

GUIDE FOR WRITING LITERATURE REVIEW, METHOD, AND RESULTS AND DISCUSSION SECTIONS

Psyc 2000- Research Methods- Freng

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My attempt at a pep talk: The true story of Emily Rosa

The following story is taken from Huffman (2002, p. 24):

Imagine you are Emily Rosa, a 9-year-old looking for a topic for your school's annual science fair. Like most fourth-graders, you turn to your parents for ideas. It so happens that your mom and stepfather have frequently discussed the controversial practice of therapeutic touch (TT)- an alternative nursing technique designed to treat many medical conditions by manipulating 'human energy fields.' Although acknowledging that massage or actual touch can help patients, your parents are highly skeptical that TT practitioners can cure illness by simply waving their hands above the patient's body. You've heard your parents complain that TT practitioners charge up to \$70 an hour for their treatment, despite the lack of corroborating scientific evidence. Suddenly, it hits you! Why not design a science fair project that tests TT?

As it turns out, your simple but elegant scientific study so completely debunks TT that you're invited to publish your findings in the highly respected *Journal of the American Medical Association* (JAMA). As the youngest researcher to ever publish in a major medical journal, you are recognized by the Guinness Book of World Records (and really isn't that everybody's goal in life).

Take home message: If a 9-year-old can design, conduct, and analyze a research study, surely you can! Past students have used the research project in this class as a starting point for an Honor's Thesis, McNair project, or opportunity to collaborate with faculty.

Overview and Due Dates

All writing assignments must conform to APA style (5th or 6th Edition) and must be done individually (even when working in a group- the only exception is the poster presentation). Using the same phrases or sections of someone else's work is plagiarism.

1. Research idea for Individual/Group Research Project¹
 - a. **What is due?**- A typed explanation of your general idea (1 page maximum).
 - b. **When is it due?**- January 27th at the beginning of class.
 - c. **How many points is it worth?**- The research idea assignment is worth 25 points.
2. Meeting with Teaching Assistant to discuss Individual/Group Research Project
 - a. **What is due?**- You must meet with a Teaching Assistant to discuss I/G project.
 - b. **When is it due?**- Sometime between February 1st and February 17th.
 - c. **How many points is it worth?**- Failure to meet with a Teaching Assistant will result in a loss of 20 points off your revised research idea assignment.
3. Revised research idea for Individual/Group Research Project²
 - a. **What is due?**- Revised research idea assignment (3 pages maximum).
 - b. **When is it due?**- February 22nd at the beginning of class.
 - c. **How many points is it worth?**- The revised research idea is worth 50 points.
4. Method section for Class Research Project
 - a. **What is due?**- Method section (2 pages maximum).
 - b. **When is it due?**- March 1st at the beginning of class.
 - c. **How many points is it worth?**- The method section is worth 25 points.
5. Literature review for Class Research Project
 - a. **What is due?**- Title page, reference page, and 2-3 pages of literature review with a minimum of 4 references.
 - b. **When is it due?**- March 10th at the beginning of class.
 - c. **How many points is it worth?**- The literature review is worth 50 points.
6. Individual/Group Research Project Materials
 - a. **What is due?**- You must bring all your materials (including the necessary copies) needed to collect data from the class (e.g., surveys, measures, etc.).
 - b. **When is it due?**- March 29th at the beginning of class.
 - c. **How many points is it worth?**- Failure to bring the necessary materials will result in an inability to collect data for your Individual/Group Research Project and a 0 for the Results and Discussion portion of the Individual/Group Research Paper.

¹ For information on what you need to include in this assignment, please look over the grading sheet for the Individual/Group Research Idea Assignment. This grading sheet will be provided during class and is available on the class WyoWeb page.

² For information on what you need to include in this assignment, please look over the grading sheet for the Individual/Group Research Project-Revised Idea Assignment. This grading sheet will be provided during class and is available on the class WyoWeb page.

Overview and Due Dates Continued

7. Results and discussion section for Class Research Project

What is due?- Results and discussion section (4 pages maximum). Make sure you attach a copy of the SPSS output from your analysis.

When is it due?- April 7th at the beginning of class.

How many points is it worth?- The results and discussion is worth 50 points.

8. Revisions to Class Research Project

a. **What is due?**- Revisions to any of the Class Research Project writing assignments.

b. **When is it due?**- April 19th by 10 a.m. in my office.

c. **How many points is it worth?**- For each revision, you can earn back a maximum of half the points you originally missed on the assignment. However, you cannot earn back points for turning in assignments late or if you did not turn in an assignment.

9. Individual/Group Poster Session

a. **What is due?**- A poster describing your project and your attendance to the poster session.

b. **When is it due?**- April 26th from 8-10 a.m.

c. **How many points is it worth?**- Failure to attend the poster session or present a poster will result in a loss of 10 points off your final grade for the class.

10. Individual/Group Research Project Report

a. **What is due?**- Title page, literature review (3-4 pages with a minimum of 6 references), method section (3 pages maximum), results and discussion (4 pages maximum), and reference page. Make sure you attach a copy of the SPSS output from your analysis.

b. **When is it due?**- April 28th by 10 a.m. in my office.

c. **How many points is it worth?**- The individual/group research project is worth 100 points.

Opportunity to re-write components of the Class Research Project

If you are not satisfied with your grade on one of the Class Research Project assignments (e.g., method section, literature review, or results and discussion section), you will have the opportunity to revise (re-write and make changes) each section *one time*. For each section you choose to revise, you can earn back a maximum of half of the points taken off the original grading of the section. So, if you receive a 15/25 on your method section, you could earn back five points on a revision. Revisions must address the comments on the original draft in a comprehensive manner. Also, revising a section does not guarantee you will earn back points. Submitted revisions must be accompanied by the original copy (with grader's comments) and grade sheet. All revisions are due by April 19th. However, you can turn in revisions at any time prior to the due date. Finally, you cannot earn back points taken off for turning in an assignment late and if you fail to turn in a Class Research Project assignment, you lose the ability to rewrite that assignment.

Detailed Description of Sections in Research Projects

If you have never written a research paper before and want additional assistance in writing, please check out the following books from one of the teaching assistants.

1. Goodwin, C. J. (2010). *Research in Psychology: Methods and Design* (6th Ed.). Hoboken, NJ: John Wiley & Sons, Inc. Appendix A offers tips for writing a research paper and provides an example research paper in APA style (5th Edition).
2. Mitchell, M. L., Jolley, J. M., & O'Shea, R. P. (2004). *Writing for Psychology*. Belmont, CA: Wadsworth/Thomson. You may find this useful (especially chapters 1 and 3) for writing your research project (uses APA style 5th Edition).
3. Pyrczak, F. (2008). *Evaluating Research in Academic Journals*. Los Angeles, CA: Pyrczak Publishing. Chapters 4 and 5 have great tips on how to evaluate and write a literature review.

If you have additional specific questions on writing a research proposal, please contact either your Teaching Assistant or myself.

Below is a detailed description of what needs to appear and be addressed in the different sections of your research paper.

Literature Review

1. When writing your literature review, **only peer reviewed journals in psychology can be used** as your references. No internet materials (web pages) or books may be used. However, you can use books to help identify important journal articles to acquire.
2. Your literature review needs to include several components.
 - a. Title page (use your W number instead of your name).
 - b. Introduction-the first paragraph or two of your literature review needs to be your introduction. The introduction will introduce your topic to the reader.
 - c. Literature Review-According to Pyrczak, (2003, p. 37) your literature review should accomplish five goals:
 - i. Introduce the problem area/topic.
 - ii. Express the importance of the problem area/topic/research idea.
 - iii. Provide an overview of the relevant psychological literature.
 - iv. Describe how the study will advance knowledge in the area.
 - v. Explain the purpose for conducting the study and specify the hypothesis (this is typically done in the last paragraph of the literature review).
 - d. Reference page.

Method Section

1. One of the purposes of a method section is to provide other researchers with a blueprint of exactly what you did, in case they would want to replicate your study. When you are done with the first draft of your method section, ask yourself, “Did I provide enough information and detail that another researcher could replicate this study exactly?” If the answer is “no,” then you need to add to your method section.
2. Use the past tense when writing this section.
3. Divide your method section into three sections: participants, materials, and procedure. In Chapter 15, Leary provides a good description of what should be in each of the three sections. Make sure you address the following questions:
 - a. Participants
 - i. Who made up your sample? (e.g., how many participants were there? Describe demographic characteristics- e.g., age, gender, year in school).
 - ii. How were participants selected?
 - b. Materials
 - i. What materials were used? (e.g., fake police reports, questionnaires, etc).
 - ii. What were your variables? How were the variables operationalized? Is this operationalization similar to what has been used in previous research? If not, why not?
 - c. Procedures
 - i. If you compared groups, how were participants assigned to conditions?
 - ii. What type of design did you use (correlational, quasi-experimental, or experimental)?
 - iii. How was the research conducted? Describe this in chronological order, in a step-by-step fashion. In other words, describe what the person does from the moment they show up to participate, to the time they leave the session. For the individual/group research project, you will want to mention that your research took place during a “mass testing session.”

Results and Discussion Sections

1. Leary (Chapter 15) provides an excellent description of both a Results and Discussion section.
2. In the Results Section, make sure you:
 - a. Remind the reader of the research hypothesis.
 - b. Explain the statistical analysis used.
 - c. Report the results in APA style (look at the handouts given in class for sample write-ups of different statistical analyses).
 - d. Indicate whether the results support your research hypothesis.
3. In the Discussion Section, make sure you address the following:
 - a. If the results supported your hypothesis, explain why the results are important (e.g., discuss previous research or theory, tie back to your literature review).
 - b. If the results failed to support your hypothesis, or were opposite of your hypothesis, explain why this may have occurred.
 - c. Discuss possible limitations of your study.
 - d. At the end of your discussion, include a brief (1 short paragraph) summary of what you did, what you found, and implications.
4. Make sure you attach a copy of the SPSS output from your analysis.

Final Research Report for Individual/Group Research Project

1. The final report for your individual/group research project needs to include: a title page, literature review, method section, results and discussion sections, and a reference page. Finally, make sure you attach a copy of the SPSS output from your analysis.
2. Before handing in your final report. I would recommend:
 - a. Trying to finish your report early- then let it sit for a few days. After a few days away from your report, read it again. It is amazing how many mistakes you can catch yourself if you come back and read something after you have had a break.
 - b. Read your report aloud to yourself. This will also help you identify awkward wording and phrasing.
 - c. Have someone else proofread your report.
 - d. Double-check APA style.
 - e. Please ask either one of the teaching assistants or myself if you have any questions.

Avoid Plagiarism

What is plagiarism? This is a partial list taken from Smith and Davis (2001, p.57).

1. Any part of your paper that contains the exact words of an author must appear in quotation marks, with the author's name, and the date of publication and page number of the source. Example:
(Jones, 1979, p. 30).
2. Material should not be adapted with only minor changes, such as combining sentences, omitting phrases, changing a few words, or inverting sentence order. This should be treated as a direct quote.
3. If what you have to say is substantially your own words, but the facts or ideas are taken from a particular author, then omit the quotation marks and reference with a parenthetical citation such as: (Jones, 1979).
4. Every statement of fact and every idea or opinion not your own must be referenced unless the item is part of common knowledge (e.g., water freezes).
5. Do not hand in for credit a paper that is the same or similar to one someone else has written or you have written for another class.

Summary Sheets for Journal Articles

The following is an example of a summary sheet from Solso and MacLin (2002, p. 145) that you can use to summarize each of the journal articles you read. Producing summaries of the journal articles will help you organize information when you are preparing to begin your literature review. In addition, summarizing results of research in your own words will also assist you in avoiding possible plagiarism. You are not required to use these sheets, but you may find them useful. You may want to edit the form to fit your individual needs.

Review of Article Form

Topic: _____

APA Style Citation: _____

Problem Being Examined: _____

Design Used: _____

Independent Variable(s): _____

Dependent Variable(s): _____

Results: _____

Criticisms of Research: _____

Ideas for Future Study: _____

How is this Related to My Idea?: _____

Do's and Don'ts of Writing a Research Report

DO's

1. PROOFREAD, have someone else read it first and read your paper aloud. These are very easy ways to identify mistakes.
2. Use spell-check and grammar check.
3. If you directly quote material from journals, your citation MUST include: authors' last name, year, and page #. Look at the APA manual for specifics.
4. Do cite the source of any ideas which are not your own.
5. Meet the required number of pages and references.
6. Use psychology journals (*Atlantic Monthly*, *Newsweek*, *People*, are **not** journals. If you have a question on what constitutes a journal, please ask).
7. Do look at the example research papers provided in Leary (Chapter 15, example is of APA style 5th Ed), the APA manual, and Goodwin (2010, example is of APA style 5th Ed)—can be checked out from one of the Teaching Assistants.
8. Ask questions if you are confused by any aspect of the research projects.

DON'TS

1. Do not wait until the last minute to complete any of the written assignments. Start early, start early, start early!
2. Avoid using the words “prove” or “disprove” and be cautious if you use the word “cause”.
3. Avoid using personal opinion (“I believe...”). Instead, discuss evidence from previous research to support statements.
4. Do **not** use the first person (“I”) or related phrases (“you”, “we”, etc.) very often.
5. Do **not** use long quotes (over 40 words long). In fact, I **STRONGLY** suggest that you either do **not** use quotes at all, or use very few quotes. Any descriptions of research should be in your own words.
6. Do **not** use secondary sources.
7. Do **not** use researchers' first names in the body of the paper.
8. Do **not** refer to the title of the article or the journal from which you found the research in the body of your paper.
9. Do **not** use web pages or books as references for this paper.
10. Do **not** plagiarize (remember I may use EVE2 or Turnitin software).
11. Avoid using contractions in your paper.

Some Basics of APA Style

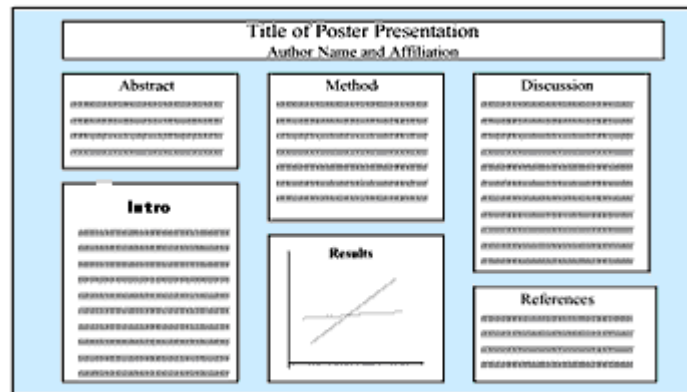
The information below is based on the APA Style Manual 5th Edition

1. Paper is double-spaced (p. 286 of APA manual).
2. Use 12-inch, Times New Roman font (p. 285 of APA manual).
3. Use margins that are 1 inch at the top, bottom, right, and left (p. 286 of APA manual).
4. Make sure you include the running head, page headers, and page numbers (see pp. 306-307 in APA manual for examples).
5. For regular citations in text, use author's last name and year. Examples: (Smith, 1999) or Smith (1999) found (p. 207 of APA manual).
6. For citation of direct quotes, use author's last name, year, and p#. Example: (Smith, 1999, p.23) (p. 118 of APA manual).
7. One space after periods, commas, etc. (p. 290 of APA manual).
8. For a more detailed explanation of APA style, you will need to consult a Publication Manual of the APA (5th or 6th Ed.) or look in Leary's (2008) Chapter 15 or in Goodwin (2008), which can be checked out from the Teaching Assistants.

Poster Presentation Requirements

**Individual/Group Project Poster Presentation (April 26th)—Bring poster materials to BS 214
Beginning at 8:00**

- Attendance and presentation is mandatory (see syllabus for penalties).
- **Poster requirements** (see syllabus for penalties for failing to meet requirements)
 - Use PowerPoint to generate slides.
 - Use easy to read fonts (e.g., Times New Roman). Typical font size to use, 28-48. Use the larger font sizes for headings. The text should be viewable from three feet away.
 - Recommended layout (see below)



Retrieved November 23, 2007 from:

<http://www.psychologicalscience.org/cfs/rules.cfm>

- Graphs are not required, but are nice. At a minimum, report analysis results in APA format.
- Walk through the Psychology Department (first floor Biological Sciences) for examples of poster presentations.
- If you worked on a group project, each group only needs to produce one poster.