

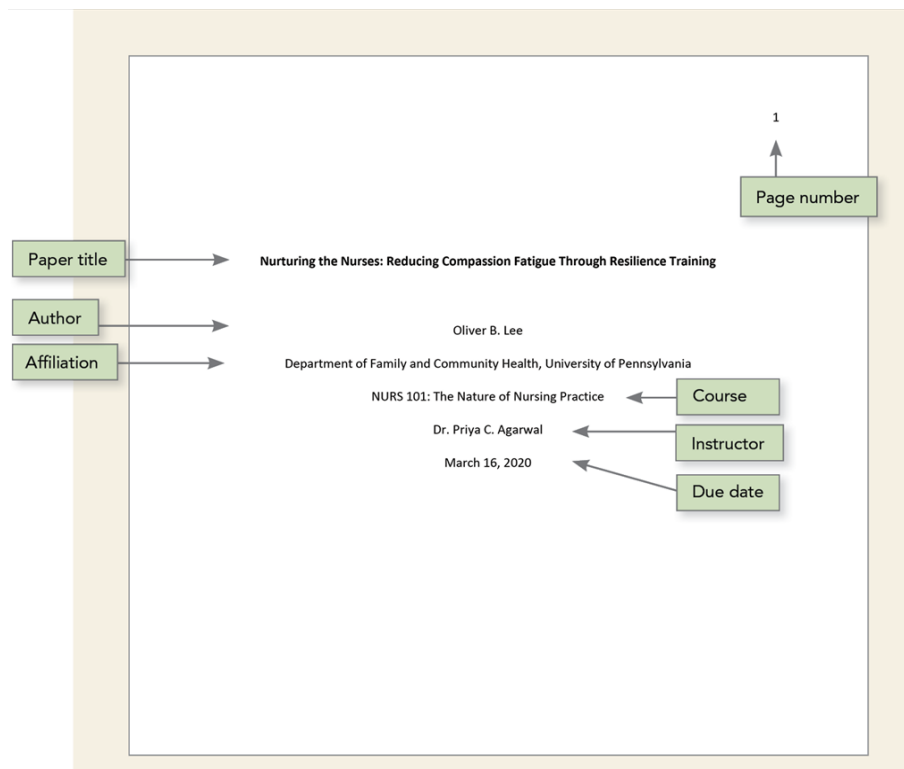
Guidelines to writing in APA format

Based on the 7th edition (2020) of the
Publication Manual of the American Psychological Association

There are explicit rules put out by the American Psychological Association for writing an empirical report. Because this is a research enterprise, clarity and standardization are prioritized. For more detailed instructions see the actual manual. In particular, the manual has some excellent sample manuscripts in APA style that are annotated with the location of information about any rule. If you do not have access to it, [Purdue Owl](#) is a helpful and trusted online source which provided some of the examples you will see here. Google docs also has a [Template](#) for APA formatting which makes the process easier. Simply make a copy using the above link or navigate to Google Docs → Template Gallery (at the top) → APA 7th ed.

Title Page

The title page presents a clear and concise title of your paper. The title should describe the main idea of the research and identify the relationship between the variables in the study. An example of a good title would be “Effects of Age on Detection of Emotional Information.” A list of the authors follows beneath the title, and the institutional affiliations of the authors beneath the authors’ names. The title, authors’ names and institutional affiliations are centered and double spaced. Use upper and lower-case letters for the title (except for words like “a”, “or”, “the”), the author and institutional affiliation.



Running Head

The running head is not required for student papers unless the instructor or institution requests it. The running head on the first page is different from the running head for the rest of the manuscript. On the first page the running head is flush left and reads: “(ABBREVIATED) TITLE OF YOUR PAPER”. The title is all in capital letters. If your title is longer than 50 characters, use an abbreviated title here instead. Do not write “RUNNING TITLE:” before the actual title.

Page Numbers

The page numbers begin with the title page. The title page is page 1. Page numbers are flush right at the top of the page, and the running head is flush left on the same line.

Headings

The major headings of the body of your paper (Level 1 headings) include Methods, Results, Discussion, and References. (The Introduction is not labeled but rather has the title of the paper.) These headings should be centered, boldface, using upper and lower-case letters.

Level 2 headings are subheadings under Level 1 headings. For example, in your Methods section you will likely have subheadings for Participants, Procedures, and Materials. These level 2 headings should be left-aligned, boldface, using upper and lower-case letters.

If you have Level 3 subheadings they should also be left-aligned, boldface, using upper and lower-case letters.

Level 4 and 5 subheadings should be reserved for only very complex papers. They are not typically used in student papers.

Abstract

The abstract begins on page two. The word “Abstract” is centered on the top of the page in bold with the first letter uppercase. Do not indent the first line of the abstract. The abstract should be about 200 words. The abstract should be organized just like the overall report—introduction, methods, results and discussion. It describes the major content of the article in a clear, concise manner.

Introduction

The introduction to your paper begins on page 3 with the title of the paper centered at the top of the page, using upper- and lower-case. The introduction should follow a general to specific pattern, where you start by introducing the general problem, then review past work related to your study, and end with a short overview of your own study. The introduction has three parts (not labeled): opening statement, literature review, and study overview.

Opening statement: Define your problem or central research question broadly in plain English. Your opening statement should set the stage for the story you are going to tell in the paper overall and for the literature review specifically.

Literature review: Then, you survey the previous research that has been done on the topic. Your review of the literature should look critically at the studies that have been done, and address any weaknesses or contradictory findings (avoid simply providing summaries). It should describe important questions that remain to be answered and should set up your research question. Keep your story in mind as you organize your literature review. You should discuss studies that logically lead to your own hypotheses and your own study. Studies should be presented based on themes or concepts relevant to your research.

Study overview: Finally, the literature review should lead directly into the last section of the introduction—your study overview. Here you should provide your hypotheses and briefly describe your research methods in a single paragraph. Give good, descriptive names to your hypotheses that you will use consistently throughout your report.

Method

The method section provides a detailed overview of how you conducted your research, with enough descriptive material for someone to be able to replicate your experiment. The method section should include the following subsections (labeled).

Participants: Report the number and type of participants and how they were recruited (e.g., college students from Introductory Psychology) as well as demographic information. The accepted term for describing a person who participates in research studies is “participant” not “subject”.

Materials: Give general information on each measure (e.g., if a self-report questionnaire, what constructs it measures, with how many items to assess each, using what kind of rating scale, etc.). Also include any original measures (e.g., a questionnaire you designed) in an appendix in its entirety, and refer to that appendix in this section. It is in this section that you report the internal consistency of a measure. If you dropped items to increase alpha, in the appendix star or otherwise indicate which items were dropped.

Procedure: The procedure includes the step-by-step process of your experiment. The procedure should include a description of the experimental design and how participants were assigned to conditions. Identify your independent variables and dependent variables. Give your variables clear, meaningful names so that your readers are not confused.

Results

The results section is where you present the results of your research, narrated in plain English and accompanied by statistics. You do not interpret what the results mean in this section; that is done in the Discussion.

Begin this section by reminding your readers what your overall story is and what your hypotheses are. Then, provide each result as it relates to that story and those hypotheses. Start with the most important analysis and group conceptually related analyses together. In general, present all main effects first, followed by interaction effects. Also, provide information on both significant and non-significant effects; that is, give the statistics for all analyses run. There are very specific APA rules about how statistics should be presented. See the attached appendix on “Reporting Statistics” for specifics on reporting statistical analyses.

Often results are simple enough to present in narrative form in the body of your text. However, some things are most effectively presented via a figure or table. Some examples would be a list of reliabilities for a set of variables, or a significant interaction effect. If you do use a figure or table, do not also report the same information in the text; rather, refer to the figure/table in the body of your narrative. Refer to the APA manual for rules on when to use figures or tables and how to design them.

Discussion

Your discussion section is where you talk about what your results mean. In this section you evaluate your hypotheses or research questions, tie your findings to the literature discussed in your literature review, discuss limitations and alternative interpretations, and propose directions for future research. Here are some tips for writing your discussion:

- Begin with a clear statement of whether or not your hypotheses were supported. What have you learned from this study?
- Then discuss each hypothesis or research question in more depth.
- Discuss how your results compare to previous findings in the literature. If there are differences, discuss why you think these differences exist/what they mean.
- Consider your study's limitations. It doesn't matter if you got the results you expected; as long as you recognize why you might not have, you've learned from the experience. Talk about what you would have done differently as well as alternative explanations for your findings.
- Consider also what new questions your study raises and what avenues future research could take in this area.

References

The reference section appears on a separate page following the Discussion section. The list of references should be double-spaced, in alphabetical order by the last name of the first author. References should be formatted using a hanging indent. Here is a sample reference in APA format:

Banaji, M. R., & Greenwald, A. G. (1995). Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology*, 68, 181-198.

However, there are many rules about citing different types of sources. The most common ones are described below:

Article (from a Journal):

Begin with the authors' last name, first name, (followed by the year in parenthesis). Next, write the complete title. Then the journal the article came from, followed by the journal edition, and then the page numbers (if given). Finally, include a DOI (which stands for Digital Object Identifier) which will provide a permanent web address. If one is not available because it is not from a database simply include the URL.

Grady, J. S., Her, M., Moreno, G., Perez, C., & Yelinek, J. (2019). Emotions in storybooks: A comparison of storybooks that represent ethnic and racial groups in the United States. *Psychology of Popular Media Culture*, 8(3), 207–217.

<https://doi.org/10.1037/ppm0000185>

Book (E-book):

Begin again with the authors' last name, first name, (followed by the copyright year in parenthesis). Next, write the complete title. Then the publisher of the book, followed by the book edition, and then the page numbers (if you aren't trying to cite the entire book). Finally, include a DOI (which stands for Digital Object Identifier) which will provide a permanent web address. If one is not available because it is not from a database simply include the URL.

Jackson, L. M. (2019). *The psychology of prejudice: From attitudes to social action* (2nd ed.). American Psychological Association. <https://doi.org/10.1037/0000168-000>

Svendsen, S., & Løber, L. (2020). *The big picture/Academic writing: The one-hour guide* (3rd digital ed.). Hans Reitzel Forlag.

<https://thebigpicture-academicwriting.digi.hansreitzel.dk/>

Book (Print):

Begin again with the authors' last name, first name, (followed by the copyright year in parenthesis). Next, write the complete title. Then the publisher of the book, followed by the book edition, and then the page numbers (if you aren't trying to cite the entire book).

Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. Penguin Books.

Website (with a listed author(s)):

Begin again with the authors' last name, first name, (followed by the upload / update year in parenthesis). *Next, write the complete title of the Webpage you want to cite in italics.* Then the name of the Website itself. Finally, include the URL.

Horovitz, B. (2021, October 19). *Are you ready to move your aging parent into your home?* AARP.

<https://www.aarp.org/caregiving/home-care/info-2021/caregiving-questions.html>

Schaeffer, K. (2021, October 1). *What we know about online learning and the homework gap amid the pandemic.* Pew Research Center.

<https://www.pewresearch.org/fact-tank/2021/10/01/what-we-know-about-online-learning-and-the-homework-gap-amid-the-pandemic/>

Website (with an organizational group author):

Simply begin the name of the organizational group author (followed by the upload / update year in parenthesis). *Next, write the complete title of the Webpage you want to cite in italics.* Finally, include the URL.

World Health Organization. (2018, May 24). *The top 10 causes of death.*

<https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>

If you have a more specific question about citing a less commonly used source like an illustrated children's book, social media, dissertations, thesis, etc., please refer to the [APA Style Guide](#). If you need additional support, [Zotero](#) is a very helpful citation generator, but it is important to check each citation it provides to make sure it follows APA criteria.

Citing References in the text

When citing literature in the text of your paper, the general format for citations is to put the citation in parentheses, with a comma separating authors and date of publication, and a semicolon separating different sources e.g., (Jones & Newman, 1998; Newman, Jones, & Black, 2000). Use the ampersand (&) when citing sources with more than one author in parentheses; use the word "and" when referring to sources with more than one author within the text itself. So, for example, write "Jones and Newman (1998) conducted the following study..." but write "In their study (Jones & Newman, 1998) ...". If there are more than three authors, you refer to the following authors as "et al.," e.g., Newman et al., 2000. The only exception to this is if doing so would create ambiguity (e.g., if two papers have first-listed authors with the same name). In these cases, list as many names

as needed to differentiate the papers, followed by “et al.” You no longer need to cite all authors the first time you are citing them.

Appendices

Appendices begin on a separate page following the References. Each item should start on its own page and be indicated by a different letter (e.g., Appendix A) and title (e.g., Appendix A: Mood Questionnaire), typed centered in upper and lower-case. Reproduce any original material you designed in its entirety in an appendix. For a questionnaire, indicate which items were reverse scored by writing an R after the items number (e.g., 2R); if you dropped items to increase alpha, star which items were dropped (e.g., 3*). (Also include a footnote explaining the meaning of the R and *.)

Appendix A: Reporting Statistics in APA Format

General Rules

You must italicize the following statistics when reporting them in a manuscript:

M (mean)

SD (standard deviation)

N (total number in a sample)

n (number in a subsample)

p (probability)

r (Pearson product-moment correlation)

t (value of t-test)

F (F ratio in ANOVA)

α (Cronbach’s alpha)

X^2 (value of chi-square test)

η^2 (Eta squared)

Report *p* values exactly and out to three decimal points (e.g., $p = .013$). If your printout indicates that $p = .000$, report this as $p < .001$. Report *r*, *t*, *F*, and α values to two decimal points (e.g., $r = .68$; $F = 21.01$.)

Following are examples of how to report the results of various types of statistical analyses:

Descriptive Statistics

The participants were 60 undergraduate students ranging in age from 17 to 23 ($M = 18.63$, $SD = 1.16$). Of these students, 50% identified as male and 50% identified as female.

Cronbach’s Alpha

The internal consistency of the 8-item scale, as measured by α , was .84.

Correlation

There was a significant positive correlation between amount of education and annual income, $r(28) = .65, p = .013$. (The number in parentheses is the df.)

Partial Correlation

The correlation between weight and popularity, after controlling for height, was not significant ($r(72) = .03, p = .675$).

Chi-square

The proportion of participants that were married did not differ by gender, $\chi^2(1, N = 90) = .89, p = .354$. (The numbers in parentheses are the degrees of freedom followed by the sample size.)

T-test

A t-test indicated a significant difference for group assignment, $t(18) = -3.00, p = .035$. The group using mental images recalled more words ($M = 25, SD = 4.71$) than the group that did not use mental images ($M = 19, SD = 4.22$).

One-way ANOVA

A One-way Analysis of Variance revealed a significant difference between the groups, $F(3,8) = 21.04, p = .026$. (The first number in parentheses is the between-groups degrees of freedom, the second is the within-groups degrees of freedom.) Post hoc comparisons using the Fisher LSD test revealed that both Blacks ($M = 3.3, SD = 2.2$) and Asians ($M = 3.5, SD = 2.1$) were significantly less satisfied with their academic performance than Whites ($M = 4.5, SD = 2.4$).

Two-factor ANOVA

When reporting a two-factor ANOVA, you should first report what your IVs are and indicate the levels of each IV. Then, give the results for both main effects, followed by the results for the interaction effect. For example:

“A 2 (sex of rater: female versus male) x 2 (sex of target: female versus male) Analysis of Variance was run on the dependent variable of honesty. There was a significant main effect of sex of rater, $F(1,126) = 6.79, p = .018, \eta^2 = .06$. (The first number in parentheses is the between-groups degrees of freedom, the second is the within-groups degrees of freedom; the within groups degrees of freedom is found in the SPSS output under Error.) Females ($M = 5.32, SD = 2.45$) gave higher ratings for honesty than males ($M = 3.46, SD$

= 2.13). The main effect of sex of target was also significant, $F(1,126) = 8.22, p = .012, \eta^2 = .08$. Female faces ($M = 5.52, SD = 2.36$) were perceived to be more honest than male faces ($M = 3.32, SD = 2.23$). Finally, there was a significant interaction between sex of rater and sex of target, $F(1,126) = 5.89, p = .042, \eta^2 = .05$. Females gave higher ratings to female faces than to male faces ($M = 5.73$ vs 4.64), whereas males gave higher ratings to male faces than to female faces ($M = 3.82$ vs 2.78)."

Writing Style & Grammar

The seventh edition of the APA Manual endorses the use of "they" as a singular pronoun. The manual advises writers to use "they" rather than "he/she" for a person whose gender is unknown or irrelevant. Please respect participants' preferred pronouns. Avoid using words like "it", "that," and "which" for people, rather than "who" and other pronouns.

Bias Free Language

The seventh edition of the manual updates guidelines for writing about "age, disability, gender, racial and ethnic identity, and sexual orientation" to bring them in line with current best practices. Please see the manual for a full list, but here are some common mistakes.

- Use "person-first" language whenever possible. For instance, "a man with epilepsy" is generally preferable to "an epileptic".
- Similarly, avoid using adjectives as nouns to describe groups of people (e.g., "the impoverished"). Instead, use these adjectives to describe specific nouns or use descriptive noun phrases (e.g., "people living in poverty").
- Use specific labels rather than general ones when possible. For example, "cisgender men" is more specific than "men." Similarly, "Korean Americans" is more specific than "Asian Americans" or "Asians."
- When describing differences between groups of people, focus on the qualities that are relevant to the situation at hand. For example, in a study of sex chromosome-linked illnesses, study participants' biological sexes are probably relevant, while participants' sexual orientations are probably not.