term participants.
- Do not purposely start a new page for this section. Type the appropriate title for this subsection flush with the left margin. On the next line, begin typing normal paragraphs.
- Indicate who participated in the study, how many, and how were they selected.
- Include any details which are relevant to the study (e.g., gender, age, ethnicity, strain, weight, etc.).
- If the subjects were human, what type of reward or motivation was used to encourage them to participate?

Apparatus/Materials

- Do not purposely start a new page for this section. Type the word *Apparatus* flush with the left margin. On the next line, begin typing normal paragraphs.
- Apparatus include equipment; Materials include questionnaires, surveys, tests.
- Describe what materials were used and how they functioned in the study.
- If you use a piece of equipment, you must give the model number, company, and state where the company resides (as a two-letter abbreviation).
- You must give the dimensions (and perhaps other descriptive details) of any important items used in the study.
- Standard equipment such as furniture, stopwatches, pencils and paper, can usually be mentioned without providing a lot of details. In fact, you may often simply mention these items in passing as part of the procedure.
- Be careful not to describe procedures in this section. You should make clear what purpose the apparatus served, but do not give a lot of details on the use of the apparatus at this point. One hint in this regard is to avoid using action verbs in this section.

Design

- Do not purposely start a new page for this section. Type the word *Design* flush with the left margin. On the next line, begin typing normal paragraphs.
- Describe the design and clearly spell out the independent and dependent variables. Indicate what the levels of the independent variables were, and whether the factor(s) were repeated, matched, or independent.
- Describe how the subjects were assigned to groups.
- Describe any control procedures used.

Procedure

- Do not purposely start a new page for this section. Type the word *Procedure* flush with the left margin. On the next line, begin typing normal paragraphs.
- Carefully summarize each step in the execution of the study.
- Indicate what a typical test, trial, or session involved.
- Describe any phases that the study had or any instructions that the subjects received.
- When referring to groups, try to use descriptive labels. For example, instead of saying Group 1 or the experimental group, you might say the drugged group. Another technique in this regard is to use abbreviations that emphasize meaning. For example, There were three groups, including, the control group which received 0 mg/kg of morphine (M0), a low dose group receiving 1 mg/kg of morphine (M1), and a high dose group receiving 4 mg/kg of morphine (M4).

5. RESULTS

- Do not purposely start a new page for this section. Simply center the word *Results* and continue typing on the very next double-spaced line (i.e., do not insert any extra blank lines here).
- Look carefully at the results. That is, take a good hard look at all those numbers you collect. Think of different ways to summarize them, as well as to make sense of them. This section will be easier to write if you make any tables and/or figures you intend to use first.
- Briefly state the main findings in words. That is, first give a general description, then go into the details.
- When presenting the results of statistical tests, give descriptive statistics before the corresponding inferential statistics. In other words, give means and/or percentages (perhaps referring to a table or figure), before talking about the results of any statistical tests you performed.

- When presenting means, it is reasonable to use one additional digit of accuracy than what is contained in the raw data. In other words, if the raw data consisted of whole numbers, then the means should contain one decimal place.
- When presenting nominal or ordinal data, give the percents rather than frequencies (since percents are independent of the sample size).
- The general format for presenting an inferential statistics is: Statistics(df) = value, probability = value. Note that if the statistics are generated with a computer, you can give the exact p values. Also, if the computer output says the probability is .0000, then report it as .001.
- When actually presenting the results, try to emphasize the meaning of the statistics. That is, clearly describe what it is you are testing and what significance means for the variables involved.
- Do not discuss the implications of the results in this section.
- Do not talk about the meaning of the alpha level or the null hypothesis, and what chance factors have to do with it. Since you are writing for the scientific community, you can assume the reader will have a working knowledge of statistics.
- If you are presenting a lot of material here, you may wish to employ subheadings (as is done in the methods section). These subheadings should have meaning and relevance to the data and should help to organize your presentation of it. In other words, they should not be organized by the type of analysis employed. Since this is not expected by the reader, it is a good idea to precede the subheadings with a paragraph informing the reader of the logical organization of this section.
- In cases where the reader would expect something to be significant and it is not, you should address the issue.
- Do not provide raw data unless, for some reason, you require a single subject approach.
- Be careful with the word "prove". Since statistical tests are based on probability and can be in error, they do not really prove anything.
- You can only use wording that implies causality if you actually manipulated the independent variable (i.e., performed an experiment). For example, suppose you manipulated whether subjects received a drug (while employing appropriate control procedures, etc.) and found a significant difference in memory performance (with the drug users performing more poorly than nonusers). In this case, you would be able to conclude that the drug **caused** the difference in memory ability; it impaired it. As another example, suppose that you compared drug use (as determined from the results of a survey) with memory ability and found a correlation (greater use went along with poorer memory performance). Since correlation doesn't say much about causality, we could only conclude that there is a **relationship** between drug use and memory ability.

6. DISCUSSION

- Do not purposely start a new page for this section. Simply center the word `Discussion` and continue typing on the very next double-spaced line (i.e., do not insert any extra blank lines here).
- The purpose of this section is to evaluate and interpret the results, especially with respect to the original research question.
- Start off with a brief, non-technical summary of the results. In other words, tell the reader about the main findings without using statistical terminology.
- Then go on to discuss the implications of the results. In other words, whatever was found needs to be discussed.
- It is also important to discuss how the results relate to the literature you cited in the introduction. In other words, emphasize any theoretical consequences of the results.
- You might (or might not) also mention any limitations of the study and any suggestions for future research in this section.
- Finally, you need an ending paragraph in which you make a final summary statement of the conclusions you have drawn.
- Thus, this section should contain an absolute minimum of three paragraphs: the non-technical summary, discussion of the results and their implications, and the concluding paragraph.

7. REFERENCES

- References are citations of other works such as books, journal articles, or private communications. References in text are treated somewhat differently from references in the complete list at the end of a paper (and very different from bibliography in MLA style).
- Start on a new page for this section. Center the word `References` and continue typing on the very next double-spaced line (i.e., do not insert any extra blank lines here). Each source is in hanging indent format (1st line is not indented, 2nd and subsequent lines are indented 5 spaces from the margin)
- Use prefixes in alphabetizing names if commonly part of the surname (De Vries).
- Do not use "von" in alphabetizing (Helmholtz, H. L. F. von).
- Treat Mc and Mac literally; Mac comes before Mc.
- Disregard apostrophes and capitals in alphabetizing; D'Arcy comes after Daagwood.
- Single-author citations precede multiple-author citations (Zev, 1990 then Zev et al., 1990).
- Alphabetize corporate authors by first significant word. Do not use abbreviations in corporate names.
- It usually consists of the author(s)' name, date of publication, title of the source, edition, place of publication and publication house.
- Authors: Authors are listed in the same order as specified in the source, using surnames and initials. Commas separate all authors. When there are seven or more authors, list the first six and then use "et al." for remaining authors. If no author is identified, the title of the document begins the reference.
- Year of Publication: In parentheses following authors, with a period following the closing parenthesis. If no publication date is identified, use "n.d." in parentheses following the authors.
- Source Reference: Includes title, journal, volume, pages (for journal article) or title, city of publication, publisher (for book).

Here are approved abbreviations for use in a reference list:

- chap. for chapter
- ed. for edition
- rev. ed. for revised edition
- 2nd ed. for second edition
- Ed. for Edited by
- (Eds.) for multiple editors
- Trans. for Translated by
- p. for page number, with a space after the period
- pp. for page numbers in encyclopedia entries, multi-page newspaper articles, chapters or articles in edited books, but not in journal or magazine article citations, where numbers alone should be used (see examples of reference formats).
- Vol. for Volume
- vols. for volumes
- No. for Number
- Pt. for Part
- Suppl. for Supplement,
- Tech. Rep. for Technical Report

A. *Examples of sources*

[Note: Italicize titles of books, titles of periodicals, and periodical volume numbers.]

1. Book

- Paloutzian, R. F. (1996). *Invitation to the psychology of religion*. (2nd ed.). Boston: Allyn and Bacon.
- Dennison, B. & Kirk, R. (Eds.). (1990). *Do, review, learn, apply: A simple guide to experiential learning*. (Rev. ed.). England: Basil Blackwell Limited.

2. Article or chapter in an edited book

- Shea, J. D. (1992). Religion and sexual adjustment. In J. F. Schumaker (Ed.), *Religion and Mental Health* (pp. 70-84).

(3rd ed.). New York: Oxford University Press.

3. Journal article

Murzynski, J., & Degelman, D. (1996). Body language of women and judgments of vulnerability to sexual assault. *Journal of Applied Social Psychology, 26*(2), 1617-1626.

4. Magazine article

Cohen, A. (2001, January 8). Economic slowdown: This time it's different. *Time magazine, 26-30*.

5. Unpublished theses and dissertations

Pambudi, E. S. (1991). *Stress and job satisfaction in a sales organization*. Unpublished masteral thesis, Ateneo de Manila University.

Wagiu, S. B. (1989). *Determinants of job stress among middle-level managers of commercial banks in Metro Manila*. Unpublished doctoral dissertation, University of Santo Tomas.

6. Web document on university program or department Web site

Degelman, D., & Harris, M. L. (2000). *APA style essentials*. Retrieved May 18, 2000, from Vanguard University, Department of Psychology Web site: http://www.vanguard.edu/faculty/ddegelman/index.cfm?doc_id=796

7. Stand-alone Web document (no date)

Nielsen, M. E. (n.d.). *Notable people in psychology of religion*. Retrieved August 3, 2001, from <http://www.psywww.com/psyrelig/psyrelpr.htm>

8. Stand-alone Web document (no author, no date)

Gender and society. (n.d.). Retrieved December 3, 2001, from <http://www.trinity.edu/~mkearl/gender.html>

9. Journal article from database

Hien, D., & Honeyman, T. (2000). A closer look at the drug abuse-maternal aggression link. *Journal of Interpersonal Violence, 15*, 503-522. Retrieved May 20, 2000, from ProQuest database.

10. Abstract from secondary database

Garrity, K., & Degelman, D. (1990). Effect of server introduction on restaurant tipping. *Journal of Applied Social Psychology, 20*, 168-172. Abstract retrieved July 23, 2001, from PsycINFO database.

11. Diagnostic and Statistical Manual of Mental Disorders

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

B. Electronic formats

- Avoid dividing an electronic address at the end of a line. If absolutely necessary, divide it at a slash (/) or before a period. (Although it might seem more logical to divide it *after* a period, APA style specifically states *before* a period.)
- For the titles of books, use italics and "sentence-style" capitalization. This means that for a title only the first word, all proper nouns, and the first word after an internal colon are to be capitalized. (Example: *How to make money in French and German stocks: Your personal guide*)

- For titles of magazines and journals, use italics and "headline" style capitalization. This means that the first letter of each important word should be capitalized. (Example: *U.S. News & World Report*)
- For the titles of magazine and journal articles, do not use underlining, italics, or quotation marks. Use "sentence-style" capitalization. (Example for an article in a magazine: Jobs in jeopardy. *Management Review*)
- APA suggests that writers citing Web items refer to specific Web site documents rather than to home or menu pages. APA also advises writers to strive to provide addresses (URLs) that are typed correctly and that work. Continually check your references to Web documents; if the addresses of any of those documents change, update your references before you submit your paper.
- If an Internet document is undated, insert "(n.d.)" immediately after the document title.
- E-mail messages may be cited in the text, but APA warns against listing them in the "References" section because such messages are unrecoverable.
- An in-text citation should be placed in parentheses. If a specific page is being referenced, the citation should ideally include the author's name, the date of publication, and the number of the specific page being referenced. Example: (Cheek & Buss, 1981, p. 332). For electronic sources that do not provide page numbers, use the paragraph number, if available, preceded by the abbreviation "para." Example: (Myers, 2000, para. 5). If neither paragraph nor page numbers are provided, direct the reader to the location of the referenced material by indicating the heading that precedes the material and, counting down from that heading, the number of the paragraph containing the material. Example: (Beutler, 2000, "Conclusion" section, para. 1).
- If an electronic document does not indicate the name of the author(s), refer to the document by repeating the first few words of its title. Example: ("Study finds," 2001). If the information being referred to appears on an untitled Web page, indicate in the text of your paper where the reader is to look if he or she wishes to find a full reference to the Web site that contains that page. Example:

More companies today are using data mining to unlock hidden value in their data. The data mining program "Clementine," described at the SPSS Web site, helps organizations predict market share and detect possible fraud (SPSS, n.d.).

Readers of the preceding example will know to look for the complete citation under "SPSS" in the "References" section.

Web Sources for specific electronic formats for specific kinds of electronic sources:

http://www.vanguard.edu/faculty/ddegelman/index.cfm?doc_id=796
<http://www.uwsp.edu/psych/apa4b.htm>
<http://www.wooster.edu/psychology/apa-crib.html>
http://owl.english.purdue.edu/handouts/print/research/r_apa.html
<http://www.westwords.com/guffey/apa.html>

8. AUTHOR NOTES

- Labeled as "Author Notes" (centered), no blank lines after label
- Acknowledgement and other details about the author that readers need to know but are not appropriate to be included in body of paper (may be omitted).

9. FOOTNOTES

- Labeled as "Footnotes" (centered), no blank lines after label
- Relevant info about certain terms/parts in the body of the manuscript but are not appropriate to be included in the body (may be omitted).

- Numbered

10. TABLES

- Write the table number in regular font, no punctuation after it. On the next double space line, write the table title, italicized. Both are flushed on the left margin. For example:

Table 1
Posttest mean scores of the research groups

- No vertical lines
- When using columns with decimal numbers, make the decimal points line up

11. FIGURE CAPTIONS

- Start on new page. Center the phrase *Figure Captions* at the top
- Figure number and title (enumerated)
- Figure number, italicized and on the next double space line, figure title in regular font. For example:

Figure 1
Graphical representation of results

- Each figure caption is typed flush left in block format

12. FIGURES

- Graphs, charts, drawings, and pictures
- One figure per page
- Figures (other than pictures) may be drawn in black and white only (using a ruler and preferably on graph paper) or they may be generated with a computer graphics program (keeping it in two dimensions).
- Center each figure on the page vertically as well as horizontally and arrange for the figure to use the bulk of the page.
- If the figure is a chart or graph, verbally label the axes (do not use “X” and “Y”) and provide a key if necessary (e.g., explaining what open vs. filled circles are).
- On the back of each figure (with a pencil), put the manuscript page header, the figure number, and the word TOP to indicate how the figure should appear on the page.
- Do not put the figure caption on the figure, that is what the figure captions page is for.

APA STYLE ESSENTIALS (5TH Edition)

General Document Guidelines

- A. *Margins*: One inch on all sides (top, bottom, left, right)
- B. *Font Size and Type*: 12-pt. font (Times New Roman, Bookman Old Style or Courier are acceptable typefaces)
- C. *Spacing*: Double-space throughout the paper, including the title page, abstract, body of the document, and references.
- D. *Alignment*: Flush left (creating uneven right margin)
- E. *Paragraph Indentation*: 5-7 spaces
- F. *Pagination*: The page number appears one inch from the right edge of the paper on the first line of every page, beginning with the title page. The only pages that are not numbered are pages of artwork.
- G. *Headings and Subheadings*: Main headings (when the paper has either one or two levels of headings) use centered uppercase and lowercase letters (e.g., Method,

Results, Discussion, and References). Subheadings (when the paper has two levels of headings) are italicized and use flush left, uppercase and lowercase letters (e.g., *Participants*, *Apparatus*, and *Procedure* as subsections of the Method section). Avoid hanging headings.

Text citations: Source material must be documented in the body of the paper by citing the author(s) and date(s) of the sources. The underlying principle here is that ideas and words of others must be formally acknowledged. The reader can obtain the full source citation from the list of references that follows the body of the paper.

- A. When the names of the authors of a source are part of the formal structure of the sentence, the year of publication appears in parentheses following the identification of the authors. Consider the following example:

Wirth and Mitchell (1994) found that although there was a reduction in insulin dosage over a period of two weeks in the treatment condition compared to the control condition, the difference was not statistically significant.

[Note: *and* is used when multiple authors are identified as part of the formal structure of the sentence. Compare this to the example in the following section.]

- B. When the authors of a source are *not* part of the formal structure of the sentence, both the authors and years of publication appear in parentheses, separated by semicolons. Consider the following example:

Reviews of research on religion and health have concluded that at least some types of religious behaviors are related to higher levels of physical and mental health (Gartner, Larson, & Allen, 1991; Koenig, 1990; Levin & Vanderpool, 1991; Maton & Pargament, 1987; Paloma & Pendleton, 1991; Payne, Bergin, Bielema, & Jenkins, 1991).

[Note: *&* is used when multiple authors are identified in parenthetical material. Note also that when several sources are cited parenthetically, they are ordered alphabetically by first authors' surnames.]

- C. When the authors and year of publication are both part of the formal structure of the sentence, there is no need to insert parenthetical citations. Consider the following example:

In 2002, Reyes concluded that formal training is an effective strategy to control the stress levels of industrial employees.

- D. When a source that has two authors is cited, both authors are included every time the source is cited.
E. When a source that has three, four, or five authors is cited, all authors are included the first time the source is cited. When that source is cited again, the first author's surname and "et al." are used. Consider the following example:

Reviews of research on religion and health have concluded that at least some types of religious behaviors are related to higher levels of physical and mental health (Payne, Bergin, Bielema, & Jenkins, 1991).

Payne et al. (1991) showed that ...

- F. When a source that has six or more authors is cited, the first author's surname and "et al." are used every time the source is cited (including the first time).
- G. Every effort should be made to cite only sources that you have actually read. When it is necessary to cite a source that you have not read ("Grayson" in the following example) that is cited in a source that you have read ("Murzynski & Degelman" in the following example), use the following format for the text citation and list only the source you have read in the References list:

Grayson (as cited in Murzynski & Degelman, 1996) identified four components of body language that were related to judgments of vulnerability.

- H. To cite a personal communication (including letters, emails, and telephone interviews), include initials, surname, and as exact a date as possible. Because a personal communication is not "recoverable" information, it is not included in the References section. For the text citation, use the following format:

B. F. Skinner (personal communication, February 12, 1978) claimed ...

Quotations: When a direct quotation is used, always include the author, year, and page number as part of the citation.

- Add emphasis in a quotation with italicizing, immediately followed by the words [italics added] in brackets.
- Brackets are not necessary when changing the first letter of a quotation to upper case.
- Use brackets if introducing or altering material.
- Reproduce a quote exactly. If there are errors, introduce the word *sic* italicized and bracketed, for example, [*sic*] immediately after the error.
- Use three dots (ellipsis points) when omitting material, four if the omitted material includes the end of a sentence. Do not use dots at the beginning or end of a quotation unless it is important to indicate the quotation begins or ends in midsentence.

- A. A quotation of fewer than 40 words should be enclosed in double quotation marks and should be incorporated into the formal structure of the sentence. Consider the following example:

Patients receiving prayer had "less congestive heart failure, required less diuretic and antibiotic therapy, had fewer episodes of pneumonia, had fewer cardiac arrests, and were less frequently intubated and ventilated" (Byrd, 1988, p. 829).

- B. A lengthier quotation of 40 or more words should appear (without quotation marks) apart from the surrounding text, in block format, with each line indented five spaces from the left margin.
- C. A quotation with more than 500 words requires a written permission from the author

Abbreviations

- Avoid abbreviations except for long, familiar terms (MMPI).
- Explain what an abbreviation means, the first time it occurs. For example, University of Santo Tomas (UST).
- If an abbreviation is commonly used as a word, it does not require explanation (IQ, LSD, REM, ESP).
- Do not use the old abbreviations for subject, experimenter, and observer (S, E, O).
- The following abbreviations should NOT be used outside parenthetical comments:
 - **cf.** [use **compare**]
 - **e.g.** [use **for example**]
 - **etc.** [use **and so forth**]
 - **i.e.** [use **that is**]

- **viz.** [use **namely**]
- **vs.** [use **versus**]
- Use periods when making an abbreviation within a reference (Vol. 3, p. 6, 2nd ed.)
- Do not use periods within degree titles and organization titles (PhD, APA).
- Do not use periods within measurements (lb, ft, s) except inches (in.).
- Use s for second, m for meter.
- To form plurals of abbreviations, add s alone, without apostrophe (PhDs, IQs, vols., Eds).
- In using standard abbreviations for measurements, like m for meter, do not add an s to make it plural (100 seconds is 100 s), and when referring to more than one page in a book excerpt, use the abbreviation pp. (with a period after it and a space after the period).
- Do not use the abbreviation "pp" for magazine or journal citations; just give the numbers themselves. Do use "pp" for citations of encyclopedia entries, multi-page newspaper articles, chapters or articles in edited books.
- Use two-letter postal codes for U.S. state names (GA).

Avoiding Biased and Pejorative Language

In general, avoid anything that causes offense. The style manual makes the following suggestions:

DO NOT use...	when you can use...
ethnic labels (for example, Hispanic)	geographical labels (Mexican Americans)
"men" (referring to all adults)	"men and women"
"homosexuals"	"gay men and lesbians"
"depressives"	"people with depression"

A. *Correct use of the terms "gender" and "sex"*

- The term "gender" refers to culture and should be used when referring to men and women as social groups, as in this example from the publication manual: "sexual orientation rather than gender accounted for most of the variance in the results; most gay men and lesbians were for it, most heterosexual men and women were against it."
- The term "sex" refers to biology and should be used when biological distinctions are emphasized, for example, "sex differences in hormone production."
- Avoid gender stereotypes. For example, the manual suggests replacing "An American boy's infatuation with football" with "An American child's infatuation with football."

B. *Sensitivity to labels*

- Be sensitive to labels. A person in a clinical study should be called a "patient," not a "case." Avoid equating people with their conditions, for example, do not say "schizophrenics," say "people diagnosed with schizophrenia." Use the term "sexual orientation," not "sexual preference." The phrase "gay men and lesbians" is currently preferred to the term "homosexuals." To refer to all people who are not heterosexual, the manual suggests "lesbians, gay men, and bisexual women and men."
- In racial references, the manual simply recommends that we respect current usage. Currently both the terms "Black" and "African American" are widely accepted, while "Negro" and "Afro-American" are not. These things change, so use common sense.
- Capitalize Black and White when the words are used as proper nouns to refer to social groups. Do not use color words for other ethnic groups. The manual specifies that hyphens should not be used in multiword names such as Asian American or African American.
- Labels can be tricky, and the manual has a lot to say about them. For example, "American Indian" and "Native American" are both acceptable usages, but the manual

notes that there are nearly 450 Native American groups, including Hawaiians and Samoans, so specific group names are far more informative.

- The terms Hispanic, Latino, and Chicano are preferred by different groups. The safest procedure is use geographical references. Just say "Cuban American" if referring to people from Cuba.
- The term Asian American is preferable to Oriental, and again the manual recommends being specific about country of origin, when this is known (for example, Chinese or Vietnamese). People from northern Canada, Alaska, eastern Siberia, and Greenland often (but not always!) prefer *Inuk* (singular) and *Inuit* (plural) to "Eskimo." But some Alaska natives are non-Inuit people who prefer to be called Eskimo. This type of difficulty is avoided by using geographical references. For example, in place of "Eskimo" or "Inuit" one could use "people from northern Canada, Alaska, eastern Siberia, and Greenland."
- In general, call people what they want to be called, and do not contrast one group of people with another group called "normal" people. Write "we compared people with autism to people without autism" not "we contrasted autistics to normals." Do not use pejorative terms like "stroke victim" or "stroke sufferers." Use a more neutral terminology such as "people who have had a stroke." Avoid the terms "challenged" and "special" unless the population referred to prefers this terminology (for example, Special Olympics). As a rule, use the phrase "people with _____" (for example, "people with AIDS," not "AIDS sufferers").
- In referring to age, be specific about age ranges; avoid open-ended definitions like "under 16" or "over 65." Avoid the term "elderly." "Older person" is preferred. "Boy" and "Girl" are acceptable referring to high school and younger. For persons 18 and older use "men" and "women."

Capitalization

- Capitalize formal names of tests (Stroop Color-Word Interference Test).
- Capitalize major words and all other words of four letters or more, in headings, titles, and subtitles outside reference lists, for example, "A Study of No-Win Strategies."
- Capitalize names of conditions, groups, effects, and variables only when definite. (Group A was the control group; an Age x Weight interaction showed lower weight with age.)
- Capitalize the first word after a comma or colon if, and only if, it begins a complete sentence. For example, "This is a complete sentence, so it is capitalized." As a counter example, "no capitalization here."
- Capitalize specific course and department titles (GSU Department of Psychology, Psych 150).
- Do not capitalize generic names of tests (Stroop color test). "Stroop" is a name, so it remains capitalized.
- Capitalize nouns before numbers, but not before variables (Trial 2, trial x).
- Do not capitalize names of laws, theories, and hypotheses (the law of effect).
- Do not capitalize when referring to generalities (any department, any introductory course).

Commas

- Do not use commas to separate parts of measurement (9 lbs 5 oz). Use the metric system, as a rule.
- Use commas before "and" in lists, for example, height, width, and depth.
- Use commas between groups of three digits, for example, 1,453.
- Use commas to set off a reference in a parenthetical comment (Patrick, 1993).
- Use commas for seriation within a paragraph or sentence. For example, "three choices are (a) true, (b) false, and (c) don't know." Use semicolons for seriation if there are commas within the items. For example, (a) here, in the middle of the item, there are commas; (b) here there are not; (c) so we use semicolons throughout.
- Use commas in exact dates, for example, April 18, 1992 (but not in April 1992).

Hyphenation

- Do not hyphenate -ly and superlative words (widely used test, best informed students).

- Do not hyphenate common prefixes (posttest, prewar, multiphase, nonsignificant) unless needed for clarity (pre-existing).
- Do not hyphenate foreign, letter, numeral terms (a priori hypothesis, Type A behavior) when the meaning is clear without it (least squares solution, heart rate scores).
- Do not hyphenate if a noun comes first (a therapy was client centered, results of t tests).
- Hyphenate adjectival phrases (role-playing technique, high-anxiety group, two-way analysis).
- Hyphenate compound adjectives preceding nouns (client-centered therapy, t-test scores) unless the compound adjective involves a superlative (best written paper).
- Hyphenate if the base is an abbreviation or compounded (pre-UCS, non-college bound).
- Hyphenate if the base word is capitalized or a number (pre-Freudian, post-1960).
- Hyphenate if the words could be misunderstood without a hyphen (re- pair, un-ionized, co-worker).
- If in doubt, consult a recently published dictionary. Standards change. For example, "data base" is now "database," and "life-style" is now "lifestyle."

Italics (Underlining)

- Do not underline common foreign abbreviations (vice versa, et al., a priori).
- Do not underline for mere emphasis.
- Do not underline for titles of books and articles, species names, introduction of new terms and labels (the first time only), words and phrases used as linguistic examples, letters used as statistical symbols, and volume numbers in reference lists.

Miscellaneous: Colons, dashes, parentheses, numbering paragraphs

- Do not use "and/or." Write things out. For example, "Monday, Tuesday, or both" is preferable to "Monday and/or Tuesday."
- Do not use a colon or other punctuation after an introduction which is not a complete sentence such as

this one, or any other sentence in the body of text which flows into an extended quote. The quote "picks up where the sentence leaves off" and provides the punctuation.
- Use a dash (rendered on typewriters and some word processors as a double hyphen) when there is a sudden interruption like this one--zoiks!--in the flow of a sentence. Overuse "weakens the flow of the writing."
- Use parentheses to introduce an abbreviation, for example, the galvanic skin response (GSR).
- Use "appendixes" (appendices) as the plural of "appendix." Use datum as singular, data as plural. Use matrix as singular, matrices as plural. Use schema as singular, schemas (not schemata) as plural.
- When listing separate paragraphs in a series, use a number and a period, not parentheses.
 1. The first paragraph goes here.
 2. The second paragraph goes here.

Numbers

- Spell out common fractions and common expressions (one-half, Fourth of July).
- Spell out large numbers beginning sentences (Thirty days hath September...).
- Use numerals for numbers 10 and above, or lower numbers grouped with numbers 10 and above (for example, from 6 to 12 hours of sleep).
- Spell out numbers which are inexact, or below 10 and not grouped with numbers over 10 (one-tailed t test, eight items, nine pages, three-way interaction, five trials).
- To make plurals out of numbers, add s only, with no apostrophe (the 1950s).
- Treat ordinal numbers like cardinal numbers (the first item of the 75th trial...).
- Use combinations of written and Arabic numerals for back-to-back modifiers (five 4-point scales).
- Use combinations of numerals and written numbers for large sums (over 3 million people).

- Use numerals for exact statistical references, scores, sample sizes, and sums (multiplied by 3, or 5% of the sample). Here is another example: "We used 30 subjects, all two year olds, and they spent an average of 1 hr 20 min per day crying.
- Use metric abbreviations with figures (4 km) but not when written out (many meters distant).
- Use the percent symbol (%) only with figures (5%) not with written numbers (five percent).

Quotation Marks

- Use quotation marks for an odd or ironic usage the first time but not thereafter, for example, "This is the "good-outcome" variable, but as it turns out, the good-outcome variable predicts trouble later on...
- Use quotation marks for article and chapter titles cited in the text but not in the reference list. [In Smith's (1992) article, "APA Style and Personal computers," computers were described as "here to stay" (p. 311).]

Do NOT use quotes to...

- ...cite a linguistic example; instead, italicize the term (the verb *gather*).
- ...hedge, cast doubt, or apologize (he was "cured"). Leave off the quotes.
- ...identify endpoints on a scale; italicize instead (*poor* to *excellent*).
- ...introduce a key term (the *neoquasipsychoanalytic* theory).

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