Papers usually end with a concluding section, often called the "Discussion." The Discussion is your opportunity to evaluate and interpret the results of your work, draw inferences and conclusions from it, and communicate its contributions to people in your field and/or society. Use the present tense when writing the Discussion section.

- In the Discussion section of a research paper, you should evaluate and interpret the implications of study results with respect to your original hypotheses. It is also where you can discuss your study’s importance, present its strengths and limitations, and propose new directions for future research.
- In other types of papers, such as essays or reaction papers, the Discussion is where to summarize the key points or themes in your paper and reflect on previous statements and their broader connections.

This guide provides possible statements to use when discussing specific types of content in the Discussion section of a research paper. These are examples of only some, but not all, of the phrases that can be used in the Discussion section of all APA Style papers. Check with your instructor for specific guidelines on the content to include in your Discussion section.

**Summarizing your study results**
- The purpose of this study was to gain a better understanding of …
- The results of the present study support the hypothesis that …
- The results of this research provide supporting evidence that …
- There are three key findings of the present research. First … Second … Third …

**Linking findings to previous research**
- This pattern of results is consistent with the previous literature … (citation).
- These results are consistent with the claim that …
- The present results are consistent with Author et al.’s (year) work that deals with …
- Whereas past researchers have found … (citation; citation), the present study has shown …
- These results represent the first direct demonstration of …
Discussing research results

• Our findings highlight …
• The results strongly imply that …
• It is interesting that …
• In my view, the most compelling explanation for the present set of findings is that …
• This idea is further supported by the finding that …
• Two other results from this study merit comment. First … Second …
• Finally, we obtained evidence that …
• One interpretation of these findings is that …
• This finding may be explained by the idea that …
• Taken together, our findings indicate …

Study limitations

• There are at least two potential limitations concerning the results of this study. A first limitation concerns … A second potential limitation is that …
• One limitation of this study is that … It is possible that … Although the present research cannot rule out these explanations, it seems useful to point out issues that may conflict with these results.
• Although the present results clearly support … , it is appropriate to recognize several potential limitations.
• Besides our own interpretation of the data, an additional explanation warrants comment. For example, researchers have suggested … (citation).
• Certain limitations of this study could be addressed in future research. For example …
• The present study represents a first attempt to address these issues. We feel that further research examining … may shed light on …

Study implications

• Despite these limitations, these results suggest several theoretical and practical implications. For example …
• These data have some potential implications for interventions. For example …

Directions for future research

• Although these results support … , their most important contribution may be that they raise a variety of intriguing questions for future study.
• In terms of future research, it would be useful to extend the current findings by examining …
• If, as the present study suggests, … then there is a need for research that explores …
• Much work remains to be done before a full understanding of the extent of … is established.
• In addition to those already mentioned, I suggest several avenues of research that may be helpful.

Closing statement or paragraph

• Despite these limitations, this research can be seen as a first step toward integrating two lines of research, [x and y], that, to our knowledge, have not been directly linked.
• Despite these limitations, the present study has enhanced our understanding of the relationship between [x and y]. We hope that the current research will stimulate further investigation of this important area.
• The present research, therefore, contributes to a growing body of evidence suggesting that …
• In summary, our research replicates (citation) … The findings contribute to a growing evidence …
• Although the generality of the current results must be established by future research, this study has provided clear support for … Not only was … Furthermore …


CRE DIT: TRACI GIULIANO, SOUTHWESTERN UNIVERSITY
Title of Paper

Begin your paper with the paper title at the top of the first page of text. The paper title acts as a de facto Level 1 heading: It is centered and in bold title case font. Do not use the heading “Introduction”; text at the beginning of the paper is assumed to be the introduction.

APA Style headings have five possible levels. Each main section starts with the highest level of heading, even if one section has fewer levels of subheading than another section. For example, in a paper with Level 1 Method, Results, and Discussion headings, the Method and Results sections may each have two levels of subheading (Levels 2 and 3), and the Discussion section may have only one level of subheading (Level 2).

Level 2 Heading in the Introduction

Use Level 2 headings for any headings within the introduction, Level 3 for subsections of any Level 2 headings, and so on.

Level 2 Heading in the Introduction

Avoid having only one subsection heading within a section, just like in an outline. Use at least two subsection headings within a section or use no subsection headings at all (e.g., in an outline, a section numbered with a Roman numeral would be divided into either a minimum of A and B subsections or no subsections; an A subsection would not stand alone).

Level 1 Heading for First Main Section After the Introduction

After the introduction (regardless of whether it includes headings), use a Level 1 heading for the next main section of the paper (e.g., Method).

Level 2 Heading

Use Level 2 headings for subsections of Level 1 headings. Do not label headings with numbers or letters.

Level 2 Heading

All topics of equal importance should have the same level of heading. For example, in a multiexperiment paper, the headings for the Method and Results sections for Experiment 1 should be the same level as the headings for the Method and Results sections for Experiment 2, with parallel wording. In a single-experiment paper, the Method, Results, and Discussion
sections should all have the same heading level.

**Level 3 Heading**

Use Level 3 headings for subsections of Level 2 headings. Do not use abbreviations in headings unless they already defined in the text.

**Level 3 Heading**

The number of levels of heading needed for a paper depends on its length and complexity. Three levels of heading is average.

**Level 4 Heading.** Use Level 4 headings for subsections of Level 3 headings. Use only the number of headings necessary to differentiate distinct sections in your paper. Short student papers may not require any headings.

**Level 4 Heading.** It is not necessary to add blank lines before or after headings, even if a heading falls at the end of a page. Do not add extra spacing between paragraphs.

**Level 5 Heading.** Use Level 5 headings for subsections of Level 4 headings. In the *Publication Manual of the American Psychological Association* (7th ed.), Table 2.3 shows how to format each level of heading, Figure 2.4 demonstrates the use of headings in the introduction, and Figure 2.5 lists all the headings used in a sample paper in the correct format. In the *Concise Guide to APA Style* (7th ed.), this content is found in Table 1.3, Figure 1.3, and Figure 1.4, respectively.

**Level 5 Heading.** The sample papers at the end of Chapter 2 in the *Publication Manual* and Chapter 1 in the *Concise Guide* show the use of headings in context. Additional sample papers can be found on the APA Style website (https://apastyle.apa.org)
7th Edition
Reference Quick Guide

Journal Article

Author, A. A., & Author, B. B. (Year). Title of the article. Name of the Periodical, volume(issue), #–#. https://doi.org/xxxx

- Invert names so that the last name comes first, followed by a comma and the initials. Leave a space between initials. Retain the order of authors’ names.
- Place the year in parentheses. End with a period.
- Capitalize only the first letter of the first word. For a two-part title, capitalize the first word of the second part of the title. Also capitalize proper nouns. Do not italicize. End with a period.
- Place the copyright year in parentheses. End with a period.
- Capitalize only the first letter of the first word. For a two-part title, capitalize the first word of the second part of the title. Also capitalize proper nouns. Italicize the title. End with a period.
- Does the article have a DOI? Include a DOI for all works that have one. Do not put a period after the DOI.

Book

Author, A. A., & Author, B. B. (Copyright Year). Title of the book (7th ed.). Publisher. DOI or URL

- Invert names so that the last name comes first, followed by a comma and the initials. Leave a space between initials. Retain the order of authors’ names.
- Place the copyright year in parentheses. End with a period.
- Capitalize only the first letter of the first word. For a two-part title, capitalize the first word of the second part of the title. Also capitalize proper nouns. Italicize the title. End with a period.
- Does the book have an edition or volume number? If so, include the number in parentheses after the title but before the period. If both, show edition first and volume second, separated by a comma. Do not put a period between the title and the parenthetical information.

- Include the name of the publisher, followed by a period. Do not include the publisher location. Are there multiple publishers? If so, separate them with a semicolon.
- Does the book have a DOI? Include a DOI if available. Do not include a URL or database information for works from academic research databases. Include a URL for ebooks from other websites. Do not put a period after the DOI or URL.
Chapter in an Edited Book

Author, A. A., & Author, B. B. (Copyright Year). Title of the book chapter. In A. A. Editor & B. B. Editor (Eds.), Title of the book (2nd ed., pp. #–#). Publisher. DOI or URL

Write the word “In” and the initials and last name (not inverted) of each editor. Use “(Ed.)” for one editor or “(Eds.)” for multiple editors. End with a comma.

Include the name of the publisher followed by a period. Do not include the publisher location. If there are multiple publishers, separate them with a semicolon.

Does the book have a DOI or URL? Include a DOI if available. Do not include a URL or database information for works from academic research databases. Include a URL for ebooks from other websites. Do not put a period after the DOI or URL.

Does the book have an edition or volume number? If so, include the number in parentheses before the page range. If both, show edition first and volume second, separated by a comma, before the page range. Do not put a period between the title and the parenthetical information.

Capitalize only the first letter of the first word. For a two-part title, capitalize the first word of the second part of the title. Also capitalize proper nouns. Do not italicize. End with a period.

Invert names so that the last name comes first, followed by a comma and the initials. Leave a space between initials. Retain the order of authors’ names.

Place the copyright year in parentheses. End with a period.

Include the chapter page range. End with a period.

More information on reference variations not shown here (e.g., in-press articles, articles with article numbers, articles without DOIs, books with titled volumes, audiobooks) can be found in the Publication Manual of the American Psychological Association (7th ed.) and in the Concise Guide to APA Style (7th ed.).


Credit: Melanie R. Fowler, Florida Southern College
NOTE: These guidelines should be used to create title pages for student papers. However, if instructors or institutions provide different guidance, students should abide by those directions.

TITLE PAGE: The title page needs to provide information about the paper’s topic and authors and the course to which it is being submitted.

Title Page Content
A student title page includes the following elements:
• title of the paper
• author(s)
  ○ include the full names of all authors of the paper; use the form first name, middle initial, last name (e.g., Betsy R. Klein)
  ○ if two authors, separate with the word “and” (e.g., Ainsley E. Baum and Lucy K. Reid)
  ○ if three or more authors, separate each name with a comma and write the word “and” before the last author (e.g., Riley S. Rodrigo, Dev M. Kumar, and Aidan T. Zhang)
  ○ for names with suffixes, separate the suffix from the rest of the name with a space, not a comma (e.g., Felicien L. Cooke Jr.)
• affiliation
  ○ is usually the university the author(s) attended
  ○ include the name of the department or division, followed by the name of the university, separated by a comma (e.g., Department of Psychology, University of Nebraska)
• course name and number
  ○ use the format shown on institutional materials for the course to which the paper is being submitted (e.g., PSY 202, NURS101)
• instructor name
  ○ use the instructor’s preferred designation (e.g., Dr., Professor) and spelling
• assignment due date
  ○ use the month, date, and year format used in your country
  ○ spell out the month (e.g., March 6, 2020)
• header with the page number
Title Page Format

- recommended fonts: 11-point Calibri, 11-point Arial, 10-point Lucida Sans Unicode, 12-point Times New Roman, 11-point Georgia, or 10-point Computer Modern
- 1-in. margins on all sides
- placement: first page of the paper
- title, author name(s), university, course name and number, instructor name, assignment due date
  - positioned in the upper-middle of the page (3 or 4 lines below the top of the page)
  - centered
  - double-spaced
  - not bold or italic, except for the paper title (see more in the next section)
  - each element placed on a separate line
  - no extra lines added between elements, except after the paper title (see more in the next section)
- header:
  - page number (starting at 1) in the top right corner inserted using the automatic page-numbering function of your word-processing program
  - no running head

Special Considerations for the Paper Title

- written in title case
  - capitalize the first word of the title and the first word of any subtitle (after a colon, dash, etc.)
  - capitalize all major words in the title (i.e., nouns, verbs, adjectives, adverbs, pronouns, and words of four letters or more)
  - capitalize the second part of hyphenated major words (e.g., “Self-Report”)
  - lowercase minor short words (i.e., conjunctions of three letters or fewer; prepositions of three letters or fewer; and articles “a,” “an,” and “the”)
  - also capitalize “is” and “be” (because they are verbs) and “with” (because it has four letters)
- bold
- place one double-spaced blank line between the paper title and the author names

Academic Writer includes formatting tools and structured forms to help you seamlessly format your title page in APA Style.

1 Unless requested otherwise; consult your instructor for appropriate formatting guidelines.

2 The running head is not required for student papers unless requested by your instructor or institution. The running head is an abbreviated version of the paper title that is 50 characters or fewer, counting letters, punctuation, and spaces between words as characters. If requested, it should appear in the page header, flush left and across from the right-aligned page number. It should be written in ALL-CAPITAL letters.
NOTE: Abstracts and keywords are not typically required for student papers. Students should consult their instructor or institution to determine whether to include an abstract and/or keywords.

Abstract Content
The abstract addresses the following (usually 1–2 sentences per topic):
• key aspects of the literature review
• problem under investigation or research question(s)
• clearly stated hypothesis or hypotheses
• methods used (including brief descriptions of the study design, sample, and sample size)
• study results
• implications (i.e., why this study is important, applications of the results or findings)

Abstract Format
• recommended fonts: 11-point Calibri, 11-point Arial, 10-point Lucida Sans Unicode, 12-point Times New Roman, 11-point Georgia, or 10-point Computer Modern
• 1-in. margins on all sides
• placement: second page of the paper
• section label: “Abstract”
  ◦ centered and in bold
  ◦ written on the first line of the page
• text:
  ◦ one line below the section label
  ◦ not indented and written as a single paragraph
  ◦ double-spaced

1 Unless requested otherwise; consult your instructor for appropriate formatting guidelines. In academic journals, abstracts typically are limited to no more than 250 words. However, some instructors or journals have different abstract length and formatting requirements.

2 Other fonts are also acceptable so long as they are legible and widely available.
KEYWORDS: Keywords need to be descriptive and capture the most important aspects of your paper. They are used for indexing in databases and as search terms for readers. Include three to five words, phrases, or acronyms as keywords.

Keywords Content
Keywords address essential paper elements, such as the following:
- research topic
- population
- method
- application of results or findings

Keywords Format
- recommended fonts: 11-point Calibri, 11-point Arial, 10-point Lucida Sans Unicode, 12-point Times New Roman, 11-point Georgia, or 10-point Computer Modern (see Footnote 2)
- placement: second page of paper
- written one line below the abstract
- label: “Keywords:”
  - indented (like a regular paragraph)
  - italic (but not bold)
- text:
  - written on the same line as and one space after the label
  - lowercased (but capitalize proper nouns)
  - not italic or bold
  - each keyword separated by a comma and a space
  - no ending punctuation after the final keyword
  - listed in any order (not necessarily alphabetical)
  - if the keywords run onto a second line, double-space the two lines and do not indent the second line

More information on how to write and format an abstract and keywords can be found in the Publication Manual of the American Psychological Association (7th ed.) Sections 2.9 to 2.10 and in the Concise Guide to APA Style (7th ed.) Section 1.10.

CREDIT: ST. LOUIS UNIVERSITY PSYCHOLOGY DEPARTMENT