Research Report Guidelines

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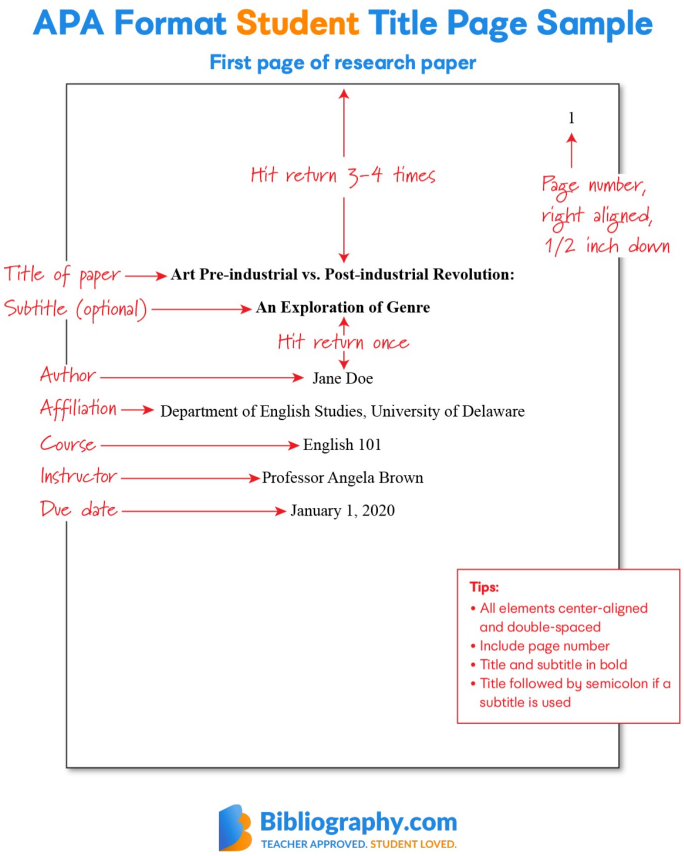
Report structure

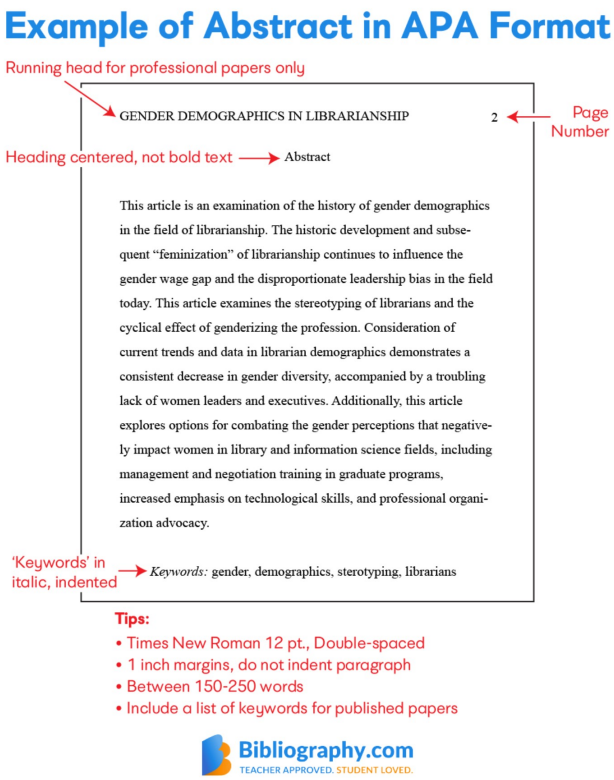
- Title page and Abstract [4%]
  - Centered title
  - APA formatted title page
  - <250 word abstract
- Introduction [4%]
  - Why is the study relevant?
  - What are some previous findings in the area? Describe key concepts in your area
  - At least 80% of your references should be from peer-reviewed sources (e.g journal articles, scholarly books)
  - An Introduction *includes* a brief literature review
- Method [6%]
  - Three sections (Participants, Materials, Procedure)
- Results [6%]
  - Descriptive and inferential statistics, APA formatted table(s) and summary
- Discussion & Style [5%]
  - Provide limitations, discuss future directions and include a conclusion (sub-headings option)
  - Include a References page near the end of your report

Title page

1. Title should be centered
2. Provide your name, department, affiliation, course ID, coordinator name and date in new lings
3. You may place a 'running head' unique to the first page, but this is optional
4. Ensure formatting is consistent throughout (do not use colorful title pages!)
5. Additional space between title and author only
6. Use 1.5-2 line spacing and Times 12 font.



Abstract



1. `Abstract` sub-heading should be centered and in plain format
2. *Keywords* indicate 3 or 4 relevant concepts from your work
3. Abstract word count **should not exceed 200 words**
4. Keep things simple and on point!

Writing tips: The abstract is a summary of your entire report. The first sentence should inform the reader what to expect from reading the report. The second sentence provides a review of the prior literature. Sentences 3-5 respectively describe what was done in the present study and summarizes the findings (**do not** mention statistics in the abstract). The final sentence reflects the conclusion of your study.

Introduction (formatting)

- Re-write the Title on the first line of the Introduction in plain font (centered).

- Remaining content should be left-indented (sub-headings can be included, but are not usually necessary).
- Provide in-text citations and fill-in your Reference sections correctly (details below).
- Line spacing (1.5/2) and font usage (12 Times Roman) should be consistent with formatting used in the Abstract.
- *Do not* write overly long sentences - most statements can be provided within 1-3 lines.

- Ensure your writing is sectioned into paragraphs that correspond with the different points being raised. *Do not* provide a large block of text with no breaks.

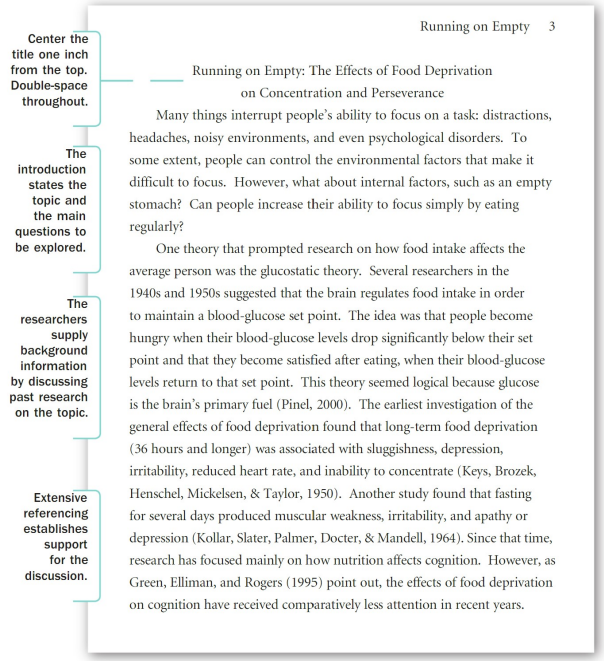
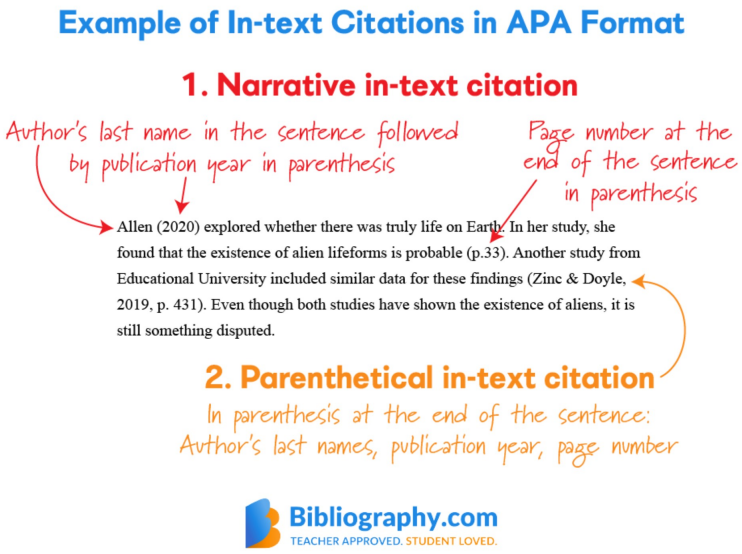


Figure 1: Source: Formbirds

Citations (in-text)

- Using parentheses when citing authors in text
  - `(Author, Year)` - One author
  - `(Author1 & Author2, Year)` - Two authors
  - `(Author et al., Year)` - Three authors or more
  - `Author (Year)` - *Narrative* in-text citation



- Citations may be provided in text or inside parentheses (depending on the flow of the text). Briefly, an *in-text* citation is used when you are speaking about a particular study's findings. Citations inside *parentheses* are typically provided at the end of the sentence, and follow a more generic review of a study's findings. All citations should be included in a **References** section at the end of your document (discussed later). For details on how to cite different sources (e.g., articles, books, magazines, webpages), make sure to check out the resources at Bibliography/apa/.

Introduction (content)

1. Begin with a simple and attention-grabbing statement/story that interests the reader.
2. Outline the research hypothesis (what phenomenon do you predict?).
3. Provide background information of any earlier work in the area (ensure that you provide at least 2 peer-reviewed sources).
4. Minimize direct quotes and paraphrasing (this is about developing **your** writing skills!). If more than 10% of your report consists of quotes, your grade will be penalized.
5. Your arguments should be relevant to your research topic - your personal opinions should be held until the Discussion/Conclusion (if applicable).
6. Word count for the Introduction should be between **500 and 800 words** (no more than 1000)

PLAGIARISM WARNING

Any evidence of texts being directly copied from webpages or other sources (even if a single sentence) will lead to an **automatic** fail. If plagiarism is extensive (e.g., over 30% of your text), this **will be** grounds for an automatic 0. If two students present the *exact same text*, they will **both be failed without warnings**.

Method (3 sections)

- **Participants**

  - Number of participants recruited
  - Describe the age and gender distribution
  - What kind of sampling strategy? (Convenience? Stratified? Proportional?)
  - Declare whether there are any pre-existing conditions that could affect participation (e.g., if some participants report a clinical history of depression)
  - Acquire informed consent (see Moodle page for a template)

  We recruited $n = 12$ participants from the University of the South Pacific ($M = 23.5, SD = 1.6$ years of age). All participants provided written/oral consent before taking part in the present study. The present work is part of a class project for my Psychology class.

- **Materials**

- List any surveys/instruments used. Provide a short description of the specific items employed

- Either *cite* the authors who developed your instrument, *or* provide details about the specific task used (for example, if you create your own questionnaire, list out the questions/survey in an Appendix near the end your report).

- You may distribute paper *or* online surveys. The latter is generally easier to distribute and collect data from. Two free resources for constructing surveys are Google Forms and Survey Monkey. As one example, here is a brief personality scale that was created on Google Forms (the original survey may be found here).

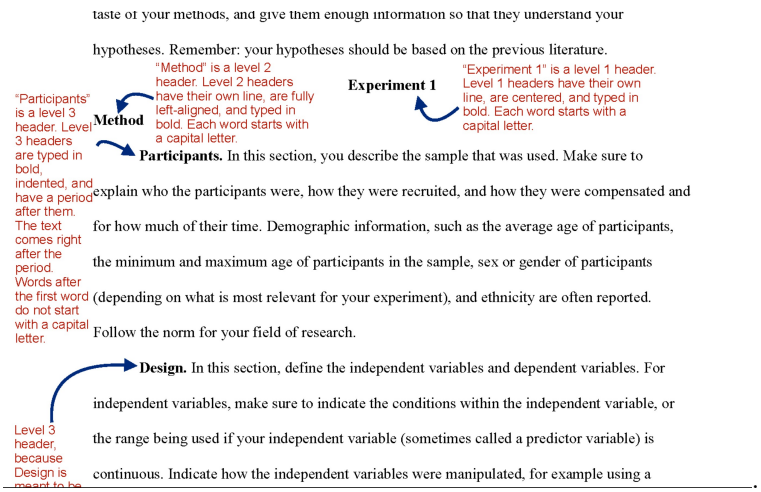
  All participants completed a depression inventory by `(Author(s), Year)` before and after the treatment protocol. The inventory contains 10 items that can be collectively scored from 5 (*Not depressed at all*) to 15 (*Very depressed*). All participants additionally completed a behavioral protocol aimed to reduce symptoms associated with depression.

- **Procedure** (can also be called **Design** across particular circumstances)

  - Describe what the participant did exactly (from arriving at a lab/location to completing a series of tasks).
  - Details should be relevant to the procedure being run (don't expand on any participant's individual history if it is irrelevant to the procedure described)
  - All participants (or their guardians) *must* provide consent before participating. Additional details are provided near the end of the document.

  After providing written consent, the participant sat in a quite room with the researcher who explained the task. The researcher then left the participant in the room alone to complete the depression survey. After this was completed, participants notified the researcher who was waiting outside. The researcher collected the survey materials, then instructed participants on how to self-implement the behavioral intervention. This involved the participant being asked to complete 5 push-ups for every 10 minutes spent on social media over the next 48 hours. Participants were asked to return after 48 hours to the research location and complete the survey a second time, signalling the end of the study.

Method Sample



For additional details, have a look at the presentation on Methods sections by Fresno State University.

Results (3 sections)

1. Provide descriptive statistics (provide means, counts and/or medians - *it depends on how you plan on analyzing your data*).
2. Declare a null hypothesis (H_O) and the statistical test that you will run.
3. Claim whether your (H_O) was rejected ($p < .05$) or retained ($p > .05$) after running your chosen statistical test.

Suppose you have collected responses on a depression survey from 12 participants before and after they have undergone an intervention. The data may look like the following:

- Scores *before* intervention: 9.6, 14.7, 8.6, 11.7, 15.4, 10.1, 10.4, 10, 10.8, 11.8, 14.3, 9.7.
- Scores *after* intervention: 4.7, 7.1, 4.7, 7.1, 5.9, 1.8, 8.1, 6.8, 9.8, 9.9, 11.3, 9.3.

You may present the raw data as follows:

You could also summarize the data in a descriptives table

We can generate the following series of hypotheses:

- H_O: Depression scores collected before and after treatment will be statistically equivalent ($p \geq .05$).
- H_A: Depression scores collected before and after treatment will be statistically *different* (two-sided test).

We could run a two-sided t-test to assess whether H_O can be retained or rejected...

```
# Running a paired t-test
before.int <- c(9.6,14.7,8.6,11.7,15.4,10.1,10.4,10,10.8,11.8,14.3,9.7)
after.int <- c(4.7,7.1,4.7,7.1,5.9,1.8,8.1,6.8,9.8,9.9,11.3,9.3)
test.int <- t.test(before.int,after.int,paired = T,alternative = "two.sided")
test.int
```

Table 1: Depression scores before and after intervention for 12 undergraduate students

Subject ID	Age	Gender	Before intervention	After intervention
1	22	F	9.6	4.7
2	24	F	14.7	7.1
3	23	M	8.6	4.7
4	23	M	11.7	7.1
5	18	M	15.4	5.9
6	22	M	10.1	1.8
7	18	F	10.4	8.1
8	21	F	10	6.8
9	22	F	10.8	9.8
10	18	M	11.8	9.9
11	19	F	14.3	11.3
12	20	F	9.7	9.3

Note:
These are simulated scores that do not refer to any actual persons.

Table 2: Mean (SD) depression scores for 12 undergraduate students before and after intervention

Before intervention	After intervention
11.4 (2.2)	7.2 (2.7)

Note:
Example of descriptives table

```
##
##  Paired t-test
##
## data:  before.int and after.int
## t = 5.0178, df = 11, p-value = 0.0003914
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  2.367070 6.066263
## sample estimates:
## mean of the differences
##                4.216667
```

Because the data is significant, we can estimate the *effect size* of the difference

```
# Estimating Cohen's difference score
difference <- after.int-before.int # What is the difference between the two columns of data?
coh.d <- round((mean(before.int) - mean(after.int))/sd(difference),2)
coh.d
```

```
## [1] 1.45
```

You can summarize your findings in table format

We can report along these findings as follows:

Table 3: Mean (SD) depression scores for 12 undergraduate students before and after intervention and their standardized difference

Before intervention	After intervention	Cohen's d	p-value
11.4 (2.2)	7.2 (2.7)	1.45	.001*

Note:

Example of descriptive and inferential statistics in a single table. The asterisk (*) indicates a statistically significant p-valu

A two-sided, repeated measures $t-$test *rejected* the null hypothesis (H_O) that mean depression scores collected for $n = 12$ participants before and after the treatment intervention were *not* statistically equivalent, $t(11) = 5.02$, $p < .001$, $d = 1.45$. A large effect size ($d > .8$) indicates the reduction in depression scores was practically important.

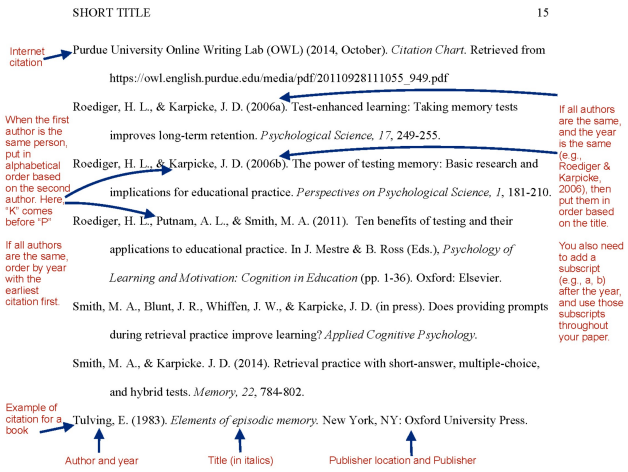
You may use any of the procedures described during the course for your analysis purposes - you do not *have* to use t-tests.

Discussion

- Summarize what was found in the first 2-3 sentences.
- Interpret the Results section here.
- Provide at least two limitations of the current study (e.g., insufficient sample size, test assumptions not met, influence of extraneous variables, etc)
- Provide 1-2 future directions that are informed from your present study's findings
- Include a 2-3 sentence conclusion
- Include a separate page for your *References* section (references *do not count* towards your word limit)

Remember to check the Writing Resources on Moodle if you feel unsure of how to structure your paper.

References



Housekeeping

Ensure to provide all participants with a consent form before they take part in the study. An example of an online consent form (created on Google Forms) can be found here. For a brief video on how to create consent sheets using Google Forms, try this.

Your research topic should be related to the information you have acquired so far throughout your psychology course. Take a couple of weeks to decide on a research topic. **Let me know by email by Week 9 your chosen research topic**. Your report should be structured in the manner discussed throughout the course. A marking rubric will be made available under the relevant dropbox to illustrate how your project will be graded.

Good luck!